AECOM

Highways Department

Agreement No. CE 20/2009 (EP)

Environmental Team for the Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling

(Stage 1) Between Island House Interchange and Tai Hang - Investigation

Monthly EM&A Report for November 2013

[12/2013]

	Name	Signature
Prepared & Checked:	Joanne Ko	
Reviewed & Approved:	Y T Tang	

Version:	Rev. 0	Date: 14 January 2014

AECOM Asia Co. Ltd.
15/F, Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3922 9000 Fax: (852) 2317 7609 www.aecom.com

Mott MacDonald

Our ref AFK/TK/bw/T264022/22.01/L-0179
T 2828 5919
E terence.kong@mottmac.com.hk
Your ref

Hyder-Arup-Black & Veatch Joint Venture
c/o Hyder Consulting Limited
47/F Hopewell Centre
183 Queen's Road East
Wanchai
Hong Kong

14 January 2014
By Fax (2805 5028) and Post

Attn.: Mr. James Penny

Dear Sir,

Widening of Tolo Highway between Island House Interchange and Tai Hang
Environmental Permit (EP) No.: EP-324/2008/A
Condition 3.3 – Submission of Monthly EM&A Report for December 2013 (Stage 1)

We refer to the captioned Monthly EM&A Report received on 10 and 14 January 2014 submitted by Environmental Team (ET) via email. Pursuant to EP Condition 3.3, I hereby verify the Monthly EM&A Report for December 2013 (Stage 1) for the Project.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Terence Kong
Independent Environmental Checker

c.c. HyD – Mr. Raymond T W Kong / Mr. Dennis Wong / Mr. William Chiang (Fax: 2761 4864)

ETL, AECOM – Mr. Y T Tang (Fax: 2317 7609)

TABLE OF CONTENTS

List of Tables

Figures

List of Appendices

EXECUTIVE SUMMARY

The proposed widening of Tolo Highway and Fanling Highway between Island House Interchange and Fanling (the Project) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012.

The Project aims to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 were commenced on 23 November 2009 and will tentatively be completed in February 2014; while construction programme of Stage 2 is currently under review. This report focuses on Stage 1 of the Project only.

The construction phase of Stage 1 under the EP and the Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project commenced on 23 November 2009. The impact environmental monitoring and audit includes air quality and noise monitoring.

This report documents the findings of EM&A works conducted in the period between 1 and 31 December 2013.

As informed by the Contract 1 Contractor (China State Construction Engineering (Hong Kong) Ltd.), construction activities in the reporting period were:-

- Temporary shoring, sheetpiling and excavation
- At-grade road construction
- Widening and demolition of central dividers
- Retaining wall construction
- Noise barrier footing construction
- Noise barrier panels installation
- Asphalt laying
- Installation of Drainage Pipes
- Modification of Edge coping

The construction works carried out by the Contract 2 Contractor (Gammon Construction Ltd.) in the reporting period were:-

- Condition survey of existing structures
- Setting up the temporary traffic arrangement
- Excavation of trial trenches to locate existing utilities
- Construction of haul road
- Construction of concrete profile barrier and beam barrier
- Construction of Pilecap / Spread footing of Noise Barrier / Semi Noise Enclosure
- Slope works, including installation of soil nails
- NTHA mitigation works
- Construction of retaining walls
- Noise barrier construction
- Modification of existing bridge structures
- Entrusted watermains works
- Sewer Installation
- Road and drainage works; and Landscaping works

Reporting Change

There was no reporting change required in the reporting month.

Breaches of Action and Limit Levels for Air Quality

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

Breaches of Action and Limit Levels for Noise

No Action Level exceedance of construction noise was recorded in the reporting month since no noise complaints related to 0700 – 1900 hours on normal weekdays was received and followed by the Environmental Team in the reporting month.

No Limit Level exceedance of construction noise was recorded in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

One (1) noise-related complaint was received on 4 November 2013 and followed up by the Environmental Team in November and December 2013. The summary of investigation is described in Sections 4.6.3 to 4.6.5.

One (1) air-related complaint was received on 13 December 2013 and followed up by the Environmental Team in December 2013. The summary of investigation is described in Sections 4.6.6 to 4.6.8.

No notification of summons and successful prosecution was received in the reporting month.

Future Key Issues

Key issues to be considered in the coming month included:-

- Properly store and label oils and chemicals on site;
- Chemical, chemical waste and waste management;
- Collection of construction waste should be carried out regularly;
- Site runoff should be properly collected and treated prior to discharge;
- Properly maintain all drainage facilities and wheel washing facilities on site;
- Exposed slopes should be covered up properly if no temporary work will be conducted;
- Suppress dust generated from excavation, breaking and drilling activities, haul road traffic and grout mixing;
- Quieter powered mechanical equipment should be used;
- Closely check and replace the sound insulation materials wrapped at the concrete breaker tip regularly;
- Better scheduling of construction works to minimize noise nuisance; and
- Tree protective measures for all retained trees should be well maintained.

1 INTRODUCTION

1.1 Background

1.1.1. Tolo Highway and Fanling Highway are expressways in the North East New Territories connecting Sha Tin, Tai Po and Fanling. These highways form a vital part of the strategic Route 9, which links other major strategic routes to Shenzhen. At present, this section of Route 9 is dual 3-lane carriageway. However, at several major interchanges along this section of Route 9, the highway is only dual-2 lane. Severe congestion is a frequent occurrence during peak periods, particularly in the Kowloon bound direction.

1.1.2. The objective of the Project "Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling" is to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

1.1.3. The Project is a designated project and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012.

1.1.4. The scope of the Project comprises mainly:-

(i) Widening of a 5.7 km section of Tolo Highway and 3.0 km section of Fanling Highway between Island House Interchange and Wo Hop Shek Interchange from the existing dual 3-lane to dual 4-lane, including construction of new vehicular bridges;

(ii) Widening of interchange sections at Island House Interchange, Tai Po North Interchange, and Lam Kam Road Interchange from dual 2-lane to dual 3-lane, except Sha Tin bound carriageway at Tai Po North Interchange, which is widened from 3-lane to 4-lane, including realignment of various slip roads;

(iii) Modification and reconstruction of highways, vehicular bridges, underpasses and footbridges.

1.1.5. The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and will tentatively be completed in January 2014; while the construction programme of Stage 2 is currently under review. This report focuses on Stage 1 of the Project only.

1.1.6. The construction works for Stage 1 of the Project will be implemented under 2 works contracts (Contract 1 and Contract 2). Contract 1 covers the section of Tolo Highway between Island House Interchange and Ma Wo, Contract 2 covers the section of Tolo Highway between Ma Wo and Tai Hang.

1.1.7. Hyder-Arup-Black and Veatch Joint Venture (HABVJV) are appointed by Highways Department (HyD) as the consultants for the design and construction assignment for the Tolo project under Agreement No. CE 58/2000 Supplementary Agreement No. 3 (SA3) (i.e. the Engineer for the Contracts).

1.1.8. China State Construction Engineering (Hong Kong) Ltd. (CSHK) was commissioned as the Contractor of Contract 1 of Stage 1 of the Project, while Gammon Construction Limited (GCL) was commissioned as the Contractor of Contract 2 of Stage 1 of the Project.

1.1.9. AECOM Asia Co. Ltd. was employed by HyD as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for Stage 1 of the Project and Mott MacDonald Hong Kong Ltd. acts as the Independent Environmental Checker (IEC) for the Contracts.

1.1.10. The construction phase of Stage 1 under the EP commenced on 23 November 2009.

1.1.11. According to the updated EM&A Manual of Stage 1 of the Project, there is a need of an EM&A programme including air quality and noise monitoring. The EM&A programme for Stage 1 of the Project commenced on 23 November 2009.

1.2 Scope of Report

1.2.1 This is the fiftieth monthly EM&A Report under the Agreement No. CE 20/2009 (EP) - Widening of Tolo Highway between Island House Interchange and Tai Hang – Investigation. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for Stage 1 of the Project in December 2013.

1.3 Project Organization

1.3.1 The project organization structure is shown in Appendix A. The key personnel contact names and numbers are summarized in Table 1.1.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
ER of Stage 1, Contract 1 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO1	James Tsang	9038 8797	26674000
ER of Stage 1, Contract 2 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO2	Paul Appleton	9097 5833	2653 2348
IEC of Stage 1 (Mott MacDonald Hong Kong Limited)	Independent Environmental Checker	Terence Kong	2828 5919	2827 1823
Contractor of Stage 1, Contract 1 (China State Construction Engineering (Hong Kong) Limited)	Site Agent	Eddie Tang	9863 7686	2667 5666
	Environmental Officer	Michael Tsang	9277 4956	2667 5666
		M L Lam	9489 4641	2667 5666
Contractor of Stage 1, Contract 2 (Gammon Construction Limited)	Site Agent	John Chan	3126 1202	2559 3410
	Environmental Officer	Thomson Chang	9213 6569	2559 3410
		Crispin Ao	9223 8773	2559 3410
		Jason Cheng	9837 9323	2559 3410
ET of Stage 1 (AECOM Asia Company Limited)	ET Leader	Y T Tang	3922 9393	3922 9797

1.4 Summary of Construction Works

1.4.1 The construction phase of Stage 1 under the EP commenced on 23 November 2009.

1.4.2 Details of the construction works carried out by the Contract 1 Contractor (China State Construction Engineering (Hong Kong) Ltd.) in this reporting period are listed below:-

- Temporary shoring, sheetpiling and excavation
- At-grade road construction

- Widening and demolition of central dividers
- Retaining wall construction
- Noise barrier footing construction
- Noise barrier panels installation
- Asphalt laying
- Installation of Drainage Pipes
- Modification of Edge coping

1.4.3 Details of the construction works carried out by the Contract 2 Contractor (Gammon Construction Ltd.) in this reporting period are listed below:-

- Condition survey of existing structures
- Setting up the temporary traffic arrangement
- Excavation of trial trenches to locate existing utilities
- Construction of haul road
- Construction of concrete profile barrier and beam barrier
- Construction of Pilecap / Spread footing of Noise Barrier / Semi Noise Enclosure
- Slope works, including installation of soil nails
- NTHA mitigation works
- Construction of retaining walls
- Noise barrier construction
- Modification of existing bridge structures
- Entrusted watermains works
- Sewer Installation
- Road and drainage works; and Landscaping works

1.4.4 The Construction Programmes are shown in Appendix B.

1.4.5 The general layout plan of the Project site showing the contract areas is shown in Figure 1.1.

1.4.6 The environmental mitigation measures implementation schedule are presented in Appendix C.

1.5 Summary of EM&A Programme Requirements

1.5.1 The EM&A programme required environmental monitoring for air quality, noise and environmental site inspections for air quality, water quality, noise, waste management, ecology, and landscape and visual impact. The EM&A requirements for each parameter described in the following sections include:-

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event / Action Plan;
- Environmental mitigation measures, as recommended in the Project EIA study final report; and
- Environmental requirement in contract documents.

2 AIR QUALITY MONITORING

2.1 Monitoring Requirements

2.1.1 In accordance with the updated EM&A Manual, baseline 1-hour and 24-hour TSP levels at 4 air quality monitoring stations were established. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while impact 24-hour TSP monitoring was carried out for at least once every 6 days. The Action and Limit level of the air quality monitoring is provided in Appendix D.

2.2 Monitoring Equipment

2.2.1 24-hour TSP air quality monitoring was performed using High Volume Sampler (HVS) located at each designated monitoring station. The HVS meets all the requirements of the updated EM&A Manual.

Portable direct reading dust meters were used to carry out the 1-hour TSP monitoring. Brand and model of the equipment is given in Table 2.1.

Table 2.1 Air Quality Monitoring Equipment

Equipment	Brand and Model
Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3 and LD-3B)
High Volume Sampler (24-hour TSP)	Tisch Total Suspended Particulate Mass Flow Controlled High Volume Air Sampler (Model No. TE-5170 & GMW-2310)

2.3 Monitoring Locations

2.3.1 Monitoring locations AM2 and AM3 were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Dynasty View and Tai Po Garden, proposed in the updated EM&A Manual, as approval could not be obtained from the owner's corporation of the premises, baseline and impact air quality monitoring was conducted at 13 Ha Wun Yiu (AM1) and Tai Kwong Secondary School (AM4) respectively. The monitoring station at 13 Ha Wun Yiu (AM1) was relocated to Fan Sin Temple, 3 Sheung Wun Yiu (AM1A) in February 2010. Also, the monitoring station at Tai Kwong Secondary School (AM4) was relocated to 168 Shek Kwu Lung Village (AM4A) in September 2011.

2.3.2 Figure 2.1 shows the locations of monitoring stations. Table 2.2 describes the details of the monitoring stations.

Table 2.2 Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location	Description
AM1A	3 Sheung Wun Yiu	Ground floor at the boundary outside Fan Sin Temple
AM2	12 Shan Tong New Village	Ground floor outside the premises
AM3	Riverain Bayside	Roof of the switch room
AM4A	168 Shek Kwu Lung Village	Roof of the switch room

2.4 Monitoring Parameters, Frequency and Duration

2.4.1 Table 2.3 summarizes the monitoring parameters, frequency and duration of impact TSP monitoring.

Table 2.3 Air Quality Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
1-hour TSP	Three times every 6 days while the highest dust impact was expected
24-hour TSP	Once every 6 days

2.5 Monitoring Methodology

2.5.1 24-hour TSP Monitoring

(a) The HVS was installed in the vicinity of the air sensitive receivers. The following criteria were considered in the installation of the HVS.

(i) A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
(ii) The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
(iii) A minimum of 2 meters separation from walls, parapets and penthouse for rooftop sampler.
(iv) A minimum of 2 meters separation from any supporting structure, measured horizontally.
(v) No furnace or incinerator flues nearby.
(vi) Airflow around the sampler was unrestricted.
(vii) Permission was obtained to set up the samplers and access to the monitoring stations.
(viii) A secured supply of electricity was obtained to operate the samplers.
(ix) The sampler was located more than 20 meters from any dripline.
(x) Any wire fence and gate, required to protect the sampler, did not obstruct the monitoring process.
(xi) Flow control accuracy was kept within ±2.5% deviation over 24-hour sampling period.

(b) Preparation of Filter Papers

(i) Glass fibre filters, G810 were labelled and sufficient filters that were clean and without pinholes were selected.
(ii) All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.
(iii) All filter papers were prepared and analysed by ALS Technichem (HK) Pty Ltd., which is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.

(c) Field Monitoring

(i) The power supply was checked to ensure the HVS works properly.
(ii) The filter holder and the area surrounding the filter were cleaned.
(iii) The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
(iv) The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
(v) The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied was sufficient to avoid air leakage at the edges.
(vi) Then the shelter lid was closed and was secured with the aluminum strip.
(vii) The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
(viii) A new flow rate record sheet was set into the flow recorder.
(ix) On site temperature and atmospheric pressure readings were taken and the flow rate of the HVS was checked and adjusted at around 1.1 m^3/min, and complied with the range specified in the updated EM&A Manual (i.e. 0.6-1.7 m^3/min).
(x) The programmable digital timer was set for a sampling period of 24 hrs, and the starting time, weather condition and the filter number were recorded.
(xi) The initial elapsed time was recorded.
(xii) At the end of sampling, on site temperature and atmospheric pressure readings were taken and the final flow rate of the HVS was checked and recorded.
(xiii) The final elapsed time was recorded.

(xiv) The sampled filter was removed carefully and folded in half length so that only surfaces with collected particulate matter were in contact.
(xv) It was then placed in a clean plastic envelope and sealed.
(xvi) All monitoring information was recorded on a standard data sheet.
(xvii) Filters were then sent to ALS Technichem (HK) Pty Ltd. for analysis.

(d) Maintenance and Calibration

(i) The HVS and its accessories were maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
(ii) 5-point calibration of the HVS was conducted using TE-5025A Calibration Kit prior to the commencement of baseline monitoring. Bi-monthly 5-point calibration of the HVS will be carried out during impact monitoring.
(iii) Calibration certificate of the HVSs are provided in Appendix E.

2.5.2 1-hour TSP Monitoring

(a) Measuring Procedures

The measuring procedures of the 1-hour dust meter were in accordance with the Manufacturer's Instruction Manual as follows:-
(i) Turn the power on.
(ii) Close the air collecting opening cover.
(iii) Push the "TIME SETTING" switch to [BG].
(iv) Push "START/STOP" switch to perform background measurement for 6 seconds.
(v) Turn the knob at SENSI ADJ position to insert the light scattering plate.
(vi) Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
(vii) Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
(viii) Pull out the knob and return it to MEASURE position.
(ix) Push the "TIME SETTING" switch the time set in the display to 3 hours.
(x) Lower down the air collection opening cover.
(xi) Push "START/STOP" switch to start measurement.

(b) Maintenance and Calibration

(i) The 1-hour TSP meter was calibrated at 1-year intervals against a continuous particulate TEOM Monitor, Series 1400ab. Calibration certificates of the Laser Dust Monitors are provided in Appendix E.
(ii) 1-hour validation checking of the TSP meter against HVS is carried out yearly at the air quality monitoring locations.

2.6 Monitoring Schedule for the Reporting Month

2.6.1 The schedule for environmental monitoring in December 2013 is provided in Appendix F.

2.7 Monitoring Results

2.7.1 The baseline condition of air quality in the Project site was reviewed in October and November 2009. A baseline monitoring of air quality, in terms of 1-hour Total Suspended Particulates (TSP) and 24-hour TSP, was carried out from 20 October 2009 to 4 November 2009 for 14 days. The baseline monitoring report was submitted by ETL and approved by the ER and the IEC on 9 November 2009. Action Levels for air quality were established and are summarized in Table 2.4, Table 2.5 and Appendix D.

2.8 Results and Observations

2.8.1 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in Table 2.4 and 2.5 respectively. Detailed impact air quality monitoring results are presented in Appendix G.

Table 2.4 Summary of 1-hour TSP Monitoring Results in the Reporting Period

	Average ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AM1A	79.6	72.6 – 86.2	302.1	500
AM2	79.8	73.2 – 84.4	301.9	500
AM3	79.3	73.5 – 84.3	301.9	500
AM4A	80.5	75.9 – 85.0	302.3	500

Table 2.5 Summary of 24-hour TSP Monitoring Results in the Reporting Period

	Average ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AM1A	92.6	65.7 – 133.8	176.6	260
AM2	45.8	24.1 – 68.1	178.6	260
AM3	56.6	34.1 – 82.0	193.1	260
AM4A	62.2	26.4 – 102.9	198.5	260

2.8.2 The major dust source in the reporting period included construction activities from Stage 1 of the Project, as well as nearby traffic emissions.

2.8.3 All 1-hour and 24-hour TSP results were below the Action and Limit Level at all monitoring locations in the reporting month.

2.8.4 The event action plan is annexed in Appendix J.

2.8.5 Weather information including wind speed and wind direction is annexed in Appendix H. The information was obtained from Hong Kong Observatory Sha Tin and Tai Mei Tuk Automatic Weather Station. As some of the weather data in December 2013 from the Tai Mei Tuk Automatic Weather Station were missing, the weather data from Tai Po Automatic Weather Station in December 2013 are included in Appendix H for supplementary purpose.

3 NOISE MONITORING

3.1 Monitoring Requirements

3.1.1 In accordance with the EM&A Manual, impact noise monitoring was conducted for at least once per week during the construction phase of Stage 1 of the Project. The Action and Limit level of the noise monitoring is provided in Appendix D.

3.2 Monitoring Equipment

3.2.1 Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in Table 3.1.

Table 3.1 Noise Monitoring Equipment

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31 / B&K 2238 / B&K 2250-L
Acoustic Calibrator	Rion NC-73

3.3 Monitoring Locations

3.3.1 Monitoring stations NM3, NM6 and NM7 were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Tai Po Garden (NM1), Dynasty View (NM2), Hong Kong Teachers' Association Lee Heng Kwei Secondary School (NM4) and Grand Palisades (NM5), proposed in the updated EM&A Manual, impact noise monitoring was conducted at alternative monitoring locations, as approval of access could not be obtained from the owner's corporation of the premises or the principal of the education institutes. The monitoring station at Tai Kwong Secondary School (NM1) was relocated to 168 Shek Kwu Lung Village (NM1A) in September 2011.

3.3.2 Figure 2.1 shows the locations of the monitoring stations. Table 3.2 describes the details of the monitoring stations.

Table 3.2 Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Description
NM1A	168 Shek Kwu Lung Village	1m from the exterior wall of the village house
NM2	38 Ha Wun Yiu	1.2m from the ground floor free-field of the village house
NM3	Wong Shiu Chi Middle School	1m from the exterior of the roof top façade of the New Wing
NM4	Uptown Plaza	1m from the exterior of the roof top façade of Block 4
NM5	The Paragon	1m from the exterior of the roof top façade of the club house
NM6	PLK Tin Ka Ping Primary School	1.2m ground floor free-field near the entrance
NM7	Riverain Bayside	1m from the exterior of the roof façade of the switch room

3.4 Monitoring Parameters, Frequency and Duration

3.4.1 Table 3.3 summarizes the monitoring parameters, frequency and duration of impact noise monitoring.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
30-mins measurement at each monitoring station between 0700 and 1900 on normal weekdays. L_{eq}, L_{10} and L_{90} would be recorded.	At least once per week

3.5 Monitoring Methodology

3.5.1 Monitoring Procedure

(a) Façade measurements were made at all monitoring locations, except monitoring stations NM2 and NM6.

(b) The sound level meter was set on a tripod at a height of 1.2 m above the ground for free-field measurements at NM2 and NM6.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:-

(i) frequency weighting: A
(ii) time weighting: Fast
(iii) time measurement: $L_{eq(30\text{-}minutes)}$ during non-restricted hours i.e. 07:00 – 1900 on normal weekdays; $L_{eq(5\text{-}minutes)}$ during restricted hours i.e. 19:00 – 23:00 and 23:00 – 07:00 of normal weekdays, whole day of Sundays and Public Holidays

(e) Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator for 94dB(A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.

(f) During the monitoring period, the L_{eq}, L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.

(g) Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.

(h) Noise monitoring was cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind with gusts exceeding 10m/s.

3.5.2 Maintenance and Calibration

(a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.

(b) The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.

(c) Calibration certificates of the sound level meters and acoustic calibrators are provided in Appendix E.

3.6 Monitoring Schedule for the Reporting Month

3.6.1 The schedule for environmental monitoring in December 2013 is provided in Appendix F.

3.7 Monitoring Results

3.7.1 The monitoring results for construction noise are summarized in Table 3.4 and the monitoring data is provided in Appendix I.

Table 3.4 Summary of Construction Noise Monitoring Results in the Reporting Period

	Average, dB(A), $L_{eq\ (30\ mins)}$	Range, dB(A), $L_{eq\ (30\ mins)}$	Limit Level, dB(A), $L_{eq\ (30\ mins)}$
NM1A	63.2	61.9 – 64.2	75
NM2	65.9*	62.9 – 67.5*	75
NM3	61.3	58.4 – 63.5	70#
NM4	64.1	57.2 – 65.5	75
NM5	61.9	56.9 – 64.1	75
NM6	61.8*	59.6 – 64.4*	70#
NM7	59.5	54.6 – 62.8	75

*+3dB(A) Façade correction included
Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

3.7.2 No noise complaint related to 0700 – 1900 hours on normal weekdays was received and followed up by the Environmental Team in the reporting period. Hence, no Action Level exceedance was recorded.

3.7.3 No noise monitoring result exceeding the Limit Level was recorded at all monitoring stations in the reporting month.

3.7.4 Major noise sources during the noise monitoring included construction activities of Stage 1 of the Project and nearby traffic noise and general school activities.

3.7.5 The event action plan is annexed in Appendix J.

4 ENVIRONMENTAL SITE INSPECTION AND AUDIT

4.1 Site Inspection

4.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for Stage 1 of the Project. In the reporting month, 4 site inspections were carried out on 4, 11, 18 and 24 December 2013 for Contract 1 of the Project, and 4 site inspections for Contract 2 of the Project were carried out on 5, 12, 19, 24 and 31 December 2013.

4.1.2 The environmental site inspections summaries are provided in Appendix K.

4.1.3 Particular observations during the site inspections for Contract 1 are described below:

Air Quality

4.1.4 Dry soil surface was observed on access roads and the Contractor was reminded to spray the access road with water or dust suppression chemicals to maintain the entire surface wet.

Noise

4.1.5 No adverse observation was identified in the reporting month.

Water Quality

4.1.6 No adverse observation was identified in the reporting month.

Chemical and Waste Management

4.1.7 The Contractor was reminded to provide a drip tray to hold the oil can.

4.1.8 Oil drums were observed without drip tray and the Contractor was reminded to provide trays to oil drums as a mitigation measure.

Landscape and Visual Impact

4.1.9 No adverse observation was identified in the reporting month.

Miscellaneous

4.1.10 No adverse observation was identified in the reporting month.

4.1.11 Particular observations and reminder during the site inspections for Contract 2 are described below:

Air Quality

4.1.12 The Contractor was reminded to cover the exposed slope at Gate 48 with tarpaulin sheets.

4.1.13 Mud was observed at the edge of the footpath at NLKP3. The Contractor was reminded to clear the mud and increase the height of sand bags to prevent the overflow of sand from the construction site.

Noise

4.1.14 No adverse observation was identified in the reporting month.

Water Quality

4.1.15 Muddy water was observed at the edge of the road at W74. The contractor was reminded to direct the water to an appropriate discharge point so that it will not mix with sand to produce muddy water.

Chemical and Waste Management

4.1.16 The Contractor was reminded to provide a drip tray to oil cans at Gate 2 or remove the oil cans.

Landscape and Visual Impact

4.1.17 No adverse observation was identified in the reporting month.

Miscellaneous

4.1.18 No adverse observation was identified in the reporting month.

4.2 Advice on the Solid and Liquid Waste Management Status

4.2.1 The Contract 1 Contractor (CSHK) and the Contract 2 Contractor (GCL) are registered as chemical waste producers for Stage 1 of the Project. C&D material sorting was carried out on site. Sufficient numbers of receptacles were available for general refuse collection.

4.2.2 As advised by the Contract 1 Contractor (CSHK), 162m^3 of inert C&D materials was disposed of to the public fill at Tuen Mun 38 (of which 16m^3 was broken concrete), while 117m^3 of general refuse was disposed of at the NENT landfill. 95kg of paper/cardboard packaging, 2,067kg of plastics and 0kg of metals were collected by recycling contractors in the reporting month. 1,614m^3 and 857m^3 of inert C&D materials were reused on site and reused in NENT for backfilling purpose respectively. 0kg of chemical waste was collected by the licensed contractor in the reporting period.

4.2.3 As advised by the Contract 2 Contractor (GCL), 240m^3 of inert C&D materials was disposed of to Tuen Mun 38 and 240m^3 of general refuse was disposed of to the NENT landfill in the reporting period. No paper/cardboard packaging, plastics or metals was collected by the recycling contractors in the reporting month. Besides, no chemical waste was collected by the licensed contractor in the reporting period.

4.2.4 The Contract 1 Contractor (CSHK) and the Contract 2 Contractor (GCL) are advised to maintain on site waste sorting and recording system and maximize reuse / recycle of C&D wastes.

4.3 Environmental Licenses and Permits

4.3.1 The environmental licenses and permits for Stage 1 of the Project and valid in the reporting month is summarized in Table 4.1.

Table 4.1 Summary of Environmental Licensing and Permit Status

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
EIAO	Environmental Permit	EP-324/2008/A	31/01/2012	N/A	HyD	Tolo Highway/Fanling Highway between Island House Interchange and Ma Wo
WPCO	Discharge License (Office)	WT00005096-2009	03/12/2009	31/12/2014	CSHK	Discharge at Site Office
	Discharge License (Site)	WT00005445-2009	15/12/2009	31/12/2014	CSHK	Discharge of Construction Runoff
	Discharge License (Office)	WT00006782-2010	25/06/2010	30/06/2015	GCL	Discharge at Site Office
	Discharge License (Site)	WT00007162-2010	09/08/2010	31/07/2015	GCL	Discharge of Construction Runoff
WDO	Chemical Waste Producer Registration	5213-727-C3249-46	25/09/2009	N/A	CSHK	Chemical waste produced in Contract HY/2008/09
		5213-722-G2347-18	18/05/2010	N/A	GCL	Chemical waste produced in Contract HY/2009/08
WDO	Billing Account for Disposal of Construction Waste	7009328	08/09/2009	N/A	CSHK	Waste disposal in Contract HY/2008/09
		7010320	02/03/2010	N/A	GCL	Waste disposal in Contract HY/2009/08
NCO	Construction Noise Permit	GW-RN0417-13	21/07/2013	17/01/2014	CSHK	Construction works at Island House Interchange
		GW-RN0468-13	19/08/2013	23/01/2014	CSHK	Routine Road Maintenance
		GW-RN0561-13	02/10/2013	01/04/2014	CSHK	Modification of Sign Gantry_G11, G13, G70, G73, G74, G75 & G76
		GW-RN0572-13	07/09/2013	03/12/2013	CSHK	Modification of Sign Gantry_G14, G15, G16, G17, G65, G66, G67 & G68
		GW-RN0607-13	19/10/2013	22/12/2013	CSHK	Road Paving on Tolo Highway between Ma Wo and NLKRB (Shatin Bound)

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
		GW-RN0614-13	19/10/2013	22/12/2013	CSHK	Road Paving on North Bound of Tolo Highway at Island House Interchange
		GW-RN0620-13	19/10/2013	22/12/2013	CSHK	Road Paving Reconstruction on Tolo Highway (Fanling Bound) Between NB12 and Tat Wan Road
		GW-RN0647-13	01/11/2013	31/12/2013	CSHK	Carrying out construction works within MTRC's tracks protection zone
		GW-RN0693-13	16/11/2013	22/12/2013	CSHK	Road Paving on Tolo Highway at Island House Interchange (Shatin Bound)
		GW-RN0703-13	19/11/2013	28/12/2013	CSHK	Installation of Noise Barrier on Kwong Fuk West Viaduct
		GW-RN0707-13	19/11/2013	28/12/2013	CSHK	Road Paving Reconstruction on Tolo Highway (Fanling & Shatin Bound) near Shan Tong Road
		GW-RN0710-13	21/11/2013	24/12/2013	CSHK	Sign Gantry at Tolo Highway between Yuen Chau Tsai and Ma Wo
		GW-RN0726-13	27/11/2013	31/12/2013	CSHK	Concreting Works on Tolo Highway (Fanling Bound) near Tat Wan Road
		GW-RN0741-13	03/12/2013	28/12/2013	CSHK	Installation of Sign Gantries G18 & G19
		GW-RN0742-13	02/12/2013	28/12/2013	CSHK	Road Pavement at Shatin Bound of Tolo Highway between Wan Tau Tong Estate and Tai Po Road
		GW-RN0763-13	10/12/2013	28/12/2013	CSHK	Modification of Sign Gantries G13 G14 G16 G17& G66
		GW-RN0766-13	14/12/2013	23/02/2014	CSHK	Road Paving on Tolo Highway between Ma Wo and NLKRB (Shatin Bound)

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
		GW-RN0788-13	22/12/2013	23/02/2014	CSHK	Road pavement for Slip Road from Tolo Highway to Tai Po Road near Yuen Chau Tsai (Fanling Bound)
		GW-RN0789-13	02/01/2014	31/03/2014	CSHK	Construction works next to MTRC's tracks protection zone
		GW-RN0801-13	28/12/2013	23/02/2014	CSHK	Road Marking Alternation at Tolo Highway at Island House Interchange
		GW-RN0807-13	29/12/2013	23/02/2014	CSHK	Road pavement for Slip Road from Tolo Highway to Tai Po Road near Yuen Chau Tsai (Fanling Bound)
		GW-RN0810-13	31/12/2013	23/02/2014	CSHK	Road Paving Reconstruction on Slip Road from Tai Po Road-Yuen Chau Tsai
		GW-RN0530-13	03/10/2013	02/02/2014	GCL	Renewal of GW-RN0194-13 Tolo Highway near Tai Po Tau Raw Water Pumping Station
		GW-RN0695-13	17/11/2013	12/05/2014	GCL	General work and asphalt paving at Tolo Highway near Shek Kwu Lung and Ma Wo (CH18.1 - 19.2)
		GW-RN0785-13	28/12/2013	27/02/2014	GCL	Stitching Construction at Section of Tolo Highway (Shatin Bound) CH19 to CH18.8A
		GW-RN0786-13	19/12/2013	11/06/2014	GCL	Renewal of GW-RN0484-13 Tolo Highway and Fanling Highway near Tai Po Tai Wo Road, Lam Kam Interchange & Tai Wo Service Road West

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
		GW-RN0795-13	24/12/2013	27/02/2014	GCL	Erection of Sign Gantry at Tolo Highway (Fanling Bound) CH19.9 to CH20.1 near Lam Kam Interchange

4.4 Implementation Status of Environmental Mitigation Measures

4.4.1 In response to the site audit findings, the Contractors carried out corrective actions.

4.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in Appendix C. Most of the necessary mitigation measures were implemented properly.

4.5 Summary of Exceedances of the Environmental Quality Performance Limit

4.5.1 All 1-hour and 24-hour TSP monitoring results complied with the Action / Limit Levels in the reporting period.

4.5.2 For construction noise, no Action and Limit Level exceedance was recorded at all monitoring stations in the reporting period.

4.6 Summary of Complaints, Notification of Summons and Successful Prosecutions

4.6.1 The Environmental Complaint Handling Procedure is annexed in Figure 4.1.

4.6.2 Two (2) complaints were followed up by the Environmental Team in the reporting period

4.6.3 One (1) noise-related complaint was received on 4 November 2013 and followed up by the Environmental Team in November and December 2013.

4.6.4 EPD referred a noise complaint from a resident living near Uptown Plaza at Tai Po. The complainant expressed that the construction work between late-night hours on 2 November and early morning of 3 November at Tolo Highway disturbed the resident's sleep.

4.6.5 According to the information provided by the Contractor (China State Construction Engineering (HK) Ltd.) and confirmed by the Engineer of the Project, road marking alternation works was carried out at Tolo Highway between 23:00 on 2 November 2013 and 05:00 on 3 November 2013. The permitted works area and the exact working area for road marking alternation are indicated in the site location plan.

A valid Construction Noise Permit (CNP no.: GW-RN0607-13) has been obtained for the use of certain specified Powered Mechanical Equipments (PMEs) and carrying out of certain prescribed construction work at Tolo Highway (Shatin Bound) between Grand Dynasty View and the Paragon between 23:00 on Saturdays and 05:00 on Sundays, subject to the conditions imposed in the CNP. The numbers and types of PMEs operated between 23:00 on 2 November 2013 and 05:00 on 3 November 2013 complied with the CNP. The list of plants used during the construction works (provided by the Contractor and confirmed by the Engineer) on 2 and 3 November 2013 was also checked for verification.

Notification was sent to EPD at 13:18 hours on 1 November 2013 prior to the commencement of the construction work but the notification period was less than the required 48 hours before the said works carried out at 23:00 on 2 November 2013.

The Contractor notified the nearby residents in advance of the construction work by disseminating a public notice to the estates management offices of the affected residential buildings on 1 November 2013.

However, the noise complaint is considered project-related.

Upon the receipt of the complaint, the Contractor stopped the road works as soon as practicable as determined by The Highways Department. A safety net had been set up to cover the skip of dump trucks to reduce the dropping height of milling materials (rubbles) to reduce the impact noise for any future works conducted under CNP no.: GW-RN0607-13, but the results were not satisfactory. Hence, this measure will not be implemented. However, the Contractor was urged to shorten the time of handling rubbles as much as possible to minimize the nuisance caused to the nearby residents. Additionally, the Contractor has shut off idling plants at once. The Contractor also wrapped up the reversing alarm of the PMEs with sound-absorbing materials to reduce noise generated from similar works so as to minimize the impacts to nearby residents.

The Contractor has been setting up permanent noise barriers at both sides of the section of the road where road marking alternation works were carried out. Most of the noise barriers have been erected and the Contractor will install all the remaining noise barrier panels by January 2014. The Contractor was prompted to install the remaining permanent noise barriers as soon as it can.

The Contractor also visited the Management Offices of nearby estates thereafter to introduce them about its works programme and night works of the coming two months. Meanwhile, a public notice was disseminated to the estates on 6 November 2013 and is displayed at the lift lobby of the estates to inform the residents about its works.

According to the Contractor, no further works in relation to CNP no.: GW-RN0607-13 is scheduled before the CNP expires at 05:00 on 22 December 2013, even though the CNP permits such prescribed use of the specified PMEs for a total of 10 nights during its validity period. However, the

Contractor was urged to comply with conditions of this and subsequent CNPs for future works and make advance notifications to the EPD at least 48 hours before the scheduled commencement of works. The Contractor was prompted to improve their management and schedule night works as early as possible to prevent late notification. The Contractor was reminded to review the current working method and implement noise mitigation measures so as to minimize nuisance caused to sensitive receivers.

In addition, the Contractor is advised to implement the mitigation measures as stated in "Recommended Mitigation Measures" below:

- Strictly comply with the requirements of the approved CNP for works carried out in restricted hours;
- Have better scheduling of works to minimize noise nuisance;
- Instruct the site workers to keep the noise in minimum during construction works in restricted hours; and
- Foster better public relations with the sensitive receivers nearby.

4.6.6 One (1) air-related complaint was received on 13 December 2013 and followed up by the Environmental Team in December 2013.

4.6.7 EPD referred a complaint from a resident of Ma Wo Tsuen about the dust emission at the construction site of the Tolo Highway widening construction works at Ma Wo. The complainant has complained about the air pollution problem for three years and that no improvement has been seen.

The complainant stated that there are no water sprinklers in the construction site and the residents of Ma Wo Tsuen have requested the Contractor to use tarpaulin sheets.

4.6.8 As informed by the Contractor (Gammon Construction Ltd) and confirmed by the Engineer of the Project, catchment drain, backfilling and compaction work of general fill materials at W38 and delivery of fill materials from W48 to W38 by dump truck on 12 December 2013 (Thursday) and 13 December 2013 (Friday) were carried out at the work areas near the residential flat of the complainant.

Mitigation measures, including water spraying by sprinklers on haul roads and exposed slopes, covering non-working slopes by tarpaulin sheets at a sight distance from the complainant before the complete construction of permanent footpath, full-time manual water spraying, and the tarpaulin dust screen of appropriately 1.8 m in height set on the top of W45-47 which is along W44 and NB31, and a section of footpath on W38, were taken by the Contractor. As shown in Figure 4B, water is sprayed manually to the leaves of the trees to minimize the emitted dust from dropping to the complainant's house and Ma Wo Tsuen through the trees. As shown in Figure 5, the loading and unloading height of general fill materials at W38 was kept to a minimum. Besides, in case any dump truck passes through W45-47, the mechanical covering will not open until they reach the unloading point.

Wheel washing has been carried out at the site entrance. The dump truck responsible for the delivery of fill materials for W38 only moved within W48 and W38, which was not exiting from the site entrance on 12 and 13 December 2013.

With reference to the monitoring results recorded on the day closest to the day of complaint at the nearest EM&A monitoring station (AM1A- Sheung Wun Yiu), the 24-hour TSP level on 10 December 2013 was 133.8 ug/m^3, which was below the action level of 176.6 ug/m^3. Besides, the average 1-hour TSP 10 December 2013 at the nearest EM&A monitoring station (AM1A- Sheung Wun Yiu) was 83.5 ug/m^3, which was also below the action level of 302.3ug/m^3.

Nevertheless, the complaint was considered project-related.

Therefore, the Contractor is reminded to enhance the dust mitigation measures as stated in the "Recommended Mitigation Measures" below:

- Confirm the implementation of dust mitigation measures (erection of tarpaulin dust screens along the work areas W38-48, spraying water manually by workers and sprinkler systems for the haul roads and exposed slopes at work areas W38-48, covering non-working slopes by tarpaulin sheets within work areas, covering dusty materials carried in dump trucks within work areas W38-48) during all construction and dusty activities to minimize fugitive dust generation;
- Increase the frequency of watering in the work areas (specially at the entrance of the construction site, and on site haul roads and exposed slopes / areas in the work areas W38-48), so that site haul roads and exposed surfaces are in a wet condition;
- Cover the backfilling surface after work;
- Keep soil surfaces wet before loading and unloading activities;
- Maintain the frequency of the environmental supervision (by the Contractor) to regularly review the adequacy and effectiveness of dust suppression measures to suit the construction progress;
- Inform the complainant before dusty activities (e.g. rock breaking, excavation, grouting and backfilling) are carried out; and
- Foster better public relations with the sensitive receivers and complainants nearby.

4.6.9 No new notification of summons and prosecution was received in the reporting period.

4.6.10 Statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix L.

5 FUTURE KEY ISSUES

5.1 Construction Programme for the Coming Months

5.1.1 The major construction works for Contract 1 in January 2014 will be:-

- Temporary shoring, sheetpiling and excavation
- At-grade road construction
- Retaining wall construction
- Noise barrier footing construction
- Noise barrier panels installation
- Asphalt laying
- Installation of drainage pipes

5.1.2 The major construction works for Contract 2 in January 2014 will be:-

- Condition survey of existing structures
- Setting up the temporary traffic arrangement
- Excavation of trial trenches to locate existing utilities
- Construction of haul road
- Construction of concrete profile barrier and beam barrier
- Construction of Pilecap / Spread footing of Noise Barrier / Semi Noise Enclosure
- Slope works, including installation of soil nails
- NTHA mitigation works
- Construction of retaining walls
- Noise barrier construction
- Modification of existing bridge structures
- Entrusted watermains works
- Sewer Installation
- Road and drainage works; and Landscaping works

5.2 Key Issues for the Coming Month

5.2.1 Key issues to be considered in January 2014:-

- Properly store and label oils and chemicals on site;
- Chemical, chemical waste and waste management;
- Collection of construction waste should be carried out regularly;
- Site runoff should be properly collected and treated prior to discharge;
- Properly maintain all drainage facilities and wheel washing facilities on site;
- Exposed slopes should be covered up properly if no temporary work will be conducted;
- Suppress dust generated from excavation, breaking and drilling activities, haul road traffic and grout mixing process;
- Quieter powered mechanical equipment should be used;
- Closely check and replace the sound insulation materials wrapped at the concrete breaker tip regularly;
- Better scheduling of construction works to minimize noise nuisance; and
- Tree protective measures for all retained trees should be well maintained.

5.3 Monitoring Schedule for the Coming Month

5.3.1 The tentative schedule for environmental monitoring in January 2014 is provided in Appendix F.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 The construction phase and EM&A programme of Stage 1 of the project commenced on 23 November 2009.

6.1.2 1-hour TSP, 24-hour TSP and noise monitoring were carried out in the reporting period.

6.1.3 All 1-hour and 24-hour TSP monitoring results complied with the Action / Limit Levels in the reporting period.

6.1.4 No Action and Limit Level exceedance for construction noise was recorded at all monitoring stations in the reporting month.

6.1.5 Environmental site inspection was carried out 9 times in December 2013. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site audits.

6.1.6 Two (2) complaints were followed up by the Environmental Team in the reporting period.

6.1.7 One (1) noise-related complaint was received on 4 November 2013 and followed up by the Environmental Team in November and December 2013. The summary of investigation is described in Sections 4.6.3 to 4.6.5.

6.1.8 One (1) air-related complaint was received on 13 December 2013 and followed up by the Environmental Team in December 2013. The summary of investigation is described in Sections 4.6.6 to 4.6.8

6.1.9 No new notification of summons and prosecution was received in the reporting period.

6.2 Recommendations

6.2.1 According to the environmental site inspections performed in the reporting month, the following recommendations were provided:-

Air Quality Impact

- The soil stockpiles should be properly covered.
- The grouting station should be properly sheltered as one of the dust control measures

Construction Noise Impact

- Properly erect the temporary noise barriers in accordance with the Environmental Permit requirement.
- Noisy operations should be oriented to a direction away from sensitive receivers as far as possible.
- Sound insulation materials shall be wrapped at the breaker tip for concrete breaking works.

Water Quality Impact

- Preventive measures should be implemented to avoid the spread of mud trails on the public road.
- Silty effluent should be treated/desilted before discharged. Untreated effluent should be prevented from entering public drain channel.
- Proper drainage channels/bunds should be provided at the site boundaries to collect/intercept the surface run-off from works areas.
- Stagnant water accumulated within works area should be removed.

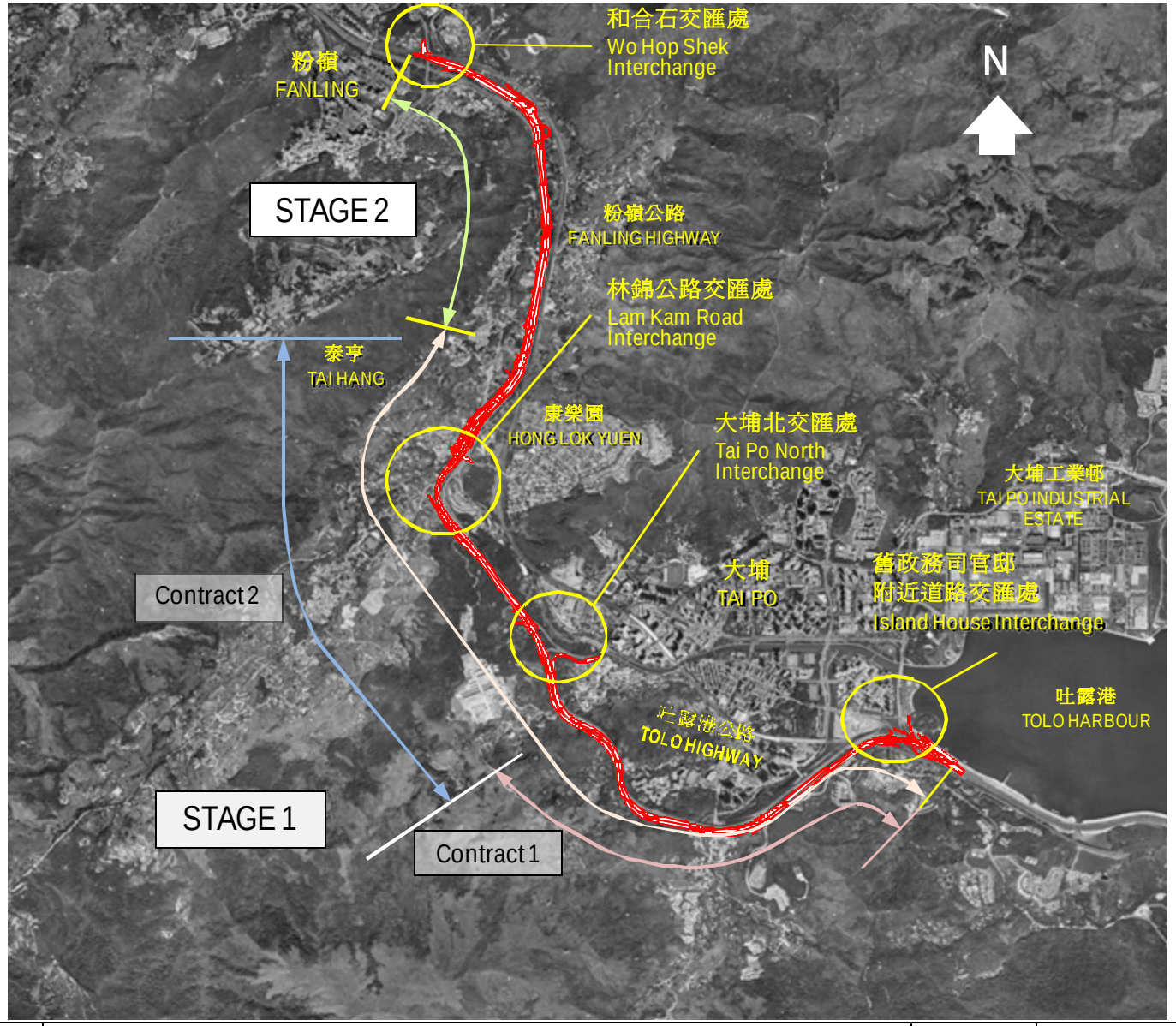
Chemical and Waste Management

- C&D materials and wastes, general refuse should be sorted properly and removed timely.
- All chemical containers and oil drums should be properly stored.
- All plants and vehicles on site should be properly maintained to prevent oil leakage.
- All drain holes of the drip trays utilized within works areas should be properly plugged to avoid any oil leakage.
- Oil stains on soil surface and empty chemical containers should be cleared and disposed of as chemical waste.
- Drip tray should be provided to prevent oil leakage.
- Only the recycling materials should be dumped into the appropriate recycling bins.

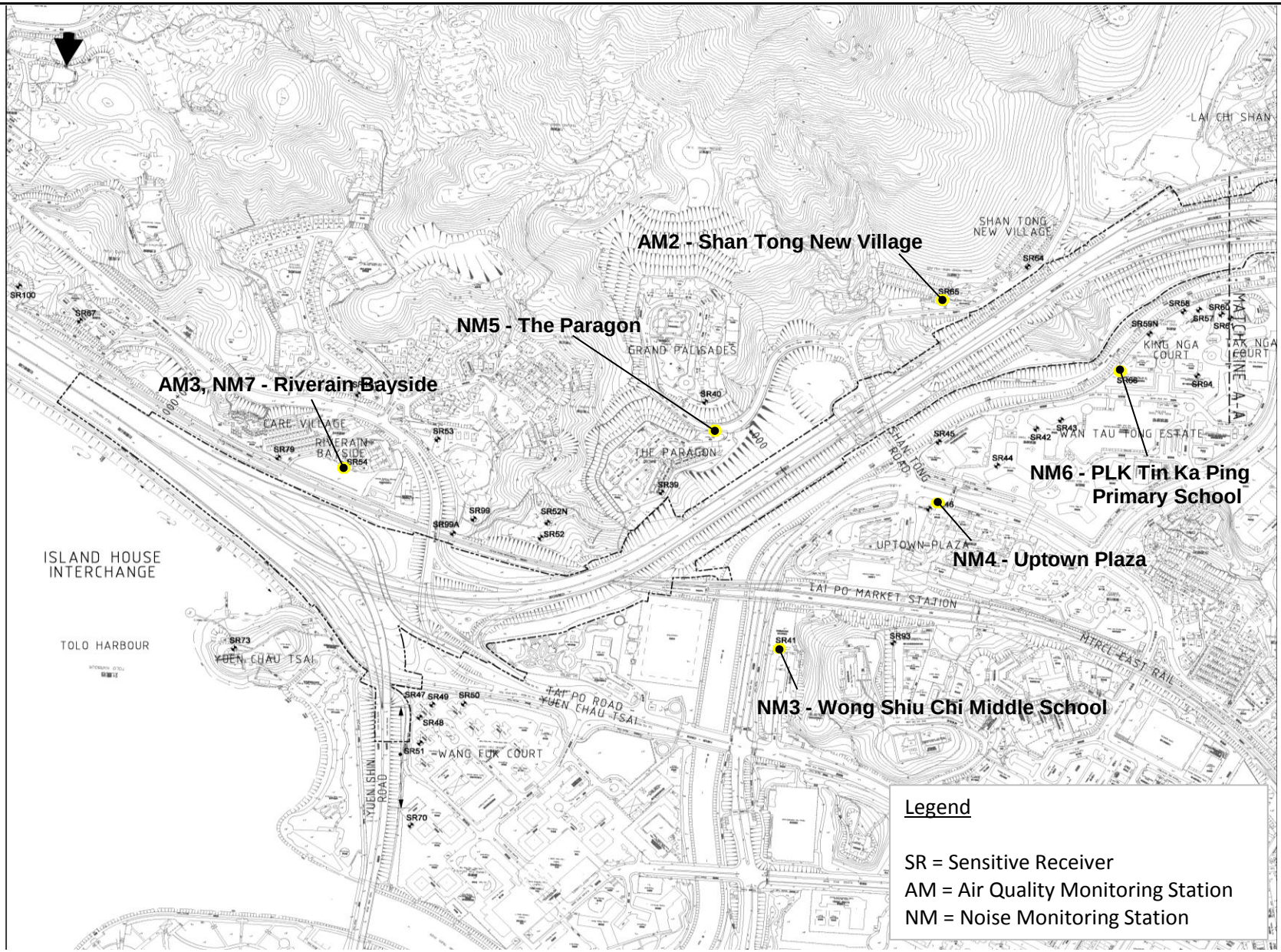
Landscape and Visual Impact

- All retained trees should be properly fenced off at the works area.

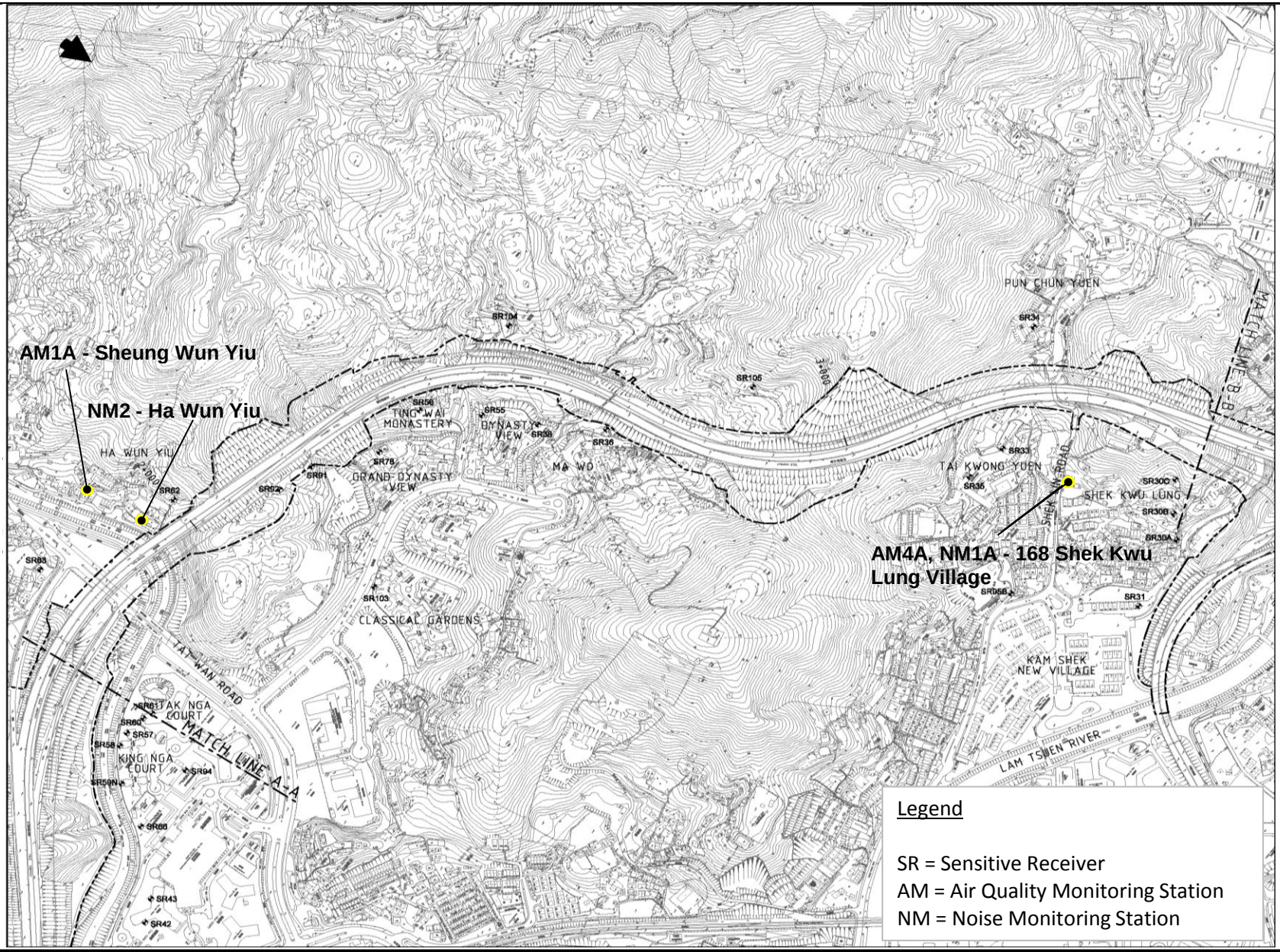
FIGURES



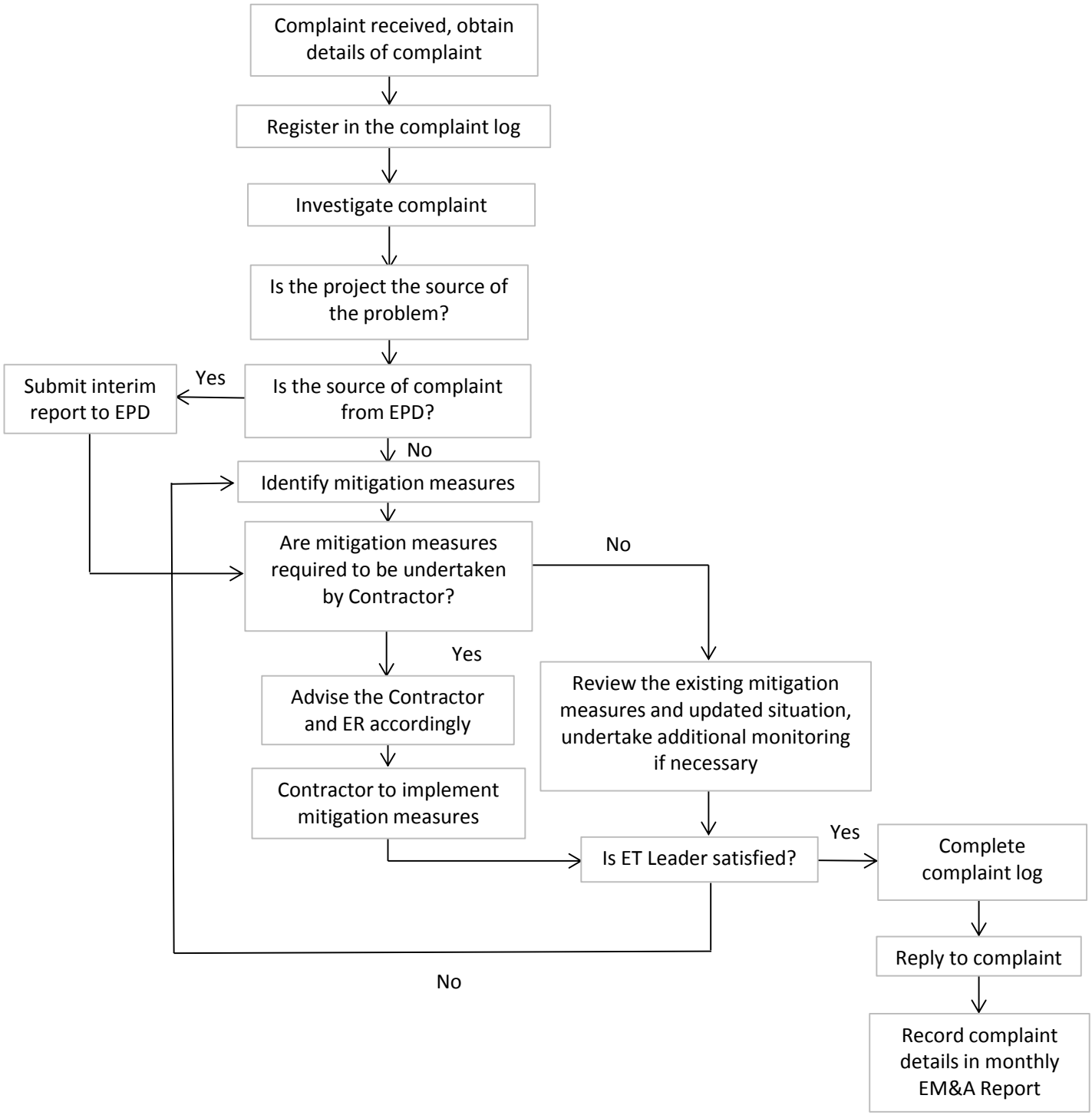
AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Dec-09
		CHECK	ENFL	DRAWN	RWHW
	General Project Layout Plan	JOB NO.	60102979	FIGURE NO. 1.1	Rev 0



AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Sep-11
		CHECK	ENFL	DRAWN	LCHC
	EM&A Monitoring Locations (Sheet 1 of 2)	JOB NO.	60102979	FIGURE NO. 2.1	Rev 0

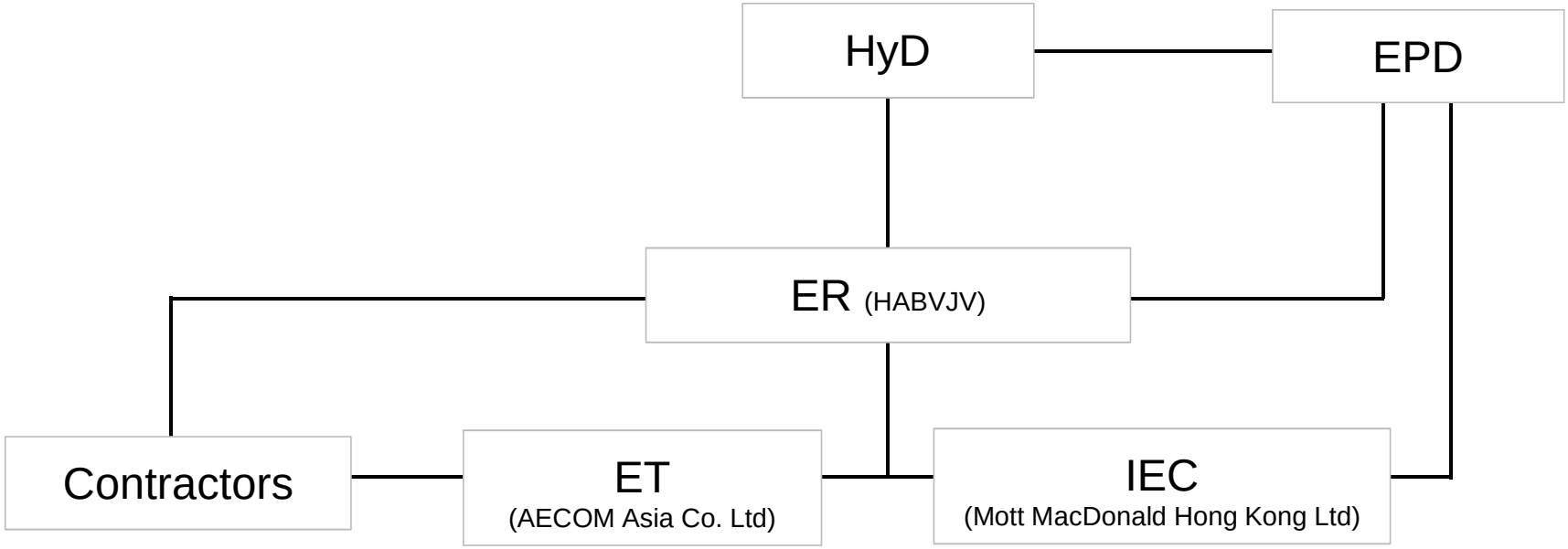


AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Sep-11
		CHECK	ENFL	DRAWN	LCHC
	EM&A Monitoring Locations (Sheet 2 of 2)	JOB NO.	60102979	FIGURE NO. 2.1	Rev 0



AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Mar-13
		CHECK	ENFL	DRAWN	CHCL
	Environmental Complaint Handling Procedure	JOB NO.	60102979	FIGURE 4.1	Rev. -

APPENDIX A
PROJECT ORGANIZATION STRUCTURE



AECOM

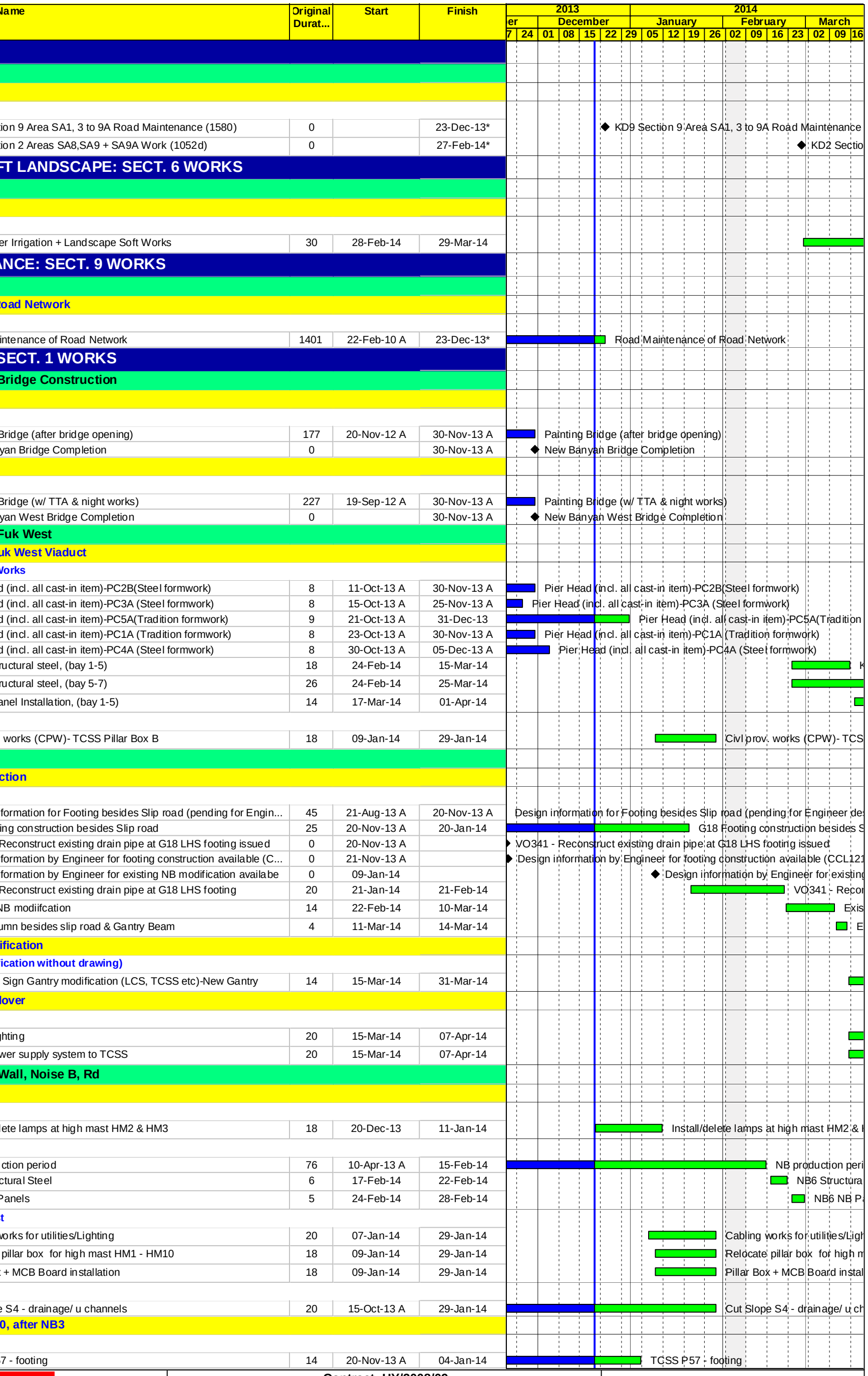
Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation

Project Organization Structure

SCALE	N.T.S.	DATE	2009	
CHECK	ENFL	DRAWN	RWHW	
JOB NO.	60102979	APPENDIX	A	Rev -

APPENDIX B
CONSTRUCTION PROGRAMMES

Activity ID	Activity Name	Original Durat...	Start	Finish
KEY DATES				
Section Completion				
Section Completion Date				
Key Date				
KD-300900	KD9 Section 9 Area SA1, 3 to 9A Road Maintenance (1580)	0		23-Dec-13*
KD-300200	KD2 Section 2 Areas SA8,SA9 + SA9A Work (1052d)	0		27-Feb-14*
REMAINDER OF SOFT LANDSCAPE: SECT. 6 WORKS				
Landscaping Works				
Landscape Works				
S6-212800	Remainder Irrigation + Landscape Soft Works	30	28-Feb-14	29-Mar-14
ROUTINE MAINTENANCE: SECT. 9 WORKS				
Road Maintenance				
Routine Maintenance of Road Network				
S9-100000	Road Maintenance of Road Network	1401	22-Feb-10 A	23-Dec-13*
Z1: CH 0 to CH 500: SECT. 1 WORKS				
Banyan & Banyan West Bridge Construction				
New Banyan Bridge				
Bridge Deck				
S1-080870	Painting Bridge (after bridge opening)	177	20-Nov-12 A	30-Nov-13 A
S1-080900	New Banyan Bridge Completion	0		30-Nov-13 A
New Banyan Bridge West				
Bridge Deck				
S1-090860	Painting Bridge (w/ TTA & night works)	227	19-Sep-12 A	30-Nov-13 A
S1-090900	New Banyan West Bridge Completion	0		30-Nov-13 A
Noise Barrier at Kwong Fuk West				
Noise Barrier at Kwong Fuk West Viaduct				
Noise Barrier Foundation Works				
S1-180510A090	Pier Head (incl. all cast-in item)-PC2B(Steel formwork)	8	11-Oct-13 A	30-Nov-13 A
S1-180510b040	Pier Head (incl. all cast-in item)-PC3A (Steel formwork)	8	15-Oct-13 A	25-Nov-13 A
S1-180510A040	Pier Head (incl. all cast-in item)-PC5A(Tradition formwork)	9	21-Oct-13 A	31-Dec-13
S1-180510b020	Pier Head (incl. all cast-in item)-PC1A (Tradition formwork)	8	23-Oct-13 A	30-Nov-13 A
S1-180510b050	Pier Head (incl. all cast-in item)-PC4A (Steel formwork)	8	30-Oct-13 A	05-Dec-13 A
S1-180700A	KFWV structural steel, (bay 1-5)	18	24-Feb-14	15-Mar-14
S1-180810	KFWV structural steel, (bay 5-7)	26	24-Feb-14	25-Mar-14
S1-180800	KFWV Panel Installation, (bay 1-5)	14	17-Mar-14	01-Apr-14
TCSS Works/Other Utlities				
S1-180905	Civl prov. works (CPW)- TCSS Pillar Box B	18	09-Jan-14	29-Jan-14
TCSS Works				
New Sign Gantry Construction				
G18 (VO205 Slip Road)				
GS1778	Design information for Footing besides Slip road (pending for Engin...	45	21-Aug-13 A	20-Nov-13 A
GS1810	G18 Footing construction besides Slip road	25	20-Nov-13 A	20-Jan-14
GS1792	VO341 - Reconstruct existing drain pipe at G18 LHS footing issued	0	20-Nov-13 A	
GS1800	Design information by Engineer for footing construction available (C...	0	21-Nov-13 A	
GS1860	Design information by Engineer for existing NB modification availabe	0	09-Jan-14	
GS1802	VO341 - Reconstruct existing drain pipe at G18 LHS footing	20	21-Jan-14	21-Feb-14
GS1870	Existing NB modiifcation	14	22-Feb-14	10-Mar-14
GS1790	Erect column besides slip road & Gantry Beam	4	11-Mar-14	14-Mar-14
Existing Sign Gantry Modification				
G19 (VO: New Gantry Modification without drawing)				
GS2650	Carry out Sign Gantry modification (LCS, TCSS etc)-New Gantry	14	15-Mar-14	31-Mar-14
TCSS E&M Works & Handover				
S1-700075	T&C - Lighting	20	15-Mar-14	07-Apr-14
S1-700080	T&C - power supply system to TCSS	20	15-Mar-14	07-Apr-14
Southbound Work- Ret. Wall, Noise B, Rd				
NB6, and Slope S4				
High Mast Lighting				
S1-203068	Install/delete lamps at high mast HM2 & HM3	18	20-Dec-13	11-Jan-14
Noise Barrier NB6				
S1-207055	NB production period	76	10-Apr-13 A	15-Feb-14
S1-207060	NB6 Structural Steel	6	17-Feb-14	22-Feb-14
S1-208060	NB6 NB Panels	5	24-Feb-14	28-Feb-14
Road Lighting/ or High Mast				
S1-700050	Cabling works for utilities/Lighting	20	07-Jan-14	29-Jan-14
S1-203067	Relocate pillar box for high mast HM1 - HM10	18	09-Jan-14	29-Jan-14
S1-700070	Pillar Box + MCB Board installation	18	09-Jan-14	29-Jan-14
Cut Slope S4				
S1-031060B	Cut Slope S4 - drainage/ u channels	20	15-Oct-13 A	29-Jan-14
SB Road & Drain, Ch 0-300, after NB3				
TCSS Works/Other Utlities				
S1-035045	TCSS P57 - footing	14	20-Nov-13 A	04-Jan-14



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

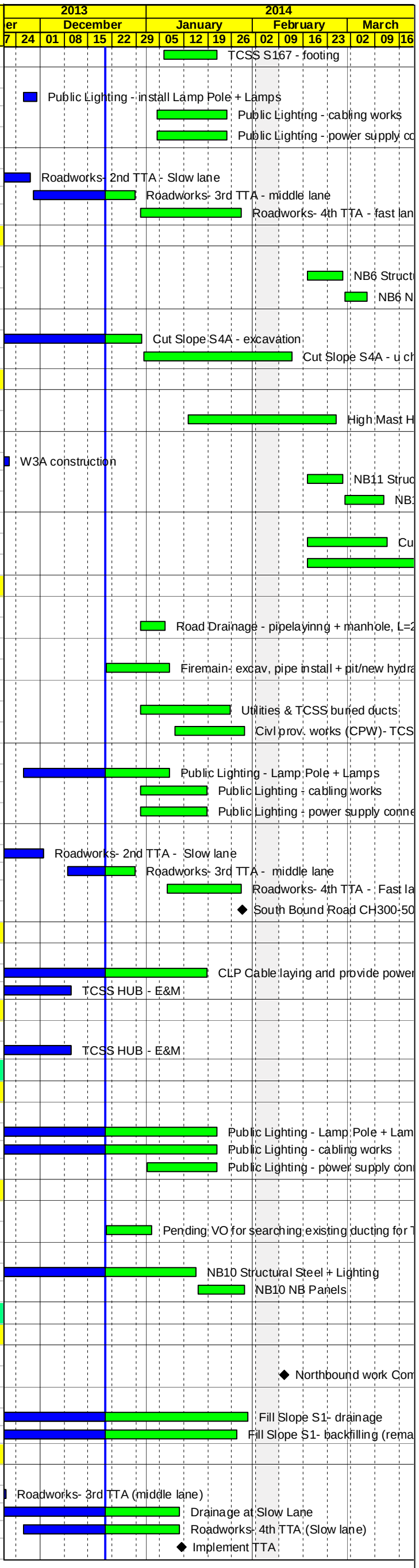
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
S1-035055	TCSS S167 - footing	14	06-Jan-14	21-Jan-14
Road Lighting/ or High Mast				
S1-051215	Public Lighting - install Lamp Pole + Lamps	18	26-Nov-13 A	30-Nov-13 A
S1-051215A	Public Lighting - cabling works	18	04-Jan-14*	24-Jan-14
S1-051215B	Public Lighting - power supply connection & test	18	04-Jan-14	24-Jan-14
Roadworks				
S1-051205	Roadworks- 2nd TTA - Slow lane	26	20-Oct-13 A	28-Nov-13 A
S1-051210	Roadworks- 3rd TTA - middle lane	18	29-Nov-13 A	28-Dec-13
S1-051230	Roadworks- 4th TTA - fast lane	26	30-Dec-13	28-Jan-14
NB6 and Slope S4A, after TB1 demolition				
Noise Barrier NB6 (remaining 1 bay after TB1 removal)				
S1-208130	NB6 Structural Steel	10	17-Feb-14*	27-Feb-14
S1-208135	NB6 NB Panels	6	28-Feb-14	06-Mar-14
Cut Slope S4A				
S1-208140A	Cut Slope S4A - excavation	30	24-Oct-13 A	30-Dec-13
S1-208140B	Cut Slope S4A - u channels	30	31-Dec-13	12-Feb-14
NB11, Slope S4B & F124, after TB2 dem.				
High Mast Lighting				
S1-200112	High Mast HM5 - footing + relocation + lamp	30	13-Jan-14*	25-Feb-14
Noise Barrier NB11				
S1-208120	W3A construction	14	14-Nov-13 A	22-Nov-13 A
S1-207110	NB11 Structural Steel	10	17-Feb-14*	27-Feb-14
S1-208110	NB11 NB Panels	10	28-Feb-14	11-Mar-14
Cut Slope S4B, S4C				
S1-031040A	Cut Slope S4B, S4C - excavation	21	17-Feb-14*	12-Mar-14
S1-031040B	Cut Slope S4B, S4C - drainage/ channels	48	17-Feb-14	12-Apr-14
South Bound Road and Drain, Ch 300-500				
Road Drainage				
S1-051347	Road Drainage - pipelayinng + manhole, L=200	7	30-Dec-13	06-Jan-14
Firemain				
S1-051305	Firemain- excav, pipe install + pit/new hydrants	14	20-Dec-13	07-Jan-14
TCSS Works/Other Utlities				
S1-051325	Utilities & TCSS buried ducts	24	30-Dec-13	25-Jan-14
S1-051303	Civl prov. works (CPW)- TCSS Pillar Box A	18	09-Jan-14	29-Jan-14
Road Lighting/ or High Mast				
S1-051350	Public Lighting - Lamp Pole + Lamps	18	26-Nov-13 A	07-Jan-14
S1-051350A	Public Lighting - cabling works	18	30-Dec-13	18-Jan-14
S1-051350B	Public Lighting - power supply connection & test	18	30-Dec-13	18-Jan-14
Roadworks				
S1-051340	Roadworks- 2nd TTA - Slow lane	11	05-Nov-13 A	02-Dec-13 A
S1-051345	Roadworks- 3rd TTA - middle lane	18	09-Dec-13 A	28-Dec-13
S1-051355	Roadworks- 4th TTA - Fast lane	19	07-Jan-14	28-Jan-14
S1-051360	South Bound Road CH300-500 Complete	0	29-Jan-14	
TCSS HUB (near KFW Viaduct)				
TCSS Hub				
S1-700030	CLP Cable laying and provide power	180	15-May-13 A	18-Jan-14
S1-700020	TCSS HUB - E&M	40	21-Oct-13 A	10-Dec-13 A
TCSS HUB (Ma Liu Shui)				
TCSS Hub				
S1-700190	TCSS HUB - E&M	40	23-Sep-13 A	10-Dec-13 A
Central Median Work- Noise Barrier + Road/Drain				
Noise Barrier NB3 CH0-357				
Road Lighting/ or High Mast				
S1-208040	Public Lighting - Lamp Pole + Lamps	18	22-Aug-13 A	21-Jan-14
S1-208040A	Public Lighting - cabling works	18	22-Aug-13 A	21-Jan-14
S1-208040B	Public Lighting - power supply connection & test	18	01-Jan-14	21-Jan-14
Noise BarrierNB10 CH444-500,after TB2 demolition				
Noise Barrier Foundation Works				
S1-200094	Pending VO for searching existing ducting for TCSS works	10	20-Dec-13	02-Jan-14
Noise Barrier Structural Steel & Panels				
S1-207100	NB10 Structural Steel + Lighting	12	02-Nov-13 A	15-Jan-14
S1-208100	NB10 NB Panels	12	16-Jan-14*	29-Jan-14
Northbound Work- Ret. Wall, Noise B, Rd				
RW W1+ NB1+S1, NB2 Ch200-300				
Noise Barrier NB1				
S1-208015	Northbound work Complete	0	10-Feb-14	
Cut Slope S1				
S1-031015020	Fill Slope S1- drainage	26	18-Oct-13 A	30-Jan-14
S1-031015015	Fill Slope S1- backfilling (remaining 50% after relocation of HM7)	57	20-Nov-13 A	27-Jan-14
Northbound Rd/ Dr, Ch 0-300, after NB3				
Roadworks				
S1-051115	Roadworks- 3rd TTA (middle lane)	18	21-Oct-13 A	21-Nov-13 A
S1-051135	Drainage at Slow Lane	15	20-Nov-13 A	10-Jan-14
S1-051137	Roadworks- 4th TTA (Slow lane)	12	26-Nov-13 A	10-Jan-14
S1-051145	Implement TTA	0	11-Jan-14	



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

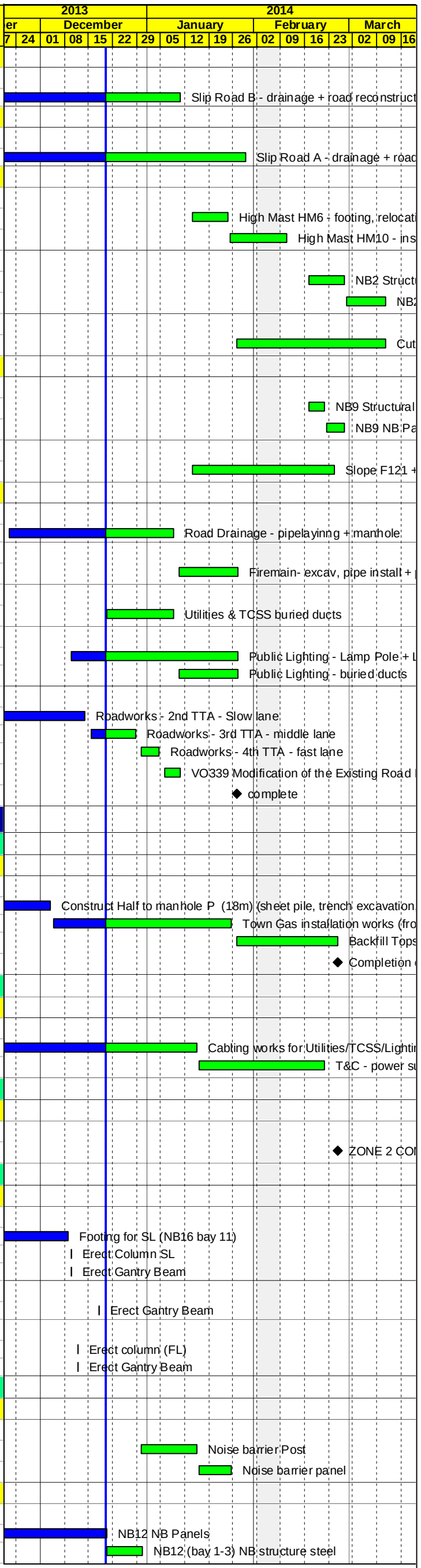
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
Slip Rd B after Banyan Br. Completion				
Slip Rd B				
S1-051150	Slip Road B - drainage + road reconstruction	193	11-Oct-12 A	10-Jan-14
Slip Rd A after Banyan West Completion				
Slip Rd A				
S1-051155	Slip Road A - drainage + road reconstruction	175	20-Oct-12 A	29-Jan-14
NB2 & Slope S2, after TB1 demolition				
High Mast Lighting				
S1-031037	High Mast HM6 - footing, relocation + lamp	10	14-Jan-14*	24-Jan-14
S1-031039	High Mast HM10 - install/delete lamps	6	25-Jan-14	10-Feb-14
Noise Barrier NB2				
S1-031055	NB2 Structural Steel	10	17-Feb-14*	27-Feb-14
S1-031065	NB2 NB Panels	10	28-Feb-14	11-Mar-14
Cut Slope S2				
S1-031025B	Cut Slope S2- channel	30	27-Jan-14	11-Mar-14
NB9, Slope F121, S5, (after TB2 demolition)				
Noise Barrier NB9				
S1-200130	NB9 Structural Steel	5	17-Feb-14*	21-Feb-14
S1-200135	NB9 NB Panels	5	22-Feb-14	27-Feb-14
Cut Slope S5				
S1-200140	Slope F121 + S5	28	14-Jan-14*	24-Feb-14
North Bound Road and Drain, Ch 300-500				
Road Drainage				
S1-200155	Road Drainage - pipelayinng + manhole	15	22-Nov-13 A	08-Jan-14
Firemain				
S1-200170	Firemain- excav, pipe install + pit/new hydrants	15	10-Jan-14*	27-Jan-14
TCSS Works/Other Utlities				
S1-200180	Utilities & TCSS buried ducts	15	20-Dec-13*	08-Jan-14
Road Lighting/ or High Mast				
S1-200205	Public Lighting - Lamp Pole + Lamps	15	10-Dec-13 A	27-Jan-14
S1-200175	Public Lighting - buried ducts	15	10-Jan-14*	27-Jan-14
Roadworks				
S1-200190	Roadworks - 2nd TTA - Slow lane	20	07-Nov-13 A	14-Dec-13 A
S1-200195	Roadworks - 3rd TTA - middle lane	14	16-Dec-13 A	28-Dec-13
S1-200200	Roadworks - 4th TTA - fast lane	6	30-Dec-13	04-Jan-14
S1-200210	VO339 Modification of the Existing Road Markings	5	06-Jan-14	10-Jan-14
S1-200215	complete	0	27-Jan-14	
Z2: CH 500 to CH 1100: SECT. 4 WORKS				
Zone 2: CH500 to Ch1100 (Section 4 Works)				
VO No.28 (VO 211) - Diversion of Existing Stormwater Drain in Kwong Fuk Park				
VO28-1080	Construct Half to manhole P (18m) (sheet pile, trench excavation, p...	50	19-Aug-13 A	04-Dec-13 A
VO28-1085	Town Gas installation works (from main to complete connection to ...	50	05-Dec-13 A	25-Jan-14
VO28-1090	Backfill Topsoil Manhole Z to P	18	27-Jan-14	25-Feb-14
VO28-1150	Completion of VO28	0		25-Feb-14
WM Test+Drain CCTV+ E&M Works				
TCSS E&M Works & Handover				
S4-208355	Cabling works for Utilities/TCSS/Lighting	22	20-Sep-13 A	15-Jan-14
S4-208370	T&C - power supply system to TCSS/Lighting	24	16-Jan-14	21-Feb-14
Section Completion				
Section Completion Date				
KD-300400A	ZONE 2 COMPLETE - KD4 Section 4	0		25-Feb-14
TCSS Works				
New Sign Gantry Construction				
G20				
GS1820	Footing for SL (NB16 bay 11)	20	18-Nov-13 A	09-Dec-13 A
GS1840	Erect Column SL	4	10-Dec-13 A	10-Dec-13 A
GS1850	Erect Gantry Beam	4	10-Dec-13 A	10-Dec-13 A
G63				
GS2200	Erect Gantry Beam	4	18-Dec-13 A	18-Dec-13 A
G64				
GS2255	Erect column (FL)	4	12-Dec-13 A	12-Dec-13 A
GS2260	Erect Gantry Beam	4	12-Dec-13 A	12-Dec-13 A
Stage 1: Southbound Work- Ret. Wall, Noise B, Rd				
NLKRB - Bridge Deck + Noise Barrier				
Bridge Deck				
S4-N01375	Noise barrier Post	15	30-Dec-13*	15-Jan-14
S4-N01385	Noise barrier panel	9	16-Jan-14	25-Jan-14
RW W4-W7+Slope S7+NB15, NB12+Slip Rd L				
Noise Barrier NB12				
S4-208120	NB12 NB Panels	454	01-Feb-12 A	20-Dec-13
S4-208260	NB12 (bay 1-3) NB structure steel	7	20-Dec-13*	30-Dec-13



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

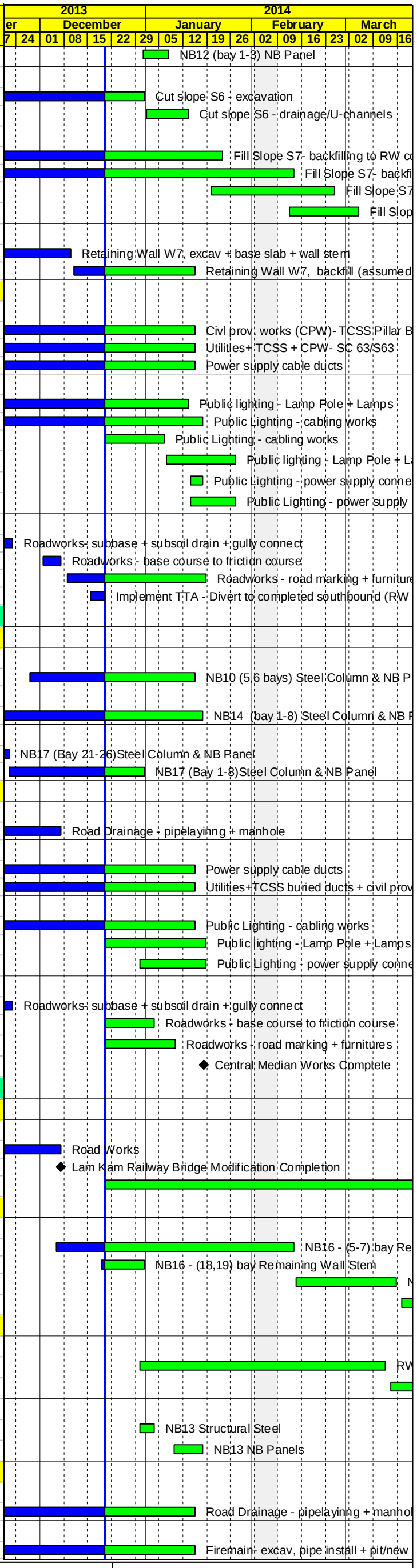
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
S4-208270	NB12 (bay 1-3) NB Panel	7	31-Dec-13	07-Jan-14
Cut Slope S6 and Slip Rd L				
S1-203065A	Cut slope S6 - excavation	403	01-Feb-12 A	31-Dec-13
S1-203065B	Cut slope S6 - drainage/U-channels	11	01-Jan-14	13-Jan-14
Fill Slope S7				
S4-031070A	Fill Slope S7- backfilling to RW coping level	1066	07-May-10 A	23-Jan-14
S4-031070B	Fill Slope S7- backfilling to road level	1016	20-Jul-10 A	13-Feb-14
S4-031070C	Fill Slope S7- u channels	24	20-Jan-14	25-Feb-14
S4-031070D	Fill Slope S7- metal works + hand rails etc.	18	12-Feb-14	04-Mar-14
Retaining Wall W7				
S4-035070A	Retaining Wall W7, excav + base slab + wall stem	37	20-Jul-13 A	10-Dec-13 A
S4-035070B	Retaining Wall W7, backfill (assumed rockfill as VO No. 90)	23	11-Dec-13 A	15-Jan-14
SB: CH500-1100, Road&Drain+Utilities				
TCSS Works/Other Utlities				
S4-512850	Civl prov. works (CPW)- TCSS Pillar Box C	20	20-Sep-13 A	15-Jan-14
S4-512880	Utilities+ TCSS + CPW- SC 63/S63	14	16-Oct-13 A	15-Jan-14
S4-031160	Power supply cable ducts	31	20-Nov-13 A	15-Jan-14
Road Lighting/ or High Mast				
S4-031178	Public lighting - Lamp Pole + Lamps	12	18-Oct-13 A	13-Jan-14
S4-031178A	Public Lighting - cabling works	6	18-Oct-13 A	17-Jan-14
S4-031178A10	Public Lighting - cabling works	13	20-Dec-13	06-Jan-14
S4-512930	Public lighting - Lamp Pole + Lamps	18	07-Jan-14	27-Jan-14
S4-031178B	Public Lighting - power supply connection & test	4	14-Jan-14	17-Jan-14
S4-031178B10	Public Lighting - power supply connection & test	12	14-Jan-14	27-Jan-14
Roadworks				
S4-512900	Roadworks- subbase + subsoil drain + gully connect	48	20-Jun-13 A	23-Nov-13 A
S4-512910	Roadworks - base course to friction course	6	02-Dec-13 A	07-Dec-13 A
S4-512920	Roadworks - road marking + furnitures	6	09-Dec-13 A	18-Jan-14
S4-031185	Implement TTA - Divert to completed southbound (RW 8 Bay 1 ~ Ba...	5	16-Dec-13 A	20-Dec-13 A
Stage 3: Central Median - Ret. Wall, Noise B, Rd				
Noise Barrier NB10, NB14, NB17 Foundation Works				
Noise Barrier NB10				
S4-203195	NB10 (5,6 bays) Steel Column & NB Panel	14	28-Nov-13 A	15-Jan-14
Noise Barrier NB14				
S4-203170B60	NB14 (bay 1-8) Steel Column & NB Panel	11	16-Nov-13 A	17-Jan-14
Noise Barrier NB17				
S4-203170B150	NB17 (Bay 21-26)Steel Column & NB Panel	12	17-Sep-13 A	22-Nov-13 A
S4-203170B090	NB17 (Bay 1-8)Steel Column & NB Panel	21	22-Nov-13 A	31-Dec-13
CM: CH500-1100, Road&Drain+Utilities				
Road Drainage				
S4-208285	Road Drainage - pipelayinng + manhole	30	01-Aug-13 A	07-Dec-13 A
TCSS Works/Other Utlities				
S4-208305	Power supply cable ducts	36	14-Aug-13 A	15-Jan-14
S4-208300	Utilities+TCSS buried ducts + civil prov. works	48	16-Aug-13 A	15-Jan-14
Road Lighting/ or High Mast				
S4-208325A	Public Lighting - cabling works	18	20-Sep-13 A	15-Jan-14
S4-208325	Public lighting - Lamp Pole + Lamps	24	20-Dec-13	18-Jan-14
S4-208325B	Public Lighting - power supply connection & test	18	30-Dec-13	18-Jan-14
Roadworks				
S4-208310	Roadworks- subbase + subsoil drain + gully connect	40	24-Aug-13 A	23-Nov-13 A
S4-208315	Roadworks - base course to friction course	11	20-Dec-13	03-Jan-14
S4-208320	Roadworks - road marking + furnitures	16	20-Dec-13	09-Jan-14
S4-208335	Central Median Works Complete	0	18-Jan-14	
Stage 2: Northbound Work- Ret. Wall, Noise B, Rd				
Mod. Existing Lam Kam Railway Br. +Noise B.				
S4-193840	Road Works	9	21-Oct-13 A	07-Dec-13 A
S4-193890	Lam Kam Railway Bridge Modification Completion	0		07-Dec-13 A
S4-193900	LKRB NB plinth at slow lane (besides W4A)	75	20-Dec-13	28-Mar-14
Noise Barrier NB16				
Noise Barrier Foundation Works				
S4-513145	NB16 - (5-7) bay Remaining Wall Stem & plinth	42	06-Dec-13 A	13-Feb-14
S4-513140	NB16 - (18,19) bay Remaining Wall Stem	18	19-Dec-13 A	31-Dec-13
S4-513150	NB16 - Drainage work	26	14-Feb-14	15-Mar-14
S4-513160	NB16 - Backfilling	12	17-Mar-14	29-Mar-14
Retaining Wall W4A & NB13 & Slip Rd M				
Retaining Wall W4A				
S4-03504A040	RW W4A (last 4 bays) excavation + base slab (I&P)	30	30-Dec-13	12-Mar-14
S4-03504A050	RW W4A (last 4 bays), wall stem (I&P)	30	14-Mar-14	21-May-14
Noise Barrier NB13				
S4-207130	NB13 Structural Steel	5	30-Dec-13*	03-Jan-14
S4-208130	NB13 NB Panels	8	09-Jan-14	17-Jan-14
NB: CH500-1100, Road&Drain+Utilities				
Road Drainage				
S4-031210	Road Drainage - pipelayinng + manhole	44	02-Jul-13 A	15-Jan-14
Firemain				
S4-031220	Firemain- excav, pipe install + pit/new hydrants	36	25-Jul-13 A	15-Jan-14



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

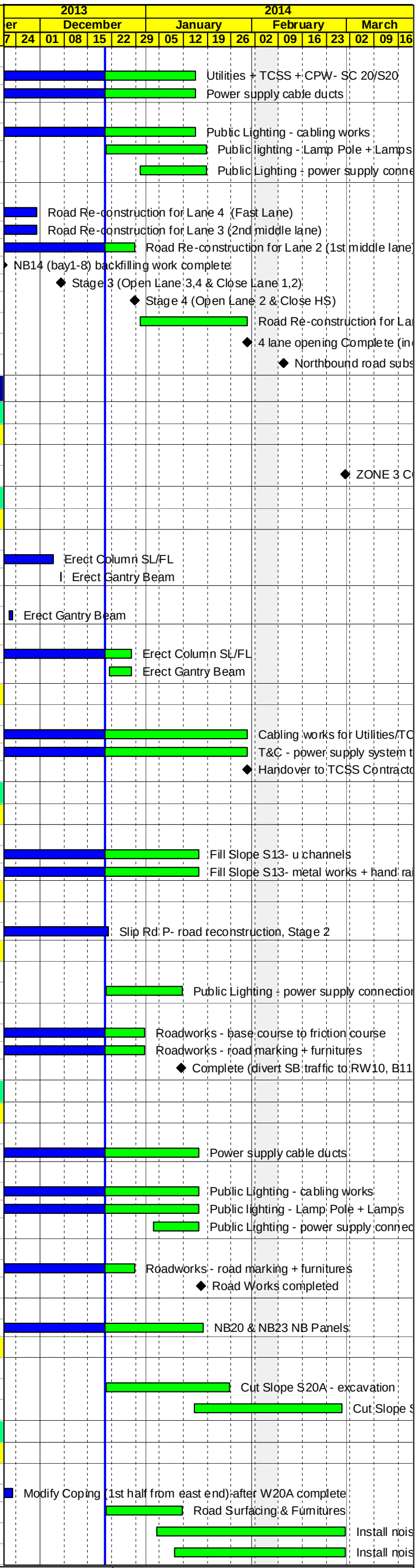
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
	TCSS Works/Other Utlities			
S4-031225	Utilities + TCSS + CPW- SC 20/S20	36	17-Jul-13 A	15-Jan-14
S4-031230	Power supply cable ducts	36	20-Jul-13 A	15-Jan-14
	Road Lighting/ or High Mast			
S4-031250A	Public Lighting - cabling works	18	04-Oct-13 A	15-Jan-14
S4-031250	Public lighting - Lamp Pole + Lamps	24	20-Dec-13	18-Jan-14
S4-031250B	Public Lighting - power supply connection & test	18	30-Dec-13	18-Jan-14
	Roadworks			
A1040	Road Re-construction for Lane 4 (Fast Lane)	22	09-Oct-13 A	30-Nov-13 A
A1060	Road Re-construction for Lane 3 (2nd middle lane)	22	21-Oct-13 A	30-Nov-13 A
A1080	Road Re-construction for Lane 2 (1st middle lane)	22	15-Nov-13 A	28-Dec-13
A1010	NB14 (bay1-8) backfilling work complete	0		20-Nov-13 A
A1070	Stage 3 (Open Lane 3,4 & Close Lane 1,2)	0		07-Dec-13 A
A1090	Stage 4 (Open Lane 2 & Close HS)	0		28-Dec-13
A1100	Road Re-construction for Lane 1 (slow lane)	28	30-Dec-13	30-Jan-14
A1110	4 lane opening Complete (including slip Road)	0		30-Jan-14
S4-031260	Northbound road substantial completed in Zone 2	0	10-Feb-14	
	Z3: CH 1100 to CH 2000: SECT. 4 WORKS			
	Section Completion			
	Section Completion Date			
KD-300400B	ZONE 3 COMPLETE - KD4 Section 4	0		28-Feb-14
	TCSS Works			
	New Sign Gantry Construction			
	G21			
GS1900	Erect Column SL/FL	4	24-May-13 A	05-Dec-13 A
GS1910	Erect Gantry Beam	4	07-Dec-13 A	07-Dec-13 A
	G22			
GS1970	Erect Gantry Beam	1	22-Nov-13 A	23-Nov-13 A
	G62			
GS2135	Erect Column SL/FL	4	13-Aug-13 A	27-Dec-13
GS2140	Erect Gantry Beam	4	21-Dec-13	27-Dec-13
	TCSS E&M Works & Handover			
S4-0512765	Cabling works for Utilities/TCSS/Lighting	24	20-Sep-13 A	30-Jan-14
S4-0512780	T&C - power supply system to TCSS/Lighting	36	20-Sep-13 A	30-Jan-14
S4-0512785	Handover to TCSS Contractor	0		30-Jan-14
	Stage 1: Southbound Work- Ret. Wall, Noise B, Rd			
	Fill Slope S13 and NB21			
	Fill Slope S13			
S4-031130C	Fill Slope S13- u channels	363	12-Mar-12 A	16-Jan-14
S4-031130D	Fill Slope S13- metal works + hand rails etc.	236	15-Aug-12 A	16-Jan-14
	Stage 2 - Slip Rd L, Ret. Wall W11, W12			
	Slip Rd P			
S4-208231	Slip Rd P- road reconstruction, Stage 2	265	13-Jul-12 A	21-Dec-13 A
	SB: CH1260-1600, L=410m, Road&Drain+Utilities			
	Road Lighting/ or High Mast			
S4-050785B	Public Lighting - power supply connection & test	18	20-Dec-13	11-Jan-14
	Roadworks			
S4-0507845	Roadworks - base course to friction course	219	31-Aug-12 A	31-Dec-13
S4-0507850	Roadworks - road marking + furnitures	244	31-Aug-12 A	31-Dec-13
S4-0507865	Complete (divert SB traffic to RW10, B11A, RW8 area)	0	11-Jan-14	
	Stage 3: Central Median - Ret. Wall, Noise B, Rd			
	CM: CH1260-1600, L=410m, Road&Drain+Utilities			
	TCSS Works/Other Utlities			
S4-0512710	Power supply cable ducts	91	20-Feb-13 A	16-Jan-14
	Road Lighting/ or High Mast			
S4-051273A	Public Lighting - cabling works	91	20-Feb-13 A	16-Jan-14
S4-0512730	Public lighting - Lamp Pole + Lamps	23	06-Aug-13 A	16-Jan-14
S4-051273B	Public Lighting - power supply connection & test	12	03-Jan-14	16-Jan-14
	Roadworks			
S4-0512725	Roadworks - road marking + furnitures	18	11-Nov-13 A	28-Dec-13
S4-0512740	Road Works completed	0	17-Jan-14	
	Noise Barrier Structural Steel & Panels			
S4-208200	NB20 & NB23 NB Panels	160	15-Dec-12 A	17-Jan-14
	W20A + Slope S20			
	Cut Slope S20A			
S4-03120AA	Cut Slope S20A - excavation	30	20-Dec-13*	25-Jan-14
S4-03120AB	Cut Slope S20A - drainage/channels	30	15-Jan-14	27-Feb-14
	Stage 2: Northbound Work- Ret. Wall, Noise B, Rd			
	Modification of Existing Bridge No. 10 + Noise B			
	Bridge Roadworks & Furnitures			
S4-194870	Modify Coping (1st half from east end)-after W20A complete	80	07-Oct-13 A	23-Nov-13 A
S4-194899	Road Surfacing & Furnitures	18	20-Dec-13	11-Jan-14
S4-194889	Install noise barrier (2nd half to west end)	40	04-Jan-14	28-Feb-14
S4-194880	Install noise barrier (1st half from east end)	36	09-Jan-14	28-Feb-14



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

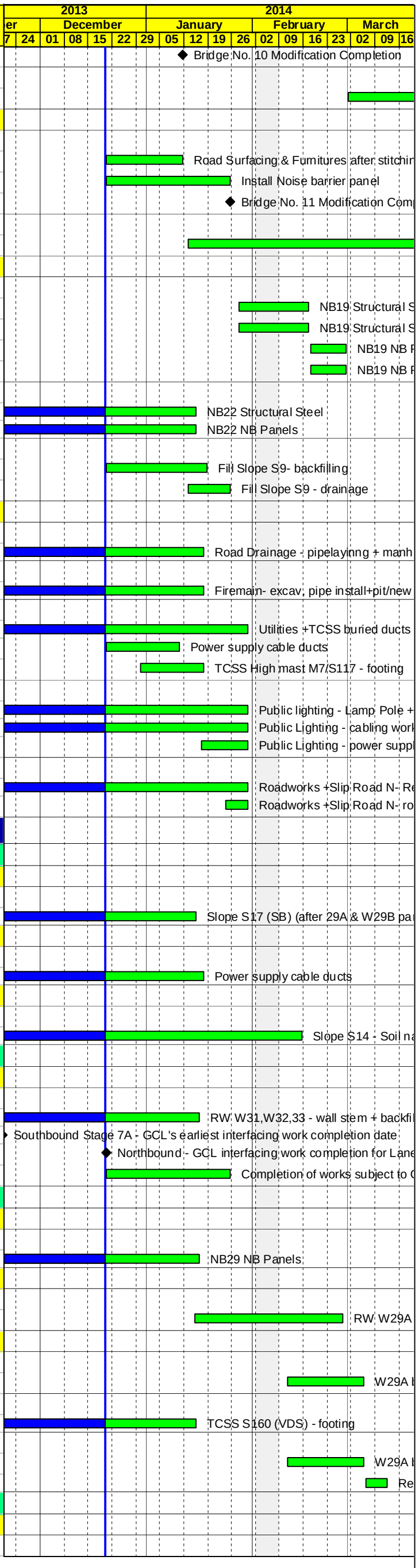
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
S4-194990	Bridge No. 10 Modification Completion	0		11-Jan-14
Remaining Work after Road opening				
S4-195894	Greenin works (Pending for VO of Deletion)	45	01-Mar-14	24-Apr-14
Modification of Existing Bridge No.11 + Noise B				
Bridge Roadworks & Furnitures				
S4-195895	Road Surfacing & Furnitures after stitching	18	20-Dec-13	11-Jan-14
S4-195910	Install Noise barrier panel	30	20-Dec-13	25-Jan-14
S4-195900	Bridge No. 11 Modification Completion	0		25-Jan-14
Remaining Work after Road opening				
S4-1958211	Greening works (Pending for VO of Deletion)	60	13-Jan-14	01-Apr-14
RW W9, Slope S9, & Noise Barrier NB19, NB22				
Noise Barrier NB19				
S4-207190	NB19 Structural Steel, 10 bays	10	28-Jan-14*	17-Feb-14
S4-207190A	NB19 Structural Steel, 21 bays	10	28-Jan-14*	17-Feb-14
S4-208190	NB19 NB Panels, 10 bays	10	18-Feb-14	28-Feb-14
S4-208190A	NB19 NB Panels, 21 bays	10	18-Feb-14	28-Feb-14
Noise Barrier NB22				
S4-207220	NB22 Structural Steel	13	20-Sep-13 A	15-Jan-14
S4-208220	NB22 NB Panels	24	20-Sep-13 A	15-Jan-14
Fill Slope S9				
S4-031095A	Fill Slope S9- backfilling	24	20-Dec-13*	18-Jan-14
S4-031095B	Fill Slope S9 - drainage	12	13-Jan-14	25-Jan-14
NB: CH1260-1750, L=410m, Road&Drain+Utilities				
Road Drainage				
S4-0512620	Road Drainage - pipelayinng + manhole	48	01-Aug-13 A	17-Jan-14
Firemain				
S4-0512630	Firemain- excav, pipe install+pit/new hydrants	24	17-Sep-13 A	17-Jan-14
TCSS Works/Other Utlities				
S4-0512635	Utilities +TCSS buried ducts + civil prov. works	36	21-Oct-13 A	30-Jan-14
S4-0512640	Power supply cable ducts	17	20-Dec-13*	10-Jan-14
S4-0512627	TCSS High mast M7/S117 - footing	17	30-Dec-13*	17-Jan-14
Road Lighting/ or High Mast				
S4-0512660	Public lighting - Lamp Pole + Lamps	36	21-Oct-13 A	30-Jan-14
S4-051266A	Public Lighting - cabling works	36	21-Oct-13 A	30-Jan-14
S4-051266B	Public Lighting - power supply connection & test	12	17-Jan-14	30-Jan-14
Roadworks				
S4-0512645	Roadworks +Slip Road N- Resurfacing	26	18-Oct-13 A	30-Jan-14
S4-0512655	Roadworks +Slip Road N- road marking + furnitures	6	24-Jan-14	30-Jan-14
Z4: CH 2000 to CH 2400: SECT. 2 WORKS				
Stage 1A: Southbound - S14-, RW21-28, TP7,Rd/Dr				
Retaining Wall W24 to W28 & Slope S17				
Cut Slope S17				
S2-031170	Slope S17 (SB) (after 29A & W29B part)	45	03-Jun-13 A	15-Jan-14
SB Road & Drain, Ch 2000-2200, L=200m				
TCSS Works/Other Utlities				
S2-031295	Power supply cable ducts	277	25-Jul-12 A	17-Jan-14
Cut Slope S14				
S2-031140E10	Slope S14 - Soil nail & remaining drainage work (VO343-additional ...	61	10-Jun-13 A	15-Feb-14
Stage 1B: Northbound- S15-S19, RW31-33, Rd/Dr				
Retaining Wall W30, W31, W32(Piled), W33				
Retaining Wall W31,32, 33				
S2-035325C10	RW W31,W32,33 - wall stem + backfill (5 months)	161	18-Mar-13 A	16-Jan-14
S2-GCL026	Southbound Stage 7A - GCL's earliest interfacing work completion d...	0		20-Nov-13 A
S2-GCL036	Northbound - GCL interfacing work completion for Lane 1,2,3 open	0		20-Dec-13*
S2-GCL046	Completion of works subject to GCL works completion	30	20-Dec-13	25-Jan-14
Stage 2A: Southbound- S17, RW 29-34, NB27-29				
Noise Barrier NB27, NB29				
Noise Barrier NB29				
S2-035350	NB29 NB Panels	7	16-Oct-13 A	16-Jan-14
Retaining Wall, W29 & NB27(@W29)				
Retaining Wall W29A				
S2-03529AB	RW W29A facing panel structure (bay 1)	30	15-Jan-14*	27-Feb-14
SB: CH2200-2400, L=200m, Road&Drain+Utilities				
Road Drainage				
S2-031250	W29A bay 1 road drainage after GCL TTA stage 6A	20	11-Feb-14	05-Mar-14
TCSS Works/Other Utlities				
S2-031287	TCSS S160 (VDS) - footing	23	14-Sep-13 A	15-Jan-14
Roadworks				
S2-031255	W29A bay 1 road work after GCL TTA stage 6A	20	11-Feb-14	05-Mar-14
S2-031265	Remaining roadwork to final pavement level after GCL TTA stage 6A	6	06-Mar-14	12-Mar-14
Stage 3: Central Median- NB26, NB29 +Road&Drain				
CM: NB26 & NB28 L=400m & Road&Drain+Utilities				
Noise Barrier Structural Steel & Panels				



Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway

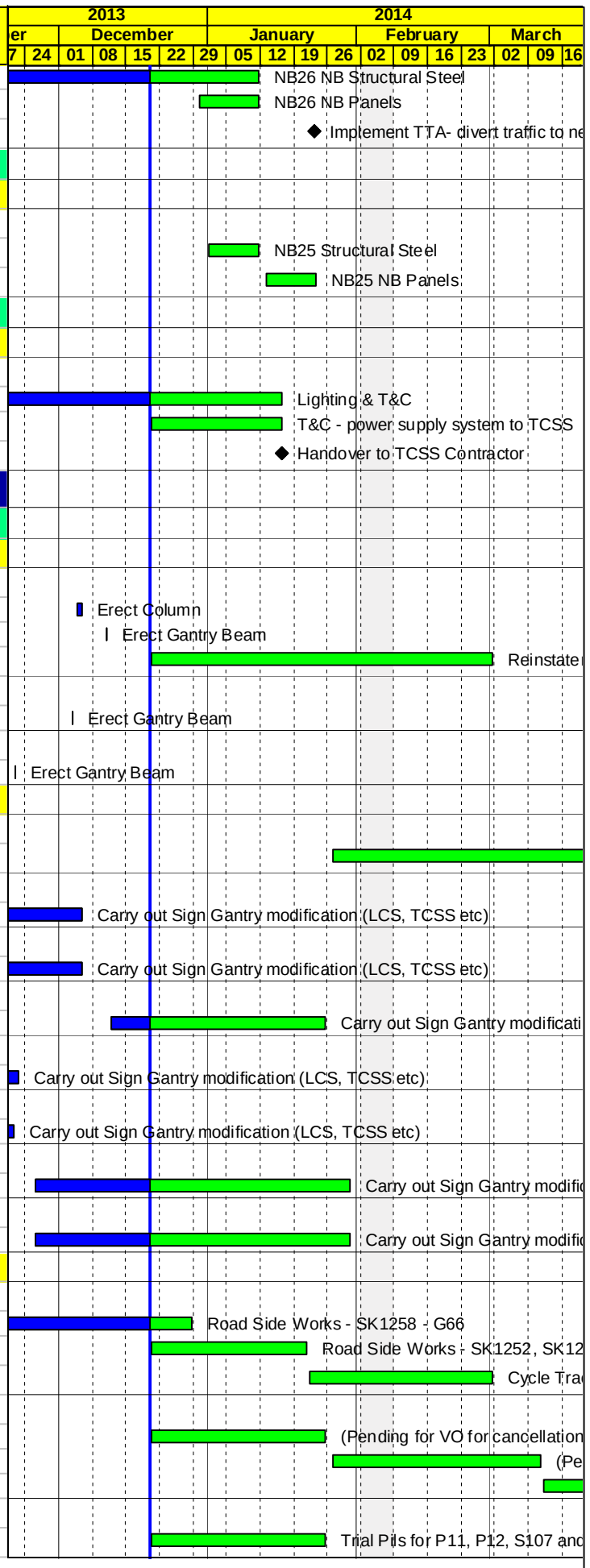
Between Island House Interchange and Fanling

(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme

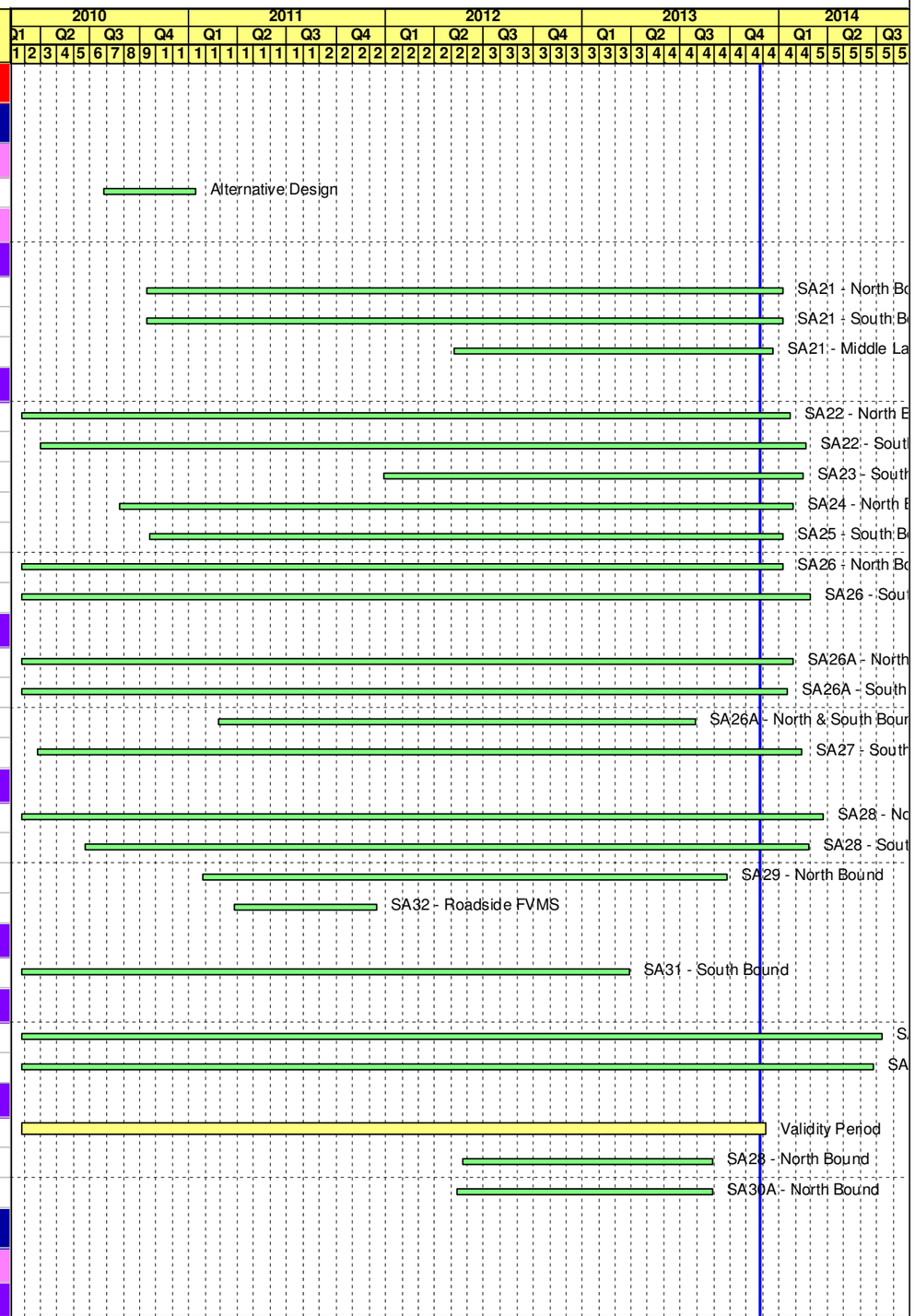
for the Period of 21 Dec 2013 to 20 Mar 2014

Activity ID	Activity Name	Original Durat...	Start	Finish
S2-208300	NB26 NB Structural Steel	7	08-Jul-13 A	11-Jan-14
S2-208310	NB26 NB Panels	12	30-Dec-13	11-Jan-14
S2-208395	Implement TTA- divert traffic to new SB, NB & CM	0	23-Jan-14	
Stage 2B: Northbound- NB25				
Noise Barrier NB25				
S4-207250	NB25 Structural Steel	10	01-Jan-14*	11-Jan-14
S4-208250	NB25 NB Panels	10	13-Jan-14	23-Jan-14
TCSS Works				
TCSS E&M Works & Handover				
S2-208420	Lighting & T&C	24	15-Oct-13 A	16-Jan-14
S2-208450	T&C - power supply system to TCSS	22	20-Dec-13	16-Jan-14
S2-208425	Handover to TCSS Contractor	0		16-Jan-14
Z6: TCSS IN PORTION SA11: SECT. 4 WORKS				
TCSS Works				
New Sign Gantry Construction				
G14 (Outside Site Boundary)				
GS1660	Erect Column	4	05-Dec-13 A	06-Dec-13 A
GS1670	Erect Gantry Beam	3	11-Dec-13 A	11-Dec-13 A
GS1680	Reinstatement & Shifting of traffic lane	52	20-Dec-13	01-Mar-14
G15				
GS1720	Erect Gantry Beam	4	04-Dec-13 A	04-Dec-13 A
G65				
GS2320	Erect Gantry Beam	2	22-Nov-13 A	22-Nov-13 A
Existing Sign Gantry Modification				
G13 (Substantial Modification Works of Sign Gantries)				
GS2410	Carry out Sign Gantry modification (LCS, TCSS etc)	52	27-Jan-14	05-Apr-14
G16				
GS2490	Carry out Sign Gantry modification (LCS, TCSS etc)	52	25-Jul-13 A	06-Dec-13 A
G17				
GS2570	Carry out Sign Gantry modification (LCS, TCSS etc)	52	25-Jul-13 A	06-Dec-13 A
G66 (Substantial Modification Works of Sign Gantries)				
GS2730	Carry out Sign Gantry modification (LCS, TCSS etc)	30	12-Dec-13 A	25-Jan-14
G68				
GS2890	Carry out Sign Gantry modification (LCS, TCSS etc)	52	18-Jun-13 A	22-Nov-13 A
G70				
GS2970	Carry out Sign Gantry modification (LCS, TCSS etc)	52	18-Jun-13 A	21-Nov-13 A
G75 (Substantial Modification Works of Sign Gantries)				
GS3290	Carry out Sign Gantry modification (LCS, TCSS etc)	52	26-Nov-13 A	30-Jan-14
G76 (Substantial Modification Works of Sign Gantries)				
GS3370	Carry out Sign Gantry modification (LCS, TCSS etc)	52	26-Nov-13 A	30-Jan-14
VO214, 223, 227 - Ground Works & Ducts Works for TCSS (Outside Site Boundary)				
VO214 -Outside site Boundary- Install UPVC Ducts for TCSS Works-Road Side Work				
GS3570	Road Side Works - SK1258 - G66	20	01-May-13 A	28-Dec-13
GS3490	Road Side Works - SK1252, SK1253 - G11 LHS (Case 113/111-112)	26	20-Dec-13	21-Jan-14
GS3530	Cycle Track G73 - G74 Sk1253	26	22-Jan-14	01-Mar-14
VO214 -Outside site Boundary- Install UPVC Ducts for TCSS Works-Cross Road Work				
GS3610	(Pending for VO for cancellation)Cross Road Ducts - SK1253 - P12 ...	30	20-Dec-13	25-Jan-14
GS3620	(Pending for VO for cancellation)Cross Road Ducts - SK1253 - P12 ...	30	27-Jan-14	11-Mar-14
GS3630	(Pending for VO for cancellation)Cross Road Ducts - SK1256 - P59 ...	30	12-Mar-14	15-Apr-14
SI-40 - 7 Nos of Trial Pits for P11, P12, S107 and P59				
GS3680	Trial Pils for P11, P12, S107 and P59	30	20-Dec-13	25-Jan-14



	Contract: HY/2008/09 **Widening of Tolo Highway / Fanling Highway** **Between Island House Interchange and Fanling** **(Stage 1 - Between Island House Interchange and Ma Wo)**	**Three Months Rolling Programme** **for the Period of 21 Dec 2013 to 20 Mar 2014**

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
HY/2009/08 TOLO HIGHWAY WIDENING, Update on 20131125						
EXECUTIVE SUMMARY						
Design						
A1330	Alternative Design		100%	292	26-Jul-10 A	14-Jan-11 A
Construction						
Section 1						
A1000	SA21 - North Bound	-97	95.6%	959	15-Oct-10 A	07-Jan-14
A1010	SA21 - South Bound	-97	94.82%	814	15-Oct-10 A	07-Jan-14
A1020	SA21 - Middle Lane	-79	91.27%	275	08-May-12 A	19-Dec-13
Section 2						
A1030	SA22 - North Bound	-53	94.49%	1016	26-Feb-10 A	20-Jan-14
A1040	SA22 - South Bound	-83	91.71%	1037	01-Apr-10 A	19-Feb-14
A1060	SA23 - South Bound	-77	79.51%	388	28-Dec-11 A	13-Feb-14
A1070	SA24 - North Bound	-58	92.25%	787	25-Aug-10 A	25-Jan-14
A1080	SA25 - South Bound	-53	94.34%	777	20-Oct-10 A	08-Jan-14
A1090	SA26 - North Bound	-41	96.38%	1216	26-Feb-10 A	08-Jan-14
A1100	SA26 - South Bound	-92	92.19%	1216	26-Feb-10 A	28-Feb-14
Section 3						
A1110	SA26A - North Bound	-12	94.88%	1191	26-Feb-10 A	25-Jan-14
A1120	SA26A - South Bound	-1	94.31%	879	26-Feb-10 A	14-Jan-14
A1130	SA26A - North & South Bound		100%	612	26-Feb-11 A	30-Jul-13 A
A1140	SA27 - South Bound	-28	90.74%	826	27-Mar-10 A	10-Feb-14
Section 4						
A1150	SA28 - North Bound	-57	90.45%	1216	26-Feb-10 A	22-Mar-14
A1160	SA28 - South Bound	-33	91.65%	1099	23-Jun-10 A	25-Feb-14
A1170	SA29 - North Bound		100%	909	26-Jan-11 A	26-Sep-13 A
A1180	SA32 - Roadside FVMS		100%	265	26-Mar-11 A	15-Dec-11 A
Section 5						
A1190	SA31 - South Bound		100%	884	26-Feb-10 A	28-Mar-13 A
Section 7						
A1200	SA41 - Site Office	-15	85.59%	1581	26-Feb-10 A	11-Jul-14
A1210	SA42 - Temporary Contractor's Works Area	0	86.6%	1582	25-Feb-10 A	25-Jun-14
Section 17 (Subject to Excision, Engineer may instruct within 819 days)						
A1300	Validity Period	202	98.6%	819	25-Feb-10 A	07-Dec-13
A1310	SA28 - North Bound		100%	34	24-May-12 A	31-Aug-13 A
A1320	SA30A - North Bound		100%	155	14-May-12 A	31-Aug-13 A
KEY DATES/ MILESTONES						
Portion Handover Dates						
Section 1 (Site Area SA21)						



Project ID: J3318-UPDATE 2013NOV
Project Name: HY/2009/08 TOLO HIGHWAY WIDENING...
Print Date:27-Nov-13
Data Date: 26-Nov-13
Page 1 **of** 47

Current Bar
Level of Effort
Critical
Milestone

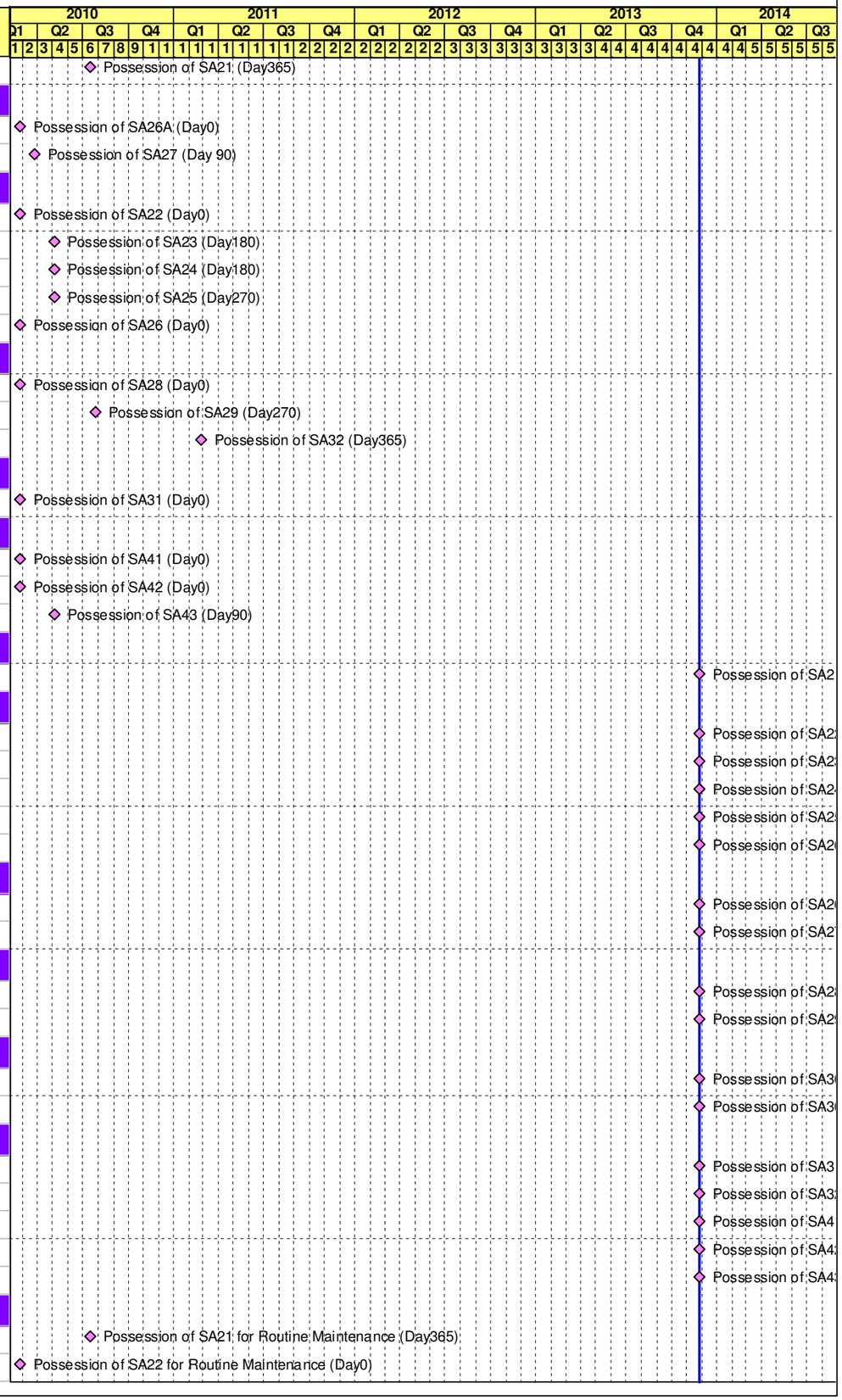
Highways Department - Contract No. HY/2009/08

Widening of Tolo Highway/ Fanling Highway
Stage 1 - Between Ma Wo and Tai Hang

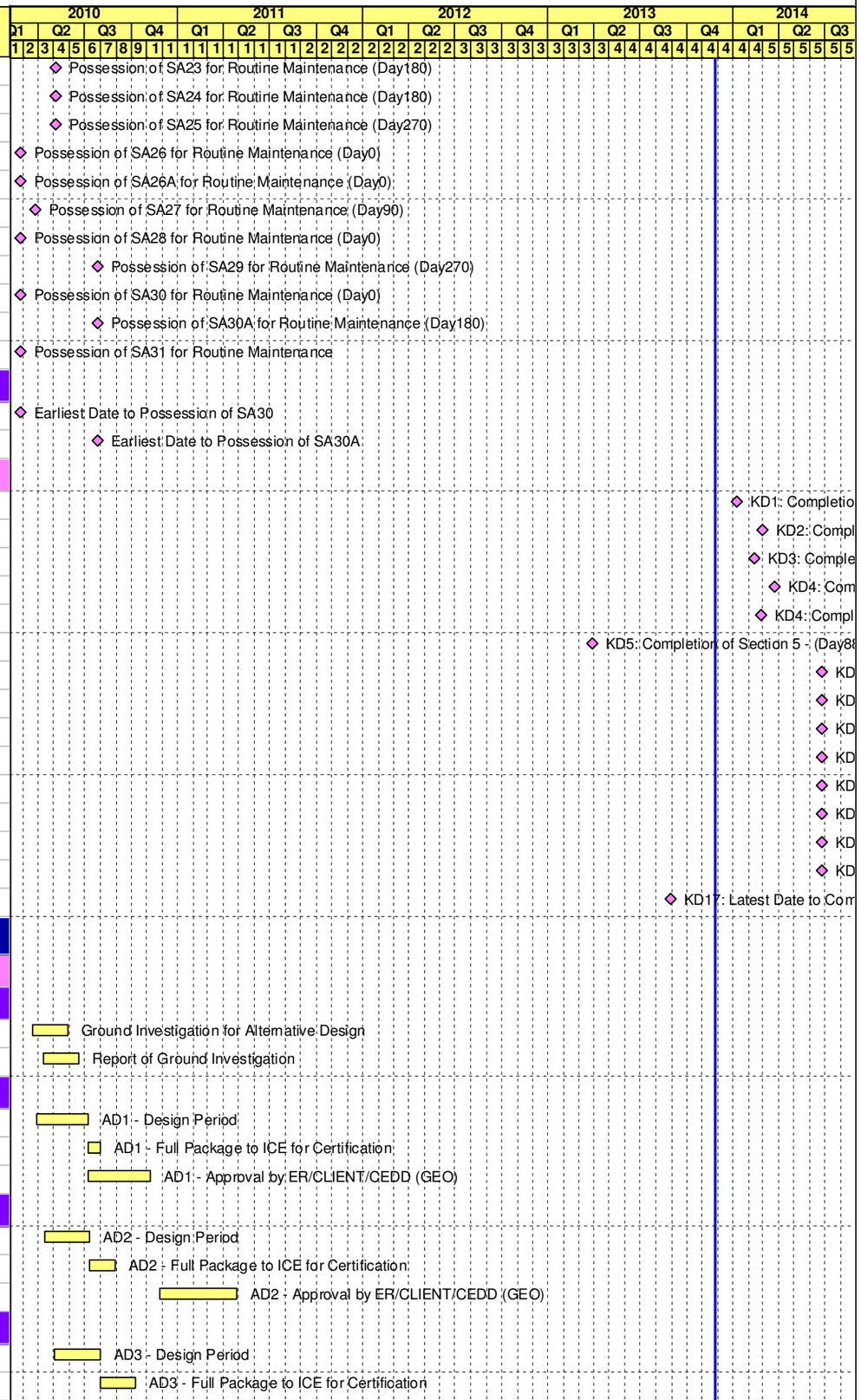
Updated Works Programme, 26 November 2013

UWP Revision			
Date	Revision	Checked	Approved
26-Nov-13	UWP November. 2013	WY	JC

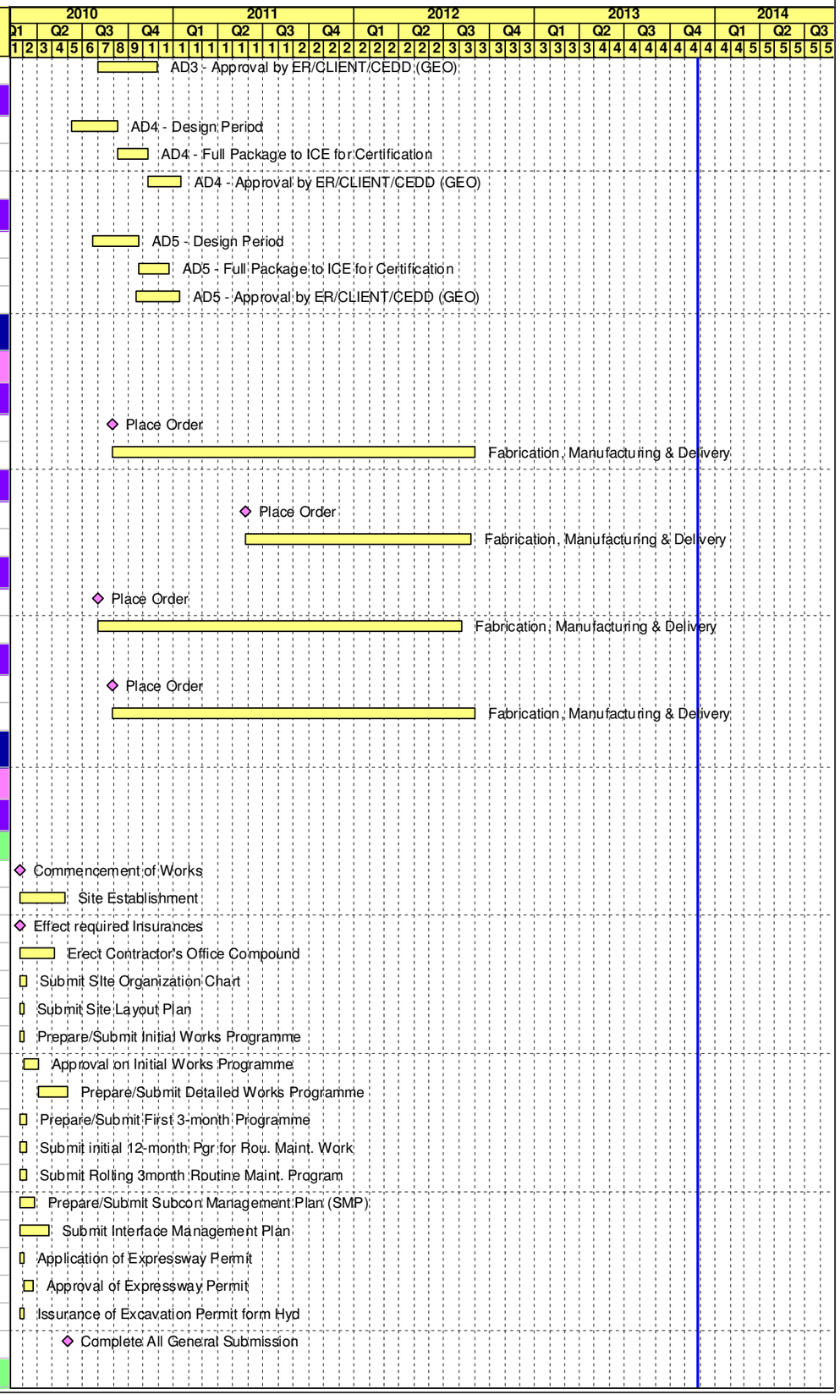
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
PHSA2100	Possession of SA21 (Day365)		100%	0	16-Jul-10 A	
Section 3 (Site Area SA26A and SA 27)						
PHSA26A0	Possession of SA26A (Day0)		100%	0	26-Feb-10 A	
PHSA2700	Possession of SA27 (Day 90)		100%	0	26-Mar-10 A	
Section 2 (Site Area SA22, SA23, SA24, SA25 and SA26)						
PHSA2200	Possession of SA22 (Day0)		100%	0	26-Feb-10 A	
PHSA2300	Possession of SA23 (Day180)		100%	0	04-May-10 A	
PHSA2400	Possession of SA24 (Day180)		100%	0	04-May-10 A	
PHSA2500	Possession of SA25 (Day270)		100%	0	04-May-10 A	
PHSA2600	Possession of SA26 (Day0)		100%	0	26-Feb-10 A	
Section 4 (Site Area SA28, SA29 and SA32)						
PHSA2800	Possession of SA28 (Day0)		100%	0	26-Feb-10 A	
PHSA2900	Possession of SA29 (Day270)		100%	0	27-Jul-10 A	
PHSA3200	Possession of SA32 (Day365)		100%	0	25-Feb-11 A	
Section 5 (Site Area SA31)						
PHSA3100	Possession of SA31 (Day0)		100%	0	26-Feb-10 A	
Section 7 (All Works Except Works Included in Other Sections)						
PHSA4100	Possession of SA41 (Day0)		100%	0	26-Feb-10 A	
PHSA4200	Possession of SA42 (Day0)		100%	0	26-Feb-10 A	
PHSA4300	Possession of SA43 (Day90)		100%	0	04-May-10 A	
Section 8 (Estiblishment Works in Site Area SA21)						
PHSA2110	Possession of SA21 (Day1217)	-152	0%	0	26-Nov-13	
Section 9 (Estiblishment Works in Site Area SA22, SA23, SA24, SA25 and SA26)						
PHSA2210	Possession of SA22 (Day1217)	-152	0%	0	26-Nov-13	
PHSA2310	Possession of SA23 (Day1217)	-152	0%	0	26-Nov-13	
PHSA2420	Possession of SA24 (Day1217)	-152	0%	0	26-Nov-13	
PHSA2510	Possession of SA25 (Day1217)	-152	0%	0	26-Nov-13	
PHSA2610	Possession of SA26 (Day1217)	-152	0%	0	26-Nov-13	
Section 10 (Estiblishment Works in Site Area SA26A and SA27)						
PHSA26A1	Possession of SA26A (Day1217)	-152	0%	0	26-Nov-13	
PHSA2710	Possession of SA27 (Day1217)	-152	0%	0	26-Nov-13	
Section 11 (Estiblishment Works in Site Area SA28 and SA29)						
PHSA2810	Possession of SA28 (Day1217)	-152	0%	0	26-Nov-13	
PHSA2910	Possession of SA29 (Day1217)	-152	0%	0	26-Nov-13	
Section 12 (Estiblishment Works in Site Area SA30 and SA30A)						
PHSA3000	Possession of SA30 (Day1217)	-152	0%	0	26-Nov-13	
PHSA30A0	Possession of SA30A (Day1217)	-152	0%	0	26-Nov-13	
Section 13 (Remainder of Estiblishment Works)						
PHSA3110	Possession of SA31 (Day1217)	-128	0%	0	26-Nov-13*	
PHSA3220	Possession of SA32 (Day1217)	-128	0%	0	26-Nov-13*	
PHSA4120	Possession of SA41 (Day1217)	-128	0%	0	26-Nov-13*	
PHSA4220	Possession of SA42 (Day1217)	-128	0%	0	26-Nov-13*	
PHSA4330	Possession of SA43 (Day1217)	-128	0%	0	26-Nov-13*	
Section 14 Comprises Routine Maintenance of Road Network in Site Area SA21 to SA31)						
PHSA2130	Possession of SA21 for Routine Maintenance (Day365)		100%	0	16-Jul-10 A	
PHSA2230	Possession of SA22 for Routine Maintenance (Day0)		100%	0	26-Feb-10 A	



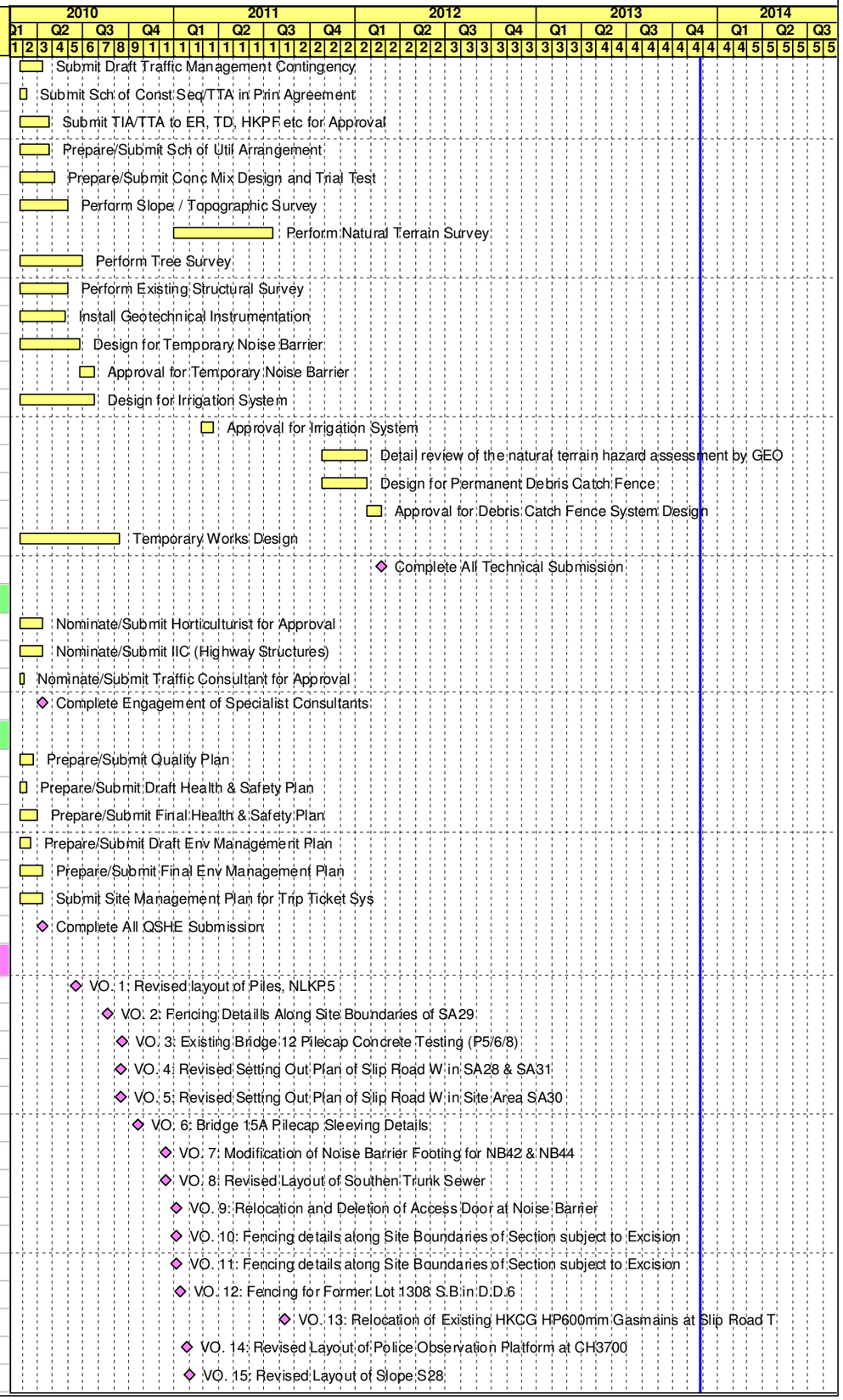
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
PHSA2330	Possession of SA23 for Routine Maintenance (Day180)		100%	0	04-May-10 A	
PHSA2430	Possession of SA24 for Routine Maintenance (Day180)		100%	0	04-May-10 A	
PHSA2530	Possession of SA25 for Routine Maintenance (Day270)		100%	0	04-May-10 A	
PHSA2630	Possession of SA26 for Routine Maintenance (Day0)		100%	0	26-Feb-10 A	
PHSA26A3	Possession of SA26A for Routine Maintenance (Day0)		100%	0	26-Feb-10 A	
PHSA2730	Possession of SA27 for Routine Maintenance (Day90)		100%	0	26-Mar-10 A	
PHSA2830	Possession of SA28 for Routine Maintenance (Day0)		100%	0	26-Feb-10 A	
PHSA2930	Possession of SA29 for Routine Maintenance (Day270)		100%	0	27-Jul-10 A	
PHSA3060	Possession of SA30 for Routine Maintenance (Day0)		100%	0	26-Feb-10 A	
PHSA30A4	Possession of SA30A for Routine Maintenance (Day180)		100%	0	27-Jul-10 A	
PHSA3130	Possession of SA31 for Routine Maintenance		100%	0	26-Feb-10 A	
Section 17 (Subject to Excision and Instruct by Engineer within 819 days)						
PHSA3030	Earliest Date to Possession of SA30		100%	0	26-Feb-10 A	
PHSA30A3	Earliest Date to Possession of SA30A		100%	0	27-Jul-10 A	
Key Dates (include EOT GCL submitted and awarded upto Jun 2013)						
HDS01000	KD1: Completion of Section 1 - (Day1216)	-97	0%	0		07-Jan-14*
HDS02000	KD2: Completion of Section 2 - (Day1216)	-92	0%	0		28-Feb-14*
HDS03000	KD3: Completion of Section 3 - (Day1216)	-30	0%	0		12-Feb-14*
HDS04000	KD4: Completion of Section 4 - (Day1216) - Overall Completion of Works	-57	0%	0		22-Mar-14*
HDS04100	KD4: Completion of Section 4 - (Day1216) - Substantial Completion for Road Open...	-25	0%	0		25-Feb-14*
HDS05000	KD5: Completion of Section 5 - (Day884)		100%	0		28-Mar-13 A
HDS07000	KD7: Completion of Section 7 - (Day1581)	0	0%	0		25-Jun-14*
HDS08000	KD8: Completion of Section 8 - (Day1581)	0	0%	0		25-Jun-14*
HDS09000	KD9: Completion of Section 9 - (Day1581)	0	0%	0		25-Jun-14*
HDS10000	KD10: Completion of Section 10 - (Day1581)	0	0%	0		25-Jun-14*
HDS11000	KD11: Completion of Section 11 - (Day1581)	0	0%	0		25-Jun-14*
HDS12000	KD12: Completion of Section 12 - (Day1581)	0	0%	0		25-Jun-14*
HDS13000	KD13: Completion of Section 13 - (Day1581)	0	0%	0		25-Jun-14*
HDS14000	KD14: Completion of Section 14 - (Day1581)	0	0%	0		25-Jun-14*
HDS17000	KD17: Latest Date to Compl of Section 17 - (Day397) Subject to Excision		100%	0		31-Aug-13 A
DESIGN SUBMISSION						
Alternative Design						
Ground Investigation & Reporting						
AD000010	Ground Investigation for Alternative Design		100%	54	22-Mar-10 A	29-May-10 A
AD000020	Report of Ground Investigation		100%	56	12-Apr-10 A	18-Jun-10 A
Package AD1: W56B						
AD000110	AD1 - Design Period		100%	80	29-Mar-10 A	08-Jul-10 A
AD000120	AD1 - Full Package to ICE for Certification		100%	20	09-Jul-10 A	31-Jul-10 A
AD000130	AD1 - Approval by ER/CLIENT/CEDD (GEO)		100%	101	09-Jul-10 A	06-Nov-10 A
Package AD2: W57B						
AD000210	AD2 - Design Period		100%	72	14-Apr-10 A	10-Jul-10 A
AD000220	AD2 - Full Package to ICE for Certification		100%	44	12-Jul-10 A	31-Aug-10 A
AD000230	AD2 - Approval by ER/CLIENT/CEDD (GEO)		100%	172	26-Nov-10 A	26-Apr-11 A
Package AD3: W69						
AD000310	AD3 - Design Period		100%	75	03-May-10 A	31-Jul-10 A
AD000320	AD3 - Full Package to ICE for Certification		100%	57	02-Aug-10 A	08-Oct-10 A



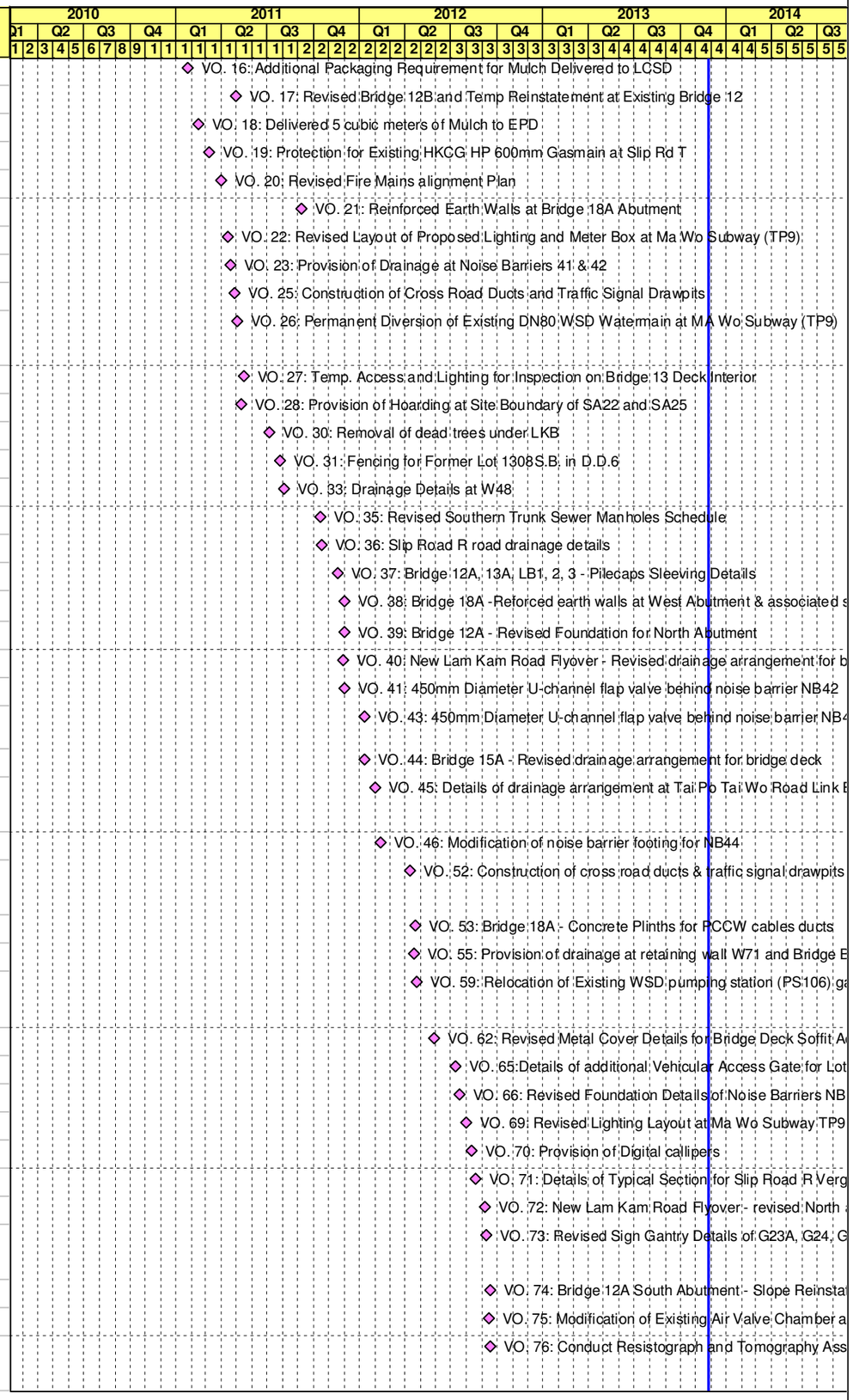
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
AD000330	AD3 - Approval by ER/CLIENT/CEDD (GEO)		100%	100	02-Aug-10 A	29-Nov-10 A
Package AD4: W38						
AD000410	AD4 - Design Period		100%	78	09-Jun-10 A	09-Sep-10 A
AD000420	AD4 - Full Package to ICE for Certification		100%	18	10-Sep-10 A	09-Nov-10 A
AD000430	AD4 - Approval by ER/CLIENT/CEDD (GEO)		100%	54	11-Nov-10 A	15-Jan-11 A
Package AD5 (Noise Barrier Foundation): NB38, NB39, NB41 & NB43						
AD000510	AD5 - Design Period		100%	98	21-Jul-10 A	22-Oct-10 A
AD000520	AD5 - Full Package to ICE for Certification		100%	51	23-Oct-10 A	22-Dec-10 A
AD000530	AD5 - Approval by ER/CLIENT/CEDD (GEO)		100%	74	18-Oct-10 A	14-Jan-11 A
MATERIALS PROCUREMENT						
Major Materials (Detail shall refer to supplementary information)						
Water Works						
MA001010	Place Order		100%	0	31-Aug-10 A	
MA001030	Fabrication, Manufacturing & Delivery		100%	900	31-Aug-10 A	31-Aug-12 A
Vehicular Parapet SSD161						
MA001050	Place Order		100%	0	26-May-11 A	
MA001060	Fabrication, Manufacturing & Delivery		100%	350	26-May-11 A	24-Aug-12 A
Bearing						
MA001070	Place Order		100%	0	31-Jul-10 A	
MA001080	Fabrication, Manufacturing & Delivery		100%	630	31-Jul-10 A	05-Aug-12 A
Movement Joint						
MA001090	Place Order		100%	0	31-Aug-10 A	
MA001100	Fabrication, Manufacturing & Delivery		100%	620	31-Aug-10 A	31-Aug-12 A
CONSTRUCTION PHASE						
Preliminaries & General Requirement						
Preliminaries						
General Submissions						
PR000000	Commencement of Works		100%	0	26-Feb-10 A	
PR001000	Site Establishment		100%	90	26-Feb-10 A	25-May-10 A
PR001010	Effect required Insurances		100%	0	26-Feb-10 A	
PR001030	Erect Contractor's Office Compound		100%	69	26-Feb-10 A	04-May-10 A
PR001040	Submit SIte Organization Chart		100%	14	26-Feb-10 A	10-Mar-10 A
PR001050	Submit Site Layout Plan		100%	7	26-Feb-10 A	03-Mar-10 A
PR001060	Prepare/Submit Initial Works Programme		100%	7	26-Feb-10 A	03-Mar-10 A
PR001070	Approval on Initial Works Programme		100%	30	04-Mar-10 A	02-Apr-10 A
PR001080	Prepare/Submit Detailed Works Programme		100%	58	03-Apr-10 A	30-May-10 A
PR001090	Prepare/Submit First 3-month Programme		100%	14	26-Feb-10 A	10-Mar-10 A
PR001100	Submit initial 12-month Pgr for Rou. Maint. Work		100%	14	26-Feb-10 A	10-Mar-10 A
PR001110	Submit Rolling 3month Routine Maint. Program		100%	14	26-Feb-10 A	10-Mar-10 A
PR001170	Prepare/Submit Subcon Management Plan (SMP)		100%	30	26-Feb-10 A	26-Mar-10 A
PR001200	Submit Interface Management Plan		100%	60	26-Feb-10 A	25-Apr-10 A
PR001242	Application of Expressway Permit		100%	7	26-Feb-10 A	03-Mar-10 A
PR001244	Approval of Expressway Permit		100%	21	04-Mar-10 A	24-Mar-10 A
PR001246	Issurance of Excavation Permit form Hyd		100%	7	26-Feb-10 A	03-Mar-10 A
PR001256	Complete All General Submission		100%	0		30-May-10 A
Technical Submission						



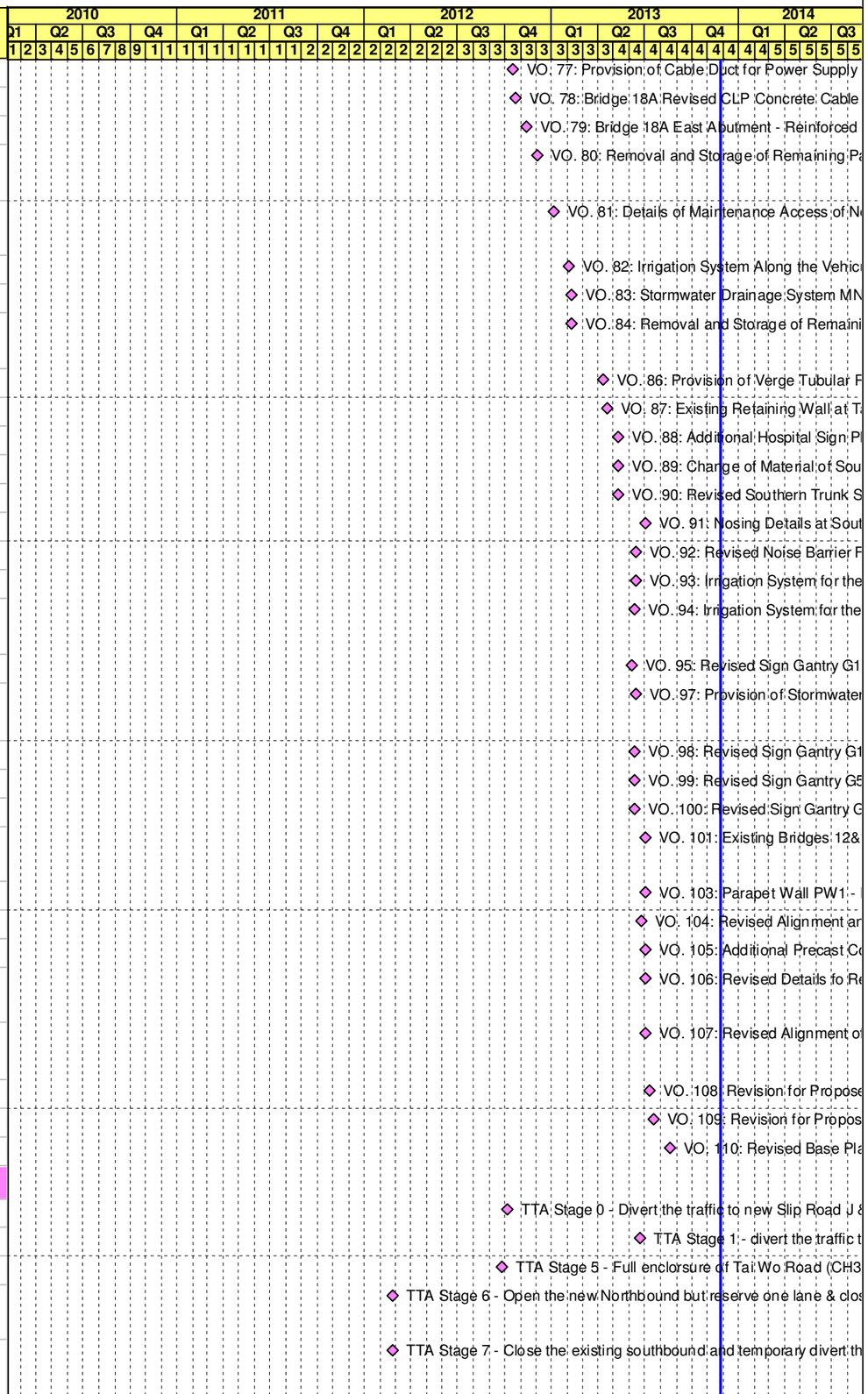
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
PR001250	Submit Draft Traffic Management Contingency		100%	45	26-Feb-10 A	10-Apr-10 A
PR001260	Submit Sch of Const Seq/TTA in Prin Agreement		100%	14	26-Feb-10 A	10-Mar-10 A
PR001270	Submit TIA/TTA to ER, TD, HKPF etc for Approval		100%	60	26-Feb-10 A	25-Apr-10 A
PR001280	Prepare/Submit Sch of Util Arrangement		100%	60	26-Feb-10 A	25-Apr-10 A
PR001290	Prepare/Submit Conc Mix Design and Trial Test		100%	70	26-Feb-10 A	05-May-10 A
PR001300	Perform Slope / Topographic Survey		100%	95	26-Feb-10 A	30-May-10 A
PR001310	Perform Natural Terrain Survey		100%	200	01-Jan-11 A	19-Jul-11 A
PR001320	Perform Tree Survey		100%	125	26-Feb-10 A	29-Jun-10 A
PR001330	Perform Existing Structural Survey		100%	95	26-Feb-10 A	30-May-10 A
PR001340	Install Geotechnical Instrumentation		100%	90	26-Feb-10 A	25-May-10 A
PR001350	Design for Temporary Noise Barrier		100%	120	26-Feb-10 A	24-Jun-10 A
PR001360	Approval for Temporary Noise Barrier		100%	30	26-Jun-10 A	24-Jul-10 A
PR001370	Design for Irrigation System		100%	150	26-Feb-10 A	24-Jul-10 A
PR001380	Approval for Irrigation System		100%	24	26-Feb-11 A	21-Mar-11 A
PR001385	Detail review of the natural terrain hazard assessment by GEO		100%	90	26-Oct-11 A	23-Jan-12 A
PR001390	Design for Permanent Debris Catch Fence		100%	90	26-Oct-11 A	23-Jan-12 A
PR001400	Approval for Debris Catch Fence System Design		100%	30	24-Jan-12 A	22-Feb-12 A
PR001410	Temporary Works Design		100%	200	26-Feb-10 A	12-Sep-10 A
PR001420	Complete All Technical Submission		100%	0		22-Feb-12 A
Specialist Consultants						
PR001220	Nominate/Submit Horticulturist for Approval		100%	45	26-Feb-10 A	10-Apr-10 A
PR001230	Nominate/Submit IIC (Highway Structures)		100%	45	26-Feb-10 A	10-Apr-10 A
PR001240	Nominate/Submit Traffic Consultant for Approval		100%	7	26-Feb-10 A	03-Mar-10 A
PR001440	Complete Engagement of Specialist Consultants		100%	0		10-Apr-10 A
QSHE Submission						
PR001120	Prepare/Submit Quality Plan		100%	28	26-Feb-10 A	24-Mar-10 A
PR001130	Prepare/Submit Draft Health & Safety Plan		100%	14	26-Feb-10 A	10-Mar-10 A
PR001140	Prepare/Submit Final Health & Safety Plan		100%	35	26-Feb-10 A	31-Mar-10 A
PR001150	Prepare/Submit Draft Env Management Plan		100%	21	26-Feb-10 A	17-Mar-10 A
PR001160	Prepare/Submit Final Env Management Plan		100%	45	26-Feb-10 A	10-Apr-10 A
PR001180	Submit Site Management Plan for Trip Ticket Sys		100%	45	26-Feb-10 A	10-Apr-10 A
PR001430	Complete All QSHE Submission		100%	0		10-Apr-10 A
Variation Orders						
VO000010	VO. 1: Revised layout of Piles, NLKP5		100%	0	17-Jun-10 A	
VO000020	VO. 2: Fencing Detaills Along Site Boundaries of SA29		100%	0	20-Aug-10 A	
VO000030	VO. 3: Existing Bridge 12 Pilecap Concrete Testing (P5/6/8)		100%	0	17-Sep-10 A	
VO000040	VO. 4: Revised Setting Out Plan of Slip Road W in SA28 & SA31		100%	0	15-Sep-10 A	
VO000050	VO. 5: Revised Setting Out Plan of Slip Road W in Site Area SA30		100%	0	15-Sep-10 A	
VO000060	VO. 6: Bridge 15A Pilecap Sleeving Details		100%	0	19-Oct-10 A	
VO000070	VO. 7: Modification of Noise Barrier Footing for NB42 & NB44		100%	0	14-Dec-10 A	
VO000080	VO. 8: Revised Layout of Southen Trunk Sewer		100%	0	15-Dec-10 A	
VO000090	VO. 9: Relocation and Deletion of Access Door at Noise Barrier		100%	0	04-Jan-11 A	
VO000100	VO. 10: Fencing details along Site Boundaries of Section subject to Excision		100%	0	04-Jan-11 A	
VO000110	VO. 11: Fencing details along Site Boundaries of Section subject to Excision		100%	0	04-Jan-11 A	
VO000120	VO. 12: Fencing for Former Lot 1308 S.B in D.D.6		100%	0	12-Jan-11 A	
VO000130	VO. 13: Relocation of Existing HKCG HP600mm Gasmains at Slip Road T		100%	0	12-Aug-11 A	
VO000140	VO. 14: Revised Layout of Police Observation Platform at CH3700		100%	0	27-Jan-11 A	
VO000150	VO. 15: Revised Layout of Slope S28		100%	0	01-Feb-11 A	



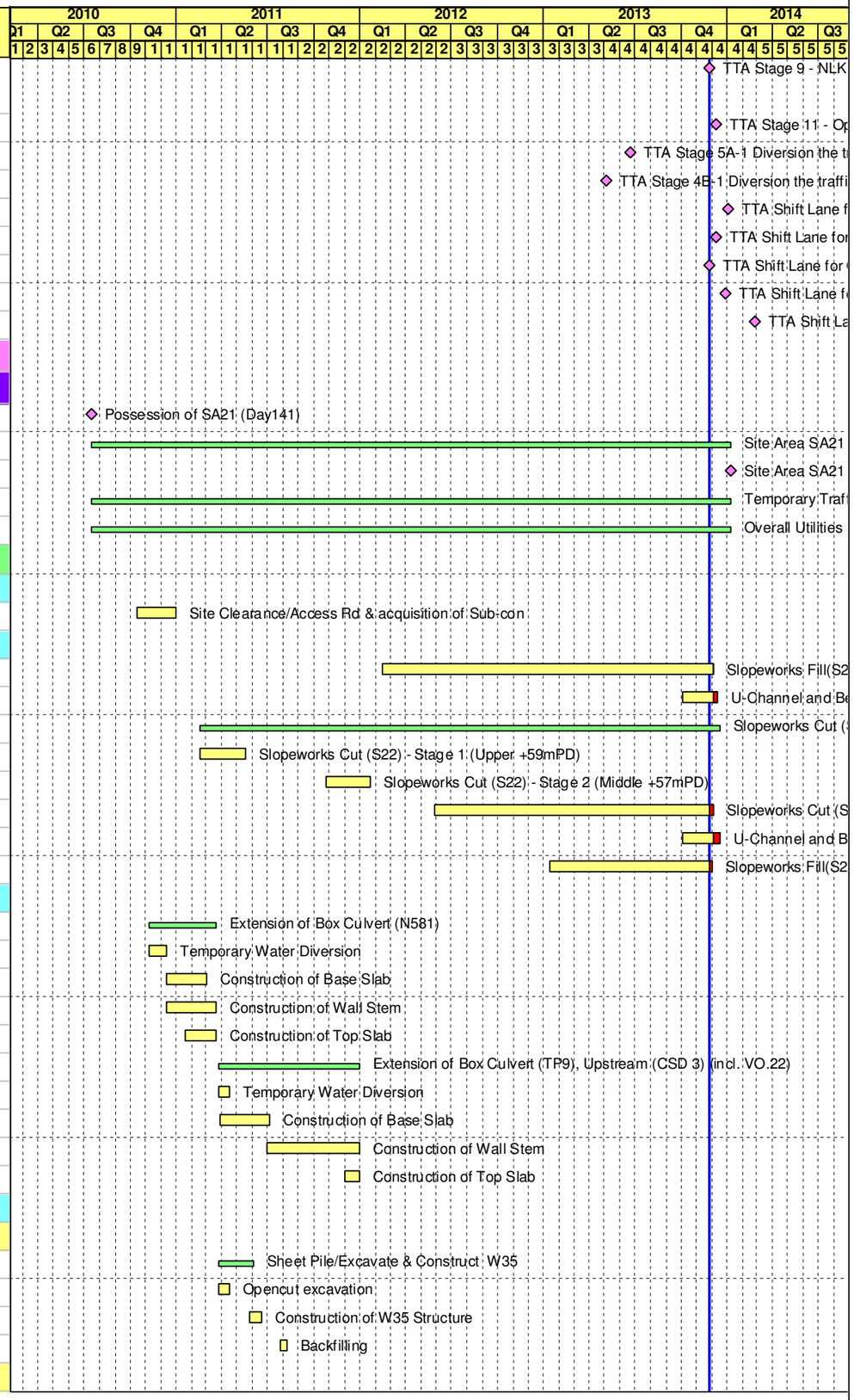
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
VO000160	VO. 16: Additional Packaging Requirement for Mulch Delivered to LCSD		100%	0	25-Jan-11 A	
VO000170	VO. 17: Revised Bridge 12B and Temp Reinstatement at Existing Bridge 12		100%	0	30-Apr-11 A	
VO000180	VO. 18: Delivered 5 cubic meters of Mulch to EPD		100%	0	15-Feb-11 A	
VO000190	VO. 19: Protection for Existing HKCG HP 600mm Gasmain at Slip Rd T		100%	0	07-Mar-11 A	
VO000200	VO. 20: Revised Fire Mains alignment Plan		100%	0	31-Mar-11 A	
VO000210	VO. 21: Reinforced Earth Walls at Bridge 18A Abutment		100%	0	07-Sep-11 A	
VO000220	VO. 22: Revised Layout of Proposed Lighting and Meter Box at Ma Wo Subway (T...		100%	0	15-Apr-11 A	
VO000230	VO. 23: Provision of Drainage at Noise Barriers 41 & 42		100%	0	20-Apr-11 A	
VO000250	VO. 25: Construction of Cross Road Ducts and Traffic Signal Drawpits		100%	0	27-Apr-11 A	
VO000260	VO. 26: Permanent Diversion of Existing DN80 WSD Watermain at MA Wo Subway (TP9)		100%	0	03-May-11 A	
VO000270	VO. 27: Temp. Access and Lighting for Inspection on Bridge 13 Deck Interior		100%	0	16-May-11 A	
VO000280	VO. 28: Provision of Hoarding at Site Boundary of SA22 and SA25		100%	0	11-May-11 A	
VO000300	VO. 30: Removal of dead trees under LKB		100%	0	05-Jul-11 A	
VO000310	VO. 31: Fencing for Former Lot 1308S.B. in D.D.6		100%	0	27-Jul-11 A	
VO000330	VO. 33: Drainage Details at W48		100%	0	03-Aug-11 A	
VO000350	VO. 35: Revised Southern Trunk Sewer Manholes Schedule		100%	0	14-Oct-11 A	
VO000360	VO. 36: Slip Road R road drainage details		100%	0	17-Oct-11 A	
VO000370	VO. 37: Bridge 12A, 13A, LB1, 2, 3 - Pilecaps Sleeving Details		100%	0	18-Nov-11 A	
VO000380	VO. 38: Bridge 18A -Reforced earth walls at West Abutment & associated slope works		100%	0	03-Dec-11 A	
VO000390	VO. 39: Bridge 12A - Revised Foundation for North Abutment		100%	0	03-Dec-11 A	
VO000400	VO. 40: New Lam Kam Road Flyover - Revised drainage arrangement for bridge d...		100%	0	30-Nov-11 A	
VO000410	VO. 41: 450mm Diameter U-channel flap valve behind noise barrier NB42		100%	0	01-Dec-11 A	
VO000430	VO. 43: 450mm Diameter U-channel flap valve behind noise barrier NB42		100%	0	12-Jan-12 A	
VO000440	VO. 44: Bridge 15A - Revised drainage arrangement for bridge deck		100%	0	12-Jan-12 A	
VO000450	VO. 45: Details of drainage arrangement at Tai Po Tai Wo Road Link Bridge 1 & Bridge B13A		100%	0	31-Jan-12 A	
VO000460	VO. 46: Modification of noise barrier footing for NB44		100%	0	13-Feb-12 A	
VO000520	VO. 52: Construction of cross road ducts & traffic signal drawpits at proposed crossing point of Tai Wo Service Road Wes		100%	0	10-Apr-12 A	
VO000530	VO. 53: Bridge 18A - Concrete Plinths for PCCW cables ducts		100%	0	20-Apr-12 A	
VO000550	VO. 55: Provision of drainage at retaining wall W71 and Bridge B18A		100%	0	18-Apr-12 A	
VO000590	VO. 59: Relocation of Existing WSD pumping station (PS106) gate at Hong Lok Yuen Road		100%	0	23-Apr-12 A	
VO000620	VO. 62: Revised Metal Cover Details for Bridge Deck Soffit Access		100%	0	29-May-12 A	
VO000650	VO. 65:Details of additional Vehicular Access Gate for Lot 412 at Tai Wo Servise ...		100%	0	09-Jul-12 A	
VO000660	VO. 66: Revised Foundation Details of Noise Barriers NB36		100%	0	19-Jul-12 A	
VO000690	VO. 69: Revised Lighting Layout at Ma Wo Subway TP9		100%	0	01-Aug-12 A	
VO000700	VO. 70: Provision of Digital callipers		100%	0	10-Aug-12 A	
VO000710	VO. 71: Details of Typical Section for Slip Road R Verge at AUE Wall		100%	0	20-Aug-12 A	
VO000720	VO. 72: New Lam Kam Road Flyover - revised North and South Ramps Retaining ...		100%	0	06-Sep-12 A	
VO000730	VO. 73: Revised Sign Gantry Details of G23A, G24, G25, G26, G27, G28, G29, G56, G57,G58, G59, G60, G60A, G101		100%	0	11-Sep-12 A	
VO000740	VO. 74: Bridge 12A South Abutment - Slope Reinstatement Works		100%	0	18-Sep-12 A	
VO000750	VO. 75: Modification of Existing Air Valve Chamber at Slip Road W		100%	0	14-Sep-12 A	
VO000760	VO. 76: Conduct Resistograph and Tomography Assessment to the Internal Decay of Important Tree T13076 at LKR Intercharge		100%	0	19-Sep-12 A	



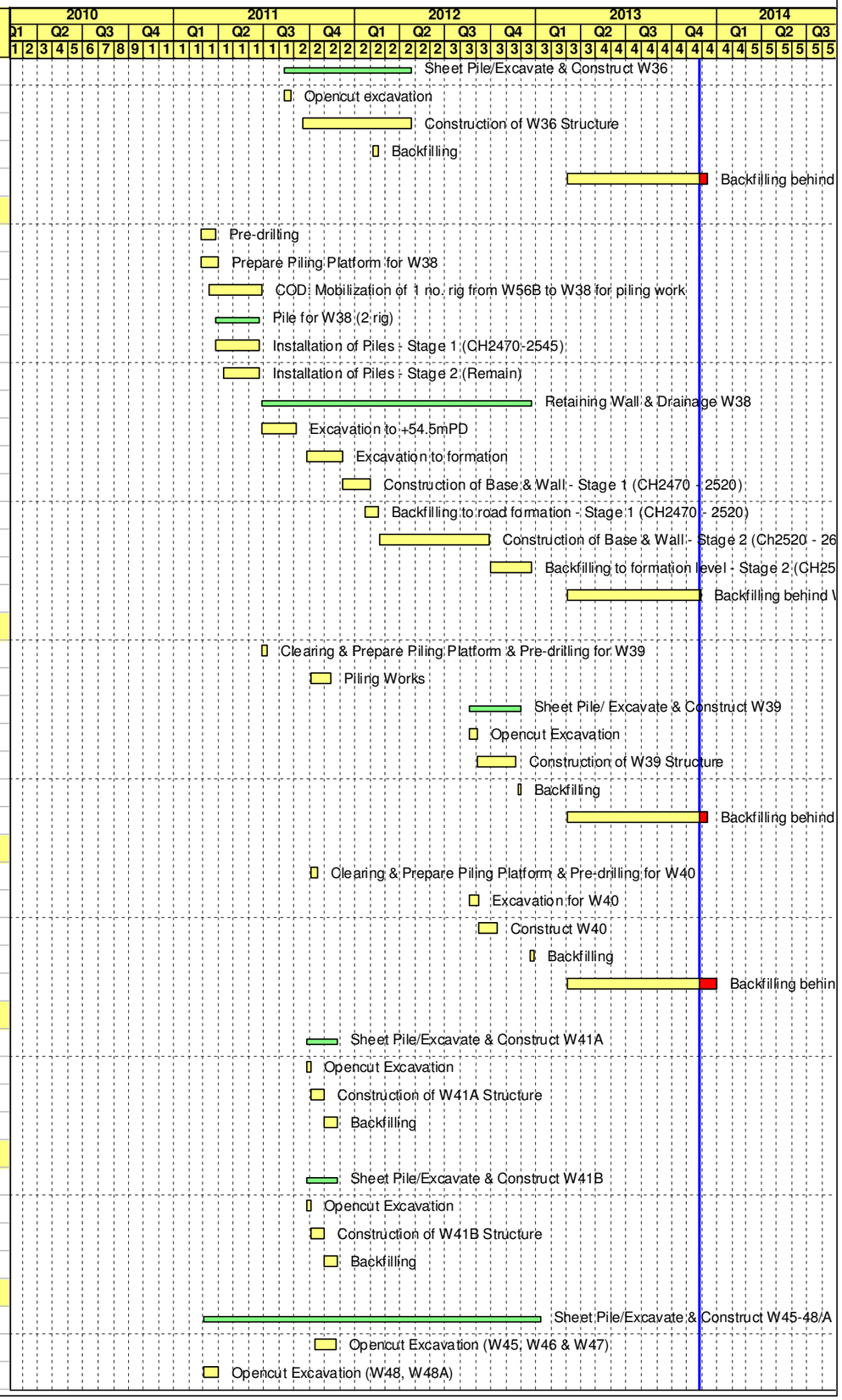
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
VO000770	VO. 77: Provision of Cable Duct for Power Supply in Site Area SA28 and SA31		100%	0	17-Oct-12 A	
VO000780	VO. 78: Bridge 18A Revised CLP Concrete Cable Trough Details		100%	0	22-Oct-12 A	
VO000790	VO. 79: Bridge 18A East Abutment - Reinforced Concrete Wall (Bay3)		100%	0	14-Nov-12 A	
VO000800	VO. 80: Removal and Storage of Remaining Parts of Existing Speed Camera No. W05, W06 at NB and W10 at SB		100%	0	03-Dec-12 A	
VO000810	VO. 81: Details of Maintenance Access of Noise Barrier NB41 and NB42 along Tai Wo Service Road West		100%	0	04-Jan-13 A	
VO000820	VO. 82: Irrigation System Along the Vehicular Access to Wai Tau Tsuen		100%	0	04-Feb-13 A	
VO000830	VO. 83: Stormwater Drainage System MN18.1 to MN18.11 in Front of Retaining W...		100%	0	08-Feb-13 A	
VO000840	VO. 84: Removal and Storage of Remaining Parts of Existing Speed Enforcement Camera No. TO06 at Tolo Highway Southbound		100%	0	08-Feb-13 A	
VO000860	VO. 86: Provision of Verge Tubular Railing Adjacent to Retaining Wall W67		100%	0	12-Apr-13 A	
VO000870	VO. 87: Existing Retaining Wall at Tai Po Tai Wo Road - Modification Works		100%	0	19-Apr-13 A	
VO000880	VO. 88: Additional Hospital Sign Plate for Existing Directional Signs DSX01A and ...		100%	0	10-May-13 A	
VO000890	VO. 89: Change of Material of Southern Trunk Sewer Pipes between manhole		100%	0	10-May-13 A	
VO000900	VO. 90: Revised Southern Trunk Sewer Details		100%	0	10-May-13 A	
VO000910	VO. 91: Nosing Details at South Abutment of Bridge 13A - Modification Works		100%	0	02-Jul-13 A	
VO000920	VO. 92: Revised Noise Barrier Footing fro NB30 Bay 1		100%	0	14-Jun-13 A	
VO000930	VO. 93: Irrigation System for the Shrub Planting Area Adjacent to Fanling Highway		100%	0	13-Jun-13 A	
VO000940	VO. 94: Irrigation System for the Shrub Planting Area Adjacent to Lam Kam Road Interchange with connection to Firemain		100%	0	11-Jun-13 A	
VO000950	VO. 95: Revised Sign Gantry G101 Details		100%	0	07-Jun-13 A	
VO000970	VO. 97: Provision of Stormwater Drainage System for the Wai Tau Tsuen Access Raod Behind W74		100%	0	13-Jun-13 A	
VO000980	VO. 98: Revised Sign Gantry G101 Sign Face DS T8(B) Details		100%	0	11-Jun-13 A	
VO000990	VO. 99: Revised Sign Gantry G59 Details		100%	0	11-Jun-13 A	
VO001000	VO. 100: Revised Sign Gantry G58 Details		100%	0	11-Jun-13 A	
VO001010	VO. 101: Existing Bridges 12&13 - Revised Detail of the Strengthening Beam of the Stitching Slab		100%	0	02-Jul-13 A	
VO001030	VO. 103: Parapet Wall PW1 - Revised Drainage and Miscellaneous Details		100%	0	03-Jul-13 A	
VO001040	VO. 104: Revised Alignment and Layout of Noise Barrier NB38		100%	0	26-Jun-13 A	
VO001050	VO. 105: Additional Precast Concrete Cover for Catchpit No. CP1.1		100%	0	02-Jul-13 A	
VO001060	VO. 106: Revised Details fo Retaining Wall No. W71 and Slope S43 at CH0.00 to CH4.00		100%	0	02-Jul-13 A	
VO001070	VO. 107: Revised Alignment of U-Channel at Interface of Retaining Wall W66 and Slope S38		100%	0	02-Jul-13 A	
VO001080	VO. 108: Revision for Proposed Cut Slope S31A		100%	0	11-Jul-13 A	
VO001090	VO. 109: Revision for Proposed Cut Slope S45		100%	0	19-Jul-13 A	
VO001100	VO. 110: Revised Base Plate Details of Noise Barrier NB38		100%	0	19-Aug-13 A	
Milestones of Temporary Traffic Arrangement						
TTA000	TTA Stage 0 - Divert the traffic to new Slip Road J & K		100%	0	07-Oct-12 A	
TTA010	TTA Stage 1 - divert the traffic to new bridge 18a		100%	0	23-Jun-13 A	
TTA050	TTA Stage 5 - Full enclorsure of Tai Wo Road (CH3350 - CH3540)		100%	0	27-Sep-12 A	
TTA060	TTA Stage 6 - Open the new Northbound but reserve one lane & close the existing Northbound		100%	0	25-Feb-12 A	
TTA070	TTA Stage 7 - Close the existing southbound and temporary divert the traffic to the existing Northbound		100%	0	25-Feb-12 A	



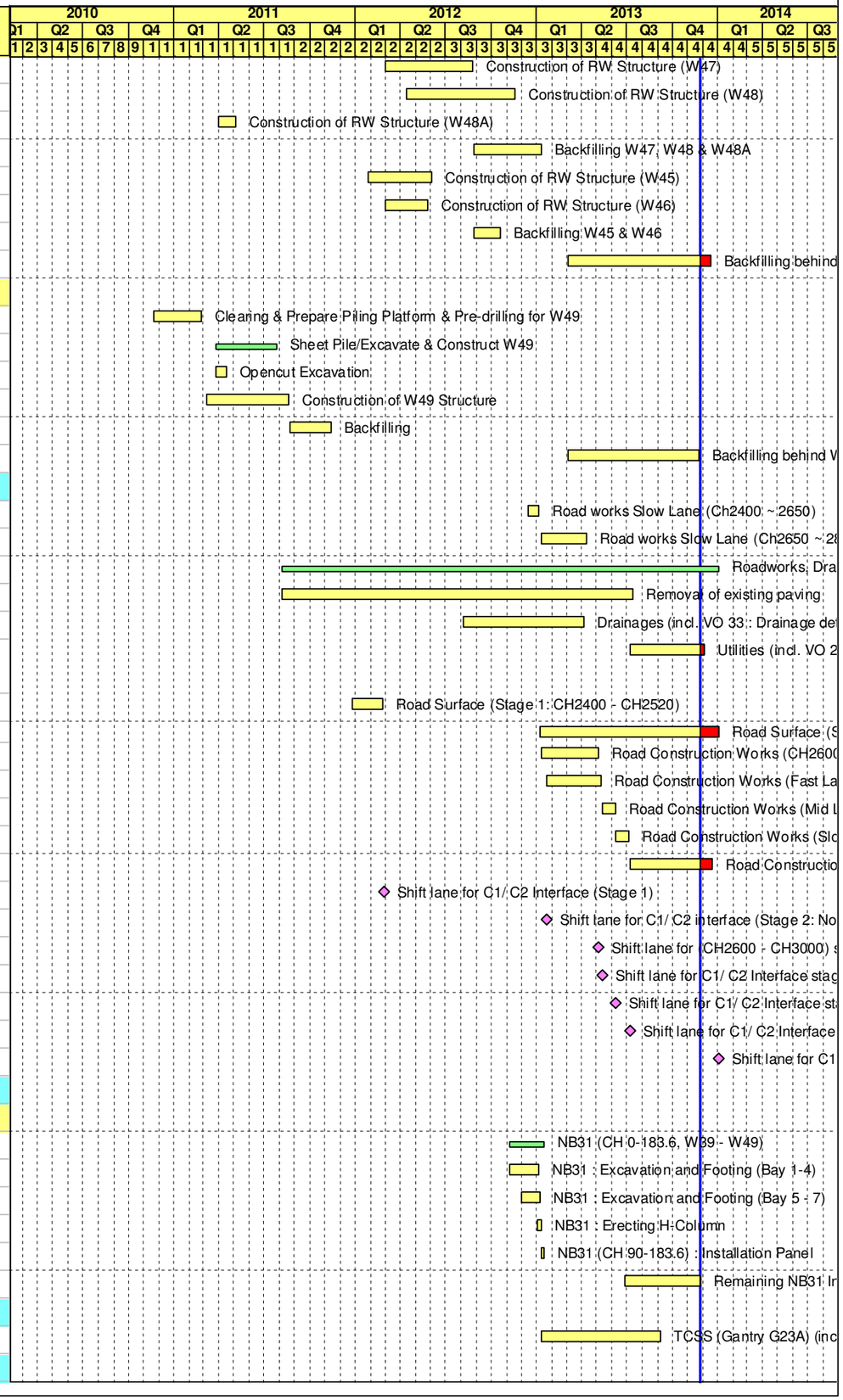
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
TTA090	TTA Stage 9 - NLK Open the new Northbound but reserve one lane & close the existing Northbound	-39	0%	0	26-Nov-13	
TTA110	TTA Stage 11 - Open the new LB2 and link up the LB1 & LB3	-10	0%	0	10-Dec-13	
TTA310	TTA Stage 5A-1 Diversion the traffic to B13A and B15A		100%	0	23-Jun-13 A	
TTA320	TTA Stage 4B-1 Diversion the traffic to (CH2600 - CH3000) N/B		100%	0	05-May-13 A	
TTA330	TTA Shift Lane for C1/C2 interface Final Stage (N/B)	-76	0%	0	03-Jan-14	
TTA340	TTA Shift Lane for C1/C2 interface Final Stage (S/B)	-58	0%	0	10-Dec-13	
TTA350	TTA Shift Lane for C2/C3 interface at TWSRW Road (Transition)	48	0%	0	26-Nov-13	
TTA360	TTA Shift Lane for C2/C3 interface (N/B)	22	0%	0	27-Dec-13	
TTA370	TTA Shift Lane for C2/C3 interface (S/B)	-24	0%	0	24-Feb-14	
Section 1						
Site Area SA21						
PHSA2120	Possession of SA21 (Day141)		100%	0	16-Jul-10 A	
SA210000	Site Area SA21 Works Period	171	96.08%	1076	16-Jul-10 A	07-Jan-14
SA210010	Site Area SA21 Works Completion	171	0%	0		07-Jan-14
SA210020	Temporary Traffic Management (Detail shall refer to supplementary information)	138	96.19%	872	16-Jul-10 A	07-Jan-14
SA210030	Overall Utilities Diversion (Detail shall refer to supplementary information)	138	96.19%	872	16-Jul-10 A	07-Jan-14
North Bound						
Preliminaries						
S21N0000	Site Clearance/Access Rd & acquisition of Sub-con		100%	63	15-Oct-10 A	30-Dec-10 A
Slopeworks						
S21N5000	Slopeworks Fill(S21)	-79	90%	10	16-Feb-12 A	05-Dec-13
S21N5010	U-Channel and Berm	-59	50%	10	05-Oct-13 A	11-Dec-13
S21N5100	Slopeworks Cut (S22)	-63	93.53%	266	17-Feb-11 A	16-Dec-13
S21N5110	Slopeworks Cut (S22) - Stage 1 (Upper +59mPD)		100%	72	17-Feb-11 A	20-May-11 A
S21N5120	Slopeworks Cut (S22) - Stage 2 (Middle +57mPD)		100%	72	26-Oct-11 A	20-Jan-12 A
S21N5130	Slopeworks Cut (S22) - Stage 3 (Lower +55mPD)	-79	90%	72	28-May-12 A	04-Dec-13
S21N5140	U-Channel and Berm	-63	50%	20	05-Oct-13 A	16-Dec-13
S21N5210	Slopeworks Fill(S24)	-74	90%	55	14-Jan-13 A	02-Dec-13
Extension of Culverts						
S21N1000	Extension of Box Culvert (N581)		100%	148	08-Nov-10 A	21-Mar-11 A
S21N1010	Temporary Water Diversion		100%	23	08-Nov-10 A	11-Dec-10 A
S21N1020	Construction of Base Slab		100%	75	13-Dec-10 A	02-Mar-11 A
S21N1030	Construction of Wall Stem		100%	50	13-Dec-10 A	21-Mar-11 A
S21N1040	Construction of Top Slab		100%	45	19-Jan-11 A	21-Mar-11 A
S21N1050	Extension of Box Culvert (TP9), Upstream (CSD 3) (incl. VO.22)		100%	0	26-Mar-11 A	31-Dec-11 A
S21N1060	Temporary Water Diversion		100%	16	26-Mar-11 A	15-Apr-11 A
S21N1070	Construction of Base Slab		100%	75	30-Mar-11 A	05-Jul-11 A
S21N1080	Construction of Wall Stem		100%	72	01-Jul-11 A	31-Dec-11 A
S21N1090	Construction of Top Slab		100%	0	01-Dec-11 A	31-Dec-11 A
Construction of Retaining Wall						
Retaining Wall W35						
S21N2000	Sheet Pile/Excavate & Construct W35		100%	53	26-Mar-11 A	02-Jun-11 A
S21N2010	Opencut excavation		100%	18	26-Mar-11 A	16-Apr-11 A
S21N2020	Construction of W35 Structure		100%	30	26-May-11 A	18-Jun-11 A
S21N2030	Backfilling		100%	14	26-Jul-11 A	10-Aug-11 A
Retaining Wall W36						



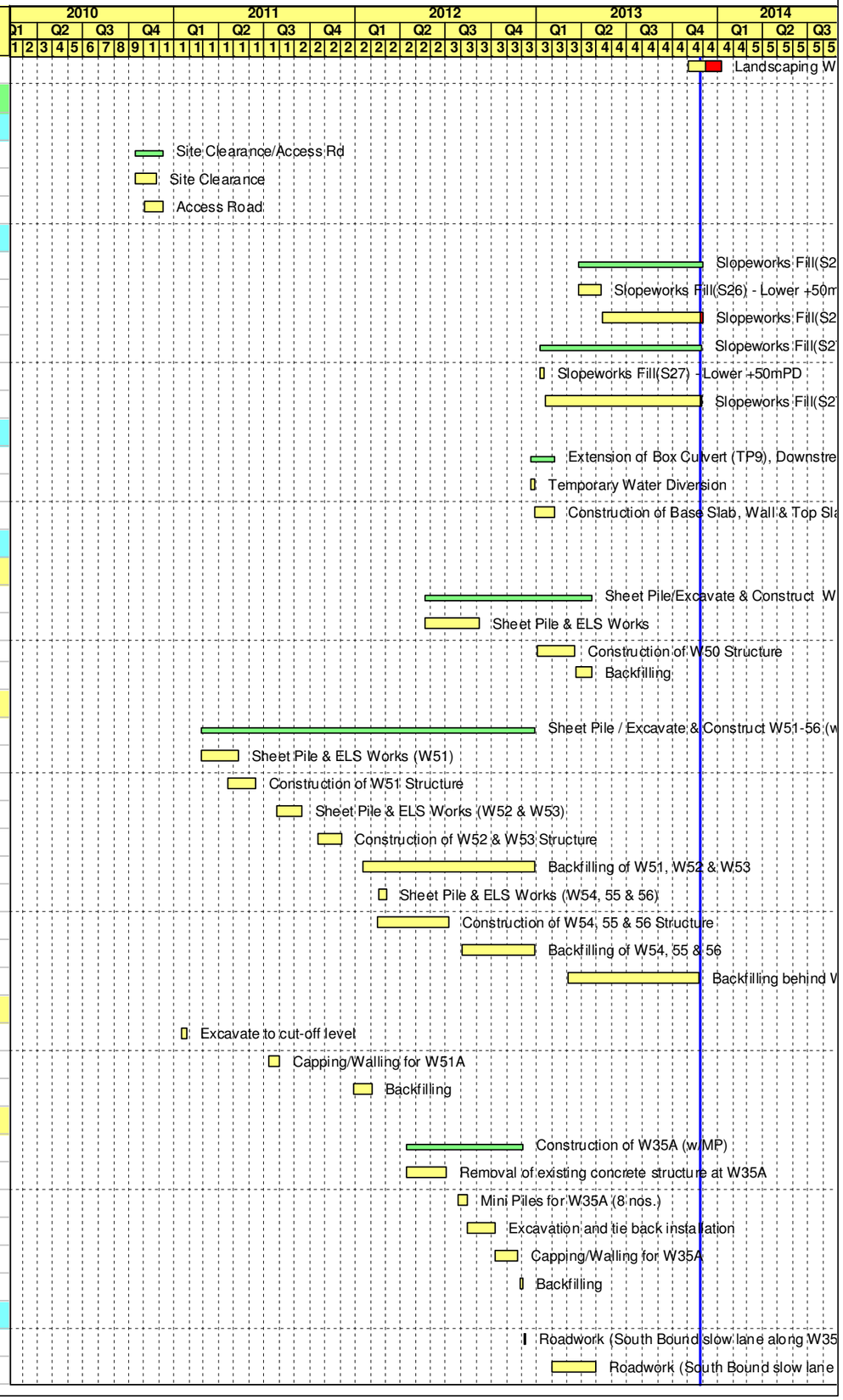
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S21N2100	Sheet Pile/Excavate & Construct W36		100%	85	11-Aug-11 A	23-Apr-12 A
S21N2110	Opencut excavation		100%	12	11-Aug-11 A	24-Aug-11 A
S21N2120	Construction of W36 Structure		100%	50	19-Sep-11 A	23-Apr-12 A
S21N2130	Backfilling		100%	0	06-Feb-12 A	18-Feb-12 A
S21N2140	Backfilling behind W36 and drainage works	-60	80%	70	04-Mar-13 A	11-Dec-13
Retaining Wall W38 (AD4)						
S21N2210	Pre-drilling		100%	24	26-Feb-11 A	25-Mar-11 A
S21N2220	Prepare Piling Platform for W38		100%	30	26-Feb-11 A	01-Apr-11 A
S21N2225	COD: Mobilization of 1 no. rig from W56B to W38 for piling work		100%	60	14-Mar-11 A	27-Jun-11 A
S21N2230	Pile for W38 (2 rig)		100%	141	26-Mar-11 A	22-Jun-11 A
S21N2231	Installation of Piles - Stage 1 (CH2470-2545)		100%	69	26-Mar-11 A	22-Jun-11 A
S21N2232	Installation of Piles - Stage 2 (Remain)		100%	72	12-Apr-11 A	22-Jun-11 A
S21N2240	Retaining Wall & Drainage W38		100%	230	27-Jun-11 A	24-Dec-12 A
S21N2242	Excavation to +54.5mPD		100%	60	27-Jun-11 A	05-Sep-11 A
S21N2244	Excavation to formation		100%	60	26-Sep-11 A	06-Dec-11 A
S21N2250	Construction of Base & Wall - Stage 1 (CH2470 - 2520)		100%	75	07-Dec-11 A	31-Jan-12 A
S21N2252	Backfilling to road formation - Stage 1 (CH2470 - 2520)		100%	50	21-Jan-12 A	18-Feb-12 A
S21N2254	Construction of Base & Wall - Stage 2 (Ch2520 - 2600)		100%	75	20-Feb-12 A	29-Sep-12 A
S21N2256	Backfilling to formation level - Stage 2 (CH2520 - 2600)		100%	30	01-Oct-12 A	24-Dec-12 A
S21N2266	Backfilling behind W38 and drainage works	-49	95%	70	04-Mar-13 A	29-Nov-13
Retaining Wall W39 (CDS 3)						
S21N2302	Clearing & Prepare Piling Platform & Pre-drilling for W39		100%	10	27-Jun-11 A	09-Jul-11 A
S21N2304	Piling Works		100%	36	03-Oct-11 A	14-Nov-11 A
S21N2306	Sheet Pile/ Excavate & Construct W39		100%	75	20-Aug-12 A	01-Dec-12 A
S21N2307	Opencut Excavation		100%	7	20-Aug-12 A	03-Sep-12 A
S21N2308	Construction of W39 Structure		100%	50	04-Sep-12 A	21-Nov-12 A
S21N2309	Backfilling		100%	12	26-Nov-12 A	01-Dec-12 A
S21N2319	Backfilling behind W39 and drainage works	-60	80%	70	04-Mar-13 A	11-Dec-13
Retaining Wall W40 (CSD 3)						
S21N2312	Clearing & Prepare Piling Platform & Pre-drilling for W40		100%	12	03-Oct-11 A	17-Oct-11 A
S21N2314	Excavation for W40		100%	12	20-Aug-12 A	06-Sep-12 A
S21N2316	Construct W40		100%	40	07-Sep-12 A	13-Oct-12 A
S21N2326	Backfilling		100%	11	20-Dec-12 A	29-Dec-12 A
S21N2336	Backfilling behind W40 and drainage works	-74	60%	70	04-Mar-13 A	30-Dec-13
Retaining Wall W41A						
S21N2400	Sheet Pile/Excavate & Construct W41A		100%	72	26-Sep-11 A	25-Nov-11 A
S21N2410	Opencut Excavation		100%	7	26-Sep-11 A	04-Oct-11 A
S21N2420	Construction of W41A Structure		100%	47	05-Oct-11 A	31-Oct-11 A
S21N2430	Backfilling		100%	18	01-Nov-11 A	25-Nov-11 A
Retaining Wall W41B						
S21N2618	Sheet Pile/Excavate & Construct W41B		100%	71	26-Sep-11 A	25-Nov-11 A
S21N2628	Opencut Excavation		100%	7	26-Sep-11 A	04-Oct-11 A
S21N2648	Construction of W41B Structure		100%	47	05-Oct-11 A	31-Oct-11 A
S21N2658	Backfilling		100%	17	01-Nov-11 A	25-Nov-11 A
Retaining Wall W45-48/A						
S21N2500	Sheet Pile/Excavate & Construct W45-48/A		100%	174	01-Mar-11 A	11-Jan-13 A
S21N2510	Opencut Excavation (W45, W46 & W47)		100%	36	12-Oct-11 A	23-Nov-11 A
S21N2520	Opencut Excavation (W48, W48A)		100%	18	01-Mar-11 A	31-Mar-11 A



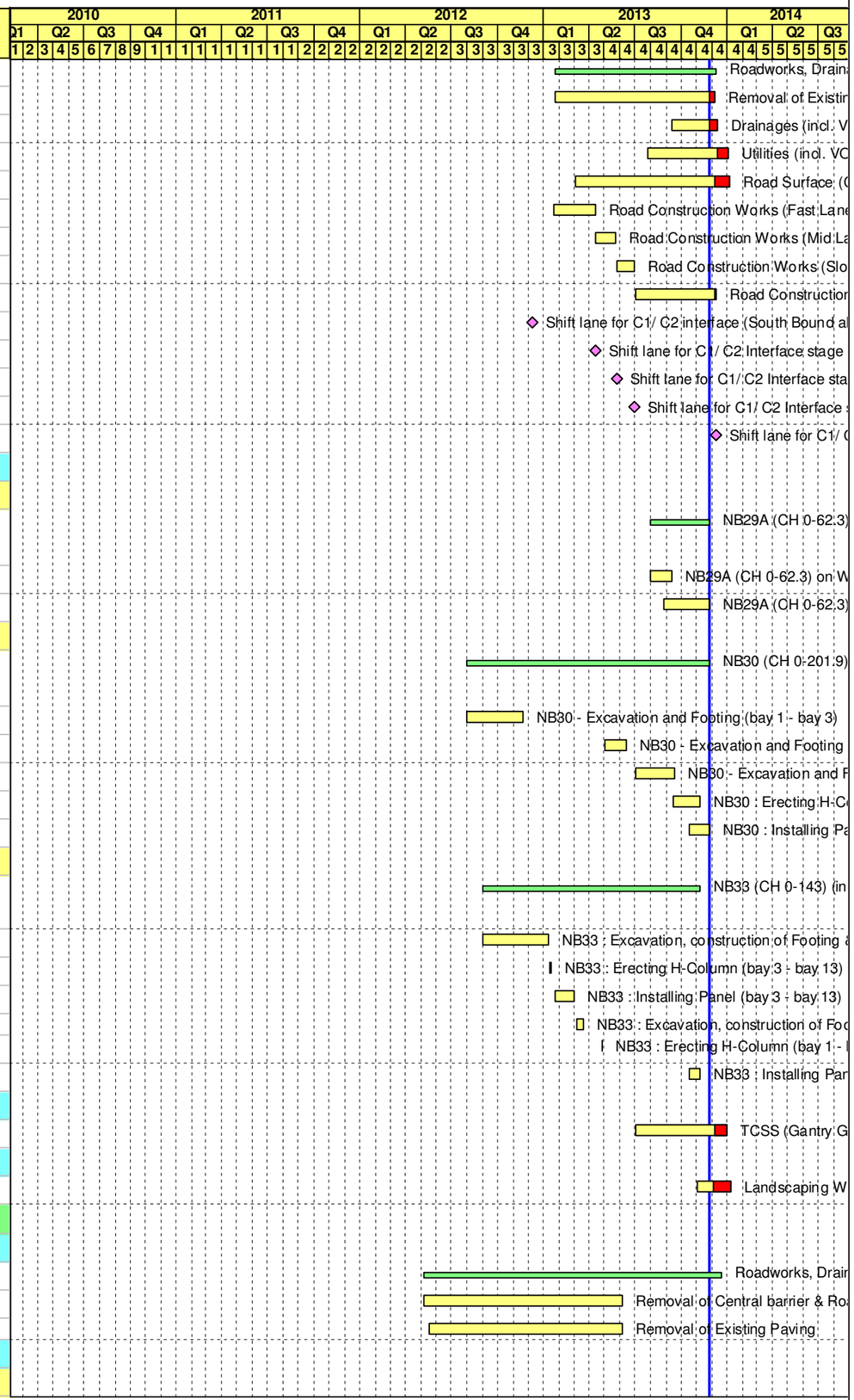
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S21N2530	Construction of RW Structure (W47)		100%	75	01-Mar-12 A	25-Aug-12 A
S21N2540	Construction of RW Structure (W48)		100%	45	13-Apr-12 A	19-Nov-12 A
S21N2550	Construction of RW Structure (W48A)		100%	60	01-Apr-11 A	06-May-11 A
S21N2560	Backfilling W47, W48 & W48A		100%	40	28-Aug-12 A	11-Jan-13 A
S21N2570	Construction of RW Structure (W45)		100%	75	26-Jan-12 A	04-Jun-12 A
S21N2580	Construction of RW Structure (W46)		100%	75	01-Mar-12 A	26-May-12 A
S21N2590	Backfilling W45 & W46		100%	40	28-Aug-12 A	20-Oct-12 A
S21N2600	Backfilling behind W45 to W48 and drainage works	-63	75%	70	04-Mar-13 A	16-Dec-13
Retaining Wall W49						
S21N2604	Clearing & Prepare Piling Platform & Pre-drilling for W49		100%	24	20-Nov-10 A	24-Feb-11 A
S21N2610	Sheet Pile/Excavate & Construct W49		100%	96	26-Mar-11 A	26-Jul-11 A
S21N2620	Opencut Excavation		100%	18	26-Mar-11 A	16-Apr-11 A
S21N2630	Construction of W49 Structure		100%	36	08-Mar-11 A	20-Aug-11 A
S21N2640	Backfilling		100%	15	22-Aug-11 A	12-Nov-11 A
S21N2650	Backfilling behind W49 and drainage works		100%	70	04-Mar-13 A	25-Nov-13 A
Road Re-Construction Works, Roadworks & Drainage						
S21N4000	Road works Slow Lane (Ch2400 ~ 2650)		100%	20	14-Dec-12 A	04-Jan-13 A
S21N4010	Road works Slow Lane (Ch2650 ~ 2840)		100%	20	10-Jan-13 A	11-Apr-13 A
S21N4100	Roadworks, Drainages & Utilities (CH 2400 - 2840)	-76	77.44%	133	06-Aug-11 A	02-Jan-14
S21N4110	Removal of existing paving		100%	25	06-Aug-11 A	13-Jul-13 A
S21N4120	Drainages (incl. VO 33 : Drainage details at W48)		100%	25	06-Aug-12 A	05-Apr-13 A
S21N4130	Utilities (incl. VO 26: Permanent Diversion of existing DN80 WSD Watermain at Ma WO Subway TP9)	-53	70%	25	08-Jul-13 A	04-Dec-13
S21N4135	Road Surface (Stage 1: CH2400 - CH2520)		100%	75	26-Dec-11 A	24-Feb-12 A
S21N4140	Road Surface (Stage 2 : CH2520 - CH2840)	-76	60%	75	08-Jan-13 A	02-Jan-14
S21N4141	Road Construction Works (CH2600 - CH3000) for traffic diversion stage 4B-1		100%	75	10-Jan-13 A	04-May-13 A
S21N4142	Road Construction Works (Fast Lane) for C1/ C2 Interface stage 6B		100%	40	21-Jan-13 A	11-May-13 A
S21N4143	Road Construction Works (Mid Lane) for C1/ C2 Interface stage 7B		100%	28	13-May-13 A	09-Jun-13 A
S21N4144	Road Construction Works (Slow Lane) for C1/ C2 Interface stage 8B		100%	27	10-Jun-13 A	06-Jul-13 A
S21N4145	Road Construction Works for C1/ C2 Interface Final stage	-67	40%	36	08-Jul-13 A	20-Dec-13
S21N4150	Shift lane for C1/ C2 Interface (Stage 1)		100%	0	27-Feb-12 A	
S21N4152	Shift lane for C1/ C2 interface (Stage 2: North Bound along W38 to W46)		100%	0	20-Jan-13 A	
S21N4153	Shift lane for (CH2600 - CH3000) stage 4B-1		100%	0	05-May-13 A	
S21N4155	Shift lane for C1/ C2 Interface stage 6B		100%	0	12-May-13 A	
S21N4156	Shift lane for C1/ C2 Interface stage 7B		100%	0	09-Jun-13 A	
S21N4157	Shift lane for C1/ C2 Interface stage 8B		100%	0	07-Jul-13 A	
S21N4160	Shift lane for C1/ C2 interface Final stage	-76	0%	0	03-Jan-14	
Noise Barriers & Road Barriers						
Noise Barrier NB31						
S21N3010	NB31 (CH 0-183.6, W39 - W49)		100%	80	07-Nov-12 A	17-Jan-13 A
S21N3060	NB31 : Excavation and Footing (Bay 1-4)		100%	24	07-Nov-12 A	05-Jan-13 A
S21N3070	NB31 : Excavation and Footing (Bay 5 - 7)		100%	24	01-Dec-12 A	08-Jan-13 A
S21N3080	NB31 : Erecting H-Column		100%	18	02-Jan-13 A	10-Jan-13 A
S21N3090	NB31 (CH 90-183.6) : Installation Panel		100%	18	11-Jan-13 A	17-Jan-13 A
S21N3100	Remaining NB31 Installation of Panel	-46	98.01%	7	27-Jun-13 A	26-Nov-13
Traffic Control & Survelance System						
S21N4800	TCSS (Gantry G23A) (incl. VO73 Revised Sign Gantry Details)		100%	50	10-Jan-13 A	07-Sep-13 A
Landscaping						



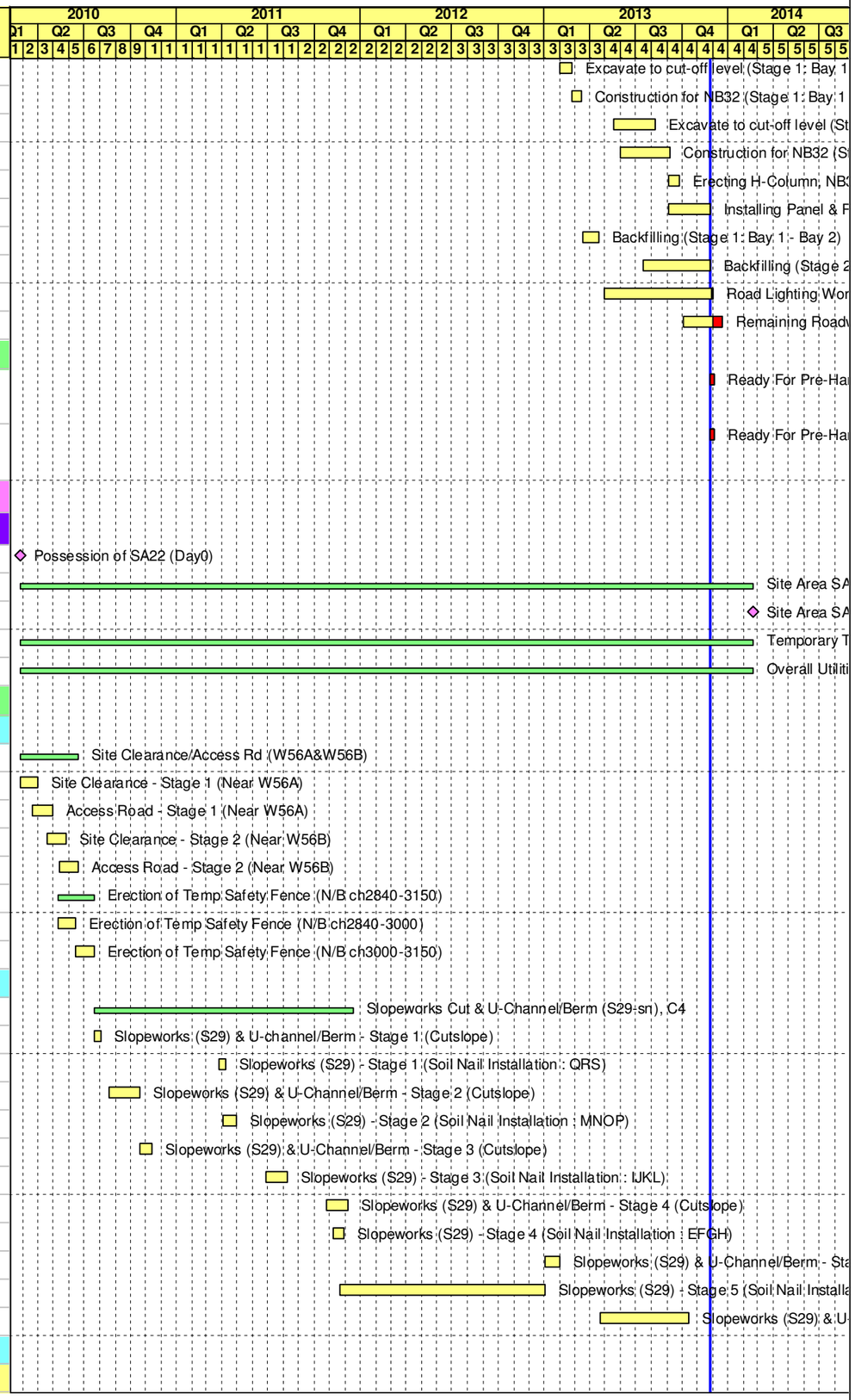
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S21N6000	Landscaping Works	-79	10%	25	02-Nov-13 A	07-Jan-14
South Bound						
Preliminaries						
S21S0000	Site Clearance/Access Rd		100%	48	15-Oct-10 A	10-Dec-10 A
S21S0010	Site Clearance		100%	36	15-Oct-10 A	26-Nov-10 A
S21S0030	Access Road		100%	34	02-Nov-10 A	10-Dec-10 A
Slopeworks						
S21S5000	Slopeworks Fill(S26)	-78	85.94%	40	25-Mar-13 A	02-Dec-13
S21S5010	Slopeworks Fill(S26) - Lower +50mPD		100%	15	25-Mar-13 A	10-May-13 A
S21S5020	Slopeworks Fill(S26) - Upper +55mPD	-78	75%	23	13-May-13 A	02-Dec-13
S21S5100	Slopeworks Fill(S27)	-76	97.5%	120	09-Jan-13 A	28-Nov-13
S21S5110	Slopeworks Fill(S27) - Lower +50mPD		100%	60	09-Jan-13 A	17-Jan-13 A
S21S5120	Slopeworks Fill(S27) - Lower +55mPD	-76	95%	60	18-Jan-13 A	28-Nov-13
Extension of Culverts						
S21S1100	Extension of Box Culvert (TP9), Downstream		100%	60	20-Dec-12 A	06-Feb-13 A
S21S5130	Temporary Water Diversion		100%	12	20-Dec-12 A	28-Dec-12 A
S21S5140	Construction of Base Slab, Wall & Top Slab		100%	48	29-Dec-12 A	06-Feb-13 A
Construction of Retaining Wall						
Retaining Wall W50						
S21S2000	Sheet Pile/Excavate & Construct W50 (w/SP)		100%	215	21-May-12 A	23-Apr-13 A
S21S2010	Sheet Pile & ELS Works		100%	24	21-May-12 A	07-Sep-12 A
S21S2020	Construction of W50 Structure		100%	75	02-Jan-13 A	19-Mar-13 A
S21S2030	Backfilling		100%	50	20-Mar-13 A	23-Apr-13 A
Retaining Wall W51-56 (CSD 3)						
S21S2100	Sheet Pile / Excavate & Construct W51-56 (w/SP)		100%	216	25-Feb-11 A	27-Dec-12 A
S21S2110	Sheet Pile & ELS Works (W51)		100%	24	25-Feb-11 A	11-May-11 A
S21S2120	Construction of W51 Structure		100%	42	19-Apr-11 A	14-Jun-11 A
S21S2130	Sheet Pile & ELS Works (W52 & W53)		100%	24	28-Jul-11 A	16-Sep-11 A
S21S2140	Construction of W52 & W53 Structure		100%	42	17-Oct-11 A	05-Dec-11 A
S21S2150	Backfilling of W51, W52 & W53		100%	24	17-Jan-12 A	27-Dec-12 A
S21S2160	Sheet Pile & ELS Works (W54, 55 & 56)		100%	24	17-Feb-12 A	03-Mar-12 A
S21S2170	Construction of W54, 55 & 56 Structure		100%	75	15-Feb-12 A	06-Jul-12 A
S21S2180	Backfilling of W54, 55 & 56		100%	30	02-Aug-12 A	27-Dec-12 A
S21S2190	Backfilling behind W51 to W56 and drainage works		100%	70	04-Mar-13 A	25-Nov-13 A
Retaining Wall W51A (CSD 3)						
S21S2163	Excavate to cut-off level		100%	8	17-Jan-11 A	25-Jan-11 A
S21S2164	Capping/Walling for W51A		100%	18	12-Jul-11 A	01-Aug-11 A
S21S2165	Backfilling		100%	30	28-Dec-11 A	04-Feb-12 A
Retaining Wall W35A, (CSD 2)						
S21S2211	Construction of W35A (w/MP)		100%	198	13-Apr-12 A	05-Dec-12 A
S21S2212	Removal of existing concrete structure at W35A		100%	35	13-Apr-12 A	03-Jul-12 A
S21S2218	Mini Piles for W35A (8 nos.)		100%	30	25-Jul-12 A	14-Aug-12 A
S21S2230	Excavation and tie back installation		100%	25	15-Aug-12 A	09-Oct-12 A
S21S2240	Capping/Walling for W35A		100%	40	10-Oct-12 A	24-Nov-12 A
S21S2250	Backfilling		100%	6	29-Nov-12 A	05-Dec-12 A
Road Re-construction Works, Roadworks & Drainage						
S21S3895	Roadwork (South Bound slow lane along W35A)		100%	6	06-Dec-12 A	09-Dec-12 A
S21S3896	Roadwork (South Bound slow lane along W50 - W56)		100%	30	01-Feb-13 A	29-Apr-13 A



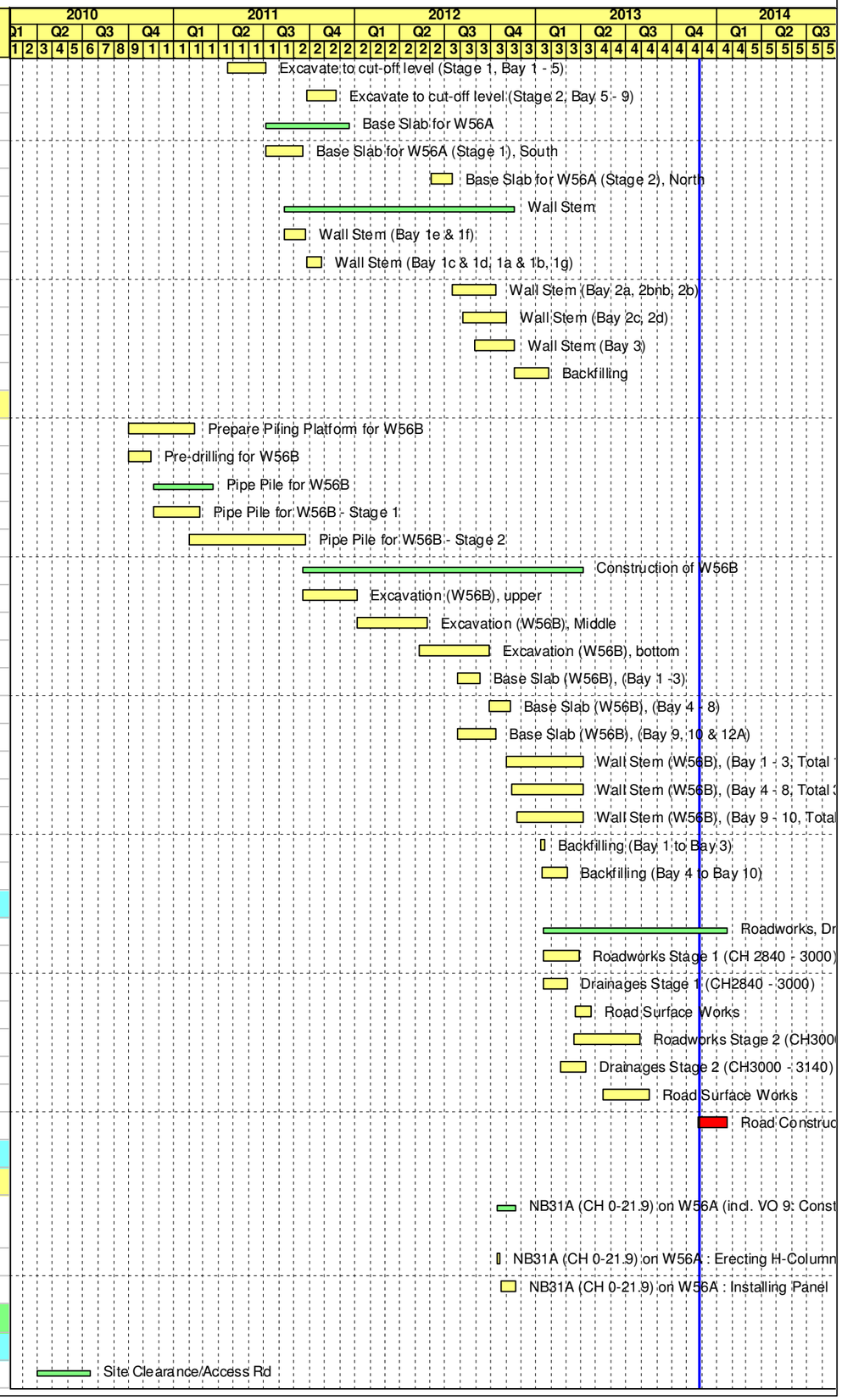
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S21S3900	Roadworks, Drainages & Utilities (CH 2400 - 2840)	-74	91.83%	150	25-Jan-13 A	10-Dec-13
S21S4001	Removal of Existing Paving	-74	75%	40	25-Jan-13 A	06-Dec-13
S21S4002	Drainages (incl. VO33: Drainage details at W48)	-76	50%	30	14-Sep-13 A	12-Dec-13
S21S4003	Utilities (incl. VO 26 & VO69)	-76	50%	30	27-Jul-13 A	02-Jan-14
S21S4010	Road Surface (CH2400 - CH2840)	-74	65%	65	04-Mar-13 A	06-Jan-14
S21S4011	Road Construction Works (Fast Lane) for C1/ C2 Interface stage 4A		100%	40	21-Jan-13 A	13-Apr-13 A
S21S4012	Road Construction Works (Mid Lane) for C1/ C2 Interface stage 5A		100%	27	15-Apr-13 A	25-May-13 A
S21S4013	Road Construction Works (Slow Lane) for C1/ C2 Interface stage 6A		100%	39	27-May-13 A	30-Jun-13 A
S21S4014	Road Construction Works for C1/ C2 Interface Final stage	-74	95%	45	02-Jul-13 A	10-Dec-13
S21S4030	Shift lane for C1/ C2 interface (South Bound along W35A)		100%	0	09-Dec-12 A	
S21S4031	Shift lane for C1/ C2 Interface stage 4A		100%	0	14-Apr-13 A	
S21S4032	Shift lane for C1/ C2 Interface stage 5A		100%	0	26-May-13 A	
S21S4033	Shift lane for C1/ C2 Interface stage 6A		100%	0	30-Jun-13 A	
S21S4050	Shift lane for C1/ C2 interface (Final stage)	-58	0%	0	10-Dec-13	
Noise Barriers						
Noise Barrier NB29						
S21S3010	NB29A (CH 0-62.3) on W35A (incl. VO 9: Construction of double leaf access door for noise barrier)	-46	97.5%	20	01-Aug-13 A	26-Nov-13
S21S3011	NB29A (CH 0-62.3) on W35A - Erecting H-Column		100%	10	01-Aug-13 A	14-Sep-13 A
S21S3012	NB29A (CH 0-62.3) on W35A - Installing Panel	-46	95%	10	27-Aug-13 A	26-Nov-13
Noise barrier NB30						
S21S3020	NB30 (CH 0-201.9) (incl. VO 9: Construction of double leaf access door for noise barrier)	-47	99.04%	104	01-Aug-12 A	26-Nov-13
S21S3021	NB30 - Excavation and Footing (bay 1 - bay 3)		100%	75	01-Aug-12 A	22-Nov-12 A
S21S3026	NB30 - Excavation and Footing (bay 13 - bay 15)		100%	25	02-May-13 A	14-Jun-13 A
S21S3027	NB30 - Excavation and Footing (bay 4 - bay 12)		100%	45	02-Jul-13 A	18-Sep-13 A
S21S3028	NB30 : Erecting H-Column		100%	10	16-Sep-13 A	09-Nov-13 A
S21S3029	NB30 : Installing Panel	-47	90%	10	17-Oct-13 A	26-Nov-13
Noise Barrier NB33						
S21S3030	NB33 (CH 0-143) (incl. VO 9: Construction of double leaf access door for noise barrier)		100%	102	01-Sep-12 A	09-Nov-13 A
S21S3031	NB33 : Excavation, construction of Footing & Backfilling (bay 3 - bay 13)		100%	75	01-Sep-12 A	10-Jan-13 A
S21S3032	NB33 : Erecting H-Column (bay 3 - bay 13)		100%	15	14-Jan-13 A	17-Jan-13 A
S21S3033	NB33 : Installing Panel (bay 3 - bay 13)		100%	12	25-Jan-13 A	02-Mar-13 A
S21S3034	NB33 : Excavation, construction of Footing & Backfilling (bay 1 - bay 2)		100%	15	07-Mar-13 A	21-Mar-13 A
S21S3035	NB33 : Erecting H-Column (bay 1 - bay 2)		100%	7	26-Apr-13 A	27-Apr-13 A
S21S3036	NB33 : Installing Panel (bay 1 - bay 2)		100%	7	17-Oct-13 A	09-Nov-13 A
Traffic Control & Surveilance System						
S21S4800	TCSS (Gantry G60A) (incl. VO73 Revised Sign Gantry Details)	-74	60%	45	02-Jul-13 A	30-Dec-13
Landscaping						
S21S6000	Landscaping Works	-79	0%	25	02-Nov-13 A	07-Jan-14
Middle Lane						
Road Re-construction Works						
S21M4030	Roadworks, Drainage & Utilities (CH 2400 - 2840)	-67	67.69%	65	08-May-12 A	19-Dec-13
S21M4035	Removal of Central barrier & Roadmark		100%	25	08-May-12 A	06-Jun-13 A
S21M4040	Removal of Existing Paving		100%	25	18-May-12 A	06-Jun-13 A
Noise Barriers						
Noise barrier NB32, G23A & G60A						



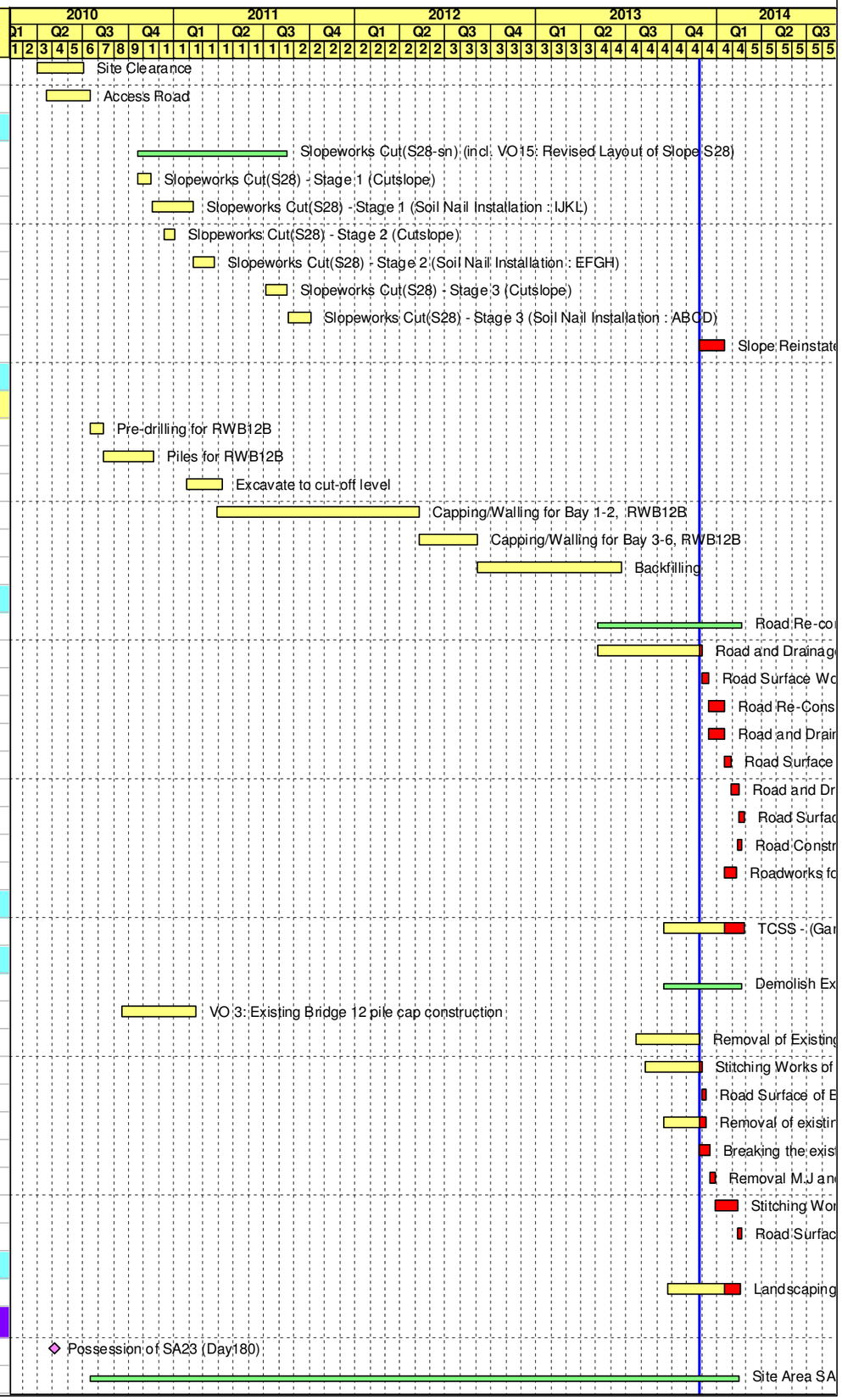
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S21M380	Excavate to cut-off level (Stage 1: Bay 1 - Bay 2)		100%	7	31-Jan-13 A	25-Feb-13 A
S21M390	Construction for NB32 (Stage 1: Bay 1 - Bay 2)		100%	15	25-Feb-13 A	16-Mar-13 A
S21M391	Excavate to cut-off level (Stage 2: Bay 3 - Bay 26)		100%	15	18-May-13 A	10-Aug-13 A
S21M392	Construction for NB32 (Stage 2: Bay 3 - Bay 26 with G23A and G60A)		100%	50	31-May-13 A	07-Sep-13 A
S21M393	Erecting H-Column, NB32		100%	20	05-Sep-13 A	26-Sep-13 A
S21M394	Installing Panel & Road Barrier, NB32	-47	95%	30	05-Sep-13 A	27-Nov-13
S21M400	Backfilling (Stage 1: Bay 1 - Bay 2)		100%	10	18-Mar-13 A	20-Apr-13 A
S21M401	Backfilling (Stage 2: Bay 3 - Bay 26)	-67	90%	20	15-Jul-13 A	27-Nov-13
S21M403	Road Lighting Works	-67	70%	10	29-Apr-13 A	30-Nov-13
S21M404	Remaining Roadworks & Road Surfacing	-67	60%	40	03-Oct-13 A	19-Dec-13
Ready For Pre-Handover Retaining Wall of Section 1						
HRW0010	Ready For Pre-Handover Retaining Wall W35, W36, W38, W39, W40, W44, W45, W46, W47, W48, W49	-53	0%	7	26-Nov-13	03-Dec-13
HRW0011	Ready For Pre-Handover Retaining Wall W35A, W50, W51, W52, W53, W54, W55, W56	-53	0%	7	26-Nov-13	03-Dec-13
Section 2						
Site Area SA22						
PHSA2220	Possession of SA22 (Day0)		100%	0	26-Feb-10 A	
SA220000	Site Area SA22 Works Period (incl. VO 28: Provision of hoarding at site boundry of...	127	92.93%	1216	26-Feb-10 A	19-Feb-14
SA220010	Site Area SA22 Works Completion	127	0%	0		19-Feb-14
SA220020	Temporary Traffic Management (Detail shall refer to supplementary information)	127	91.27%	985	25-Feb-10 A	19-Feb-14
SA220030	Overall Utilities Diversion (Detail shall refer to supplementary information)	127	91.27%	985	25-Feb-10 A	19-Feb-14
North Bound						
Preliminaries						
S22N0000	Site Clearance/Access Rd (W56A&W56B)		100%	90	26-Feb-10 A	18-Jun-10 A
S22N0001	Site Clearance - Stage 1 (Near W56A)		100%	30	26-Feb-10 A	01-Apr-10 A
S22N0002	Access Road - Stage 1 (Near W56A)		100%	30	22-Mar-10 A	29-Apr-10 A
S22N0003	Site Clearance - Stage 2 (Near W56B)		100%	30	19-Apr-10 A	25-May-10 A
S22N0004	Access Road - Stage 2 (Near W56B)		100%	30	13-May-10 A	18-Jun-10 A
S22N0030	Erection of Temp Safety Fence (N/B ch2840-3150)		100%	60	10-May-10 A	21-Jul-10 A
S22N0040	Erection of Temp Safety Fence (N/B ch2840-3000)		100%	30	10-May-10 A	14-Jun-10 A
S22N0050	Erection of Temp Safety Fence (N/B ch3000-3150)		100%	30	15-Jun-10 A	21-Jul-10 A
Slopeworks						
S22N5000	Slopeworks Cut & U-Channel/Berm (S29-sn), C4		100%	421	22-Jul-10 A	17-Dec-11 A
S22N5010	Slopeworks (S29) & U-channel/Berm - Stage 1 (Cutslope)		100%	12	22-Jul-10 A	04-Aug-10 A
S22N5020	Slopeworks (S29) - Stage 1 (Soil Nail Installation : QRS)		100%	12	26-Mar-11 A	09-Apr-11 A
S22N5040	Slopeworks (S29) & U-Channel/Berm - Stage 2 (Cutslope)		100%	50	19-Aug-10 A	19-Oct-10 A
S22N5050	Slopeworks (S29) - Stage 2 (Soil Nail Installation : MNOP)		100%	21	02-Apr-11 A	30-Apr-11 A
S22N5070	Slopeworks (S29) & U-Channel/Berm - Stage 3 (Cutslope)		100%	28	21-Oct-10 A	13-Nov-10 A
S22N5080	Slopeworks (S29) - Stage 3 (Soil Nail Installation : IJKL)		100%	36	27-Jun-11 A	08-Aug-11 A
S22N5100	Slopeworks (S29) & U-Channel/Berm - Stage 4 (Cutslope)		100%	36	26-Oct-11 A	07-Dec-11 A
S22N5110	Slopeworks (S29) - Stage 4 (Soil Nail Installation : EFGH)		100%	36	07-Nov-11 A	28-Nov-11 A
S22N5130	Slopeworks (S29) & U-Channel/Berm - Stage 5 (Cutslope)		100%	36	03-Jan-13 A	31-Jan-13 A
S22N5140	Slopeworks (S29) - Stage 5 (Soil Nail Installation : ABCD)		100%	36	21-Nov-11 A	03-Jan-13 A
S22N5160	Slopeworks (S29) & U-Channel/Berm - Stage 6 (Cutslope)		100%	36	22-Apr-13 A	15-Oct-13 A
Construction of Retaining Wall						
Retaining Wall W56A, (CSD 1)						



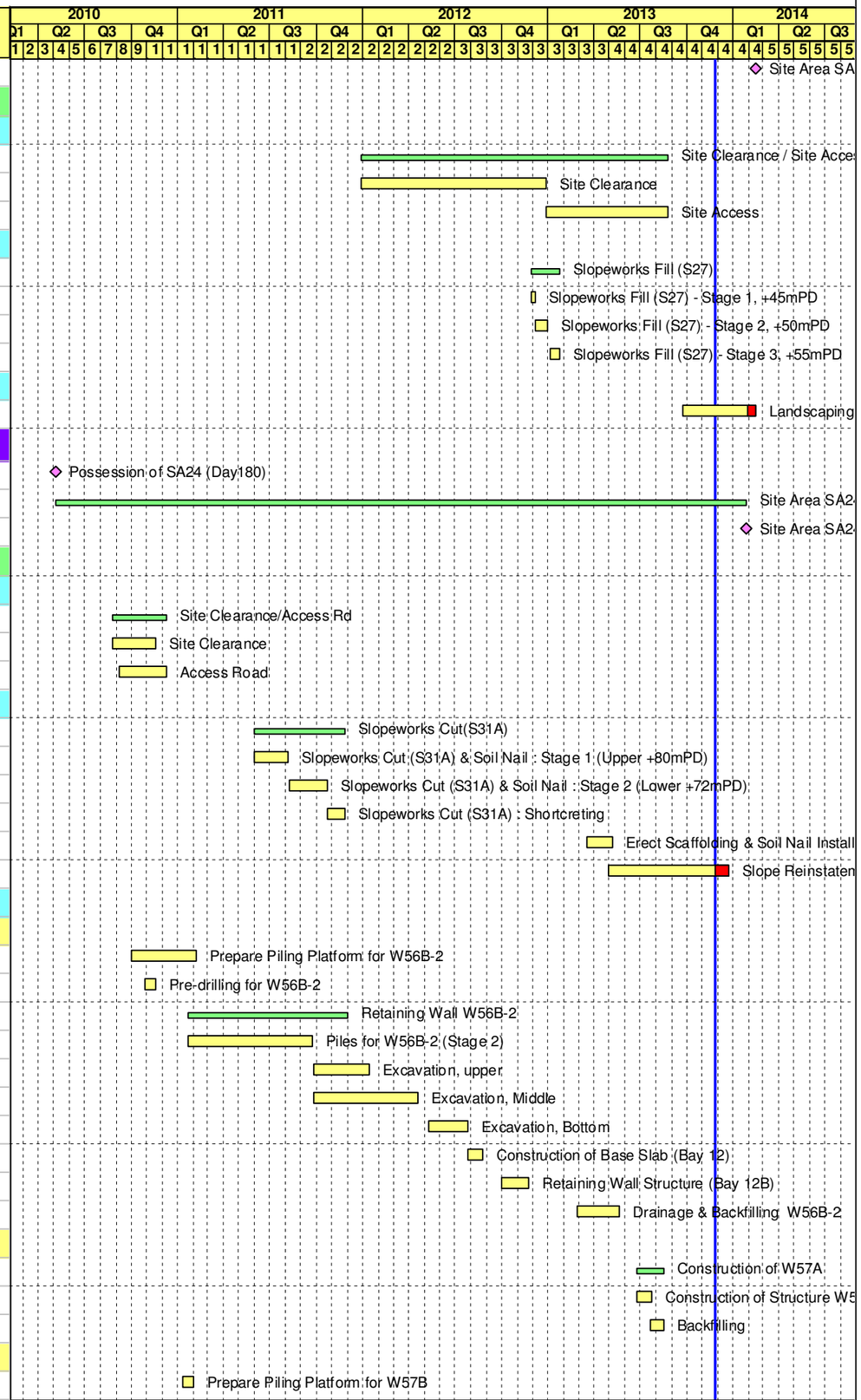
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S22N2154	Excavate to cut-off level (Stage 1, Bay 1 - 5)		100%	60	20-Apr-11 A	06-Jul-11 A
S22N2155	Excavate to cut-off level (Stage 2, Bay 5 - 9)		100%	50	26-Sep-11 A	24-Nov-11 A
S22N2160	Base Slab for W56A		100%	141	05-Jul-11 A	19-Dec-11 A
S22N2165	Base Slab for W56A (Stage 1), South		100%	50	05-Jul-11 A	17-Sep-11 A
S22N2166	Base Slab for W56A (Stage 2), North		100%	56	04-Jun-12 A	14-Jul-12 A
S22N2170	Wall Stem		100%	172	11-Aug-11 A	17-Nov-12 A
S22N2171	Wall Stem (Bay 1e & 1f)		100%	25	11-Aug-11 A	23-Sep-11 A
S22N2173	Wall Stem (Bay 1c & 1d, 1a & 1b, 1g)		100%	25	26-Sep-11 A	26-Oct-11 A
S22N2174	Wall Stem (Bay 2a, 2bnb, 2b)		100%	75	16-Jul-12 A	13-Oct-12 A
S22N2175	Wall Stem (Bay 2c, 2d)		100%	30	06-Aug-12 A	03-Nov-12 A
S22N2176	Wall Stem (Bay 3)		100%	25	31-Aug-12 A	17-Nov-12 A
S22N2186	Backfilling		100%	30	19-Nov-12 A	26-Jan-13 A
Retaining Wall W56B (AD 1)						
S22N2210	Prepare Piling Platform for W56B		100%	37	02-Oct-10 A	11-Feb-11 A
S22N2220	Pre-drilling for W56B		100%	37	02-Oct-10 A	15-Nov-10 A
S22N2240	Pipe Pile for W56B		100%	98	20-Nov-10 A	21-Mar-11 A
S22N2241	Pipe Pile for W56B - Stage 1		100%	75	20-Nov-10 A	23-Feb-11 A
S22N2242	Pipe Pile for W56B - Stage 2		100%	75	31-Jan-11 A	23-Sep-11 A
S22N2250	Construction of W56B		100%	276	17-Sep-11 A	06-Apr-13 A
S22N2251	Excavation (W56B), upper		100%	75	17-Sep-11 A	05-Jan-12 A
S22N2252	Excavation (W56B), Middle		100%	60	06-Jan-12 A	26-May-12 A
S22N2254	Excavation (W56B), bottom		100%	60	11-May-12 A	29-Sep-12 A
S22N2260	Base Slab (W56B), (Bay 1 -3)		100%	25	27-Jul-12 A	10-Sep-12 A
S22N2262	Base Slab (W56B), (Bay 4 - 8)		100%	60	27-Sep-12 A	10-Nov-12 A
S22N2264	Base Slab (W56B), (Bay 9, 10 & 12A)		100%	35	27-Jul-12 A	13-Oct-12 A
S22N2270	Wall Stem (W56B), (Bay 1 - 3, Total 18 pours)		100%	75	01-Nov-12 A	06-Apr-13 A
S22N2274	Wall Stem (W56B), (Bay 4 - 8, Total 30 pours)		100%	75	12-Nov-12 A	06-Apr-13 A
S22N2276	Wall Stem (W56B), (Bay 9 - 10, Total 12 pours)		100%	75	24-Nov-12 A	06-Apr-13 A
S22N2290	Backfilling (Bay 1 to Bay 3)		100%	15	10-Jan-13 A	19-Jan-13 A
S22N2292	Backfilling (Bay 4 to Bay 10)		100%	30	14-Jan-13 A	05-Mar-13 A
Roadworks & Drainage						
S22N4000	Roadworks, Drainages & Utilities (CH 2840 - 3140)	-42	65.12%	129	15-Jan-13 A	20-Jan-14
S22N4010	Roadworks Stage 1 (CH 2840 - 3000)		100%	30	15-Jan-13 A	29-Mar-13 A
S22N4030	Drainages Stage 1 (CH2840 - 3000)		100%	30	15-Jan-13 A	05-Mar-13 A
S22N4040	Road Surface Works		100%	30	21-Mar-13 A	23-Apr-13 A
S22N4042	Roadworks Stage 2 (CH3000 - 3140)		100%	30	18-Mar-13 A	30-Jul-13 A
S22N4044	Drainages Stage 2 (CH3000 - 3140)		100%	30	20-Feb-13 A	11-Apr-13 A
S22N4046	Road Surface Works		100%	30	17-May-13 A	18-Aug-13 A
S22N4048	Road Construction Works Remain Fast Lane (along CH2840 - 3140)	-42	10%	50	25-Nov-13 A	20-Jan-14
Noise Barriers						
Noise Barrier NB31A						
S22N3020	NB31A (CH 0-21.9) on W56A (incl. VO 9: Construction of double leaf access door for noise barrier)		100%	74	15-Oct-12 A	22-Nov-12 A
S22N3021	NB31A (CH 0-21.9) on W56A : Erecting H-Column		100%	38	15-Oct-12 A	19-Oct-12 A
S22N3022	NB31A (CH 0-21.9) on W56A : Installing Panel		100%	36	22-Oct-12 A	22-Nov-12 A
South Bound						
Preliminaries						
S22S0000	Site Clearance/Access Rd		100%	84	01-Apr-10 A	16-Jul-10 A



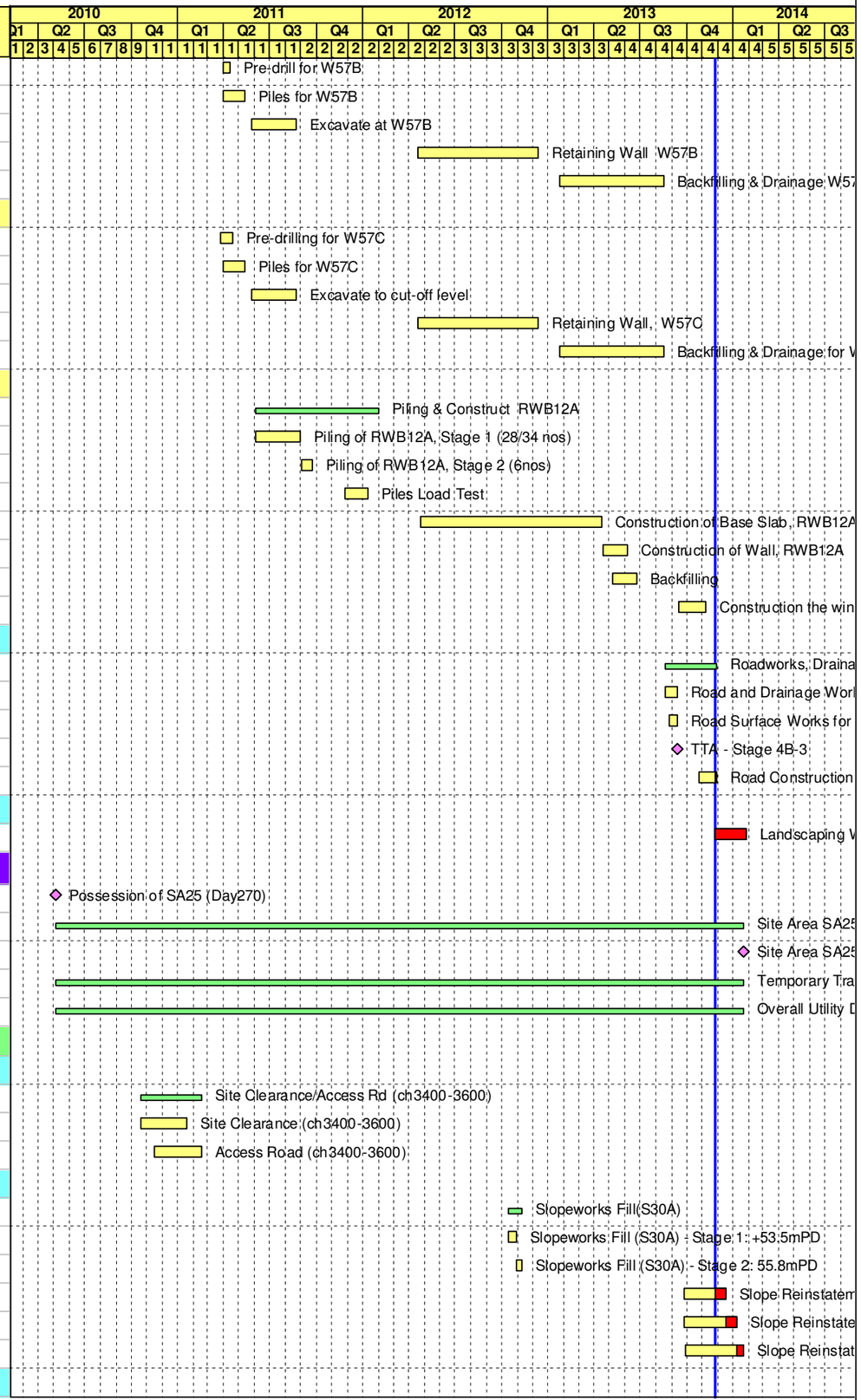
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S22S0010	Site Clearance		100%	72	01-Apr-10 A	02-Jul-10 A
S22S0020	Access Road		100%	72	20-Apr-10 A	16-Jul-10 A
Slopeworks						
S22S5000	Slopeworks Cut(S28-sn) (incl. VO15: Revised Layout of Slope S28)		100%	198	21-Oct-10 A	17-Aug-11 A
S22S5010	Slopeworks Cut(S28) - Stage 1 (Cutslope)		100%	23	21-Oct-10 A	16-Nov-10 A
S22S5030	Slopeworks Cut(S28) - Stage 1 (Soil Nail Installation : IJKL)		100%	23	17-Nov-10 A	08-Feb-11 A
S22S5040	Slopeworks Cut(S28) - Stage 2 (Cutslope)		100%	37	11-Dec-10 A	03-Jan-11 A
S22S5060	Slopeworks Cut(S28) - Stage 2 (Soil Nail Installation : EFGH)		100%	37	08-Feb-11 A	23-Mar-11 A
S22S5070	Slopeworks Cut(S28) - Stage 3 (Cutslope)		100%	36	06-Jul-11 A	17-Aug-11 A
S22S5090	Slopeworks Cut(S28) - Stage 3 (Soil Nail Installation : ABCD)		100%	36	20-Aug-11 A	04-Oct-11 A
S22S5100	Slope Reinstatement Works (Bridge 12B)	-62	0%	40	26-Nov-13	14-Jan-14
Construction of Retaining Wall						
Retaining Wall RWB12B						
S22S2110	Pre-drilling for RWB12B		100%	24	16-Jul-10 A	12-Aug-10 A
S22S2120	Piles for RWB12B		100%	116	13-Aug-10 A	20-Nov-10 A
S22S2130	Excavate to cut-off level		100%	60	26-Jan-11 A	09-Apr-11 A
S22S2140	Capping/Walling for Bay 1-2, RWB12B		100%	60	28-Mar-11 A	10-May-12 A
S22S2142	Capping/Walling for Bay 3-6, RWB12B		100%	75	11-May-12 A	03-Sep-12 A
S22S2150	Backfilling		100%	60	04-Sep-12 A	22-Jun-13 A
Road Re-construction Works, Roadworks & Drainage						
S22S4000	Road Re-construction Works (CH 2840 - 3450)	-65	63.19%	185	06-May-13 A	19-Feb-14
S22S4405	Road and Drainages Works for Fast Lane (CH2840 - 3000)	-69	90%	45	06-May-13 A	30-Nov-13
S22S4410	Road Surface Works for Fast Lane (CH2840 - 3000)	-69	0%	12	30-Nov-13	14-Dec-13
S22S4415	Road Re-Construction Works for Mid 2 Lane (CH2840 - 3000)	-69	0%	24	14-Dec-13	15-Jan-14
S22S4420	Road and Drainages Works for Fast and Mid Lane (CH3000 - 3450)	-69	0%	24	14-Dec-13	15-Jan-14
S22S4425	Road Surface Works for Fast Lane and Mid Lane (CH3000 - 3450)	-69	0%	12	15-Jan-14	29-Jan-14
S22S4430	Road and Drainages Works for Slow Lane (CH2840 - 3450)	-69	0%	12	29-Jan-14	15-Feb-14
S22S4435	Road Surface Works for Slow Lane (CH3000 - 3450)	-69	0%	7	15-Feb-14	24-Feb-14
S22S4440	Road Construction Works Remaining Works (along CH2840 - 3450)	-65	0%	7	12-Feb-14	19-Feb-14
S22S4500	Roadworks for Realignment of Existing Shek Lin Road	-55	0%	18	15-Jan-14	07-Feb-14
Traffic Control & Surveillance System						
S22S4820	TCSS - (Gantry 60) (incl. VO73 Revised Sign Gantry Details)	-69	40%	50	16-Sep-13 A	24-Feb-14
Modification of Existing Bridge 12						
S22S1300	Demolish Existing Parapet & Stitching Works for bridge 12 & 12B (incl. VO3 & VO29)	-65	2.86%	70	16-Sep-13 A	19-Feb-14
S22S1315	VO 3: Existing Bridge 12 pile cap construction		100%	30	17-Sep-10 A	15-Feb-11 A
S22S1322	Removal of Existing Steel Barrier and Surface	-10	80%	8	22-Jul-13 A	27-Nov-13
S22S1323	Stitching Works of Existing Bridge Decks B12 and B12B	-10	80%	20	08-Aug-13 A	02-Dec-13
S22S1324	Road Surface of B12B for TW Slip Road	-10	0%	7	02-Dec-13	10-Dec-13
S22S1326	Removal of existing central barrier along B12 and Erection breaking platform	-65	0%	12	16-Sep-13 A	09-Dec-13
S22S1328	Breaking the existing stitch of B12 and condition survey	-65	0%	18	26-Nov-13	16-Dec-13
S22S1329	Removal M.J and Replacement M.J	-65	0%	8	17-Dec-13	27-Dec-13
S22S1331	Stitching Works for B12	-65	0%	35	28-Dec-13	11-Feb-14
S22S1332	Road Surface Works	-65	0%	7	12-Feb-14	19-Feb-14
Landscaping						
S22S6000	Landscaping Works	-62	16.67%	30	23-Sep-13 A	15-Feb-14
Site Area SA23						
PHSA2320	Possession of SA23 (Day180)		100%	0	04-May-10 A	
SA230000	Site Area SA23 Works Period	-77	86.43%	586	16-Jul-10 A	13-Feb-14



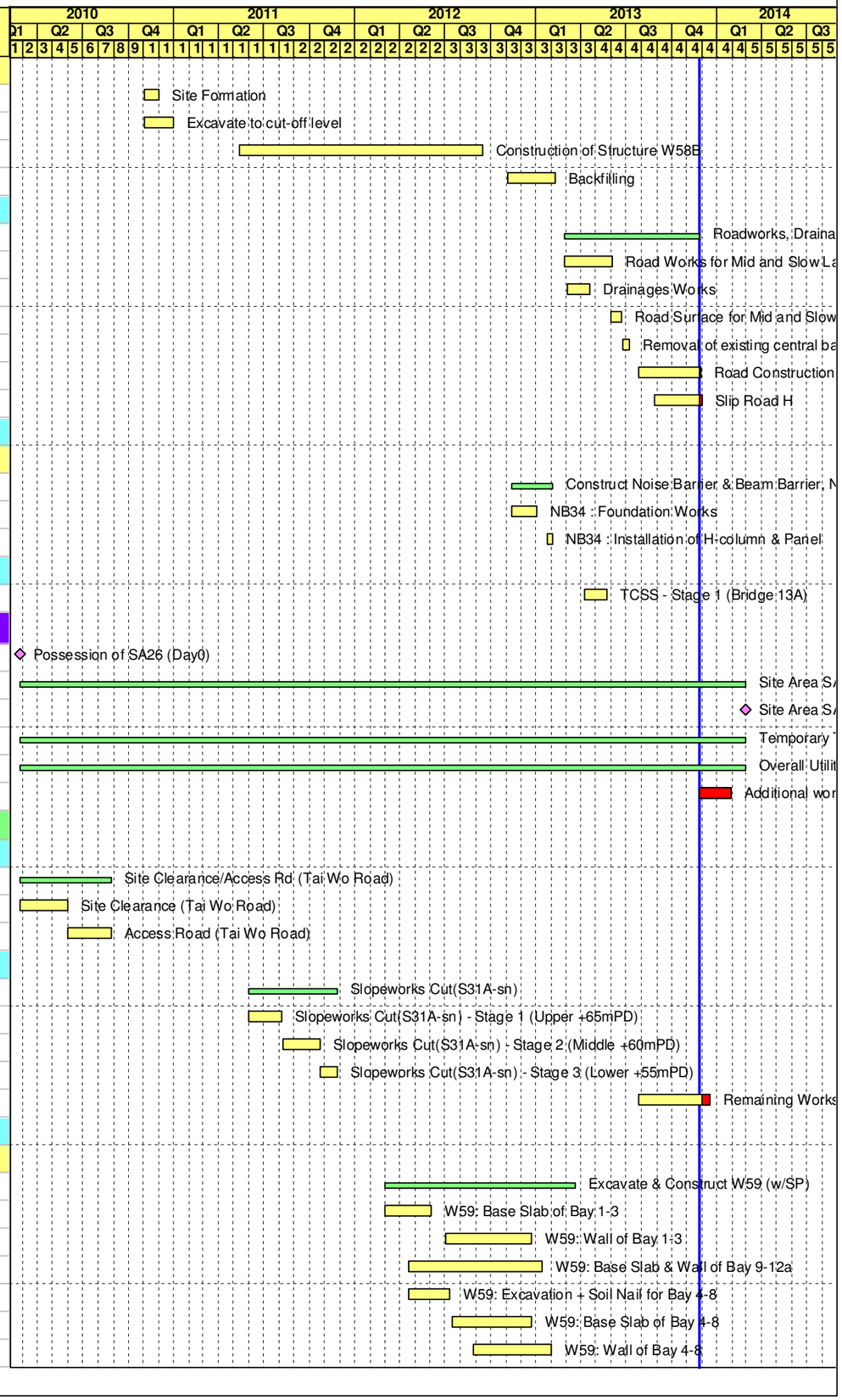
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
SA230010	Site Area SA23 Works Completion	134	0%	0		13-Feb-14
South Bound						
Preliminaries						
S23S0000	Site Clearance / Site Access		100%	144	28-Dec-11 A	24-Aug-13 A
S23S1000	Site Clearance		100%	72	28-Dec-11 A	27-Dec-12 A
S23S2000	Site Access		100%	72	28-Dec-12 A	24-Aug-13 A
Slopeworks						
S21N2638	Slopeworks Fill (S27)		100%	99	29-Nov-12 A	24-Jan-13 A
S21N26381	Slopeworks Fill (S27) - Stage 1, +45mPD		100%	33	29-Nov-12 A	07-Dec-12 A
S21N26382	Slopeworks Fill (S27) - Stage 2, +50mPD		100%	33	08-Dec-12 A	31-Dec-12 A
S21N26383	Slopeworks Fill (S27) - Stage 3, +55mPD		100%	33	04-Jan-13 A	24-Jan-13 A
Landscaping						
S23S6000	Landscaping Works	-60	80%	50	23-Sep-13 A	13-Feb-14
Site Area SA24						
PHSA2410	Possession of SA24 (Day180)		100%	0	04-May-10 A	
SA240000	Site Area SA24 Works Period	-58	92.26%	788	04-May-10 A	25-Jan-14
SA240010	Site Area SA24 Works Completion	152	0%	0		25-Jan-14
North Bound						
Preliminaries						
S24N0000	Site Clearance/Access Rd		100%	89	25-Aug-10 A	09-Dec-10 A
S24N0010	Site Clearance		100%	72	25-Aug-10 A	19-Nov-10 A
S24N0020	Access Road		100%	72	07-Sep-10 A	09-Dec-10 A
Slopeworks						
S24N5000	Slopeworks Cut(S31A)		100%	150	01-Jun-11 A	25-Nov-11 A
S24N5010	Slopeworks Cut (S31A) & Soil Nail : Stage 1 (Upper +80mPD)		100%	60	01-Jun-11 A	06-Aug-11 A
S24N5020	Slopeworks Cut (S31A) & Soil Nail : Stage 2 (Lower +72mPD)		100%	60	08-Aug-11 A	22-Oct-11 A
S24N5030	Slopeworks Cut (S31A) : Shortcreting		100%	30	24-Oct-11 A	25-Nov-11 A
S24N5810	Erect Scaffolding & Soil Nail Installation (Area 4)		100%	60	19-Mar-13 A	08-May-13 A
S24N5831	Slope Reinstatement Works (Bridge 12ASA incl. VO74)	-21	70%	75	30-Apr-13 A	23-Dec-13
Construction of Retaining Wall						
Retaining Wall W56B-2 (Bay 12) (AD)						
S24N2110	Prepare Piling Platform for W56B-2		100%	24	02-Oct-10 A	07-Feb-11 A
S24N2120	Pre-drilling for W56B-2		100%	18	28-Oct-10 A	18-Nov-10 A
S24N2130	Retaining Wall W56B-2		100%	255	21-Jan-11 A	01-Dec-11 A
S24N2140	Piles for W56B-2 (Stage 2)		100%	75	21-Jan-11 A	23-Sep-11 A
S24N2150	Excavation, upper		100%	75	26-Sep-11 A	13-Jan-12 A
S24N2152	Excavation, Middle		100%	60	26-Sep-11 A	19-Apr-12 A
S24N2155	Excavation, Bottom		100%	75	11-May-12 A	26-Jul-12 A
S24N2160	Construction of Base Slab (Bay 12)		100%	75	27-Jul-12 A	25-Aug-12 A
S24N2162	Retaining Wall Structure (Bay 12B)		100%	40	01-Oct-12 A	23-Nov-12 A
S24N2170	Drainage & Backfilling W56B-2		100%	75	27-Feb-13 A	22-May-13 A
Retaining Wall W57A						
S24N2200	Construction of W57A		100%	35	26-Jun-13 A	17-Aug-13 A
S24N2202	Construction of Structure W57A (W57B - bay1 to bay2)		100%	20	26-Jun-13 A	23-Jul-13 A
S24N2203	Backfilling		100%	7	22-Jul-13 A	17-Aug-13 A
Retaining Wall W57B (AD 2)						
S24N2310	Prepare Piling Platform for W57B		100%	18	11-Jan-11 A	31-Jan-11 A



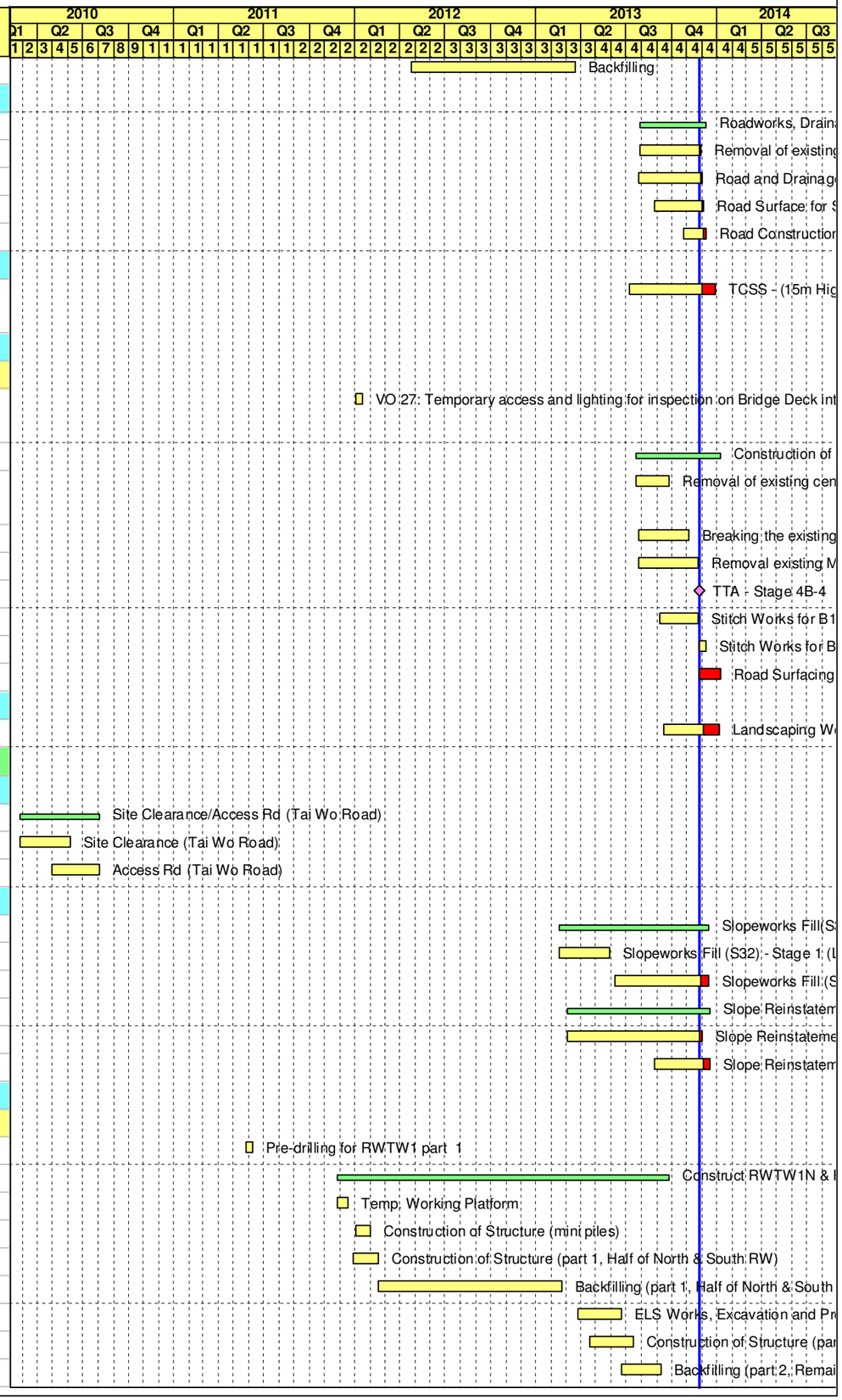
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S24N2320	Pre-drill for W57B		100%	20	01-Apr-11 A	13-Apr-11 A
S24N2330	Piles for W57B		100%	45	01-Apr-11 A	14-May-11 A
S24N2340	Excavate at W57B		100%	75	26-May-11 A	23-Aug-11 A
S24N2360	Retaining Wall W57B		100%	75	19-Apr-12 A	11-Dec-12 A
S24N2370	Backfilling & Drainage W57B		100%	60	25-Jan-13 A	17-Aug-13 A
Retaining Wall W57C, (CSD 2)						
S24N2402	Pre-drilling for W57C		100%	20	26-Mar-11 A	19-Apr-11 A
S24N2404	Piles for W57C		100%	45	01-Apr-11 A	14-May-11 A
S24N2407	Excavate to cut-off level		100%	75	26-May-11 A	23-Aug-11 A
S24N2408	Retaining Wall, W57C		100%	75	19-Apr-12 A	13-Dec-12 A
S24N2420	Backfilling & Drainage for W57C		100%	54	25-Jan-13 A	17-Aug-13 A
Retaining Wall RWB12A						
S24N1500	Piling & Construct RWB12A		100%	195	04-Jun-11 A	31-Jan-12 A
S24N1510	Piling of RWB12A, Stage 1 (28/34 nos)		100%	60	04-Jun-11 A	31-Aug-11 A
S24N1515	Piling of RWB12A, Stage 2 (6nos)		100%	24	01-Sep-11 A	23-Sep-11 A
S24N1517	Piles Load Test		100%	36	26-Nov-11 A	10-Jan-12 A
S24N1520	Construction of Base Slab, RWB12A		100%	60	23-Apr-12 A	17-Apr-13 A
S24N1522	Construction of Wall, RWB12A		100%	40	18-Apr-13 A	07-Jun-13 A
S24N1530	Backfilling		100%	20	09-May-13 A	25-Jun-13 A
S24N1540	Construction the wing slab of RWB12A		100%	30	16-Sep-13 A	09-Nov-13 A
Roadworks, Drainage & Utilities						
S24N4000	Roadworks, Drainages & Utilities (ch3140-3400, exclude B12A)	-47	97.71%	109	19-Aug-13 A	28-Nov-13
S24N4015	Road and Drainage Works		100%	10	19-Aug-13 A	14-Sep-13 A
S24N4025	Road Surface Works for Mid and Slow Lane		100%	14	27-Aug-13 A	14-Sep-13 A
S24N4026	TTA - Stage 4B-3		100%	0		14-Sep-13 A
S24N4035	Road Construction Fast Lane and Remaining Works (along CH3140 - 3400)	-47	95%	50	26-Oct-13 A	28-Nov-13
Landscaping						
S24N6000	Landscaping Works	-47	0%	50	26-Nov-13	25-Jan-14
Site Area SA25						
PHSA2520	Possession of SA25 (Day270)		100%	0	04-May-10 A	
SA250000	Site Area SA25 Works Period (incl, Provision of hoarding at site boundary of SA25)	157	92.73%	770	04-May-10 A	20-Jan-14
SA250010	Site Area SA25 Works Completion	157	0%	0		20-Jan-14
SA250020	Temporary Traffic Management (Detail shall refer to supplementary information)	126	94.12%	765	04-May-10 A	20-Jan-14
SA250030	Overall Utility Diversion (Detail shall refer to supplementary information)	126	94.12%	765	04-May-10 A	20-Jan-14
South Bound						
Preliminaries						
S25S0000	Site Clearance/Access Rd (ch3400-3600)		100%	97	20-Oct-10 A	16-Feb-11 A
S25S0010	Site Clearance (ch3400-3600)		100%	75	20-Oct-10 A	18-Jan-11 A
S25S0020	Access Road (ch3400-3600)		100%	75	15-Nov-10 A	16-Feb-11 A
Slopeworks						
S25S5000	Slopeworks Fill(S30A)		100%	60	15-Oct-12 A	10-Nov-12 A
S25S5010	Slopeworks Fill (S30A) - Stage 1: +53.5mPD		100%	30	15-Oct-12 A	30-Oct-12 A
S25S5020	Slopeworks Fill (S30A) - Stage 2: 55.8mPD		100%	30	31-Oct-12 A	10-Nov-12 A
S25S5110	Slope Reinstatement Works (Bridge 13A)	-42	30%	25	26-Sep-13 A	16-Dec-13
S25S5140	Slope Reinstatement Works (Bridge LB1)	-42	30%	25	26-Sep-13 A	08-Jan-14
S25S5150	Slope Reinstatement Works (S30A)	-42	60%	25	28-Sep-13 A	20-Jan-14
Construction of Retaining Wall						



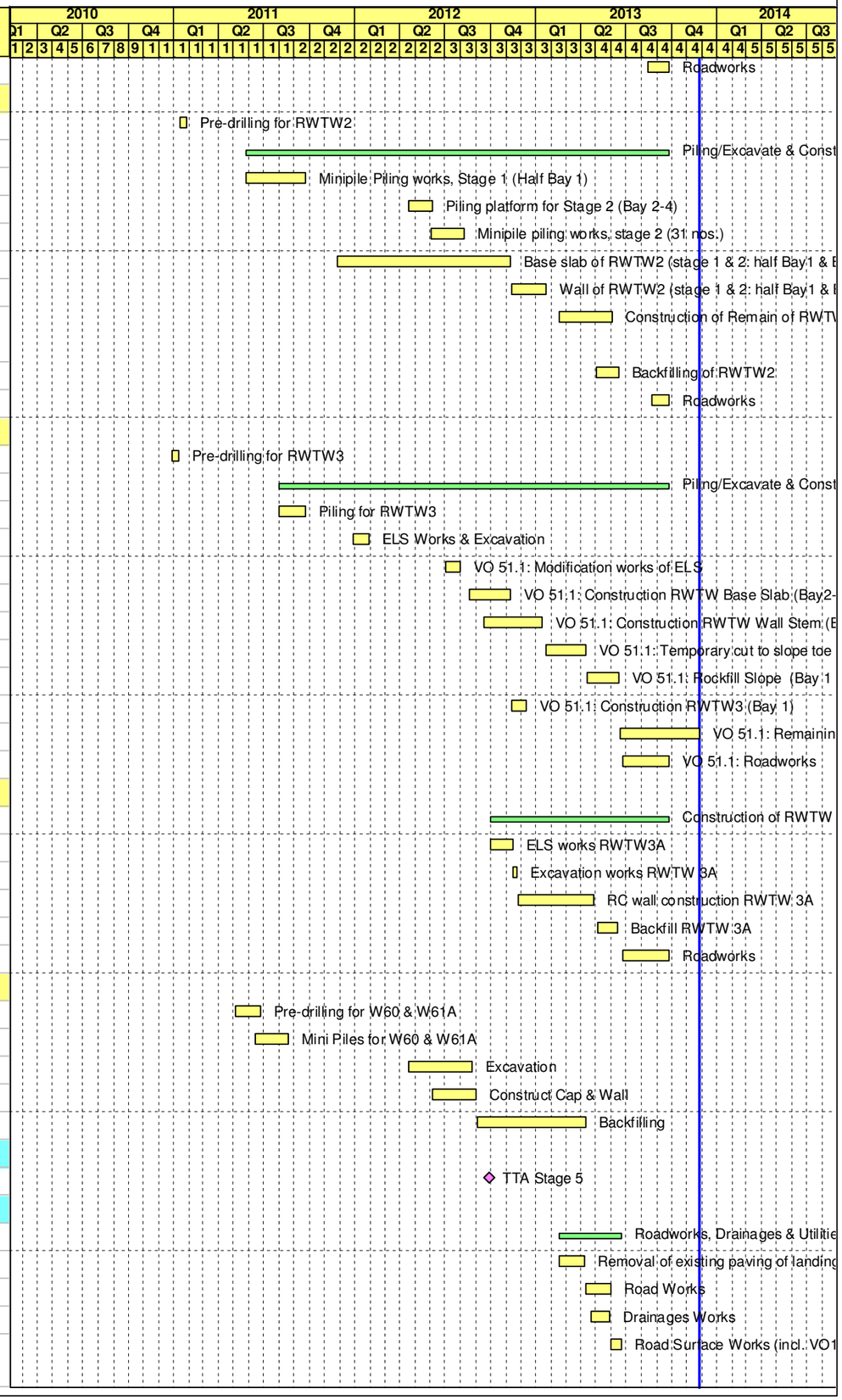
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
	Retaining Wall W58B, (CSD 2)					
S25S2020	Site Formation		100%	25	01-Nov-10 A	30-Nov-10 A
S25S2030	Excavate to cut-off level		100%	10	01-Nov-10 A	31-Dec-10 A
S25S2050	Construction of Structure W58B		100%	75	13-May-11 A	15-Sep-12 A
S25S2060	Backfilling		100%	45	05-Nov-12 A	08-Feb-13 A
	Road Re-construction Works, Roadworks & Drainage					
S25S4000	Roadworks, Drainages & Utilities (CH 3400 - 3600)	171	100%	109	27-Feb-13 A	26-Nov-13
S25S4025	Road Works for Mid and Slow Lane		100%	60	27-Feb-13 A	03-Jun-13 A
S25S4030	Drainages Works		100%	60	04-Mar-13 A	19-Apr-13 A
S25S4040	Road Surface for Mid and Slow Lane		100%	10	31-May-13 A	21-Jun-13 A
S25S4060	Removal of existing central barrier and forming temporary road (CH 3350 - CH 3550)		100%	12	24-Jun-13 A	09-Jul-13 A
S25S4070	Road Construction and Remaining Works (along CH 3400 - 3600)	0	90%	30	27-Jul-13 A	28-Nov-13
S25S4200	Slip Road H	-2	90%	50	27-Aug-13 A	30-Nov-13
	Noise Barriers & Road Barriers					
	Noise Barrier NB34					
S25S3000	Construct Noise Barrier & Beam Barrier, NB34		100%	95	13-Nov-12 A	04-Feb-13 A
S25S3010	NB34 : Foundation Works		100%	36	13-Nov-12 A	03-Jan-13 A
S25S3020	NB34 : Installation of H-column & Panel		100%	36	23-Jan-13 A	04-Feb-13 A
	Traffic Control & Survelance System					
S25S4810	TCSS - Stage 1 (Bridge 13A)		100%	30	08-Apr-13 A	25-May-13 A
	Site Area SA26					
PHSA2620	Possession of SA26 (Day0)		100%	0	26-Feb-10 A	
SA260000	Site Area SA26 Works Period	-92	92.19%	1216	26-Feb-10 A	28-Feb-14
SA260010	Site Area SA26 Works Completion	-92	0%	0		28-Feb-14
SA260020	Temporary Traffic Management (Detail shall refer to supplementary information)	-73	92.27%	983	26-Feb-10 A	28-Feb-14
SA260030	Overall Utility Diversion (Detail shall refer to supplementary information)	-73	92.27%	983	26-Feb-10 A	28-Feb-14
SA260040	Additional work to existing ball valves, HKCG	-49	0%	52	26-Nov-13	28-Jan-14
	North Bound					
	Preliminaries					
S26N0000	Site Clearance/Access Rd (Tai Wo Road)		100%	150	26-Feb-10 A	28-Aug-10 A
S26N0010	Site Clearance (Tai Wo Road)		100%	75	26-Feb-10 A	31-May-10 A
S26N0020	Access Road (Tai Wo Road)		100%	75	01-Jun-10 A	28-Aug-10 A
	Slopeworks					
S26N5000	Slopeworks Cut(S31A-sn)		100%	150	01-Jun-11 A	25-Nov-11 A
S26N5010	Slopeworks Cut(S31A-sn) - Stage 1 (Upper +65mPD)		100%	50	01-Jun-11 A	06-Aug-11 A
S26N5020	Slopeworks Cut(S31A-sn) - Stage 2 (Middle +60mPD)		100%	50	08-Aug-11 A	22-Oct-11 A
S26N5030	Slopeworks Cut(S31A-sn) - Stage 3 (Lower +55mPD)		100%	50	24-Oct-11 A	25-Nov-11 A
S26N5040	Remaining Works of S31A	-14	70%	40	27-Jul-13 A	16-Dec-13
	Construction of Retaining Wall					
	Retaining Wall W59					
S26N2000	Excavate & Construct W59 (w/SP)		100%	286	01-Mar-12 A	22-Mar-13 A
S26N2002	W59: Base Slab of Bay 1-3		100%	60	01-Mar-12 A	04-Jun-12 A
S26N2004	W59: Wall of Bay 1-3		100%	60	02-Jul-12 A	24-Dec-12 A
S26N2006	W59: Base Slab & Wall of Bay 9-12a		100%	56	19-Apr-12 A	12-Jan-13 A
S26N2008	W59: Excavation + Soil Nail for Bay 4-8		100%	45	19-Apr-12 A	09-Jul-12 A
S26N2012	W59: Base Slab of Bay 4-8		100%	40	16-Jul-12 A	24-Dec-12 A
S26N2014	W59: Wall of Bay 4-8		100%	75	27-Aug-12 A	02-Feb-13 A



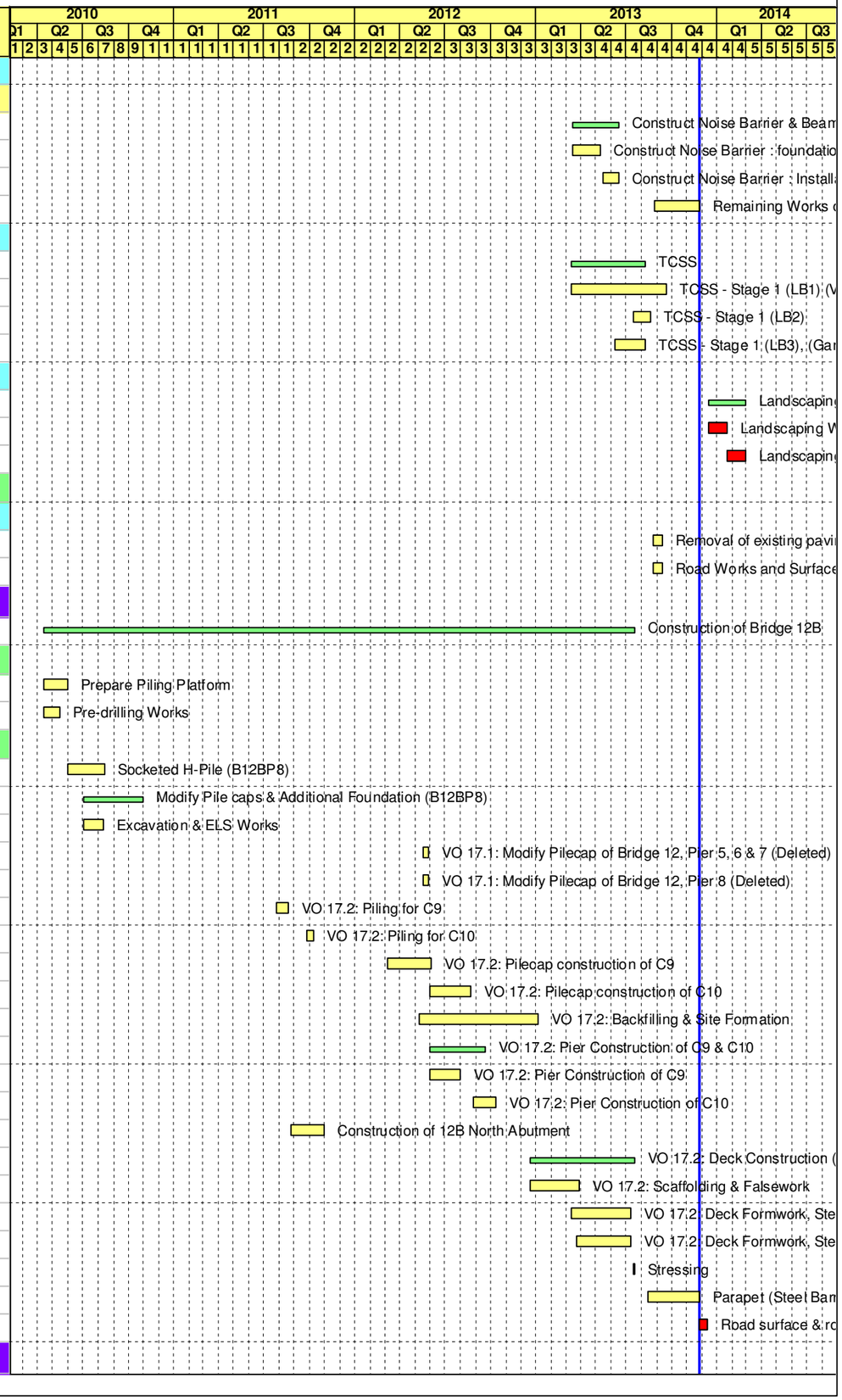
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26N2020	Backfilling		100%	24	23-Apr-12 A	22-Mar-13 A
Roadworks, Drainage & Utilities						
S26N4000	Roadworks, Drainages & Utilities (ch3400-3720)	-8	87.72%	92	29-Jul-13 A	09-Dec-13
S26N4035	Removal of existing paving	-28	60%	7	29-Jul-13 A	28-Nov-13
S26N4055	Road and Drainage Works for Slow and Mid Lane	-28	90%	25	27-Jul-13 A	02-Dec-13
S26N4065	Road Surface for Slow and Mid Lane	-28	90%	10	27-Aug-13 A	03-Dec-13
S26N4075	Road Construction Fast Lane and Remaining Works (along CH3400 - 3720)	-8	90%	50	26-Oct-13 A	09-Dec-13
Traffic Control & Surveilance System						
S26N4810	TCSS - (15m High mast M9), (SEC Poles SC24/ S24) & (Gantry 24) (incl. VO73 Revised Sign Gantry Details)	-22	50%	40	08-Jul-13 A	27-Dec-13
Modification of Existing Bridge						
Modification of Existing Bridge 13						
S26N1200	VO 27: Temporary access and lighting for inspection on Bridge Deck interior of Existing Bridge 13		100%	10	02-Jan-12 A	17-Jan-12 A
S26N1210	Construction of Temporary Pier supports & Installation of Jacks	-32	73.88%	134	22-Jul-13 A	08-Jan-14
S26N1260	Removal of existing central barrier along B13, Erection breaking platform and re-construction of existing parapet		100%	14	22-Jul-13 A	25-Sep-13 A
S26N1270	Breaking the existing stitch of B13 and conditional survey		100%	25	27-Jul-13 A	04-Nov-13 A
S26N1330	Removal existing M.J, Bridge Jacking and replacement bearing & M.J		100%	35	27-Jul-13 A	23-Nov-13 A
S26N1340	TTA - Stage 4B-4	159	0%	0		26-Nov-13
S26N1350	Stitch Works for B13 (Rebar and Formwork)		100%	35	07-Sep-13 A	25-Nov-13 A
S26N1355	Stitch Works for B13 (Concreting)	159	0%	12	26-Nov-13	09-Dec-13
S26N1360	Road Surfacing and Road Diversion	-32	0%	35	26-Nov-13	08-Jan-14
Landscaping						
S26N6040	Landscaping Works (CH3400 - 3720)	-28	50%	50	16-Sep-13 A	04-Jan-14
South Bound						
Preliminaries						
S26S0000	Site Clearance/Access Rd (Tai Wo Road)		100%	129	26-Feb-10 A	04-Aug-10 A
S26S10	Site Clearance (Tai Wo Road)		100%	80	26-Feb-10 A	05-Jun-10 A
S26S20	Access Rd (Tai Wo Road)		100%	80	29-Apr-10 A	04-Aug-10 A
Slopeworks						
S26S5000	Slopeworks Fill(S32)	-73	33.33%	24	18-Feb-13 A	13-Dec-13
S26S5010	Slopeworks Fill (S32) - Stage 1 (Lower +42mPD)		100%	20	18-Feb-13 A	30-May-13 A
S26S5020	Slopeworks Fill (S32) - Stage 2 (Upper +45mPD)	-73	30%	20	08-Jun-13 A	13-Dec-13
S26S5110	Slope Reinstatement Works (besides LB3)	-15	25%	24	04-Mar-13 A	16-Dec-13
S26S5120	Slope Reinstatement Works (besides LB3) - Lower: below +24mPD	-15	70%	20	04-Mar-13 A	02-Dec-13
S26S5130	Slope Reinstatement Works (besides LB3) - Upper: above +24mPD	-15	40%	20	27-Aug-13 A	16-Dec-13
Construction of Retaining Wall						
Retaining Wall RWTW1, (CSD 1)						
S26S1289	Pre-drilling for RWTW1 part 1		100%	11	26-May-11 A	08-Jun-11 A
S26S1290	Construct RWTW1N & RWTW1S		100%	325	26-Nov-11 A	25-Sep-13 A
S26S1391	Temp. Working Platform		100%	30	26-Nov-11 A	17-Dec-11 A
S26S1392	Construction of Structure (mini piles)		100%	60	04-Jan-12 A	31-Jan-12 A
S26S1394	Construction of Structure (part 1, Half of North & South RW)		100%	50	29-Dec-11 A	17-Feb-12 A
S26S1395	Backfilling (part 1, Half of North & South RW)		100%	30	18-Feb-12 A	23-Feb-13 A
S26S1401	ELS Works, Excavation and Protection Existing Gas Main		100%	20	25-Mar-13 A	21-Jun-13 A
S26S1402	Construction of Structure (part 2, Remaining RW)		100%	35	19-Apr-13 A	17-Jul-13 A
S26S1403	Backfilling (part 2, Remaining RW)		100%	15	21-Jun-13 A	11-Sep-13 A



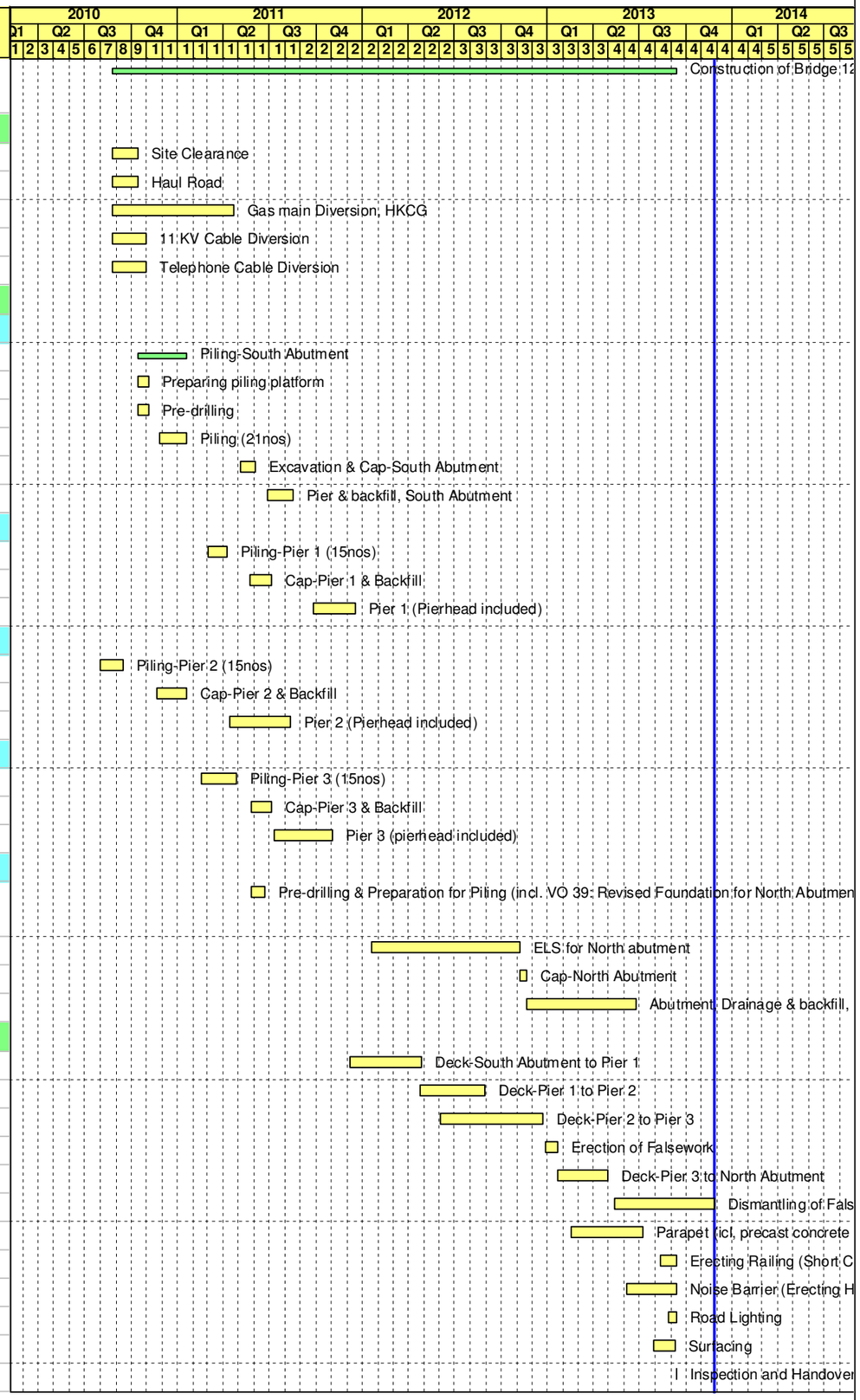
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26S1404	Roadworks		100%	18	15-Aug-13 A	25-Sep-13 A
Retaining Wall RWTW2, (CSD 1)						
S26S1379	Pre-drilling for RWTW2		100%	12	12-Jan-11 A	25-Jan-11 A
S26S1380	Piling/Excavate & Construct RWTW2		100%	609	26-May-11 A	25-Sep-13 A
S26S1381	Minipile Piling works, Stage 1 (Half Bay 1)		100%	50	26-May-11 A	24-Sep-11 A
S26S1382	Piling platform for Stage 2 (Bay 2-4)		100%	9	19-Apr-12 A	04-Jun-12 A
S26S1383	Minipile piling works, stage 2 (31 nos.)		100%	58	04-Jun-12 A	08-Aug-12 A
S26S1384	Base slab of RWTW2 (stage 1 & 2: half Bay1 & Bay 2-4)		100%	75	26-Nov-11 A	10-Nov-12 A
S26S1386	Wall of RWTW2 (stage 1 & 2: half Bay1 & Bay 2-4)		100%	48	12-Nov-12 A	22-Jan-13 A
S26S1520	Construction of Remain of RWTW2 (stage 3: Remaining Half Bay 1, Connection to LB2)		100%	50	18-Feb-13 A	04-Jun-13 A
S26S1530	Backfilling of RWTW2		100%	20	02-May-13 A	18-Jun-13 A
S26S1540	Roadworks		100%	20	22-Aug-13 A	25-Sep-13 A
Retaining Wall RWTW3, (VO)						
S26S1389	Pre-drilling for RWTW3		100%	12	28-Dec-10 A	11-Jan-11 A
S26S1390	Piling/Excavate & Construct RWTW3		100%	708	01-Aug-11 A	25-Sep-13 A
S26S1591	Piling for RWTW3		100%	24	01-Aug-11 A	23-Sep-11 A
S26S1592	ELS Works & Excavation		100%	24	28-Dec-11 A	28-Jan-12 A
S26S1593	VO 51.1: Modification works of ELS		100%	20	03-Jul-12 A	31-Jul-12 A
S26S1596	VO 51.1: Construction RWTW Base Slab (Bay2-8)		100%	60	20-Aug-12 A	10-Nov-12 A
S26S1598	VO 51.1: Construction RWTW Wall Stem (Bay 2-8)		100%	60	17-Sep-12 A	14-Jan-13 A
S26S1600	VO 51.1: Temporary cut to slope toe		100%	25	22-Jan-13 A	12-Apr-13 A
S26S1602	VO 51.1: Rockfill Slope (Bay 1 -Bay 7)		100%	40	13-Apr-13 A	17-Jun-13 A
S26S1604	VO 51.1: Construction RWTW3 (Bay 1)		100%	40	12-Nov-12 A	12-Dec-12 A
S26S1606	VO 51.1: Remaining Rockfill below LB3	169	90%	20	19-Jun-13 A	27-Nov-13
S26S1608	VO 51.1: Roadworks		100%	30	26-Jun-13 A	25-Sep-13 A
Retaining Wall RWTW3A						
S26S1614	Construction of RWTW 3A		100%	168	01-Oct-12 A	25-Sep-13 A
S26S1628	ELS works RWTW3A		100%	32	01-Oct-12 A	15-Nov-12 A
S26S1638	Excavation works RWTW 3A		100%	25	16-Nov-12 A	24-Nov-12 A
S26S1648	RC wall construction RWTW 3A		100%	70	26-Nov-12 A	27-Apr-13 A
S26S1658	Backfill RWTW 3A		100%	20	06-May-13 A	15-Jun-13 A
S26S1668	Roadworks		100%	30	26-Jun-13 A	25-Sep-13 A
Retaining Wall W60 & W61A (CSD 2)						
S26S2020	Pre-drilling for W60 & W61A		100%	7	06-May-11 A	24-Jun-11 A
S26S2030	Mini Piles for W60 & W61A		100%	30	15-Jun-11 A	20-Aug-11 A
S26S2040	Excavation		100%	50	19-Apr-12 A	25-Aug-12 A
S26S2050	Construct Cap & Wall		100%	52	06-Jun-12 A	31-Aug-12 A
S26S2060	Backfilling		100%	30	04-Sep-12 A	10-Apr-13 A
Temporary Bridge bet. RWTW2 & RWTW1						
S26S2520	TTA Stage 5		100%	0	27-Sep-12 A	
Road Re-construction Works, Roadworks, Drainage & Utilities						
S26S4000	Roadworks, Drainages & Utilities (Landing between B13A & B15A within CH 3600 ...		100%	62	18-Feb-13 A	21-Jun-13 A
S26S4002	Removal of existing paving of landing area		100%	12	18-Feb-13 A	09-Apr-13 A
S26S4005	Road Works		100%	25	10-Apr-13 A	31-May-13 A
S26S4006	Drainages Works		100%	15	23-Apr-13 A	30-May-13 A
S26S4010	Road Surface Works (incl. VO14: Revised Layout of Police Observation Platform at CH3700)		100%	10	01-Jun-13 A	21-Jun-13 A



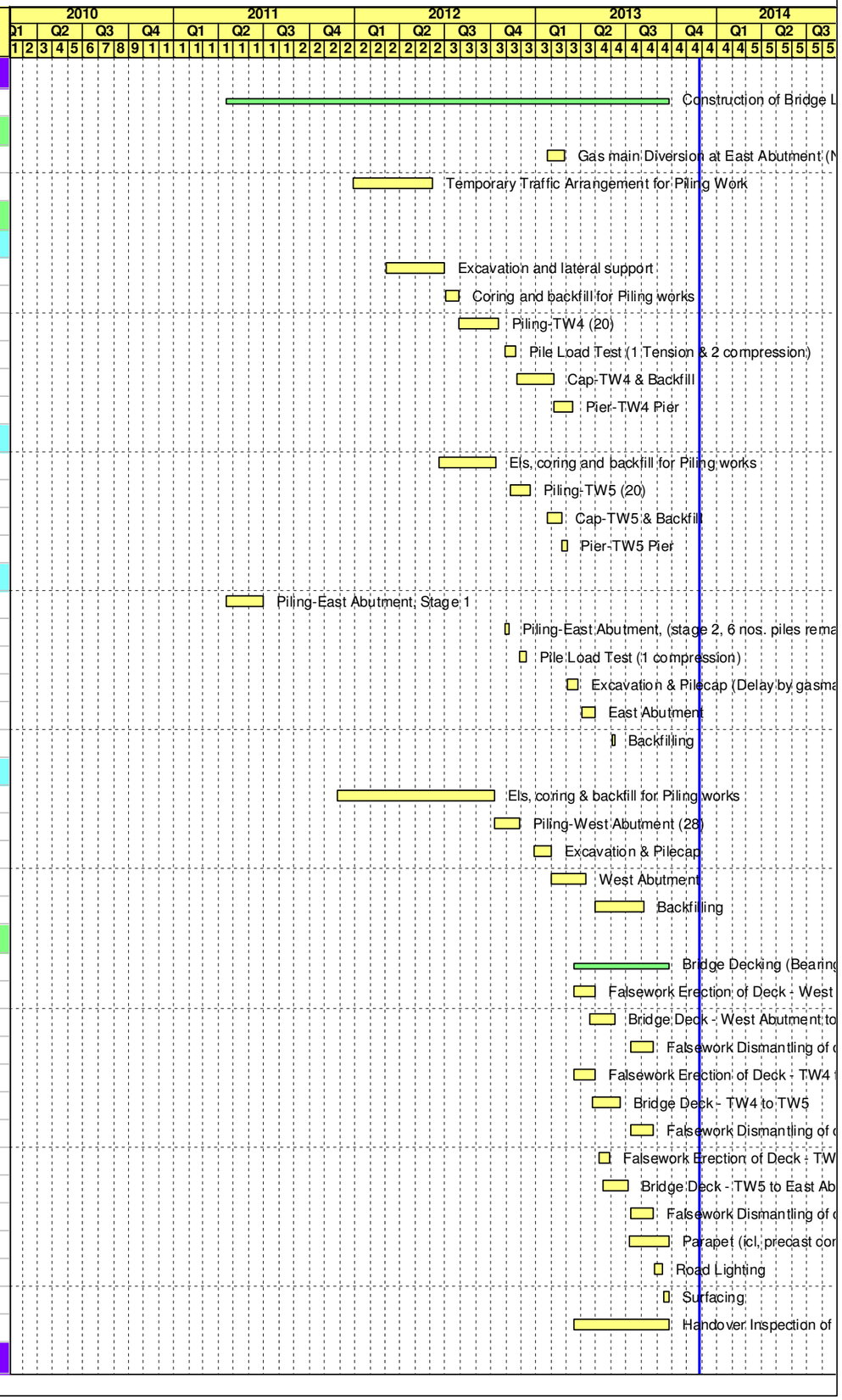
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
Noise Barriers & Road Barriers						
Noise Barrier NB35						
S26S3000	Construct Noise Barrier & Beam Barrier, NB35		100%	60	15-Mar-13 A	18-Jun-13 A
S26S3010	Construct Noise Barrier : foundation Works. NB35		100%	30	15-Mar-13 A	11-May-13 A
S26S3020	Construct Noise Barrier : Installation of H-coulmn & Panel NB35		100%	7	17-May-13 A	18-Jun-13 A
S26S3030	Remaining Works of NB35	-73	80%	10	27-Aug-13 A	27-Nov-13
Traffic Control & Survelance System						
S26S4800	TCSS		100%	57	12-Mar-13 A	10-Aug-13 A
S26S4810	TCSS - Stage 1 (LB1) (VSLS Pole P55)		100%	30	12-Mar-13 A	21-Sep-13 A
S26S4820	TCSS - Stage 1 (LB2)		100%	15	15-Jul-13 A	20-Aug-13 A
S26S4830	TCSS - Stage 1 (LB3), (Gantry G101) (incl. VO73 Revised Sign Gantry Details)		100%	30	10-Jun-13 A	10-Aug-13 A
Landscaping						
S26S6000	Landscaping Works	-73	0%	60	14-Dec-13	28-Feb-14
S26S6010	Landscaping Works - Stage 1, East of B13A	-73	0%	30	14-Dec-13	21-Jan-14
S26S6040	Landscaping Works - Stage 2, West of B13A	-73	0%	30	22-Jan-14	28-Feb-14
Middle Lane						
Road Re-construction Works, Roadworks & Drainage						
S26S4014	Removal of existing paving (CH3400 - CH3720)		100%	25	26-Aug-13 A	13-Sep-13 A
S26S4019	Road Works and Surface Works (CH3400 - 3720)		100%	30	26-Aug-13 A	13-Sep-13 A
Construction of Bridge 12B						
S22S1310	Construction of Bridge 12B		100%	367	15-Apr-10 A	20-Jul-13 A
Preparatory and Enabling Works						
S22S1210	Prepare Piling Platform		100%	38	15-Apr-10 A	31-May-10 A
S22S1220	Pre-drilling Works		100%	26	15-Apr-10 A	15-May-10 A
Construction Works of Bridge 12B						
S22S1230	Socketed H-Pile (B12BP8)		100%	62	01-Jun-10 A	13-Aug-10 A
S22S1250	Modify Pile caps & Additional Foundation (B12BP8)		100%	101	02-Jul-10 A	30-Oct-10 A
S22S1251	Excavation & ELS Works		100%	36	02-Jul-10 A	12-Aug-10 A
S22S1260	VO 17.1: Modify Pilecap of Bridge 12, Pier 5, 6 & 7 (Deleted)		100%	48	18-May-12 A	28-May-12 A
S22S1270	VO 17.1: Modify Pilecap of Bridge 12, Pier 8 (Deleted)		100%	48	18-May-12 A	28-May-12 A
S22S1280	VO 17.2: Piling for C9		100%	24	26-Jul-11 A	20-Aug-11 A
S22S1290	VO 17.2: Piling for C10		100%	20	26-Sep-11 A	08-Oct-11 A
S22S1340	VO 17.2: Pilecap construction of C9		100%	60	06-Mar-12 A	02-Jun-12 A
S22S1350	VO 17.2: Pilecap construction of C10		100%	54	01-Jun-12 A	21-Aug-12 A
S22S1400	VO 17.2: Backfilling & Site Formation		100%	24	11-May-12 A	05-Jan-13 A
S22S1410	VO 17.2: Pier Construction of C9 & C10		100%	94	01-Jun-12 A	20-Sep-12 A
S22S1420	VO 17.2: Pier Construction of C9		100%	60	01-Jun-12 A	31-Jul-12 A
S22S1430	VO 17.2: Pier Construction of C10		100%	75	28-Aug-12 A	13-Oct-12 A
S22S1440	Construction of 12B North Abutment		100%	75	26-Aug-11 A	31-Oct-11 A
S22S1450	VO 17.2: Deck Construction (Bearings, Drainage & MJ inculded)		100%	179	20-Dec-12 A	20-Jul-13 A
S22S1460	VO 17.2: Scaffolding & Falsework		100%	35	20-Dec-12 A	28-Mar-13 A
S22S1470	VO 17.2: Deck Formwork, Steel Fixing and Concreting - C9 - C10 (Stage 1)		100%	65	14-Mar-13 A	12-Jul-13 A
S22S1480	VO 17.2: Deck Formwork, Steel Fixing and Concreting - NA to C9 (Stage 2)		100%	65	23-Mar-13 A	12-Jul-13 A
S22S1500	Stressing		100%	5	15-Jul-13 A	20-Jul-13 A
S22S1520	Parapet (Steel Barrier)	-37	95%	15	15-Aug-13 A	26-Nov-13
S22S1540	Road surface & road work	-37	0%	14	26-Nov-13	12-Dec-13
Construction of Bridge 12A						



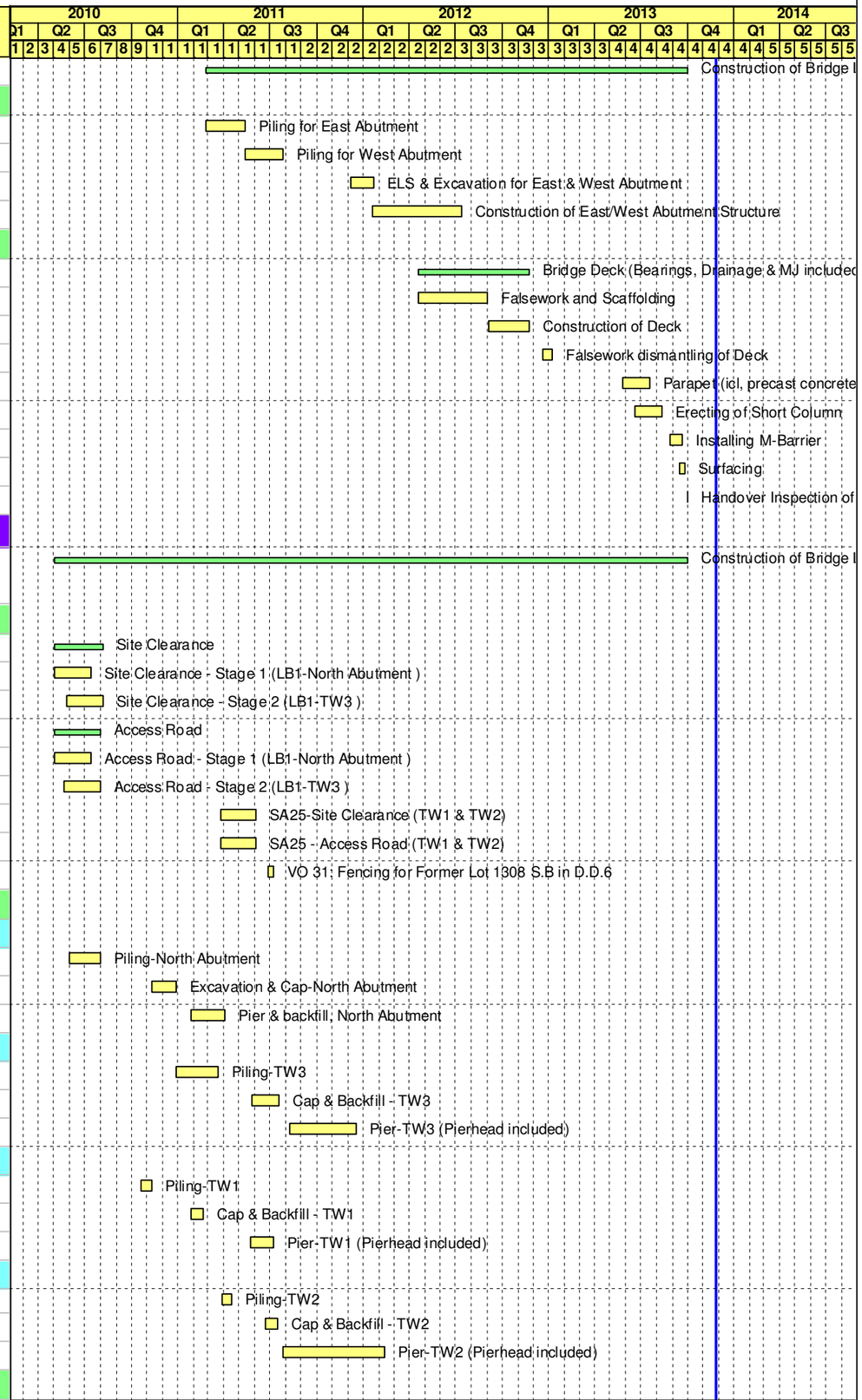
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S24S1280	Construction of Bridge 12A (incl. VO29 & VO37: revised piling details and pile caps sleeving detaills)		100%	451	25-Aug-10 A	14-Sep-13 A
Preparatory and Enabling Works						
S24N1210	Site Clearance		100%	42	25-Aug-10 A	14-Oct-10 A
S24N1220	Haul Road		100%	42	25-Aug-10 A	14-Oct-10 A
S24N1230	Gas main Diversion, HKCG		100%	55	25-Aug-10 A	22-Apr-11 A
S24N1240	11 KV Cable Diversion		100%	55	25-Aug-10 A	30-Oct-10 A
S24N1250	Telephone Cable Diversion		100%	55	25-Aug-10 A	30-Oct-10 A
Substructure and Pier Construction						
South Abutment						
S24N1260	Piling-South Abutment		100%	29	15-Oct-10 A	19-Jan-11 A
S24N1261	Preparing piling platform		100%	18	15-Oct-10 A	05-Nov-10 A
S24N1262	Pre-drilling		100%	18	15-Oct-10 A	05-Nov-10 A
S24N1263	Piling (21nos)		100%	43	27-Nov-10 A	19-Jan-11 A
S24N1310	Excavation & Cap-South Abutment		100%	35	04-May-11 A	04-Jun-11 A
S24N1360	Pier & backfill, South Abutment		100%	36	27-Jun-11 A	17-Aug-11 A
Pier 1						
S24N1270	Piling-Pier 1 (15nos)		100%	30	02-Mar-11 A	07-Apr-11 A
S24N1320	Cap-Pier 1 & Backfill		100%	36	23-May-11 A	05-Jul-11 A
S24N1370	Pier 1 (Pierhead included)		100%	96	26-Sep-11 A	17-Dec-11 A
Pier 2						
S24N1280	Piling-Pier 2 (15nos)		100%	38	02-Aug-10 A	15-Sep-10 A
S24N1330	Cap-Pier 2 & Backfill		100%	38	20-Nov-10 A	19-Jan-11 A
S24N1380	Pier 2 (Pierhead included)		100%	96	14-Apr-11 A	12-Aug-11 A
Pier 3						
S24N1290	Piling-Pier 3 (15nos)		100%	38	16-Feb-11 A	27-Apr-11 A
S24N1340	Cap-Pier 3 & Backfill		100%	32	26-May-11 A	04-Jul-11 A
S24N1390	Pier 3 (pierhead included)		100%	96	11-Jul-11 A	02-Nov-11 A
North Abutment						
S24N1300	Pre-drilling & Preparation for Piling (incl. VO 39: Revised Foundation for North Abutment)		100%	24	26-May-11 A	23-Jun-11 A
S24N1302	ELS for North abutment		100%	75	19-Jan-12 A	07-Nov-12 A
S24N1350	Cap-North Abutment		100%	25	08-Nov-12 A	20-Nov-12 A
S24N1400	Abutment, Drainage & backfill, North Abutment		100%	75	21-Nov-12 A	25-Jun-13 A
Decking and Finishing						
S24N1410	Deck-South Abutment to Pier 1		100%	62	07-Dec-11 A	26-Apr-12 A
S24N1420	Deck-Pier 1 to Pier 2		100%	75	23-Apr-12 A	30-Aug-12 A
S24N1430	Deck-Pier 2 to Pier 3		100%	75	02-Jun-12 A	22-Dec-12 A
S24N1434	Erection of Falsework		100%	25	29-Dec-12 A	22-Jan-13 A
S24N1440	Deck-Pier 3 to North Abutment		100%	60	22-Jan-13 A	30-Apr-13 A
S24N1444	Dismantling of Falsework	-21	95%	25	14-May-13 A	27-Nov-13
S24N1450	Parapet (icl, precast concrete skin)		100%	21	18-Feb-13 A	09-Jul-13 A
S24N1457	Erecting Railing (Short Column and barrier)		100%	10	13-Aug-13 A	14-Sep-13 A
S24N1463	Noise Barrier (Erecting H-Column and Panel)		100%	15	06-Jun-13 A	14-Sep-13 A
S24N1470	Road Lighting		100%	12	27-Aug-13 A	14-Sep-13 A
S24N1480	Surfacing		100%	12	30-Jul-13 A	11-Sep-13 A
S24N1490	Inspection and Handover of Bridge 12A		100%	3	12-Sep-13 A	14-Sep-13 A



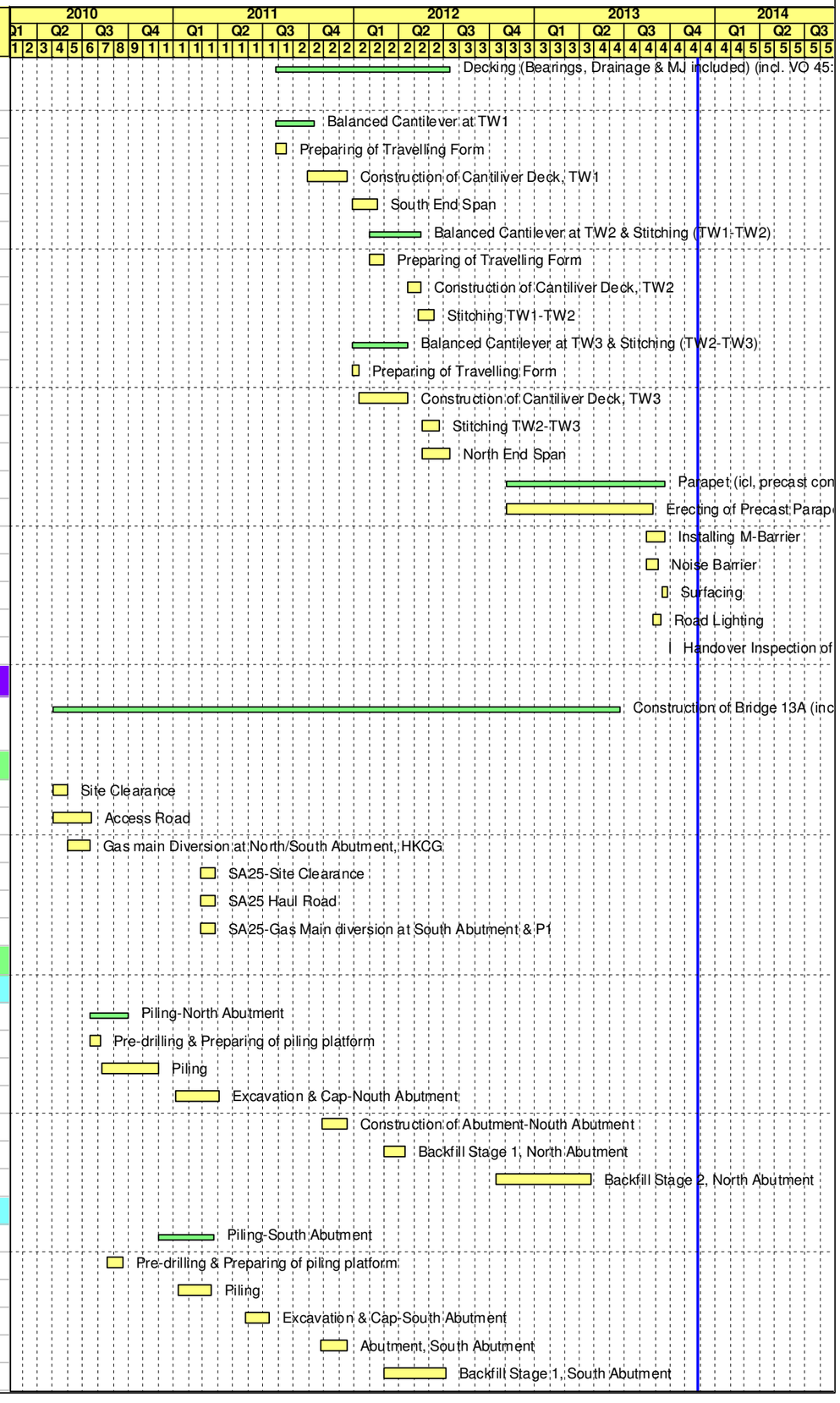
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
Construction of Bridge LB2						
S26S1200	Construction of Bridge LB2 (incl. VO29 & 37: revised piling details and pile caps sl...		100%	641	16-Apr-11 A	25-Sep-13 A
Preparatory and Enabling Works						
S26S1205	Gas main Diversion at East Abutment (No Connection)		100%	15	24-Jan-13 A	28-Feb-13 A
S26S1215	Temporary Traffic Arrangement for Piling Work		100%	75	28-Dec-11 A	04-Jun-12 A
Substructure and Pier Construction						
TW4						
S26S1203	Excavation and lateral support		100%	20	05-Mar-12 A	30-Jun-12 A
S26S1204	Coring and backfill for Piling works		100%	75	02-Jul-12 A	28-Jul-12 A
S26S1212	Piling-TW4 (20)		100%	49	30-Jul-12 A	17-Oct-12 A
S26S1217	Pile Load Test (1 Tension & 2 compression)		100%	25	31-Oct-12 A	22-Nov-12 A
S26S1222	Cap-TW4 & Backfill		100%	35	23-Nov-12 A	05-Feb-13 A
S26S1225	Pier-TW4 Pier		100%	35	06-Feb-13 A	16-Mar-13 A
TW5						
S26S1206	Els, coring and backfill for Piling works		100%	30	19-Jun-12 A	12-Oct-12 A
S26S1210	Piling-TW5 (20)		100%	40	09-Nov-12 A	21-Dec-12 A
S26S1220	Cap-TW5 & Backfill		100%	24	23-Jan-13 A	22-Feb-13 A
S26S1227	Pier-TW5 Pier		100%	35	23-Feb-13 A	05-Mar-13 A
East Abutment						
S26S1214	Piling-East Abutment, Stage 1		100%	36	16-Apr-11 A	30-Jun-11 A
S26S1218	Piling-East Abutment, (stage 2, 6 nos. piles remain)		100%	18	29-Oct-12 A	08-Nov-12 A
S26S1219	Pile Load Test (1 compression)		100%	15	28-Nov-12 A	11-Dec-12 A
S26S1224	Excavation & Pilecap (Delay by gasmain)		100%	28	04-Mar-13 A	27-Mar-13 A
S26S1234	East Abutment		100%	30	02-Apr-13 A	29-Apr-13 A
S26S1254	Backfilling		100%	14	04-Jun-13 A	10-Jun-13 A
West Abutment						
S26S1202	Els, coring & backfill for Piling works		100%	75	26-Nov-11 A	08-Oct-12 A
S26S1216	Piling-West Abutment (28)		100%	65	09-Oct-12 A	30-Nov-12 A
S26S1226	Excavation & Pilecap		100%	28	27-Dec-12 A	01-Feb-13 A
S26S1236	West Abutment		100%	35	02-Feb-13 A	10-Apr-13 A
S26S1256	Backfilling		100%	14	29-Apr-13 A	07-Aug-13 A
Decking and Finishing						
S26S1238	Bridge Decking (Bearings, Drainage & MJ inculded)		100%	84	18-Mar-13 A	25-Sep-13 A
S26S1240	Falsework Erection of Deck - West Abutment to TW4		100%	14	18-Mar-13 A	30-Apr-13 A
S26S1241	Bridge Deck - West Abutment to TW4		100%	48	20-Apr-13 A	08-Jun-13 A
S26S1242	Falsework Dismantling of deck - West Abutment to TW4		100%	10	10-Jul-13 A	24-Aug-13 A
S26S1243	Falsework Erection of Deck - TW4 to TW5		100%	14	18-Mar-13 A	30-Apr-13 A
S26S1244	Bridge Deck - TW4 to TW5		100%	48	24-Apr-13 A	19-Jun-13 A
S26S1245	Falsework Dismantling of deck - TW4 to TW5		100%	10	10-Jul-13 A	24-Aug-13 A
S26S1246	Falsework Erection of Deck - TW5 to East Abutment		100%	14	08-May-13 A	29-May-13 A
S26S1247	Bridge Deck - TW5 to East Abutment		100%	48	15-May-13 A	06-Jul-13 A
S26S1248	Falsework Dismantling of deck - TW5 to East Abutment		100%	10	10-Jul-13 A	24-Aug-13 A
S26S1260	Parapet (icl, precast concrete skin)		100%	25	08-Jul-13 A	25-Sep-13 A
S26S1265	Road Lighting		100%	5	27-Aug-13 A	14-Sep-13 A
S26S1270	Surfacing		100%	10	16-Sep-13 A	25-Sep-13 A
S26S1310	Handover Inspection of LB2 (TTA Stage 11)		100%	158	18-Mar-13 A	25-Sep-13 A
Construction of Bridge LB3						



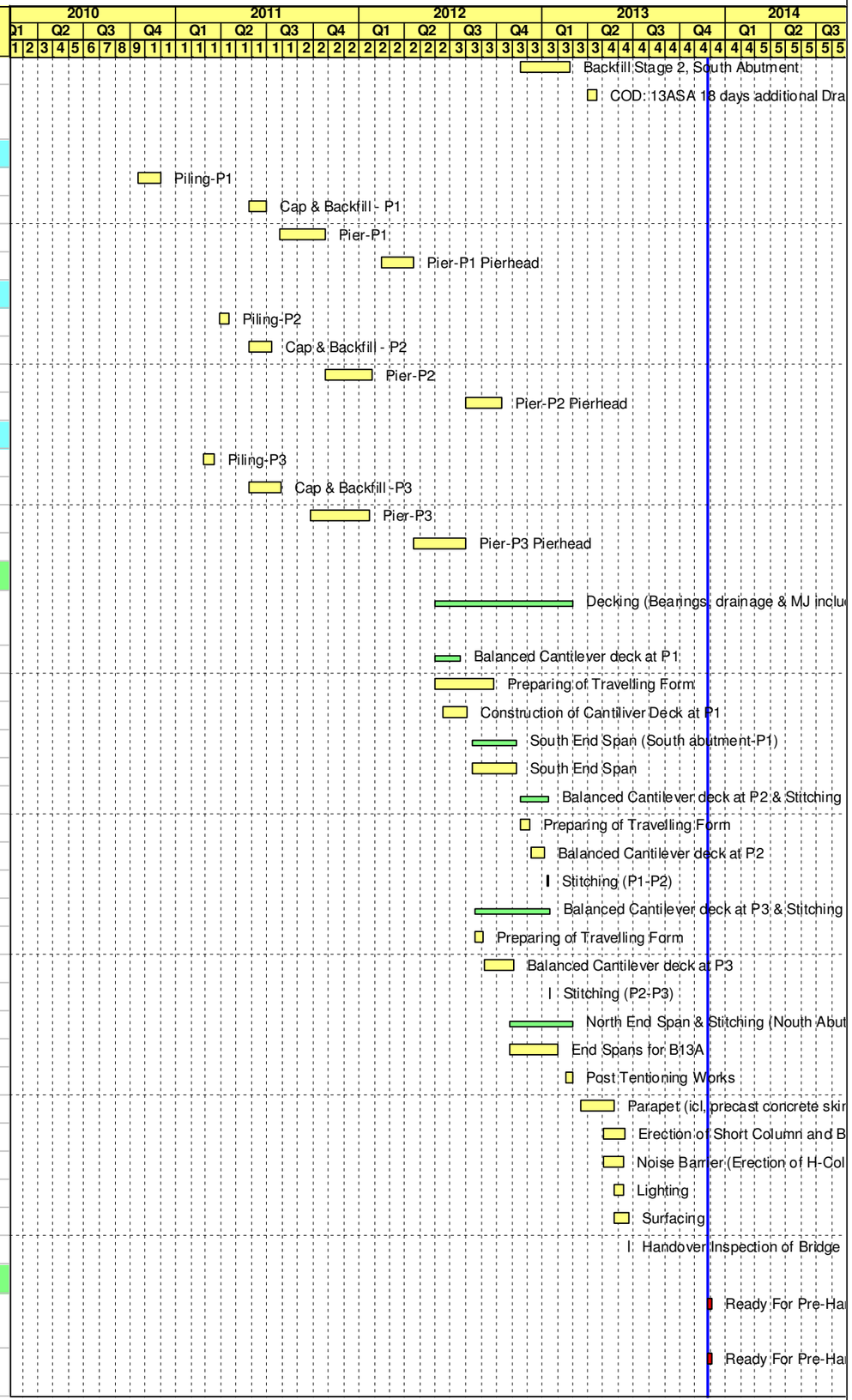
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26S1280	Construction of Bridge LB3(incl. excavation & backfill) (incl. VO29 & VO37)		100%	267	26-Feb-11 A	02-Oct-13 A
Substructure & Abutment						
S26S1320	Piling for East Abutment		100%	60	26-Feb-11 A	14-May-11 A
S26S1330	Piling for West Abutment		100%	60	14-May-11 A	26-Jul-11 A
S26S1340	ELS & Excavation for East & West Abutment		100%	36	07-Dec-11 A	21-Jan-12 A
S26S1350	Construction of East/West Abutment Structure		100%	45	19-Jan-12 A	13-Jul-12 A
Decking and Finishing						
S26S1370	Bridge Deck (Bearings, Drainage & MJ included)		100%	257	19-Apr-12 A	24-Nov-12 A
S26S1371	Falsework and Scaffolding		100%	36	19-Apr-12 A	31-Aug-12 A
S26S1372	Construction of Deck		100%	69	05-Sep-12 A	24-Nov-12 A
S26S1373	Falsework dismantling of Deck		100%	24	21-Dec-12 A	09-Jan-13 A
S26S1375	Parapet (icl, precast concrete skin)		100%	20	26-May-13 A	20-Jul-13 A
S26S1376	Erecting of Short Column		100%	20	19-Jun-13 A	13-Aug-13 A
S26S1377	Installing M-Barrier		100%	7	27-Aug-13 A	21-Sep-13 A
S26S1378	Surfacing		100%	8	16-Sep-13 A	25-Sep-13 A
S26S1385	Handover Inspection of LB3		100%	1	02-Oct-13 A	02-Oct-13 A
Construction of Bridge LB1						
S26S1400	Construction of Bridge LB1 (incl. VO29 & VO37: revised piling details and pile caps sleeving detaills)		100%	643	03-May-10 A	02-Oct-13 A
Preparatory and Enabling Works						
S26S1405	Site Clearance		100%	75	03-May-10 A	06-Aug-10 A
S26S1406	Site Clearance - Stage 1 (LB1-North Abutment)		100%	60	03-May-10 A	14-Jul-10 A
S26S1407	Site Clearance - Stage 2 (LB1-TW3)		100%	60	27-May-10 A	06-Aug-10 A
S26S1410	Access Road		100%	75	03-May-10 A	31-Jul-10 A
S26S1411	Access Road - Stage 1 (LB1-North Abutment)		100%	60	03-May-10 A	14-Jul-10 A
S26S1412	Access Road - Stage 2 (LB1-TW3)		100%	60	20-May-10 A	31-Jul-10 A
S26S1450	SA25-Site Clearance (TW1 & TW2)		100%	53	26-Mar-11 A	02-Jun-11 A
S26S1455	SA25 - Access Road (TW1 & TW2)		100%	53	26-Mar-11 A	02-Jun-11 A
S26S1465	VO 31: Fencing for Former Lot 1308 S.B in D.D.6		100%	10	27-Jun-11 A	09-Jul-11 A
Substructure and Pier Construction						
North Abutment						
S26S1420	Piling-North Abutment		100%	51	01-Jun-10 A	31-Jul-10 A
S26S1430	Excavation & Cap-North Abutment		100%	54	11-Nov-10 A	28-Dec-10 A
S26S1440	Pier & backfill, North Abutment		100%	56	26-Jan-11 A	04-Apr-11 A
TW3						
S26S1422	Piling-TW3		100%	54	28-Dec-10 A	21-Mar-11 A
S26S1432	Cap & Backfill - TW3		100%	45	26-May-11 A	19-Jul-11 A
S26S1442	Pier-TW3 (Pierhead included)		100%	75	08-Aug-11 A	17-Dec-11 A
TW1						
S26S1460	Piling-TW1		100%	70	21-Oct-10 A	11-Nov-10 A
S26S1470	Cap & Backfill - TW1		100%	36	27-Jan-11 A	19-Feb-11 A
S26S1480	Pier-TW1 (Pierhead included)		100%	75	23-May-11 A	08-Jul-11 A
TW2						
S26S1462	Piling-TW2		100%	41	28-Mar-11 A	15-Apr-11 A
S26S1472	Cap & Backfill - TW2		100%	45	21-Jun-11 A	15-Jul-11 A
S26S1482	Pier-TW2 (Pierhead included)		100%	75	26-Jul-11 A	11-Feb-12 A
Decking and Finishing						



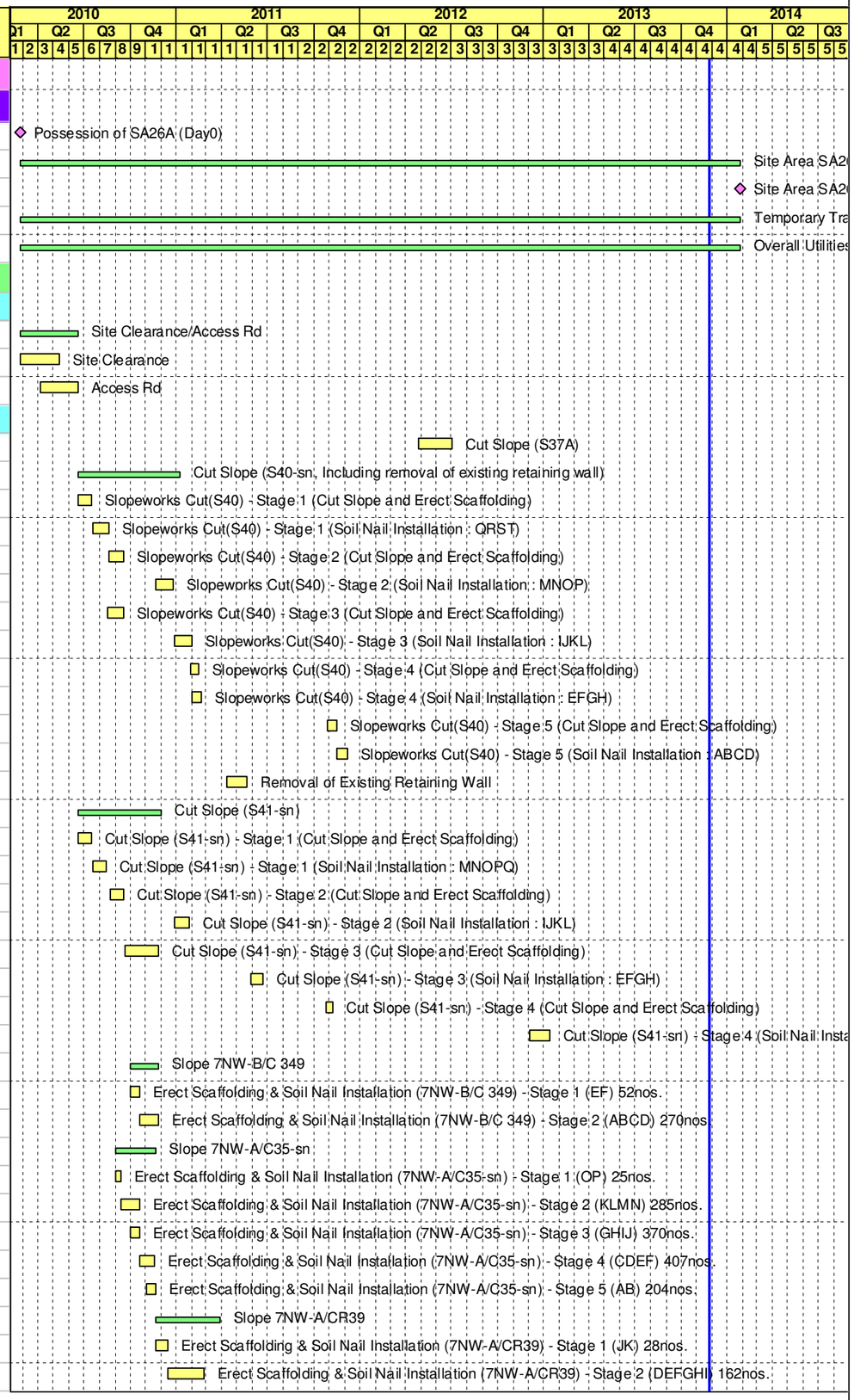
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26S560	Decking (Bearings, Drainage & MJ included) (incl. VO 45: Details Drainage Arrangement of LB1 & B13A)		100%	199	27-Jul-11 A	12-Jul-12 A
S26S570	Balanced Cantilever at TW1		100%	63	27-Jul-11 A	12-Oct-11 A
S26S580	Preparing of Travelling Form		100%	18	27-Jul-11 A	17-Aug-11 A
S26S590	Construction of Cantiliver Deck, TW1		100%	40	30-Sep-11 A	17-Dec-11 A
S26S610	South End Span		100%	40	28-Dec-11 A	16-Feb-12 A
S26S630	Balanced Cantilever at TW2 & Stitching (TW1-TW2)		100%	58	01-Feb-12 A	15-May-12 A
S26S640	Preparing of Travelling Form		100%	12	01-Feb-12 A	29-Feb-12 A
S26S650	Construction of Cantiliver Deck, TW2		100%	40	19-Apr-12 A	15-May-12 A
S26S660	Stitching TW1-TW2		100%	18	11-May-12 A	11-Jun-12 A
S26S670	Balanced Cantilever at TW3 & Stitching (TW2-TW3)		100%	52	28-Dec-11 A	19-Apr-12 A
S26S680	Preparing of Travelling Form		100%	12	28-Dec-11 A	11-Jan-12 A
S26S690	Construction of Cantiliver Deck, TW3		100%	40	12-Jan-12 A	19-Apr-12 A
S26S700	Stitching TW2-TW3		100%	22	18-May-12 A	22-Jun-12 A
S26S720	North End Span		100%	50	18-May-12 A	12-Jul-12 A
S26S740	Parapet (icl, precast concrete skin)		100%	52	05-Nov-12 A	21-Sep-13 A
S26S750	Erecting of Precast Parapet		100%	32	05-Nov-12 A	27-Aug-13 A
S26S760	Installing M-Barrier		100%	6	15-Aug-13 A	21-Sep-13 A
S26S770	Noise Barrier		100%	6	15-Aug-13 A	07-Sep-13 A
S26S780	Surfacing		100%	7	16-Sep-13 A	25-Sep-13 A
S26S790	Road Lighting		100%	7	27-Aug-13 A	14-Sep-13 A
S26S800	Handover Inspection of LB1		100%	1	02-Oct-13 A	02-Oct-13 A
Construction of Bridge 13A						
S26S1300	Construction of Bridge 13A (incl. VO29 & VO37: revised piling details and pile caps sleeving detaills)		100%	744	03-May-10 A	22-Jun-13 A
Preparatory and Enabling Works						
S26S1610	Site Clearance		100%	24	03-May-10 A	31-May-10 A
S26S1611	Access Road		100%	63	03-May-10 A	17-Jul-10 A
S26S1620	Gas main Diversion at North/South Abutment, HKCG		100%	37	01-Jun-10 A	15-Jul-10 A
S26S1690	SA25-Site Clearance		100%	25	26-Feb-11 A	26-Mar-11 A
S26S1700	SA25 Haul Road		100%	25	26-Feb-11 A	26-Mar-11 A
S26S1710	SA25-Gas Main diversion at South Abutment & P1		100%	25	26-Feb-11 A	26-Mar-11 A
Substructure and Pier Construction						
North Abutment						
S26S1630	Piling-North Abutment		100%	65	16-Jul-10 A	30-Sep-10 A
S26S1631	Pre-drilling & Preparing of piling platform		100%	20	16-Jul-10 A	07-Aug-10 A
S26S1632	Piling		100%	45	09-Aug-10 A	30-Nov-10 A
S26S1650	Excavation & Cap-Nouth Abutment		100%	50	04-Jan-11 A	04-Apr-11 A
S26S1670	Construction of Abutment-Nouth Abutment		100%	50	27-Oct-11 A	17-Dec-11 A
S26S1930	Backfill Stage 1, North Abutment		100%	24	01-Mar-12 A	14-Apr-12 A
S26S1940	Backfill Stage 2, North Abutment		100%	60	15-Oct-12 A	24-Apr-13 A
South Abutment						
S26S1720	Piling-South Abutment		100%	90	02-Dec-10 A	23-Mar-11 A
S26S1721	Pre-drilling & Preparing of piling platform		100%	30	20-Aug-10 A	20-Sep-10 A
S26S1722	Piling		100%	60	10-Jan-11 A	17-Mar-11 A
S26S1750	Excavation & Cap-South Abutment		100%	40	26-May-11 A	14-Jul-11 A
S26S1780	Abutment, South Abutment		100%	38	26-Oct-11 A	17-Dec-11 A
S26S1950	Backfill Stage 1, South Abutment		100%	24	01-Mar-12 A	04-Jul-12 A



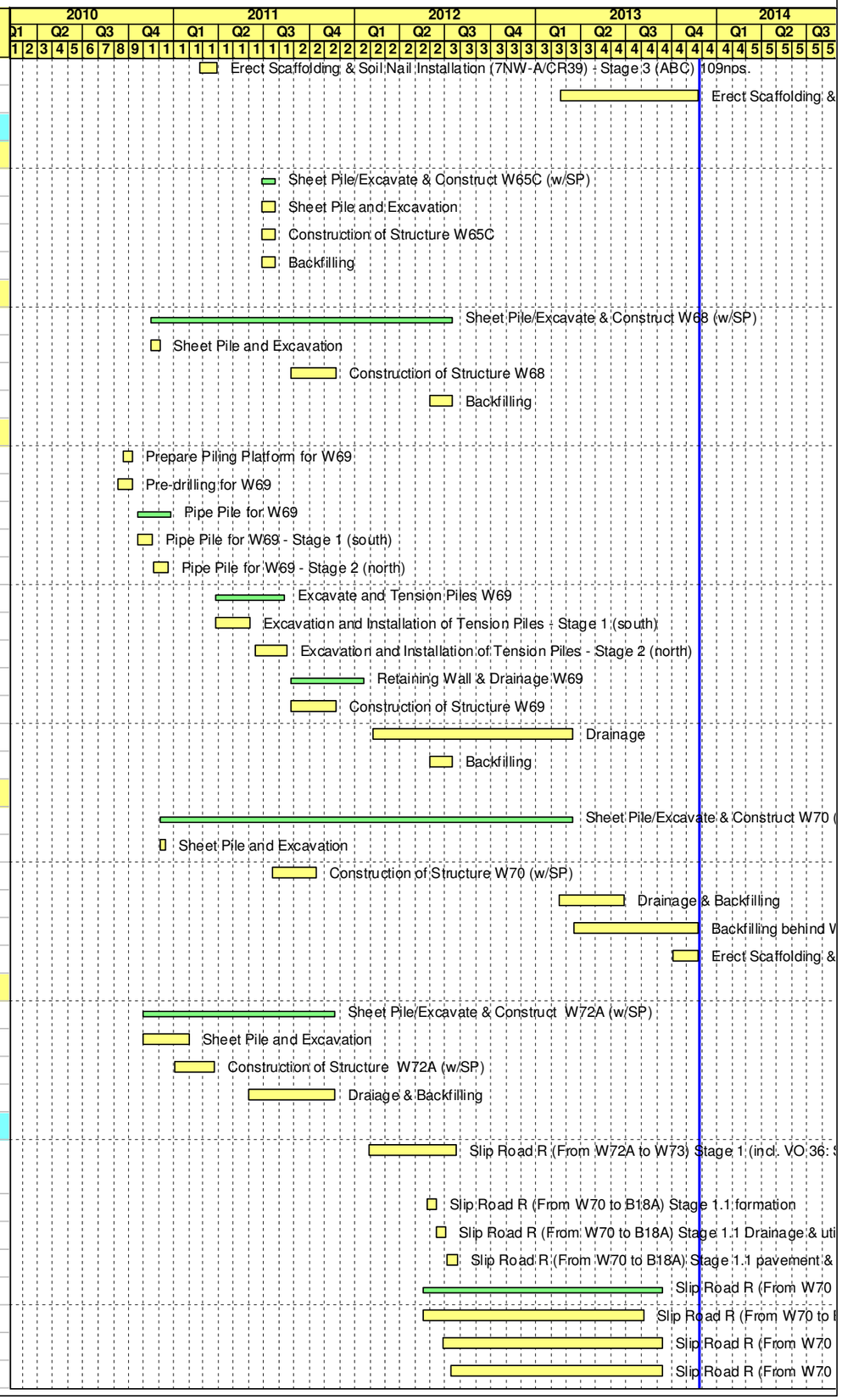
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26S1960	Backfill Stage 2, South Abutment		100%	43	19-Nov-12 A	25-Feb-13 A
S26S1970	COD: 13ASA 18 days additional Drainage works (if RFI can be replied before 4-12-2012)		100%	18	01-Apr-13 A	19-Apr-13 A
P1						
S26S1730	Piling-P1		100%	20	18-Oct-10 A	30-Nov-10 A
S26S1760	Cap & Backfill - P1		100%	33	26-May-11 A	30-Jun-11 A
S26S1790	Pier-P1		100%	75	26-Jul-11 A	24-Oct-11 A
S26S1820	Pier-P1 Pierhead		100%	48	14-Feb-12 A	19-Apr-12 A
P2						
S26S1740	Piling-P2		100%	35	28-Mar-11 A	16-Apr-11 A
S26S1770	Cap & Backfill - P2		100%	38	26-May-11 A	11-Jul-11 A
S26S1800	Pier-P2		100%	75	26-Oct-11 A	27-Jan-12 A
S26S1910	Pier-P2 Pierhead		100%	53	01-Aug-12 A	12-Oct-12 A
P3						
S26S1640	Piling-P3		100%	50	26-Feb-11 A	19-Mar-11 A
S26S1660	Cap & Backfill -P3		100%	50	26-May-11 A	30-Jul-11 A
S26S1680	Pier-P3		100%	96	26-Sep-11 A	20-Jan-12 A
S26S1920	Pier-P3 Pierhead		100%	48	19-Apr-12 A	31-Jul-12 A
Decking and Finishing						
S26S1808	Decking (Bearings, drainage & MJ included) (incl. VO 45: Details of Drainage Arrangement of LB1 & B13A)		100%	110	01-Jun-12 A	01-Mar-13 A
S26S1810	Balanced Cantilever deck at P1		100%	0	01-Jun-12 A	20-Jul-12 A
S26S1811	Preparing of Travelling Form		100%	12	01-Jun-12 A	25-Sep-12 A
S26S1812	Construction of Cantiliver Deck at P1		100%	55	15-Jun-12 A	04-Aug-12 A
S26S1816	South End Span (South abutment-P1)		100%	197	13-Aug-12 A	09-Nov-12 A
S26S1818	South End Span		100%	50	13-Aug-12 A	10-Nov-12 A
S26S1830	Balanced Cantilever deck at P2 & Stitching (P1-P2)		100%	78	19-Nov-12 A	14-Jan-13 A
S26S1831	Preparing of Travelling Form		100%	12	19-Nov-12 A	08-Dec-12 A
S26S1832	Balanced Cantilever deck at P2		100%	50	10-Dec-12 A	05-Jan-13 A
S26S1833	Stitching (P1-P2)		100%	18	11-Jan-13 A	14-Jan-13 A
S26S1840	Balanced Cantilever deck at P3 & Stitching (P2-P3)		100%	73	20-Aug-12 A	17-Jan-13 A
S26S1841	Preparing of Travelling Form		100%	12	20-Aug-12 A	05-Sep-12 A
S26S1842	Balanced Cantilever deck at P3		100%	43	06-Sep-12 A	05-Nov-12 A
S26S1843	Stitching (P2-P3)		100%	18	15-Jan-13 A	17-Jan-13 A
S26S1850	North End Span & Stitching (Nouth Abutment-P3)		100%	96	29-Oct-12 A	01-Mar-13 A
S26S1851	End Spans for B13A		100%	29	29-Oct-12 A	01-Feb-13 A
S26S1852	Post Tentioning Works		100%	18	18-Feb-13 A	01-Mar-13 A
S26S1860	Parapet (icl, precast concrete skin)		100%	24	19-Mar-13 A	25-May-13 A
S26S1863	Erection of Short Column and Barrier		100%	12	03-May-13 A	15-Jun-13 A
S26S1873	Noise Barrier (Erection of H-Column and Panel)		100%	12	03-May-13 A	11-Jun-13 A
S26S1875	Lighting		100%	12	25-May-13 A	11-Jun-13 A
S26S1880	Surfacing		100%	12	25-May-13 A	21-Jun-13 A
S26S1900	Handover Inspection of Bridge 13A		100%	3	21-Jun-13 A	22-Jun-13 A
Ready For Pre-Handover Retaining Wall of Section 2						
HRW0020	Ready For Pre-Handover Retaining Wall W56A, W56B, W57A, W57B, W57C, W59 and RWB12A(N)	-4	0%	7	26-Nov-13	03-Dec-13
HRW0021	Ready For Pre-Handover Retaining Wall W58, W60, W61A, RWTW1, RWTW2, RWTW3, RWTW3a and RWB12B	-4	0%	7	26-Nov-13	03-Dec-13



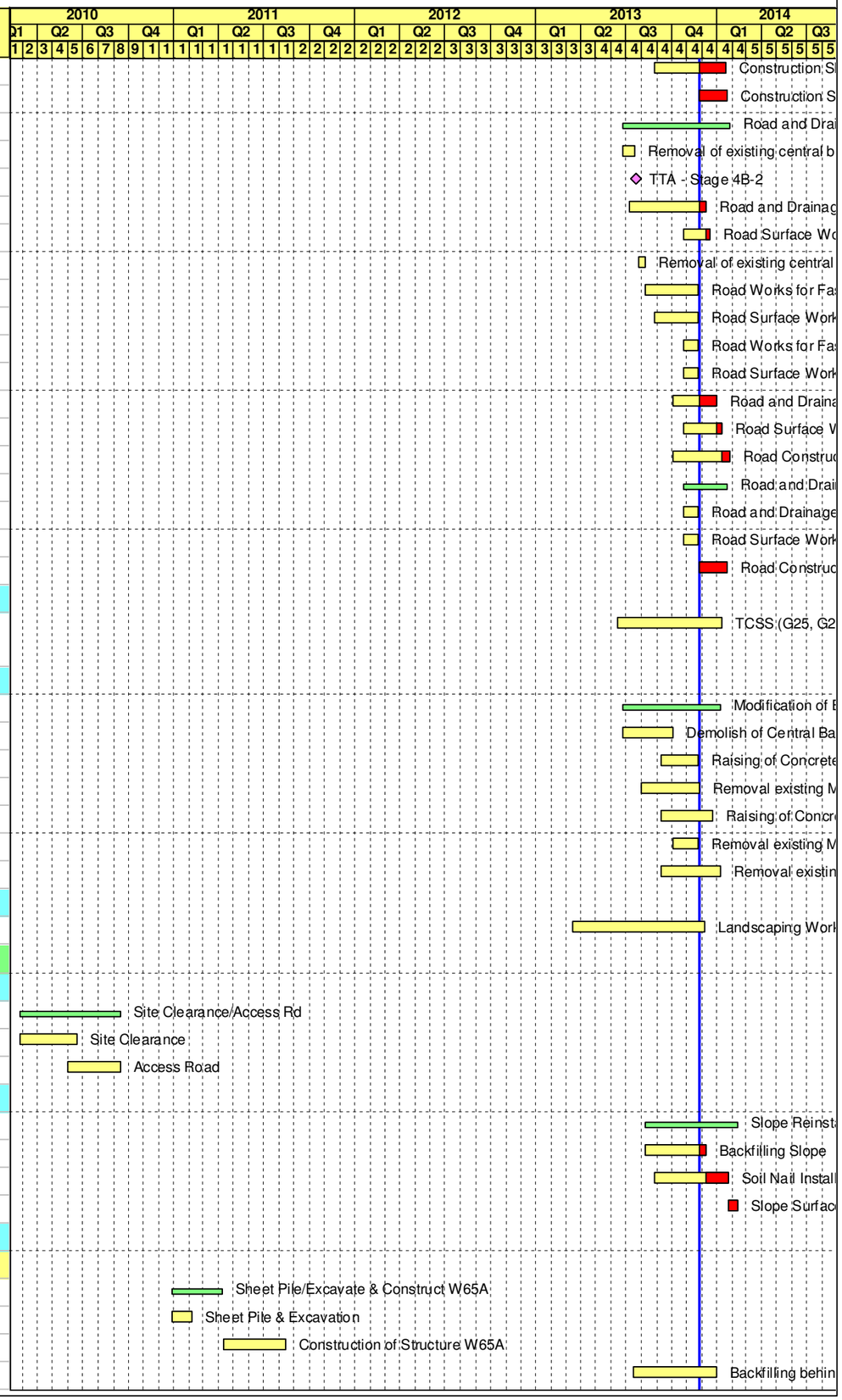
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
Section 3						
Site Area SA26A						
PHSA26A2	Possession of SA26A (Day0)		100%	0	26-Feb-10 A	
SA26A000	Site Area SA26A Works Period	-12	94.98%	1215	26-Feb-10 A	25-Jan-14
SA26A010	Site Area SA26A Works Completion	-12	0%	0		25-Jan-14
SA26A020	Temporary Traffic Arrangement (Detail shall refer to supplementary information)	-11	94.91%	983	26-Feb-10 A	25-Jan-14
SA26A030	Overall Utilities Diversion (Detail shall refer to supplementary information)	-11	94.91%	983	26-Feb-10 A	25-Jan-14
North Bound						
Preliminaries						
S26AN000	Site Clearance/Access Rd		100%	75	26-Feb-10 A	18-Jun-10 A
S26AN010	Site Clearance		100%	60	26-Feb-10 A	12-May-10 A
S26AN020	Access Rd		100%	60	07-Apr-10 A	18-Jun-10 A
Slopeworks						
S26AN502	Cut Slope (S37A)		100%	48	26-Apr-12 A	03-Jul-12 A
S26AN506	Cut Slope (S40-sn, Including removal of existing retaining wall)		100%	168	19-Jun-10 A	08-Jan-11 A
S26AN508	Slopeworks Cut(S40) - Stage 1 (Cut Slope and Erect Scaffolding)		100%	11	19-Jun-10 A	16-Jul-10 A
S26AN510	Slopeworks Cut(S40) - Stage 1 (Soil Nail Installation : QRST)		100%	11	19-Jul-10 A	18-Aug-10 A
S26AN514	Slopeworks Cut(S40) - Stage 2 (Cut Slope and Erect Scaffolding)		100%	14	19-Aug-10 A	17-Sep-10 A
S26AN516	Slopeworks Cut(S40) - Stage 2 (Soil Nail Installation : MNOP)		100%	14	21-Nov-10 A	26-Dec-10 A
S26AN518	Slopeworks Cut(S40) - Stage 3 (Cut Slope and Erect Scaffolding)		100%	17	18-Aug-10 A	17-Sep-10 A
S26AN520	Slopeworks Cut(S40) - Stage 3 (Soil Nail Installation : IJKL)		100%	17	27-Dec-10 A	01-Feb-11 A
S26AN522	Slopeworks Cut(S40) - Stage 4 (Cut Slope and Erect Scaffolding)		100%	12	28-Jan-11 A	15-Feb-11 A
S26AN524	Slopeworks Cut(S40) - Stage 4 (Soil Nail Installation : EFGH)		100%	12	02-Feb-11 A	19-Feb-11 A
S26AN525	Slopeworks Cut(S40) - Stage 5 (Cut Slope and Erect Scaffolding)		100%	15	29-Oct-11 A	16-Nov-11 A
S26AN526	Slopeworks Cut(S40) - Stage 5 (Soil Nail Installation : ABCD)		100%	18	16-Nov-11 A	07-Dec-11 A
S26AN528	Removal of Existing Retaining Wall		100%	30	11-Apr-11 A	20-May-11 A
S26AN530	Cut Slope (S41-sn)		100%	138	19-Jun-10 A	02-Dec-10 A
S26AN531	Cut Slope (S41-sn) - Stage 1 (Cut Slope and Erect Scaffolding)		100%	11	19-Jun-10 A	16-Jul-10 A
S26AN532	Cut Slope (S41-sn) - Stage 1 (Soil Nail Installation : MNOPQ)		100%	11	19-Jul-10 A	13-Aug-10 A
S26AN533	Cut Slope (S41-sn) - Stage 2 (Cut Slope and Erect Scaffolding)		100%	26	23-Aug-10 A	17-Sep-10 A
S26AN534	Cut Slope (S41-sn) - Stage 2 (Soil Nail Installation : IJKL)		100%	26	28-Dec-10 A	27-Jan-11 A
S26AN535	Cut Slope (S41-sn) - Stage 3 (Cut Slope and Erect Scaffolding)		100%	20	20-Sep-10 A	27-Nov-10 A
S26AN536	Cut Slope (S41-sn) - Stage 3 (Soil Nail Installation : EFGH)		100%	19	30-May-11 A	22-Jun-11 A
S26AN537	Cut Slope (S41-sn) - Stage 4 (Cut Slope and Erect Scaffolding)		100%	12	26-Oct-11 A	08-Nov-11 A
S26AN538	Cut Slope (S41-sn) - Stage 4 (Soil Nail Installation : ABCD)		100%	12	03-Dec-12 A	14-Jan-13 A
S26AN540	Slope 7NW-B/C 349		100%	75	02-Oct-10 A	25-Nov-10 A
S26AN541	Erect Scaffolding & Soil Nail Installation (7NW-B/C 349) - Stage 1 (EF) 52nos.		100%	15	02-Oct-10 A	19-Oct-10 A
S26AN542	Erect Scaffolding & Soil Nail Installation (7NW-B/C 349) - Stage 2 (ABCD) 270nos.		100%	72	20-Oct-10 A	25-Nov-10 A
S26AN550	Slope 7NW-A/C35-sn		100%	200	01-Sep-10 A	20-Nov-10 A
S26AN560	Erect Scaffolding & Soil Nail Installation (7NW-A/C35-sn) - Stage 1 (OP) 25nos.		100%	10	01-Sep-10 A	11-Sep-10 A
S26AN570	Erect Scaffolding & Soil Nail Installation (7NW-A/C35-sn) - Stage 2 (KLMN) 285nos.		100%	40	13-Sep-10 A	19-Oct-10 A
S26AN580	Erect Scaffolding & Soil Nail Installation (7NW-A/C35-sn) - Stage 3 (GHIJ) 370nos.		100%	57	30-Sep-10 A	19-Oct-10 A
S26AN590	Erect Scaffolding & Soil Nail Installation (7NW-A/C35-sn) - Stage 4 (CDEF) 407nos.		100%	62	20-Oct-10 A	19-Nov-10 A
S26AN650	Erect Scaffolding & Soil Nail Installation (7NW-A/C35-sn) - Stage 5 (AB) 204nos.		100%	31	01-Nov-10 A	20-Nov-10 A
S26AN660	Slope 7NW-A/CR39		100%	80	22-Nov-10 A	28-Mar-11 A
S26AN670	Erect Scaffolding & Soil Nail Installation (7NW-A/CR39) - Stage 1 (JK) 28nos.		100%	10	22-Nov-10 A	15-Dec-10 A
S26AN680	Erect Scaffolding & Soil Nail Installation (7NW-A/CR39) - Stage 2 (DEFGHI) 162nos.		100%	40	16-Dec-10 A	25-Feb-11 A



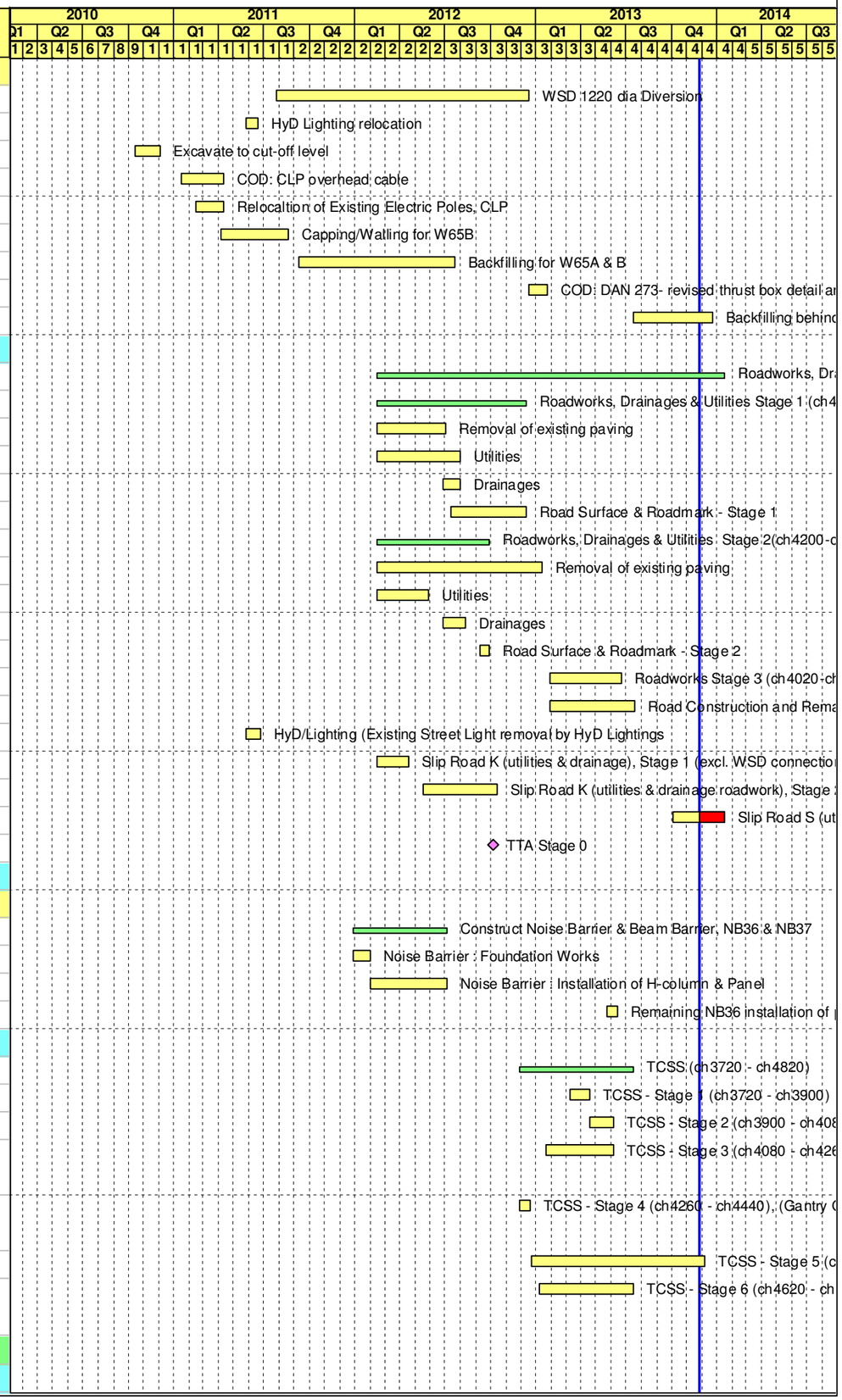
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26AN690	Erect Scaffolding & Soil Nail Installation (7NW-A/CR39) - Stage 3 (ABC) 109nos.		100%	30	22-Feb-11 A	28-Mar-11 A
S26AN930	Erect Scaffolding & Soil Nail Installation (Area 6-1)		100%	75	20-Feb-13 A	25-Nov-13 A
Construction of Retaining Wall						
Retaining Wall W65C (w/SP)						
S26AN100	Sheet Pile/Excavate & Construct W65C (w/SP)		100%	150	27-Jun-11 A	25-Jul-11 A
S26AN101	Sheet Pile and Excavation		100%	24	27-Jun-11 A	25-Jul-11 A
S26AN102	Construction of Structure W65C		100%	72	27-Jun-11 A	25-Jul-11 A
S26AN103	Backfilling		100%	24	27-Jun-11 A	25-Jul-11 A
Retaining Wall W68						
S26AN120	Sheet Pile/Excavate & Construct W68 (w/SP)		100%	99	15-Nov-10 A	16-Jul-12 A
S26AN121	Sheet Pile and Excavation		100%	19	15-Nov-10 A	04-Dec-10 A
S26AN122	Construction of Structure W68		100%	75	26-Aug-11 A	24-Nov-11 A
S26AN123	Backfilling		100%	54	01-Jun-12 A	16-Jul-12 A
Retaining Wall W69 on Mini-Piles (AD 3)						
S26AN142	Prepare Piling Platform for W69		100%	24	21-Sep-10 A	10-Oct-10 A
S26AN144	Pre-drilling for W69		100%	24	10-Sep-10 A	10-Oct-10 A
S26AN146	Pipe Pile for W69		100%	77	20-Oct-10 A	24-Dec-10 A
S26AN147	Pipe Pile for W69 - Stage 1 (south)		100%	38	20-Oct-10 A	19-Nov-10 A
S26AN148	Pipe Pile for W69 - Stage 2 (north)		100%	26	20-Nov-10 A	19-Dec-10 A
S26AN149	Excavate and Tension Piles W69		100%	110	26-Mar-11 A	11-Aug-11 A
S26AN150	Excavation and Installation of Tension Piles - Stage 1 (south)		100%	55	26-Mar-11 A	04-Jun-11 A
S26AN151	Excavation and Installation of Tension Piles - Stage 2 (north)		100%	55	13-Jun-11 A	16-Aug-11 A
S26AN152	Retaining Wall & Drainage W69		100%	120	26-Aug-11 A	19-Jan-12 A
S26AN153	Construction of Structure W69		100%	75	26-Aug-11 A	24-Nov-11 A
S26AN154	Drainage		100%	40	06-Feb-12 A	15-Mar-13 A
S26AN155	Backfilling		100%	75	01-Jun-12 A	16-Jul-12 A
Retaining Wall W70						
S26AN170	Sheet Pile/Excavate & Construct W70 (w/SP)		100%	165	03-Dec-10 A	15-Mar-13 A
S26AN171	Sheet Pile and Excavation		100%	18	03-Dec-10 A	14-Dec-10 A
S26AN172	Construction of Structure W70 (w/SP)		100%	75	18-Jul-11 A	15-Oct-11 A
S26AN173	Drainage & Backfilling		100%	54	18-Feb-13 A	28-Jun-13 A
S26AN174	Backfilling behind W68 to W70 and drainage works		100%	60	18-Mar-13 A	25-Nov-13 A
S26AN184	Erect Scaffolding & Soil Nail Installation		100%	35	04-Oct-13 A	25-Nov-13 A
Retaining Wall W72A (w/SP)						
S26AN190	Sheet Pile/Excavate & Construct W72A (w/SP)		100%	92	30-Oct-10 A	21-Nov-11 A
S26AN191	Sheet Pile and Excavation		100%	34	30-Oct-10 A	31-Jan-11 A
S26AN192	Construction of Structure W72A (w/SP)		100%	46	03-Jan-11 A	24-Mar-11 A
S26AN193	Draiage & Backfilling		100%	68	01-Jun-11 A	21-Nov-11 A
Road Re-Construction Works, Roadworks & Drainage						
S26AN430	Slip Road R (From W72A to W73) Stage 1 (incl. VO 36: Slip Road R & Drainage detail.)		100%	15	30-Jan-12 A	25-Jul-12 A
S26AN431	Slip Road R (From W70 to B18A) Stage 1.1 formation		100%	15	26-May-12 A	13-Jun-12 A
S26AN432	Slip Road R (From W70 to B18A) Stage 1.1 Drainage & utilities		100%	15	14-Jun-12 A	03-Jul-12 A
S26AN433	Slip Road R (From W70 to B18A) Stage 1.1 pavement & roadworks		100%	15	04-Jul-12 A	26-Jul-12 A
S26AN435	Slip Road R (From W70 to B18A) Stage 2		100%	93	18-May-12 A	14-Sep-13 A
S26AN436	Slip Road R (From W70 to B18A) Stage 2, formation (Remaining)		100%	30	18-May-12 A	06-Aug-13 A
S26AN437	Slip Road R (From W70 to B18A) Stage 2, Drainage & utilities (Remaining)		100%	30	27-Jun-12 A	14-Sep-13 A
S26AN438	Slip Road R (From W70 to B18A) Stage 2, pavement & roadworks (Remaining)		100%	50	14-Jul-12 A	14-Sep-13 A



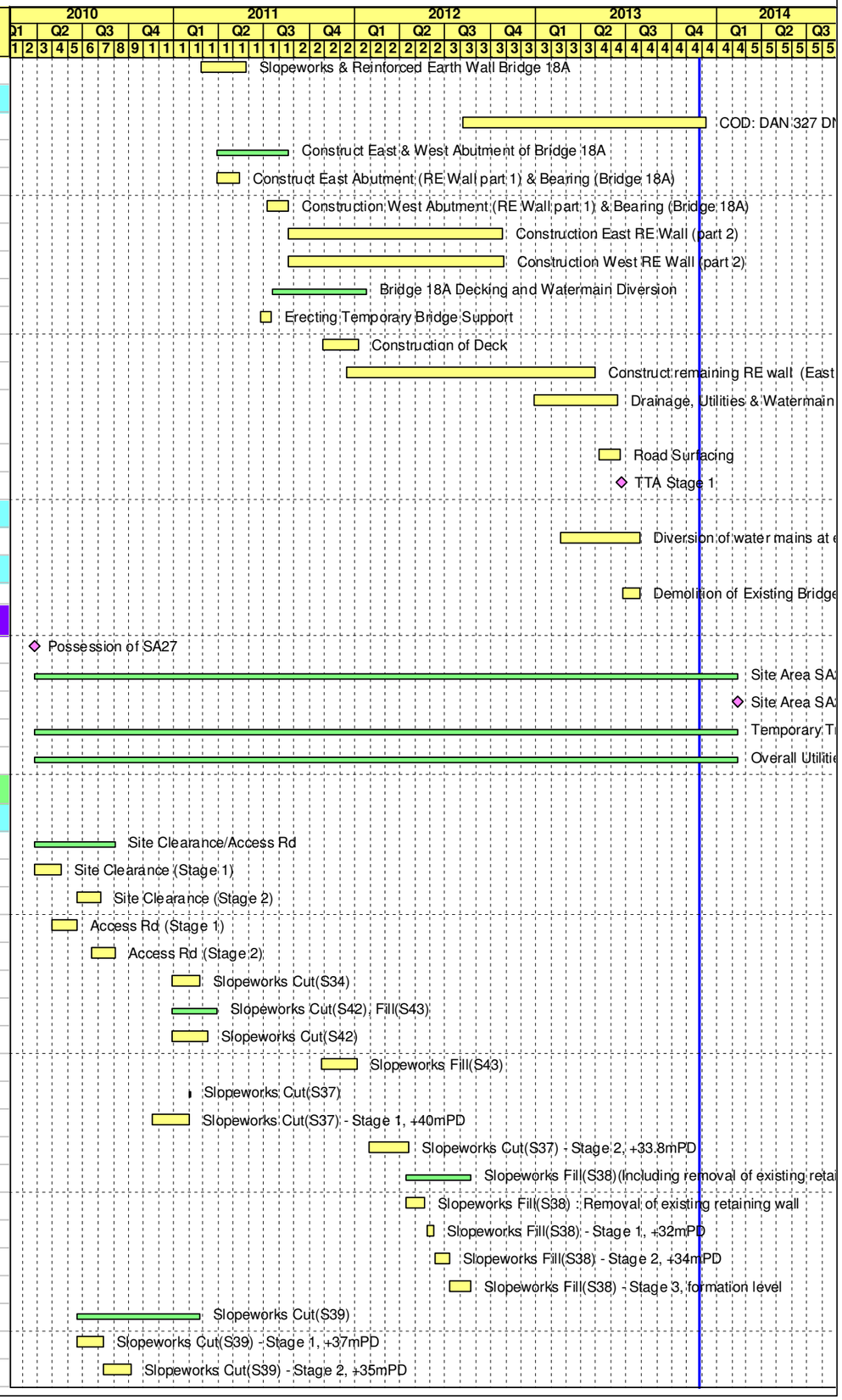
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26AN447	Construction Slip Road J (Under Bridge 15A)	-4	5%	45	27-Aug-13 A	17-Jan-14
S26AN448	Construction Slip Road Q (At W65C)	-6	0%	45	26-Nov-13	20-Jan-14
S26AN451	Road and Drainage Works (CH 3720 - 4550)	-11	70.28%	168	24-Jun-13 A	25-Jan-14
S26AN452	Removal of existing central barrier and forming temporary road (CH3720-4100)		100%	12	24-Jun-13 A	20-Jul-13 A
S26AN4525	TTA - Stage 4B-2		100%	0		21-Jul-13 A
S26AN453	Road and Drainage Works for Slow and Mid Lane (CH3720 - 3850)	-1	40%	20	08-Jul-13 A	09-Dec-13
S26AN454	Road Surface Works for Slow and Mid Lane (CH3720 - 3850)	-1	40%	10	26-Oct-13 A	16-Dec-13
S26AN455	Removal of existing central barrier (CH4100-4550)		100%	8	26-Jul-13 A	09-Aug-13 A
S26AN456	Road Works for Fast and Mid Lane (CH3850 - CH4550)		100%	20	10-Aug-13 A	25-Nov-13 A
S26AN457	Road Surface Works for Fast and Mid Lane (CH3850 - 4550)		100%	10	27-Aug-13 A	25-Nov-13 A
S26AN458	Road Works for Fast Lane (CH3720 - 3850)		100%	20	26-Oct-13 A	25-Nov-13 A
S26AN459	Road Surface Works for Fast Lane (CH3720 - 3850)		100%	10	26-Oct-13 A	25-Nov-13 A
S26AN460	Road and Drainage Works for Slow Lane (CH4250 - 4550)	-11	20%	35	05-Oct-13 A	30-Dec-13
S26AN461	Road Surface Works for Slow Lane (CH4250 - 4550)	-11	20%	10	26-Oct-13 A	09-Jan-14
S26AN462	Road Construction and Remaining Works (along CH 3720 - 4550)	-11	60%	35	05-Oct-13 A	25-Jan-14
S26AN470	Road and Drainage Works (CH 4550 - 4720)	-6	48.86%	88	26-Oct-13 A	20-Jan-14
S26AN471	Road and Drainage Works for Fast Lane (CH 4550 - 4720)		100%	35	26-Oct-13 A	25-Nov-13 A
S26AN472	Road Surface Works for Fast Lane (CH4550 - 4720)		100%	8	26-Oct-13 A	25-Nov-13 A
S26AN482	Road Construction and Remaining Works (along CH 4550 - 4720)	-6	0%	45	26-Nov-13	20-Jan-14
Traffic Control & Surveillance System						
S26AN480	TCSS (G25, G26, G27, G28 & SEC Poles SC58/S58) (incl. VO73 Revised Sign Gantry Details)	2	50%	50	15-Jun-13 A	10-Jan-14
Modification of Existing Bridge						
S26AN200	Modification of Existing Bridge 15	5	67.08%	104	24-Jun-13 A	08-Jan-14
S26AN230	Demolish of Central Barrier		100%	12	24-Jun-13 A	04-Oct-13 A
S26AN240	Raising of Concrete Edge for N/B (CH3800 -3900)		100%	15	09-Sep-13 A	25-Nov-13 A
S26AN250	Removal existing M.J and install new M.J for Slow and Mid Lane (S/B)	5	80%	8	02-Aug-13 A	27-Nov-13
S26AN260	Raising of Concrete Edge for S/B (CH3800 - 4020) and N/B (CH3900 - 4020)	5	10%	25	09-Sep-13 A	24-Dec-13
S26AN270	Removal existing M.J and install new M.J for Fast Lane (S/B and N/B)		100%	10	04-Oct-13 A	25-Nov-13 A
S26AN280	Removal existing M.J and install new M.J for Slow and Mid Lane (N/B)	5	50%	20	09-Sep-13 A	08-Jan-14
Landscaping						
S26AN610	Landscaping Works	29	65%	29	15-Mar-13 A	07-Dec-13
South Bound						
Preliminaries						
S26AS000	Site Clearance/Access Rd		100%	164	26-Feb-10 A	14-Sep-10 A
S26AS010	Site Clearance		100%	75	26-Feb-10 A	18-Jun-10 A
S26AS020	Access Road		100%	75	31-May-10 A	14-Sep-10 A
Slopeworks						
S26AS510	Slope Reinstatement Works (Bridge 15A)	-23	34.74%	95	08-Aug-13 A	12-Feb-14
S26AS515	Backfilling Slope	-23	60%	30	08-Aug-13 A	09-Dec-13
S26AS520	Soil Nail Installation	-23	30%	50	27-Aug-13 A	22-Jan-14
S26AS540	Slope Surface Treatment	-23	0%	15	23-Jan-14	12-Feb-14
Construction of Retaining Wall						
Retaining Wall W65A						
S27S1000	Sheet Pile/Excavate & Construct W65A		100%	83	28-Dec-10 A	08-Apr-11 A
S27S1001	Sheet Pile & Excavation		100%	32	28-Dec-10 A	07-Feb-11 A
S27S1002	Construction of Structure W65A		100%	50	11-Apr-11 A	13-Aug-11 A
S27S1012	Backfilling behind W65A and drainage works	11	60%	40	15-Jul-13 A	30-Dec-13



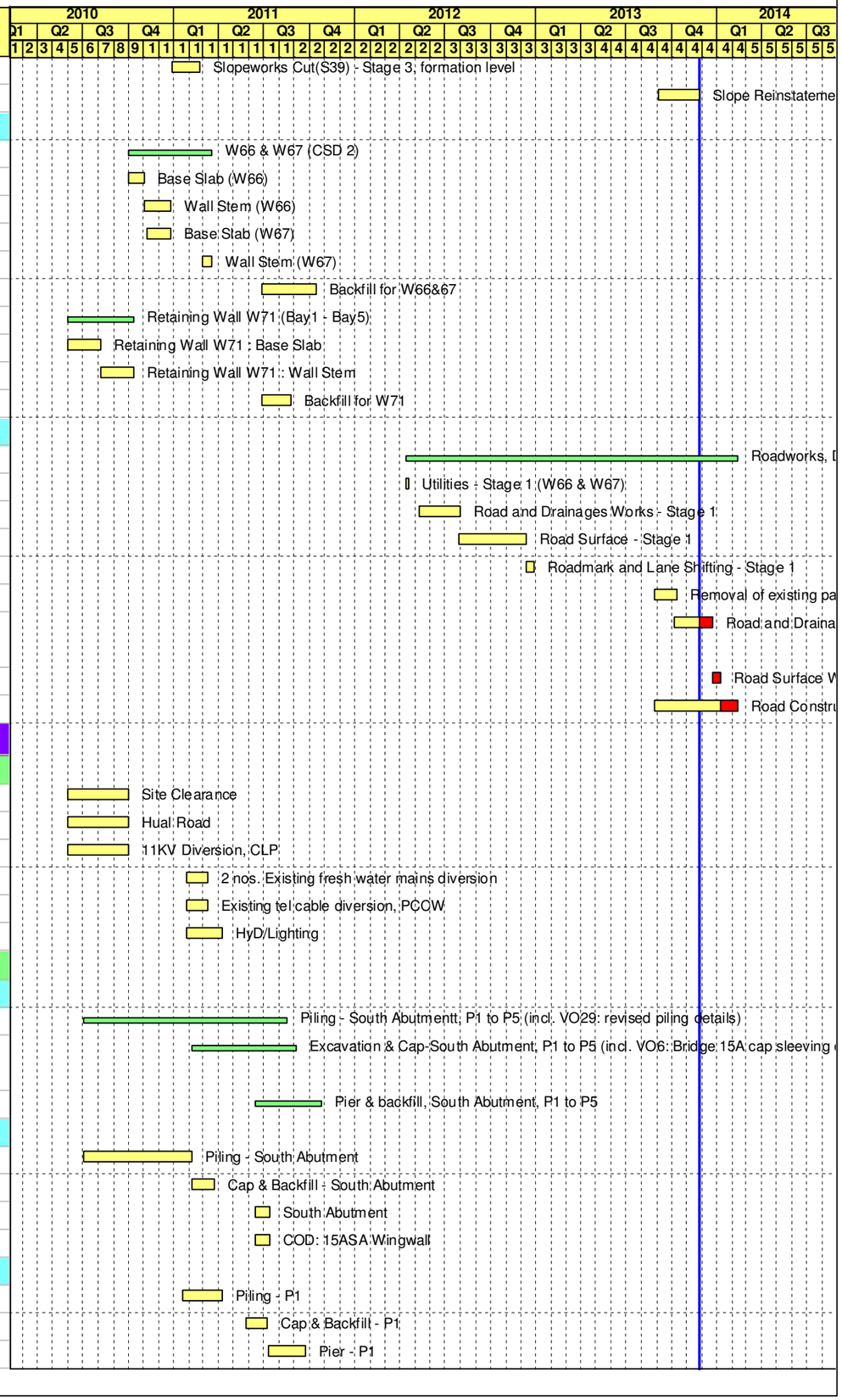
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
Retaining Wall W65B, (CSD 1)						
S27S1040	WSD 1220 dia Diversion		100%	36	26-Jul-11 A	17-Dec-12 A
S27S1041	HyD Lighting relocation		100%	36	26-May-11 A	18-Jun-11 A
S27S1042	Excavate to cut-off level		100%	42	15-Oct-10 A	03-Dec-10 A
S27S1043	COD: CLP overhead cable		100%	75	15-Jan-11 A	11-Apr-11 A
S27S1044	Relocaltion of Existing Electric Poles, CLP		100%	24	15-Feb-11 A	11-Apr-11 A
S27S1060	Capping/Walling for W65B		100%	42	06-Apr-11 A	20-Aug-11 A
S27S1070	Backfilling for W65A & B		100%	75	10-Sep-11 A	21-Jul-12 A
S27S1090	COD: DAN 273- revised thrust box detail and additional works for DN1220		100%	30	17-Dec-12 A	24-Jan-13 A
S27S1110	Backfilling behind W65B and drainage works	15	70%	40	15-Jul-13 A	23-Dec-13
Road Re-Construction Works, Roadworks, Drainage & Utilities						
S26AS400	Roadworks, Drainages & Utilities (CH 4020 - 4500)	-1	89.98%	399	14-Feb-12 A	14-Jan-14
S26AS410	Roadworks, Drainages & Utilities Stage 1 (ch4020-ch4200 & Tai Po Tai Wo Road)		100%	110	14-Feb-12 A	11-Dec-12 A
S26AS411	Removal of existing paving		100%	25	14-Feb-12 A	02-Jul-12 A
S26AS412	Utilities		100%	75	14-Feb-12 A	31-Jul-12 A
S26AS416	Drainages		100%	75	27-Jun-12 A	31-Jul-12 A
S26AS418	Road Surface & Roadmark - Stage 1		100%	5	14-Jul-12 A	11-Dec-12 A
S26AS420	Roadworks, Drainages & Utilities Stage 2(ch4200-ch4500)		100%	737	14-Feb-12 A	28-Sep-12 A
S26AS422	Removal of existing paving		100%	50	14-Feb-12 A	12-Jan-13 A
S26AS424	Utilities		100%	75	14-Feb-12 A	28-May-12 A
S26AS426	Drainages		100%	75	27-Jun-12 A	11-Aug-12 A
S26AS428	Road Surface & Roadmark - Stage 2		100%	8	10-Sep-12 A	28-Sep-12 A
S26AS430	Roadworks Stage 3 (ch4020-ch4200 & Tai Po Tai Wo Road)		100%	35	28-Jan-13 A	21-Jun-13 A
S26AS440	Road Construction and Remaining Works (along CH4020 - 4500)		100%	75	28-Jan-13 A	20-Jul-13 A
S27S4090	HyD/Lighting (Existing Street Light removal by HyD Lightings		100%	52	26-May-11 A	25-Jun-11 A
S27S4100	Slip Road K (utilities & drainage), Stage 1 (excl. WSD connection)		100%	75	14-Feb-12 A	19-Apr-12 A
S27S4102	Slip Road K (utilities & drainage roadwork), Stage 2 (incl. WSD connection)		100%	50	18-May-12 A	15-Oct-12 A
S27S4110	Slip Road S (utilities, drainage & roadwork)	-1	20%	50	04-Oct-13 A	14-Jan-14
S27S4160	TTA Stage 0		100%	0	07-Oct-12 A	
Noise Barriers & Road Barriers						
Noise Barrier NB36 & NB37						
S26AS300	Construct Noise Barrier & Beam Barrier, NB36 & NB37		100%	255	28-Dec-11 A	05-Jul-12 A
S26AS310	Noise Barrier : Foundation Works		100%	75	28-Dec-11 A	31-Jan-12 A
S26AS320	Noise Barrier : Installation of H-column & Panel		100%	60	01-Feb-12 A	05-Jul-12 A
S26AS330	Remaining NB36 installation of panel		100%	7	25-May-13 A	15-Jun-13 A
Traffic Control & Surveillance System						
S26AS480	TCSS (ch3720 - ch4820)		100%	56	30-Nov-12 A	15-Jul-13 A
S26AS481	TCSS - Stage 1 (ch3720 - ch3900)		100%	24	11-Mar-13 A	19-Apr-13 A
S26AS482	TCSS - Stage 2 (ch3900 - ch4080)		100%	24	19-Apr-13 A	06-Jun-13 A
S26AS483	TCSS - Stage 3 (ch4080 - ch4260), (Gantry G59) (incl. VO73 Revised Sign Gantry Details)		100%	24	22-Jan-13 A	06-Jun-13 A
S26AS484	TCSS - Stage 4 (ch4260 - ch4440), (Gantry G58) (incl. VO73 Revised Sign Gantry Details)		100%	24	30-Nov-12 A	21-Dec-12 A
S26AS485	TCSS - Stage 5 (ch4440 - ch4620)	39	60%	24	24-Dec-12 A	06-Dec-13
S26AS486	TCSS - Stage 6 (ch4620 - ch4820), (Gantry G57) (incl. VO73 Revised Sign Gantry Details)		100%	24	07-Jan-13 A	15-Jul-13 A
North & South Bound						
Slopworks						



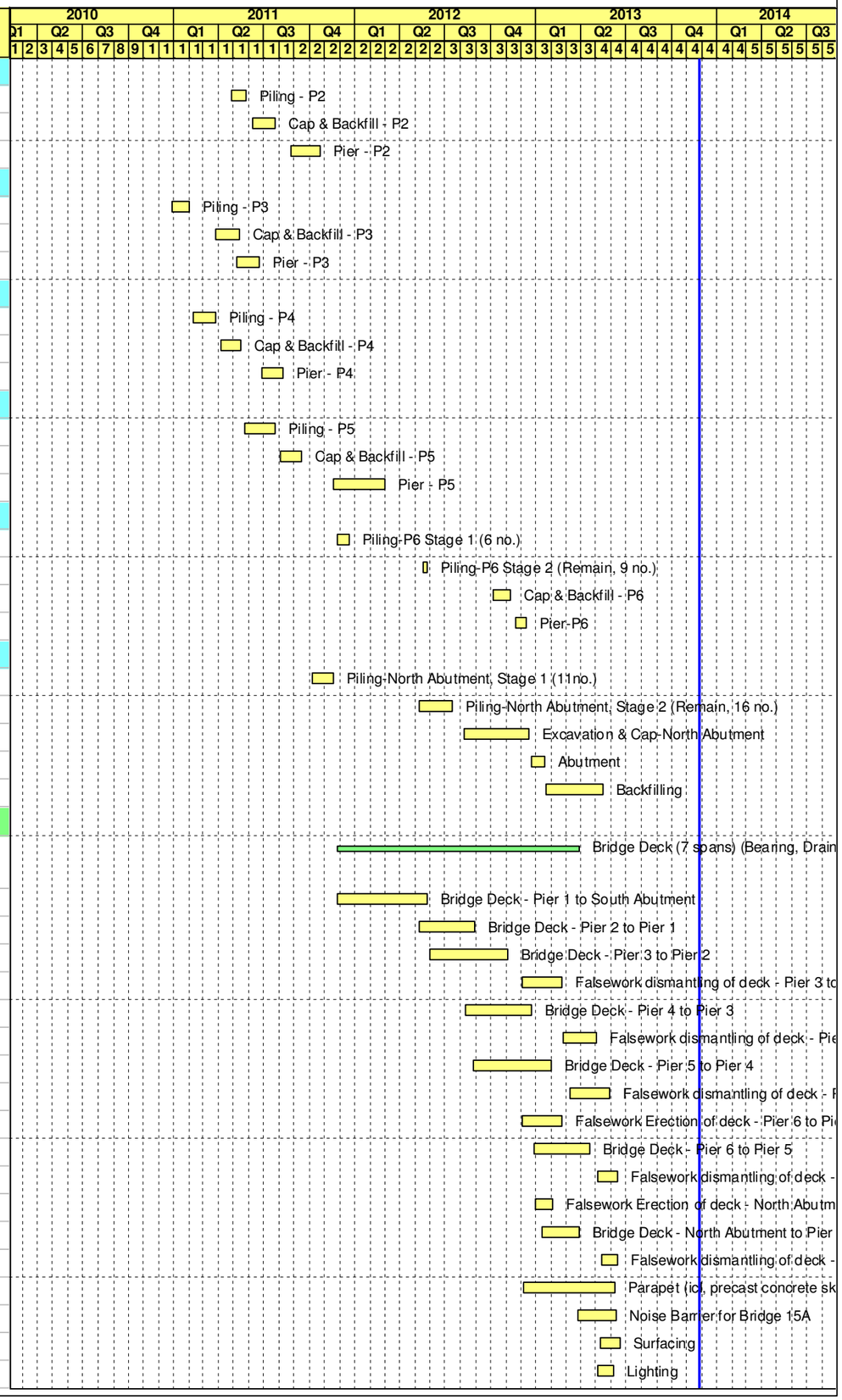
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26ANS50	Slopeworks & Reinforced Earth Wall Bridge 18A		100%	72	26-Feb-11 A	27-May-11 A
Construction of Bridge 18A						
S26AN94	COD: DAN 327 DN800/ 400 - Additional pipeline and thrust blocks	28	85%	75	06-Aug-12 A	09-Dec-13
S26ANS10	Construct East & West Abutment of Bridge 18A		100%	91	28-Mar-11 A	19-Aug-11 A
S26ANS12	Construct East Abutment (RE Wall part 1) & Bearing (Bridge 18A)		100%	36	28-Mar-11 A	14-May-11 A
S26ANS14	Construction West Abutment (RE Wall part 1) & Bearing (Bridge 18A)		100%	36	08-Jul-11 A	19-Aug-11 A
S26ANS15	Construction East RE Wall (part 2)		100%	50	19-Aug-11 A	26-Oct-12 A
S26ANS16	Construction West RE Wall (part 2)		100%	50	19-Aug-11 A	27-Oct-12 A
S26ANS18	Bridge 18A Decking and Watermain Diversion		100%	162	19-Jul-11 A	24-Jan-12 A
S26ANS60	Erecting Temporary Bridge Support		100%	48	24-Jun-11 A	16-Jul-11 A
S26ANS70	Construction of Deck		100%	60	27-Oct-11 A	07-Jan-12 A
S26ANS80	Construct remaining RE wall (East & West) (incl. VO 21, VO38 and VO79)		100%	40	15-Dec-11 A	29-Apr-13 A
S26ANS82	Drainage, Utilities & Watermain Installation (incl.VO 53:Concrete Plinths for PCCW Cable Ducts & VO 78 CLP CT Details)		100%	50	28-Dec-12 A	15-Jun-13 A
S26ANS90	Road Surfacing		100%	10	07-May-13 A	19-Jun-13 A
S26ANS92	TTA Stage 1		100%	0	22-Jun-13 A	
Roadworks, Drainage & Utilities						
S26ANS42	Diversion of water mains at existing bridge 18		100%	25	20-Feb-13 A	30-Jul-13 A
Demolition of Existing Bridge 18						
S26ANS30	Demolition of Existing Bridge 18		100%	30	24-Jun-13 A	30-Jul-13 A
Site Area SA27						
PHSA2720	Possession of SA27		100%	0	26-Mar-10 A	
SA270000	Site Area SA27 Works Period	-28	93.56%	1187	26-Mar-10 A	10-Feb-14
SA270010	Site Area SA27 Works Completion	-28	0%	0		10-Feb-14
SA270020	Temporary Traffic Arrangement (Detail shall refer to supplementary information)	-21	93.8%	959	26-Mar-10 A	10-Feb-14
SA270030	Overall Utilities Diversion (Detail shall refer to supplementary information)	-21	93.8%	959	26-Mar-10 A	10-Feb-14
South Bound						
Slopeworks						
S27S0000	Site Clearance/Access Rd		100%	130	27-Mar-10 A	03-Sep-10 A
S27S0001	Site Clearance (Stage 1)		100%	40	27-Mar-10 A	18-May-10 A
S27S0002	Site Clearance (Stage 2)		100%	40	19-Jun-10 A	05-Aug-10 A
S27S0004	Access Rd (Stage 1)		100%	40	30-Apr-10 A	18-Jun-10 A
S27S0005	Access Rd (Stage 2)		100%	40	20-Jul-10 A	03-Sep-10 A
S27S5000	Slopeworks Cut(S34)		100%	46	28-Dec-10 A	23-Feb-11 A
S27S5100	Slopeworks Cut(S42), Fill(S43)		100%	75	28-Dec-10 A	29-Mar-11 A
S27S5101	Slopeworks Cut(S42)		100%	60	28-Dec-10 A	11-Mar-11 A
S27S5102	Slopeworks Fill(S43)		100%	60	26-Oct-11 A	06-Jan-12 A
S27S5110	Slopeworks Cut(S37)		100%	0	02-Feb-11 A	02-Feb-11 A
S27S5111	Slopeworks Cut(S37) - Stage 1, +40mPD		100%	62	18-Nov-10 A	01-Feb-11 A
S27S5112	Slopeworks Cut(S37) - Stage 2, +33.8mPD		100%	62	30-Jan-12 A	19-Apr-12 A
S27S5120	Slopeworks Fill(S38)(Including removal of existing retaining wall)		100%	96	13-Apr-12 A	21-Aug-12 A
S27S5121	Slopeworks Fill(S38) : Removal of existing retaining wall		100%	24	13-Apr-12 A	19-May-12 A
S27S5122	Slopeworks Fill(S38) - Stage 1, +32mPD		100%	24	26-May-12 A	08-Jun-12 A
S27S5123	Slopeworks Fill(S38) - Stage 2, +34mPD		100%	24	11-Jun-12 A	11-Jul-12 A
S27S5124	Slopeworks Fill(S38) - Stage 3, formation level		100%	24	11-Jul-12 A	21-Aug-12 A
S27S5130	Slopeworks Cut(S39)		100%	138	19-Jun-10 A	23-Feb-11 A
S27S5131	Slopeworks Cut(S39) - Stage 1, +37mPD		100%	46	19-Jun-10 A	12-Aug-10 A
S27S5132	Slopeworks Cut(S39) - Stage 2, +35mPD		100%	46	13-Aug-10 A	07-Oct-10 A



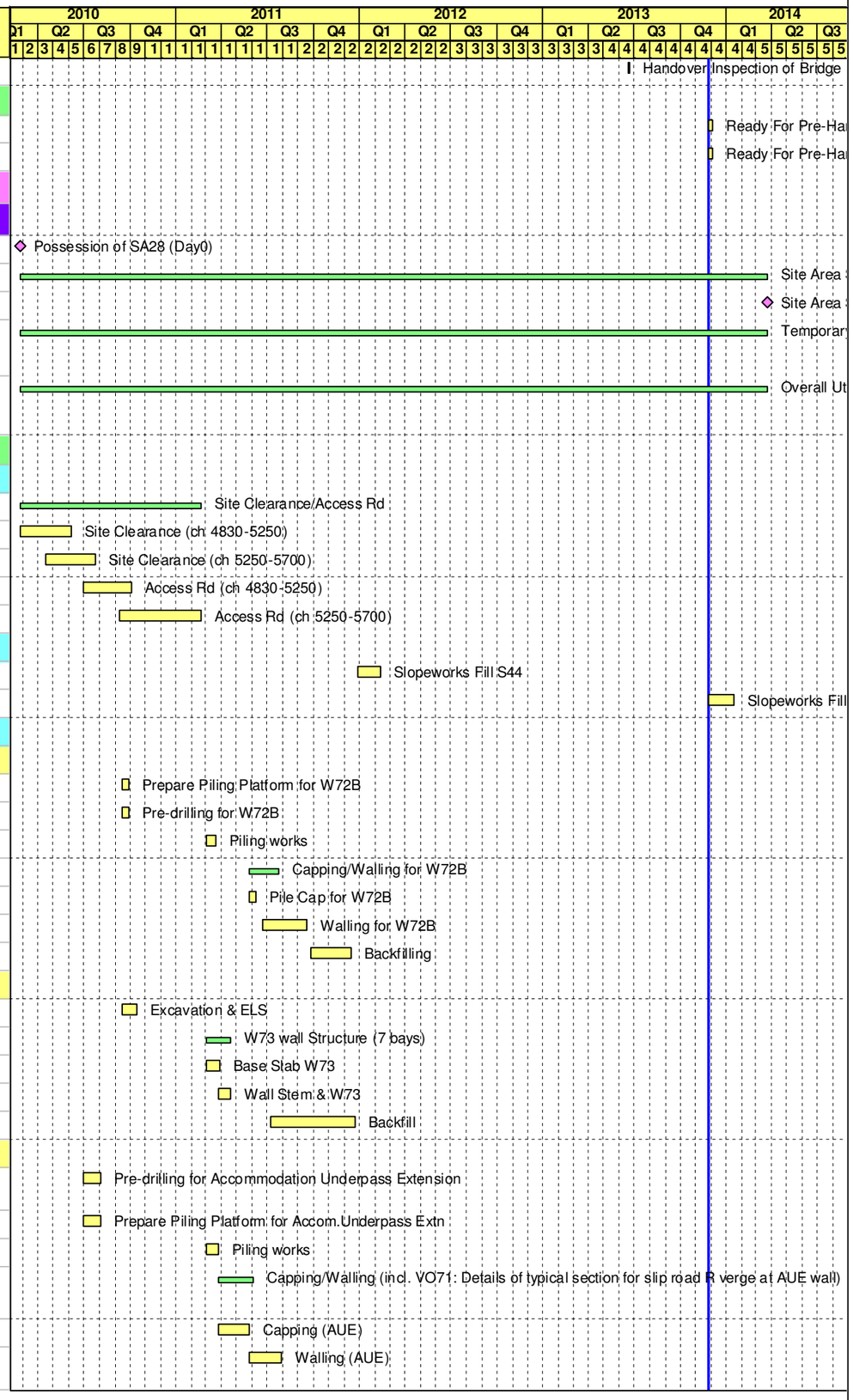
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S27S5133	Slopeworks Cut(S39) - Stage 3, formation level		100%	46	28-Dec-10 A	23-Feb-11 A
S27S5150	Slope Reinstatement Works (S42)	37	95%	40	06-Sep-13 A	27-Nov-13
Construction of Retaining Wall W66/67 (CSD 2) & W71						
S27S1100	W66 & W67 (CSD 2)		100%	45	02-Oct-10 A	19-Mar-11 A
S27S1101	Base Slab (W66)		100%	30	02-Oct-10 A	01-Nov-10 A
S27S1102	Wall Stem (W66)		100%	30	02-Nov-10 A	26-Dec-10 A
S27S1103	Base Slab (W67)		100%	30	08-Nov-10 A	25-Dec-10 A
S27S1113	Wall Stem (W67)		100%	24	28-Feb-11 A	19-Mar-11 A
S27S1115	Backfill for W66&67		100%	61	27-Jun-11 A	15-Oct-11 A
S27S1200	Retaining Wall W71 (Bay1 - Bay5)		100%	110	02-Jun-10 A	12-Oct-10 A
S27S1210	Retaining Wall W71 : Base Slab		100%	55	02-Jun-10 A	06-Aug-10 A
S27S1220	Retaining Wall W71 : Wall Stem		100%	55	07-Aug-10 A	12-Oct-10 A
S27S1230	Backfill for W71		100%	50	27-Jun-11 A	24-Aug-11 A
Roadworks, Drainage & Utilities						
S27S4000	Roadworks, Drainages & Utilities - Stage 1 (CH 3900 - 4740)	-21	83.35%	357	13-Apr-12 A	10-Feb-14
S27S4004	Utilities - Stage 1 (W66 & W67)		100%	60	13-Apr-12 A	19-Apr-12 A
S27S4006	Road and Drainages Works - Stage 1		100%	60	11-May-12 A	31-Jul-12 A
S27S4010	Road Surface - Stage 1		100%	50	28-Jul-12 A	11-Dec-12 A
S27S4012	Roadmark and Lane Shifting - Stage 1		100%	30	12-Dec-12 A	27-Dec-12 A
S27S4018	Removal of existing paving - Stage 2 (Remaining CH4500 - 4740)		100%	25	27-Aug-13 A	12-Oct-13 A
S27S4035	Road and Drainage Works for Slow Lane - Stage 2 (incl. VO 55: Provision of drainage at Retaining Wall W71 & Bridge B18A)	-21	20%	30	06-Oct-13 A	23-Dec-13
S27S4045	Road Surface Works for Slow Lane	-21	0%	10	24-Dec-13	07-Jan-14
S27S4055	Road Construction and Remaining Works (along CH4500 - 4740)	-21	15%	30	27-Aug-13 A	10-Feb-14
Construction of Bridge 15A						
Preparatory and Enabling Works						
S26AS205	Site Clearance		100%	102	01-Jun-10 A	30-Sep-10 A
S26AS210	Hual Road		100%	102	01-Jun-10 A	30-Sep-10 A
S26AS215	11KV Diversion, CLP		100%	102	01-Jun-10 A	30-Sep-10 A
S26AS225	2 nos. Existing fresh water mains diversion		100%	36	26-Jan-11 A	11-Mar-11 A
S26AS235	Existing tel cable diversion, PCCW		100%	36	26-Jan-11 A	11-Mar-11 A
S26AS245	HyD/Lighting		100%	60	26-Jan-11 A	09-Apr-11 A
Substructure and Pier Construction						
South Abutment, P1 to P5						
S26AS220	Piling - South Abutmentt, P1 to P5 (incl. VO29: revised piling details)		100%	335	02-Jul-10 A	16-Aug-11 A
S26AS230	Excavation & Cap-South Abutment, P1 to P5 (incl. VO6: Bridge 15A cap sleeving details)		100%	173	07-Feb-11 A	05-Sep-11 A
S26AS240	Pier & backfill, South Abutment, P1 to P5		100%	112	13-Jun-11 A	26-Oct-11 A
South Abutment						
S26AS770	Piling - South Abutment		100%	71	02-Jul-10 A	07-Feb-11 A
S26AS780	Cap & Backfill - South Abutment		100%	37	07-Feb-11 A	22-Mar-11 A
S26AS790	South Abutment		100%	21	13-Jun-11 A	14-Jul-11 A
S26AS800	COD: 15ASA Wingwall		100%	14	13-Jun-11 A	14-Jul-11 A
P1						
S26AS610	Piling - P1		100%	66	18-Jan-11 A	09-Apr-11 A
S26AS620	Cap & Backfill - P1		100%	37	26-May-11 A	09-Jul-11 A
S26AS630	Pier - P1		100%	36	11-Jul-11 A	22-Sep-11 A



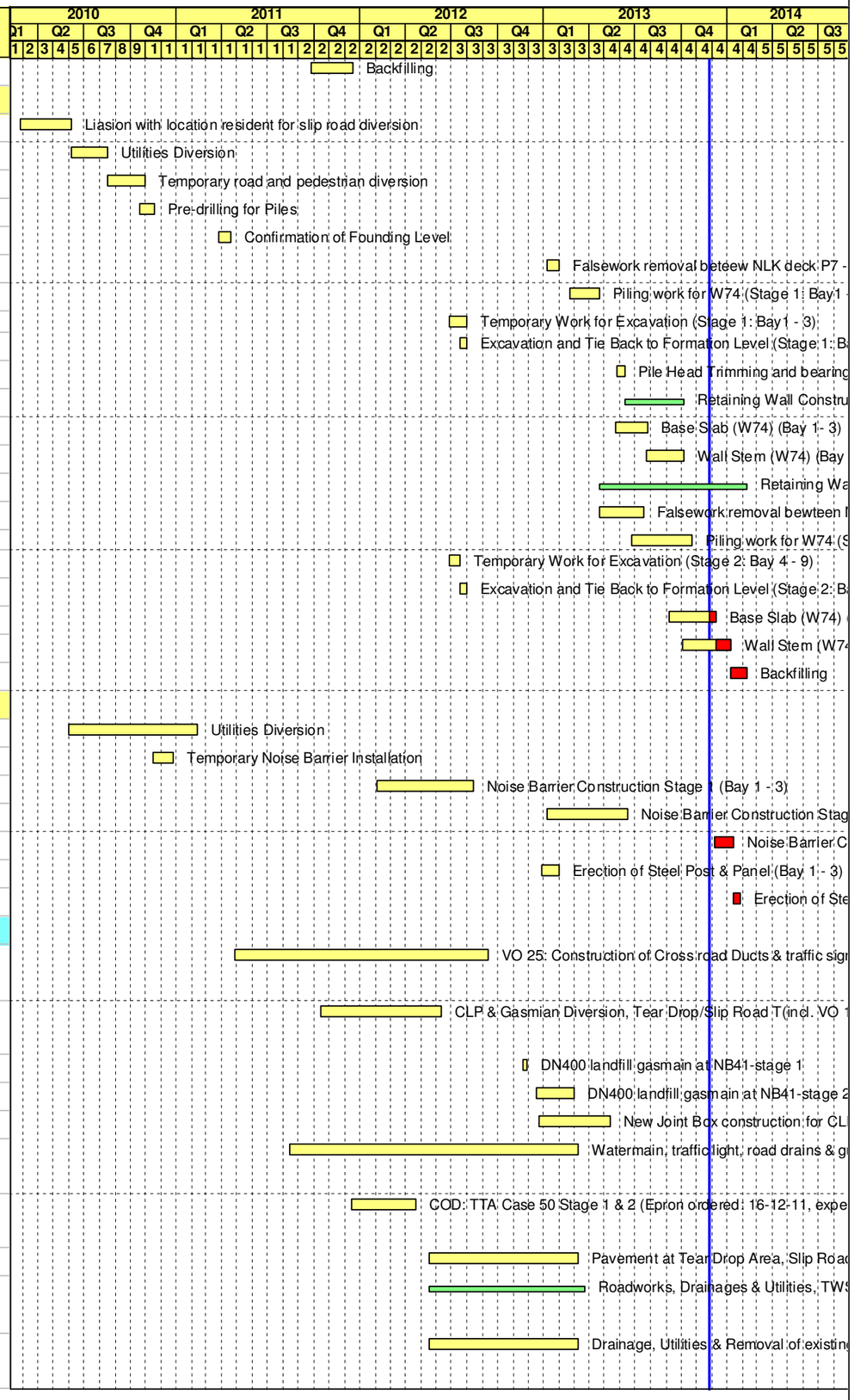
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
P2						
S26AS640	Piling - P2		100%	66	26-Apr-11 A	27-May-11 A
S26AS650	Cap & Backfill - P2		100%	37	09-Jun-11 A	23-Jul-11 A
S26AS660	Pier - P2		100%	36	26-Aug-11 A	22-Oct-11 A
P3						
S26AS670	Piling - P3		100%	66	28-Dec-10 A	01-Feb-11 A
S26AS680	Cap & Backfill - P3		100%	37	26-Mar-11 A	14-May-11 A
S26AS700	Pier - P3		100%	36	09-May-11 A	21-Jun-11 A
P4						
S26AS548	Piling - P4		100%	63	09-Feb-11 A	26-Mar-11 A
S26AS550	Cap & Backfill - P4		100%	46	07-Apr-11 A	16-May-11 A
S26AS560	Pier - P4		100%	36	27-Jun-11 A	08-Aug-11 A
P5						
S26AS570	Piling - P5		100%	54	23-May-11 A	23-Jul-11 A
S26AS580	Cap & Backfill - P5		100%	36	04-Aug-11 A	16-Sep-11 A
S26AS590	Pier - P5		100%	36	18-Nov-11 A	29-Feb-12 A
P6						
S26AS222	Piling-P6 Stage 1 (6 no.)		100%	20	26-Nov-11 A	19-Dec-11 A
S26AS226	Piling-P6 Stage 2 (Remain, 9 no.)		100%	30	18-May-12 A	26-May-12 A
S26AS232	Cap & Backfill - P6		100%	36	05-Oct-12 A	09-Nov-12 A
S26AS242	Pier-P6		100%	12	20-Nov-12 A	13-Dec-12 A
North Abutment						
S26AS224	Piling-North Abutment, Stage 1 (11no.)		100%	36	07-Oct-11 A	17-Nov-11 A
S26AS228	Piling-North Abutment, Stage 2 (Remain, 16 no.)		100%	60	11-May-12 A	16-Jul-12 A
S26AS234	Excavation & Cap-North Abutment		100%	30	08-Aug-12 A	18-Dec-12 A
S26AS236	Abutment		100%	20	24-Dec-12 A	18-Jan-13 A
S26AS244	Backfilling		100%	50	22-Jan-13 A	15-May-13 A
Decking and Finishing						
S26AS250	Bridge Deck (7 spans) (Bearing, Drainage & MJ included) (incl. VO 44: Revised Drainage Arrangement for Bridge 15A Deck)		100%	314	26-Nov-11 A	28-Mar-13 A
S26AS251	Bridge Deck - Pier 1 to South Abutment		100%	75	26-Nov-11 A	26-May-12 A
S26AS252	Bridge Deck - Pier 2 to Pier 1		100%	75	11-May-12 A	29-Aug-12 A
S26AS253	Bridge Deck - Pier 3 to Pier 2		100%	75	01-Jun-12 A	06-Nov-12 A
S26AS254	Falsework dismantling of deck - Pier 3 to Pier 2		100%	18	03-Dec-12 A	22-Feb-13 A
S26AS255	Bridge Deck - Pier 4 to Pier 3		100%	75	11-Aug-12 A	22-Dec-12 A
S26AS256	Falsework dismantling of deck - Pier 4 to Pier 3		100%	18	25-Feb-13 A	03-May-13 A
S26AS257	Bridge Deck - Pier 5 to Pier 4		100%	75	27-Aug-12 A	31-Jan-13 A
S26AS258	Falsework dismantling of deck - Pier 5 to Pier 4		100%	18	11-Mar-13 A	30-May-13 A
S26AS259	Falsework Erection of deck - Pier 6 to Pier 5		100%	18	03-Dec-12 A	23-Feb-13 A
S26AS260	Bridge Deck - Pier 6 to Pier 5		100%	75	29-Dec-12 A	19-Apr-13 A
S26AS261	Falsework dismantling of deck - Pier 6 to Pier 5		100%	18	06-May-13 A	14-Jun-13 A
S26AS262	Falsework Erection of deck - North Abutment to Pier 6		100%	18	31-Dec-12 A	04-Feb-13 A
S26AS263	Bridge Deck - North Abutment to Pier 6		100%	50	14-Jan-13 A	28-Mar-13 A
S26AS264	Falsework dismantling of deck - North Abutment to Pier 6		100%	18	13-May-13 A	14-Jun-13 A
S26AS269	Parapet (icl, precast concrete skin)		100%	50	06-Dec-12 A	08-Jun-13 A
S26AS270	Noise Barrier for Bridge 15A		100%	25	27-Mar-13 A	12-Jun-13 A
S26AS272	Surfacing		100%	10	10-May-13 A	20-Jun-13 A
S26AS275	Lighting		100%	7	04-May-13 A	07-Jun-13 A



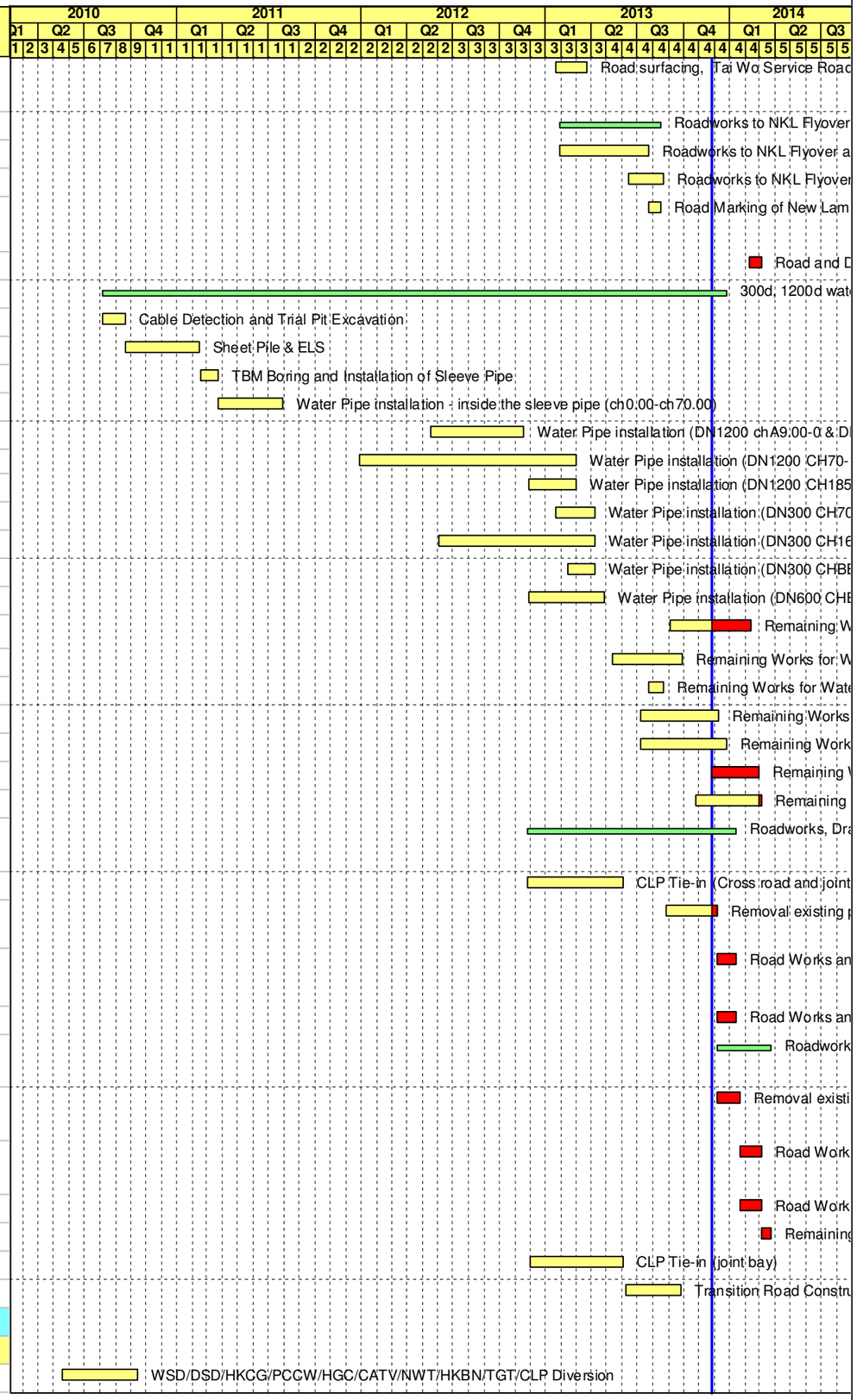
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S26AS280	Handover Inspection of Bridge 15A		100%	3	20-Jun-13 A	22-Jun-13 A
Ready For Pre-Handover Retaining Wall of Section 3						
HRW0030	Ready For Pre-Handover Retaining Wall W65C, W68, W69, W70, W72A	32	0%	7	26-Nov-13	03-Dec-13
HRW0031	Ready For Pre-Handover Retaining Wall W65A, W65B, W66, W67, W71	32	0%	7	26-Nov-13	03-Dec-13
Section 4						
Site Area SA28						
PHSA2820	Possession of SA28 (Day0)		100%	0	26-Feb-10 A	
SA280000	Site Area SA28 Works Period	97	90.45%	1216	26-Feb-10 A	22-Mar-14
SA280010	Site Area SA28 Works Completion	97	0%	0		22-Mar-14
SA280030	Temporary Traffic Arrangement (Detail shall refer to supplementary information)	77	90.43%	983	26-Feb-10 A	22-Mar-14
SA280040	Overall Utilities Diversion (Detail shall refer to supplementary information)	77	90.43%	983	26-Feb-10 A	22-Mar-14
North Bound						
Preliminaries						
S28N0000	Site Clearance/Access Rd		100%	239	26-Feb-10 A	19-Feb-11 A
S28N0010	Site Clearance (ch 4830-5250)		100%	75	26-Feb-10 A	05-Jun-10 A
S28N0020	Site Clearance (ch 5250-5700)		100%	75	17-Apr-10 A	23-Jul-10 A
S28N0110	Access Rd (ch 4830-5250)		100%	75	30-Jun-10 A	04-Oct-10 A
S28N0120	Access Rd (ch 5250-5700)		100%	75	09-Sep-10 A	19-Feb-11 A
Slopeworks						
S28N5000	Slopeworks Fill S44		100%	36	28-Dec-11 A	11-Feb-12 A
S28N5010	Slopeworks Fill S45	8	0%	40	26-Nov-13	14-Jan-14
Construction of Retaining Wall						
Retaining Wall W72B (CSD 1)						
S28N2010	Prepare Piling Platform for W72B		100%	13	14-Sep-10 A	29-Sep-10 A
S28N2020	Pre-drilling for W72B		100%	13	14-Sep-10 A	29-Sep-10 A
S28N2040	Piling works		100%	24	01-Mar-11 A	21-Mar-11 A
S28N2050	Capping/Walling for W72B		100%	50	26-May-11 A	25-Jul-11 A
S28N2051	Pile Cap for W72B		100%	30	26-May-11 A	09-Jun-11 A
S28N2052	Walling for W72B		100%	75	21-Jun-11 A	17-Sep-11 A
S28N2060	Backfilling		100%	68	26-Sep-11 A	15-Dec-11 A
Retaining Wall W73 (CSD 1)						
S28N2071	Excavation & ELS		100%	24	14-Sep-10 A	13-Oct-10 A
S28N2072	W73 wall Structure (7 bays)		100%	45	01-Mar-11 A	20-Apr-11 A
S28N2073	Base Slab W73		100%	24	01-Mar-11 A	28-Mar-11 A
S28N2074	Wall Stem & W73		100%	24	25-Mar-11 A	20-Apr-11 A
S28N2080	Backfill		100%	75	09-Jul-11 A	24-Dec-11 A
Retaining Wall for Accom. Underpass Extn. (CSD 1)						
S28N230	Pre-drilling for Accommodation Underpass Extension		100%	30	30-Jun-10 A	04-Aug-10 A
S28N240	Prepare Piling Platform for Accom.Underpass Extn		100%	30	30-Jun-10 A	04-Aug-10 A
S28N250	Piling works		100%	45	01-Mar-11 A	25-Mar-11 A
S28N260	Capping/Walling (incl. VO71: Details of typical section for slip road R verge at AUE wall)		100%	54	26-Mar-11 A	03-Jun-11 A
S28N270	Capping (AUE)		100%	45	26-Mar-11 A	25-May-11 A
S28N280	Walling (AUE)		100%	55	26-May-11 A	30-Jul-11 A



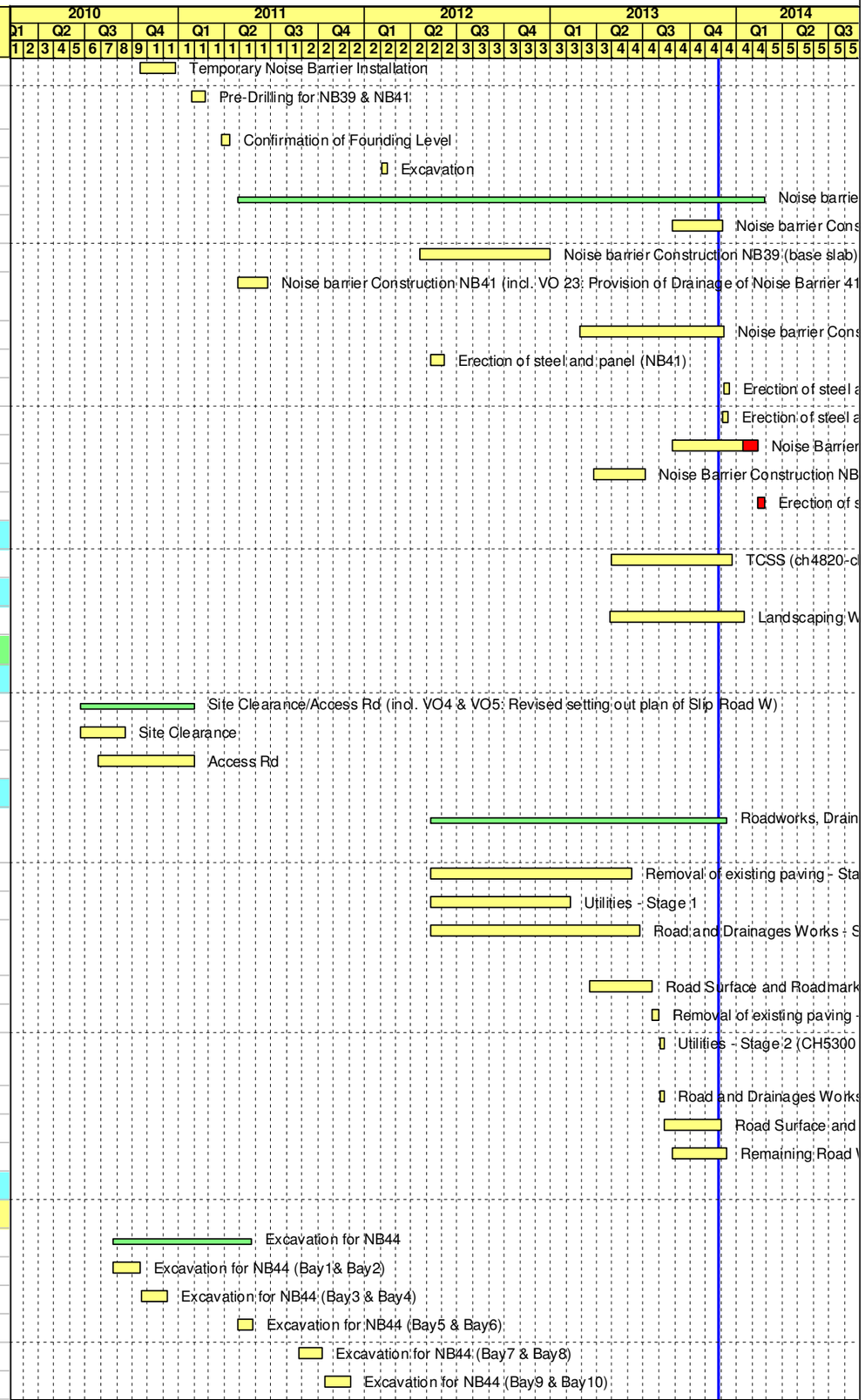
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N290	Backfilling		100%	62	26-Sep-11 A	17-Dec-11 A
Retaining Wall W74						
S28N2105	Liasion with location resident for slip road diversion		100%	75	26-Feb-10 A	05-Jun-10 A
S28N2115	Utilities Diversion		100%	60	07-Jun-10 A	17-Aug-10 A
S28N2120	Temporary road and pedestrian diversion		100%	60	18-Aug-10 A	29-Oct-10 A
S28N2125	Pre-drilling for Piles		100%	15	21-Oct-10 A	19-Nov-10 A
S28N2130	Confirmation of Founding Level		100%	19	26-Mar-11 A	18-Apr-11 A
S28N2134	Falsework removal beteew NLK deck P7 -P8		100%	26	07-Jan-13 A	01-Feb-13 A
S28N2135	Piling work for W74 (Stage 1: Bay1 - 3)		100%	75	21-Feb-13 A	22-Apr-13 A
S28N2140	Temporary Work for Excavation (Stage 1: Bay1 - 3)		100%	20	27-Jun-12 A	31-Jul-12 A
S28N2145	Excavation and Tie Back to Formation Level (Stage 1: Bay1 - 3)		100%	18	18-Jul-12 A	31-Jul-12 A
S28N2150	Pile Head Trimming and bearing plate (Stage 1: Bay1 - 3)		100%	14	27-May-13 A	11-Jun-13 A
S28N2155	Retaining Wall Construction (Stage 1: Bay1 - 3)		100%	45	11-Jun-13 A	07-Oct-13 A
S28N2156	Base Slab (W74) (Bay 1- 3)		100%	30	25-May-13 A	27-Jul-13 A
S28N2158	Wall Stem (W74) (Bay 1- 3)		100%	30	23-Jul-13 A	07-Oct-13 A
S28N2160	Retaining Wall Construction (Stage 2: Bay 4 - 9)	-31	71.04%	202	23-Apr-13 A	08-Feb-14
S28N2161	Falsework removal bewteen NLK deck P8 - P9		100%	26	23-Apr-13 A	20-Jul-13 A
S28N2162	Piling work for W74 (Stage 2: Bay 4 - 9)		100%	50	24-Jun-13 A	22-Oct-13 A
S28N2164	Temporary Work for Excavation (Stage 2: Bay 4 - 9)		100%	18	27-Jun-12 A	17-Jul-12 A
S28N2165	Excavation and Tie Back to Formation Level (Stage 2: Bay 4 - 9)		100%	19	18-Jul-12 A	31-Jul-12 A
S28N2167	Base Slab (W74) (Bay 4 - 9)	-31	50%	25	07-Sep-13 A	10-Dec-13
S28N2168	Wall Stem (W74) (Bay 4 - 9)	-31	30%	30	05-Oct-13 A	07-Jan-14
S28N2190	Backfilling	-31	0%	25	07-Jan-14	08-Feb-14
Noise Barrier NB43 (AD5)						
S28N2500	Utilities Diversion		100%	127	01-Jun-10 A	10-Feb-11 A
S28N2510	Temporary Noise Barrier Installation		100%	46	16-Nov-10 A	26-Dec-10 A
S28N2520	Noise Barrier Construction Stage 1 (Bay 1 - 3)		100%	72	03-Feb-12 A	14-Aug-12 A
S28N2525	Noise Barrier Construction Stage 2 (Bay 4 - 9)		100%	75	09-Jan-13 A	18-Jun-13 A
S28N2526	Noise Barrier Construction Stage 3 remaining (Bay 4 - 7) Wall	-1	0%	30	06-Dec-13	14-Jan-14
S28N2530	Erection of Steel Post & Panel (Bay 1 - 3)		100%	75	29-Dec-12 A	31-Jan-13 A
S28N2531	Erection of Steel Post & Panel (Bay 4 - 9)	-1	0%	10	14-Jan-14	25-Jan-14
Road Re-Construction Works, Roadworks, Drainage & Utilities						
S28N3890	VO 25: Construction of Cross road Ducts & traffic signal Drawpits at proposed crossing point of tai Wo Service Road West		100%	10	27-Apr-11 A	12-Sep-12 A
S28N3900	CLP & Gasmian Diversion, Tear Drop/Slip Road T(incl. VO 19: Protection for existing HKCG HP600mm Gasmain at Slip Road T)		100%	75	15-Oct-11 A	12-Jun-12 A
S28N3902	DN400 landfill gasmain at NB41-stage 1		100%	25	21-Nov-12 A	28-Nov-12 A
S28N3904	DN400 landfill gasmain at NB41-stage 2		100%	25	17-Dec-12 A	02-Mar-13 A
S28N3906	New Joint Box construction for CLP 132kV		100%	50	24-Dec-12 A	14-May-13 A
S28N3910	Watermain, traffic light, road drains & gully, Tear Drop/Slip Road T (incl. VO52)		100%	75	15-Aug-11 A	11-Mar-13 A
S28N3920	COD: TTA Case 50 Stage 1 & 2 (Epron ordered: 16-12-11, expected delivery date: 23-1-13, actual delivery date: 12-3-12)		100%	24	16-Dec-11 A	21-Apr-12 A
S28N3970	Pavement at Tear Drop Area, Slip Road T & Traffic diversion		100%	30	18-May-12 A	11-Mar-13 A
S28N4002	Roadworks, Drainages & Utilities, TWSRW Road from NB41-bay 6 to NB42-bay12 (incl. VO42 & VO43)		100%	150	18-May-12 A	23-Mar-13 A
S28N4004	Drainage, Utilities & Removal of existing paving (incl.TTA & VO 77 Provision of cable duct for power supply)		100%	75	18-May-12 A	11-Mar-13 A



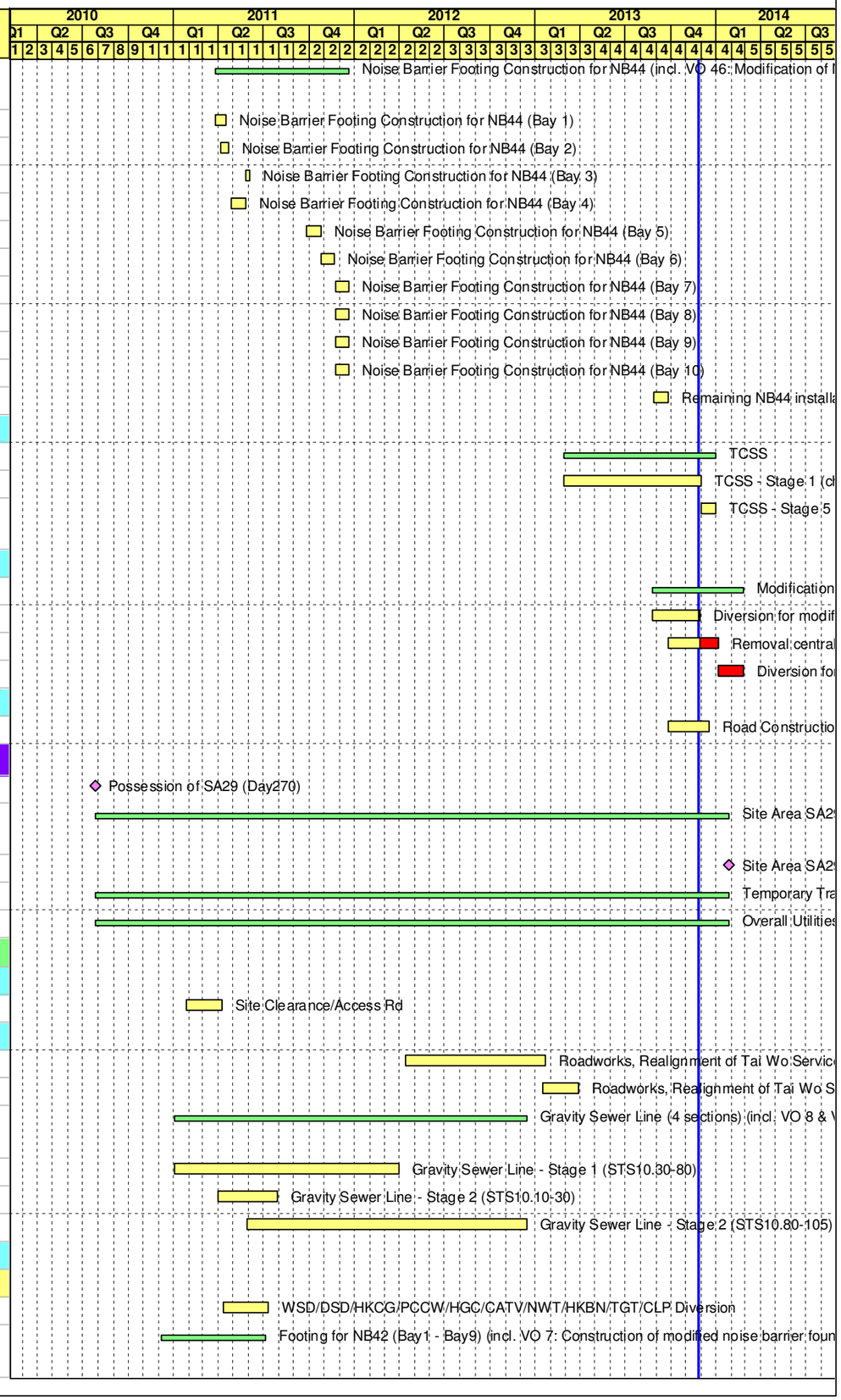
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N4006	Road surfacing, Tai Wo Service Road West from NB41-bay 6 to NB42-bay12 (incl. VO 81 maintenance acess for NB41 & NB42)		100%	60	22-Jan-13 A	23-Mar-13 A
S28N4010	Roadworks to NKL Flyover and Ramps		100%	175	30-Jan-13 A	16-Aug-13 A
S28N4012	Roadworks to NKL Flyover and Ramp - South Ramp to SA		100%	50	30-Jan-13 A	24-Jul-13 A
S28N4014	Roadworks to NKL Flyover and Ramp - North Ramp to NA		100%	20	13-Jun-13 A	22-Aug-13 A
S28N4020	Road Marking of New Lam Kam Bridge and Final Diversion of South Bound Traffic from NLK Bridge to Modified Lam Kam Bridge		100%	10	23-Jul-13 A	16-Aug-13 A
S28N4024	Road and Drainage Works (along W74 and NB38)	-31	0%	20	08-Feb-14	04-Mar-14
S28N4030	300d, 1200d watermain (chA9.00-ch182.00) & Firemains	9	93.27%	362	06-Aug-10 A	24-Dec-13
S28N4040	Cable Detection and Trial Pit Excavation		100%	72	06-Aug-10 A	19-Sep-10 A
S28N4050	Sheet Pile & ELS		100%	72	20-Sep-10 A	15-Feb-11 A
S28N4060	TBM Boring and Installation of Sleeve Pipe		100%	60	16-Feb-11 A	23-Mar-11 A
S28N4070	Water Pipe installation - inside the sleeve pipe (ch0.00-ch70.00)		100%	50	24-Mar-11 A	28-Jul-11 A
S28N4080	Water Pipe installation (DN1200 chA9.00-0 & DN300 CHA7.3 - 0)		100%	75	19-May-12 A	19-Nov-12 A
S28N4090	Water Pipe installation (DN1200 CH70-165 & CH210-530 approx)		100%	75	28-Dec-11 A	02-Mar-13 A
S28N4202	Water Pipe installation (DN1200 CH185 -210 cross road)		100%	75	28-Nov-12 A	02-Mar-13 A
S28N4220	Water Pipe installation (DN300 CH70 -166)		100%	75	21-Jan-13 A	09-Apr-13 A
S28N4230	Water Pipe installation (DN300 CH166 -247)		100%	75	04-Jun-12 A	09-Apr-13 A
S28N4240	Water Pipe installation (DN300 CHBB5 - 49)		100%	75	15-Feb-13 A	09-Apr-13 A
S28N4250	Water Pipe installation (DN600 CHB0-84 & CHC0-76 Cross Road)		100%	75	28-Nov-12 A	26-Apr-13 A
S28N4260	Remaining Works for Water Pipe installation (DN1200 CH183 - 227 cross road)	-42	20%	75	06-Sep-13 A	11-Feb-14
S28N4270	Remaining Works for Water Pipe installation (DN1200 CH280 - 330)		100%	75	14-May-13 A	30-Sep-13 A
S28N4280	Remaining Works for Water Pipe installation (DN1200 CH515 - 529)		100%	30	23-Jul-13 A	23-Aug-13 A
S28N4290	Remaining Works for Water Pipe installation (DN600 CHB2.8 - 30.2(Revised 51))	9	80%	60	08-Jul-13 A	10-Dec-13
S28N4300	Remaining Works for Water Pipe installation (DN600 CHC10.4 - 28.4(Revised 50))	9	60%	60	08-Jul-13 A	24-Dec-13
S28N4310	Remaining Works for Water Pipe installation (DN300 CH183 - 227 cross road)	-42	0%	75	26-Nov-13	28-Feb-14
S28N4320	Remaining Works for Water Pipe installation (DN300 CHBB0 - 11(Revised 59))	-32	90%	45	26-Oct-13 A	05-Mar-14
S28N4330	Roadworks, Drainages & Utilities at TWSRW Road from NB38 to NB41-bay6 (TTA case 50 stage 7 & 8)	-41	0%	0	26-Nov-12 A	14-Jan-14
S28N4340	CLP Tie-in (Cross road and joint bay)		100%	75	26-Nov-12 A	04-Jun-13 A
S28N4350	Removal existing paving, Drainage & Utilities (incl.TTA case 50 stage 7 & 8 and VO.77)	-46	75%	35	27-Aug-13 A	06-Dec-13
S28N4360	Road Works and Road surfacing at Tai Wo Service Road West from NB38 to NB41 - bay6	-41	0%	30	06-Dec-13	14-Jan-14
S28N4370	Road Works and Road Surfacing at Slip Road T (Slow Lane)	-41	0%	30	06-Dec-13	14-Jan-14
S28N4380	Roadworks, Drainages & Utilities at TWSRW Road from NB38 to NB41- bay6 (TTA case 50 stage 9 & 10)	-46	0%	85	06-Dec-13	22-Mar-14
S28N4390	Removal existing paving, Drainage & Utilities (incl.TTA case 50 stage 9 & 10 and VO.77)	-46	0%	35	06-Dec-13	20-Jan-14
S28N4400	Road Works and Road surfacing at Tai Wo Service Road West from NB38 to NB41 - bay6	-46	0%	35	20-Jan-14	05-Mar-14
S28N4410	Road Works and Road Surfacing at Slip Road T (Fast Lane)	-46	0%	35	20-Jan-14	05-Mar-14
S28N4420	Remaining Road Works at Slip Road T and TWSRW Road from NB38 to NB41 - b...	-46	0%	15	05-Mar-14	22-Mar-14
S28N4430	CLP Tie-in (joint bay)		100%	75	01-Dec-12 A	04-Jun-13 A
S28N4440	Transition Road Construction Works for TWSRW Road C2/C3 interface		100%	60	10-Jun-13 A	25-Sep-13 A
Noise Barriers & Road Barriers						
Noise Barrier NB38, NB39, NB40 & NB41 (AD5)						
S28N2301	WSD/DSD/HKCG/PCCW/HGC/CATV/NWT/HKBN/TGT/CLP Diversion		100%	124	19-May-10 A	15-Oct-10 A



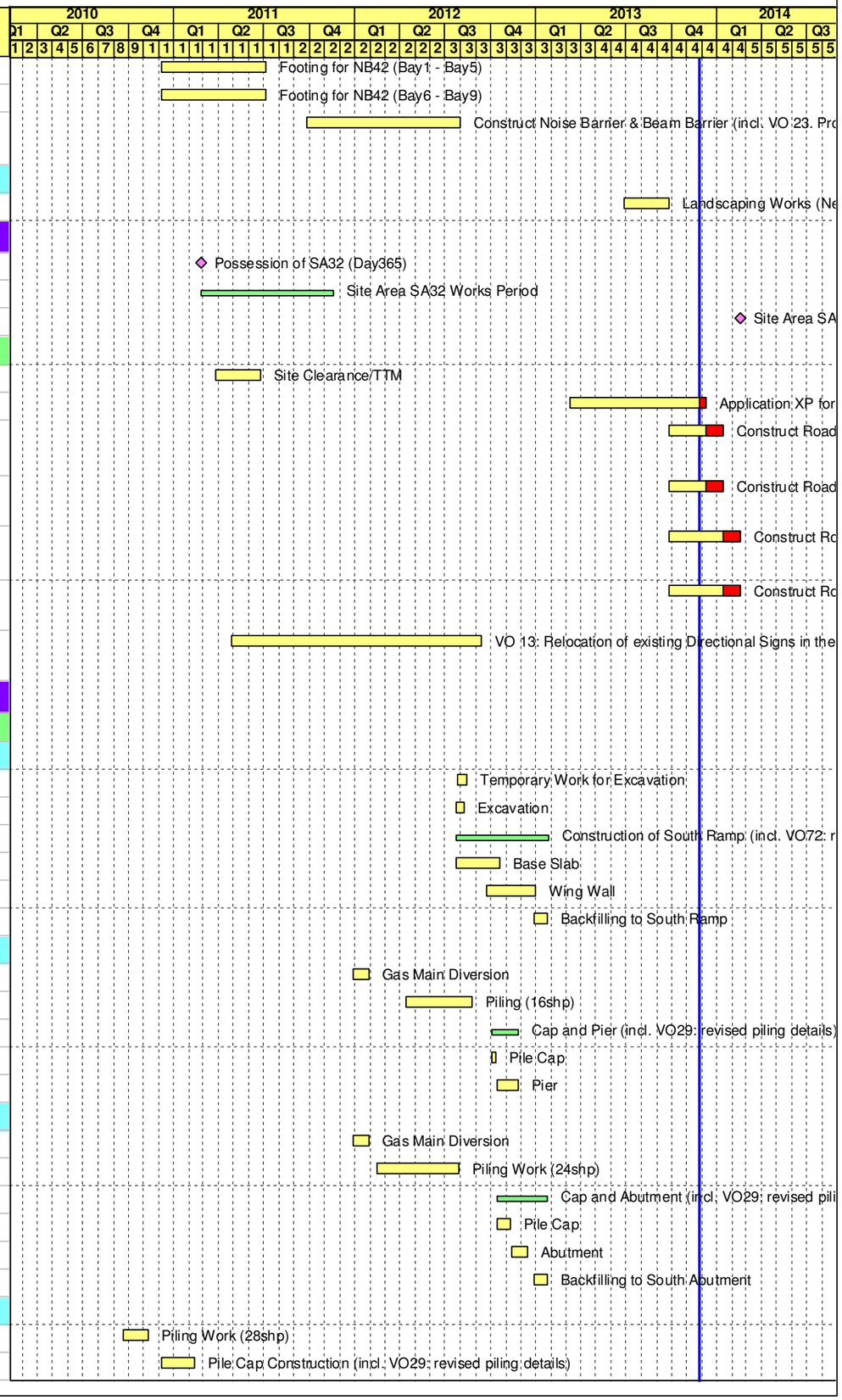
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N2302	Temporary Noise Barrier Installation		100%	45	18-Oct-10 A	26-Dec-10 A
S28N2303	Pre-Drilling for NB39 & NB41		100%	21	26-Jan-11 A	22-Feb-11 A
S28N2304	Confirmation of Founding Level		100%	14	26-Mar-11 A	12-Apr-11 A
S28N2310	Excavation		100%	10	03-Feb-12 A	14-Feb-12 A
S28N2314	Noise barrier Construction (NB38 - NB41)	-24	92.36%	937	26-Apr-11 A	24-Feb-14
S28N2316	Noise barrier Construction NB38	32	80%	30	27-Aug-13 A	03-Dec-13
S28N2318	Noise barrier Construction NB39 (base slab)		100%	75	19-Apr-12 A	31-Dec-12 A
S28N2320	Noise barrier Construction NB41 (incl. VO 23: Provision of Drainage of Noise Barrier 41)		100%	50	26-Apr-11 A	25-Jun-11 A
S28N2330	Noise barrier Construction NB39 (Wall)	29	70%	30	27-Feb-13 A	06-Dec-13
S28N2340	Erection of steel and panel (NB41)		100%	24	11-May-12 A	05-Jun-12 A
S28N2350	Erection of steel and panel (NB39)	29	0%	10	06-Dec-13	18-Dec-13
S28N2355	Erection of steel and panel (NB38)	32	0%	10	03-Dec-13	14-Dec-13
S28N2370	Noise Barrier Construction NB40 (Bay1 to Bay3)	-24	55%	50	27-Aug-13 A	12-Feb-14
S28N2380	Noise Barrier Construction NB40 (Bay4 to Bay5)		100%	40	25-Mar-13 A	06-Jul-13 A
S28N2385	Erection of steel and panel (NB40)	-24	0%	10	12-Feb-14	24-Feb-14
Traffic Control & Surveillance System						
S28N4800	TCSS (ch4820-ch5640) & (Gantry G29) (incl. VO73 Revised Sign Gantry Details)	24	40%	40	29-Apr-13 A	23-Dec-13
Landscaping						
S28N6000	Landscaping Works (ch4820 - 5640)	8	20%	50	27-Apr-13 A	14-Jan-14
South Bound						
Preliminaries						
S28S0000	Site Clearance/Access Rd (incl. VO4 & VO5: Revised setting out plan of Slip Road...		100%	0	23-Jun-10 A	01-Feb-11 A
S28S0010	Site Clearance		100%	75	23-Jun-10 A	18-Sep-10 A
S28S0020	Access Rd		100%	75	27-Jul-10 A	01-Feb-11 A
Roadworks, Drainage & Utilities						
S28S4010	Roadworks, Drainages & Utilities (CH4820 - Ch5700)(incl. VO20: Revised Fire mains alignment plan)	30	96.91%	454	11-May-12 A	11-Dec-13
S28S4012	Removal of existing paving - Stage 1 (CH5300 - 5700 & Slip Road W)		100%	75	11-May-12 A	08-Jun-13 A
S28S4016	Utilities - Stage 1		100%	75	11-May-12 A	08-Feb-13 A
S28S4020	Road and Drainages Works - Stage 1 (incl.VO 75 Modification of existing SAV Chamber)		100%	75	11-May-12 A	25-Jun-13 A
S28S4021	Road Surface and Roadmark - Stage 1 (Slow Lane)		100%	30	18-Mar-13 A	18-Jul-13 A
S28S4025	Removal of existing paving - Stage 2 (CH5300 - 5700 & Slip Road W)		100%	30	19-Jul-13 A	02-Aug-13 A
S28S4027	Utilities - Stage 2 (CH5300 - 5700) (incl. VO 77 Provision of cable duct for power supply)		100%	30	03-Aug-13 A	12-Aug-13 A
S28S4029	Road and Drainages Works - Stage 2		100%	30	03-Aug-13 A	12-Aug-13 A
S28S4031	Road Surface and Roadmark - Stage 2 (Fast Lane)	30	80%	30	13-Aug-13 A	02-Dec-13
S28S4085	Remaining Road Works at Slip Road W	30	80%	40	27-Aug-13 A	11-Dec-13
Noise Barriers 44 & Road Barriers						
Noise Barrier NB44						
S28S2000	Excavation for NB44		100%	219	25-Aug-10 A	24-May-11 A
S28S2010	Excavation for NB44 (Bay1& Bay2)		100%	44	25-Aug-10 A	18-Oct-10 A
S28S2020	Excavation for NB44 (Bay3 & Bay4)		100%	44	19-Oct-10 A	08-Dec-10 A
S28S2030	Excavation for NB44 (Bay5 & Bay6)		100%	44	26-Apr-11 A	26-May-11 A
S28S2040	Excavation for NB44 (Bay7 & Bay8)		100%	36	26-Aug-11 A	10-Oct-11 A
S28S2050	Excavation for NB44 (Bay9 & Bay10)		100%	43	14-Oct-11 A	03-Dec-11 A



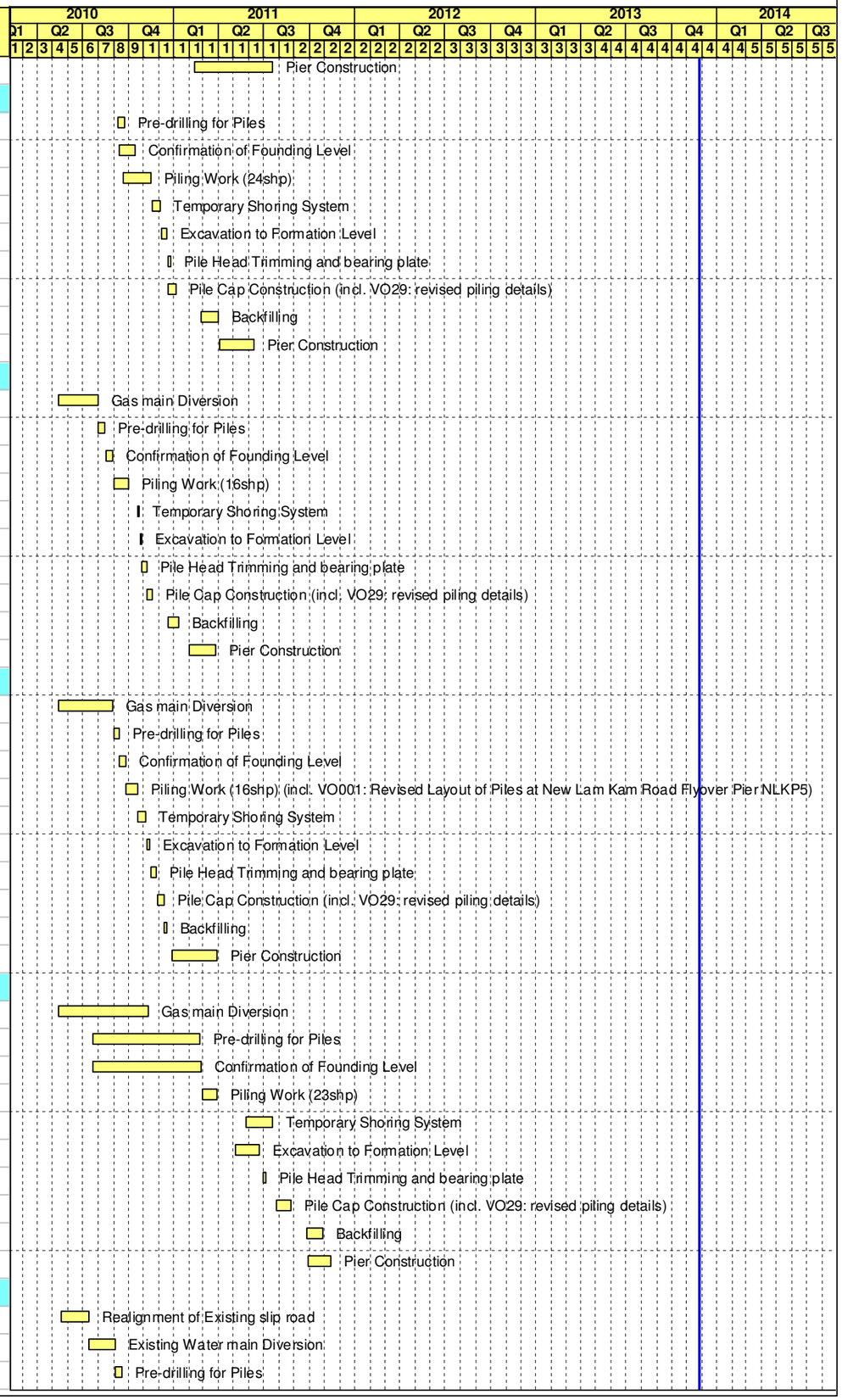
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28S2060	Noise Barrier Footing Construction for NB44 (incl. VO 46: Modification of Noise Barrier Footing for NB44)		100%	282	26-Mar-11 A	20-Dec-11 A
S28S2070	Noise Barrier Footing Construction for NB44 (Bay 1)		100%	32	26-Mar-11 A	15-Apr-11 A
S28S2080	Noise Barrier Footing Construction for NB44 (Bay 2)		100%	32	06-Apr-11 A	21-Apr-11 A
S28S2090	Noise Barrier Footing Construction for NB44 (Bay 3)		100%	32	26-May-11 A	04-Jun-11 A
S28S2100	Noise Barrier Footing Construction for NB44 (Bay 4)		100%	30	26-Apr-11 A	26-May-11 A
S28S2110	Noise Barrier Footing Construction for NB44 (Bay 5)		100%	24	26-Sep-11 A	25-Oct-11 A
S28S2120	Noise Barrier Footing Construction for NB44 (Bay 6)		100%	24	26-Oct-11 A	22-Nov-11 A
S28S2130	Noise Barrier Footing Construction for NB44 (Bay 7)		100%	24	23-Nov-11 A	20-Dec-11 A
S28S2140	Noise Barrier Footing Construction for NB44 (Bay 8)		100%	24	23-Nov-11 A	20-Dec-11 A
S28S2150	Noise Barrier Footing Construction for NB44 (Bay 9)		100%	23	23-Nov-11 A	20-Dec-11 A
S28S2160	Noise Barrier Footing Construction for NB44 (Bay 10)		100%	18	23-Nov-11 A	20-Dec-11 A
S28S2170	Remaining NB44 installation of panel		100%	7	27-Aug-13 A	26-Sep-13 A
Traffic Control & Survelance System						
S28S4800	TCSS	19	77.8%	130	28-Feb-13 A	31-Dec-13
S28S4810	TCSS - Stage 1 (ch4820 - ch5520)	19	80%	24	28-Feb-13 A	30-Nov-13
S28S4850	TCSS - Stage 5 (ch5520 - ch5640), (Gantry G56) (incl. VO73 Revised Sign Gantry Details)	19	0%	24	30-Nov-13	31-Dec-13
Modification of Existing Bridge						
S28S1200	Modification of Lam Kam Rd. Flyover	-39	39.22%	119	26-Aug-13 A	25-Feb-14
S28S1240	Diversion for modification kerb and road reconstruction (N/B)	-39	95%	43	26-Aug-13 A	28-Nov-13
S28S1250	Removal central barrier and road construction	-39	25%	40	26-Sep-13 A	06-Jan-14
S28S1260	Diversion for modification kerb and road reconstruction (S/B)	-39	0%	40	06-Jan-14	25-Feb-14
Road Construction and Road Resufacing						
S28S4960	Road Construction and Resurfacing S/B for SA28	30	80%	60	26-Sep-13 A	16-Dec-13
Site Area SA29						
PHSA2920	Possession of SA29 (Day270)		100%	0	27-Jul-10 A	
SA290000	Site Area SA29 Works Period (incl. VO002 & VO0011: Fencing details along site boundaries SA 29)	153	93.65%	946	27-Jul-10 A	25-Jan-14
SA290010	Site Area SA29 Works Completion	153	0%	0		25-Jan-14
SA290020	Temporary Traffic Arrangement (Detail shall refer to supplementary information)	122	93.57%	764	27-Jul-10 A	25-Jan-14
SA290030	Overall Utilities Diversion (Detail shall refer to supplementary information)	122	93.57%	764	27-Jul-10 A	25-Jan-14
North Bound						
Preliminaries						
S29N0000	Site Clearance/Access Rd		100%	60	26-Jan-11 A	09-Apr-11 A
Roadworks, Drainage & Utilities						
S29N4010	Roadworks, Realignment of Tai Wo Service Rd. West (NB42)		100%	58	13-Apr-12 A	21-Jan-13 A
S29N4020	Roadworks, Realignment of Tai Wo Service Rd. West (exclude NB42)		100%	38	15-Jan-13 A	28-Mar-13 A
S29N4100	Gravity Sewer Line (4 sections) (incl. VO 8 & VO 35: Revised layout of Southern Trunk Sewer & Manhole Schedule)		100%	111	03-Jan-11 A	15-Dec-12 A
S29N4110	Gravity Sewer Line - Stage 1 (STS10.30-80)		100%	60	03-Jan-11 A	31-Mar-12 A
S29N4120	Gravity Sewer Line - Stage 2 (STS10.10-30)		100%	60	01-Apr-11 A	30-Jul-11 A
S29N4130	Gravity Sewer Line - Stage 2 (STS10.80-105)		100%	63	28-May-11 A	15-Dec-12 A
Noise Barriers & Road Barriers						
Noise Barrier NB42 on Mini-Piles (AD)						
S29N2000	WSD/DSD/HKCG/PCCW/HGC/CATV/NWT/HKBN/TGT/CLP Diversion		100%	72	11-Apr-11 A	11-Jul-11 A
S29N2020	Footing for NB42 (Bay1 - Bay9) (incl. VO 7: Construction of modified noise barrier foundation for NB42)		100%	110	06-Dec-10 A	05-Jul-11 A



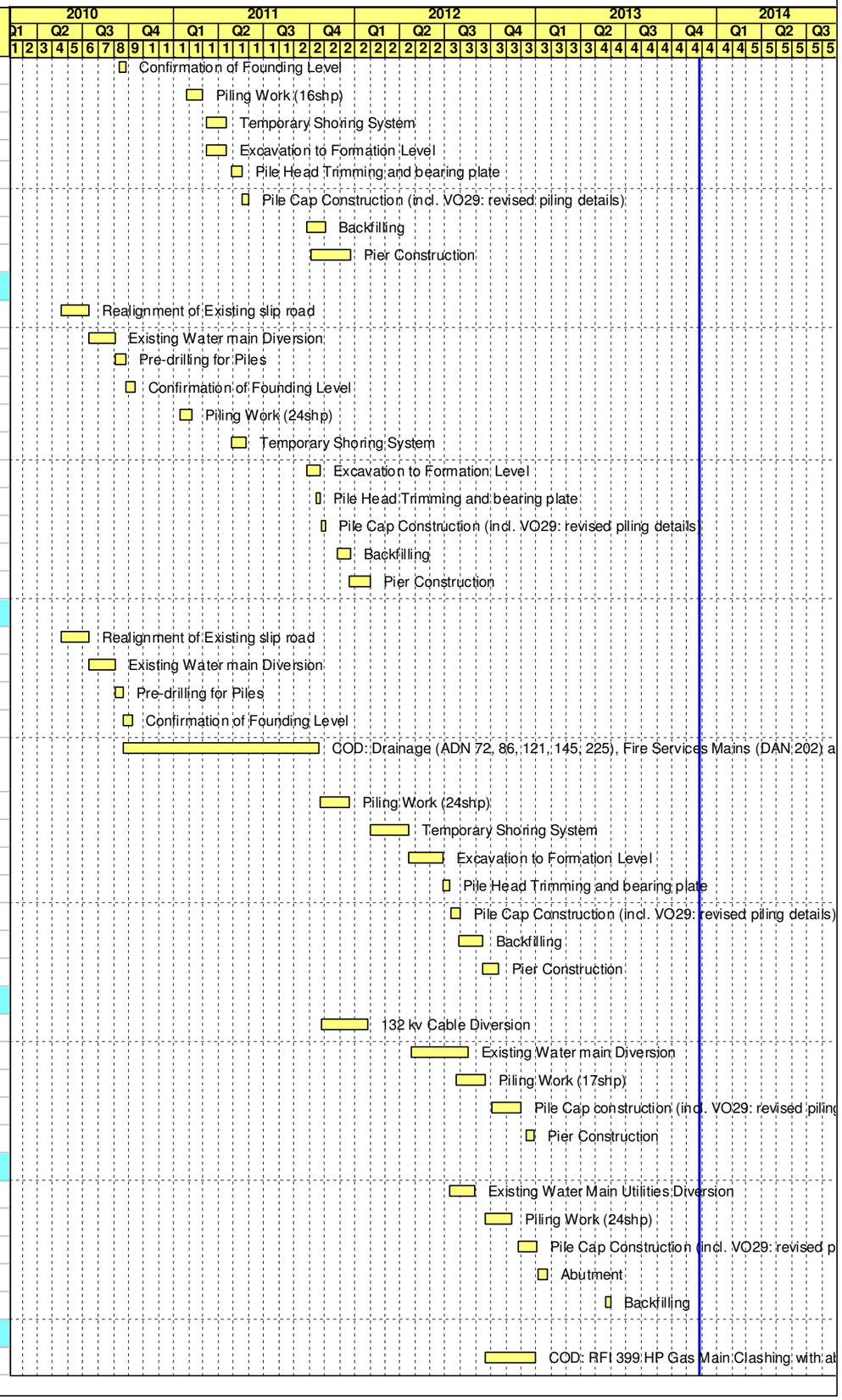
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S29N2030	Footing for NB42 (Bay1 - Bay5)		100%	60	06-Dec-10 A	05-Jul-11 A
S29N2040	Footing for NB42 (Bay6 - Bay9)		100%	50	06-Dec-10 A	05-Jul-11 A
S29N3000	Construct Noise Barrier & Beam Barrier (incl. VO 23. Provision of Drainage at Noise Barrier 42)		100%	60	26-Sep-11 A	01-Aug-12 A
Landscaping						
S29N6000	Landscaping Works (Near NB43)		100%	50	27-Jun-13 A	26-Sep-13 A
Site Area SA32						
PHSA3210	Possession of SA32 (Day365)		100%	0	25-Feb-11 A	
SA320000	Site Area SA32 Works Period		100%	265	26-Feb-11 A	17-Nov-11 A
SA320010	Site Area SA32 Works Completion	-25	0%	0		17-Feb-14
General						
S32G0000	Site Clearance/TTM		100%	72	26-Mar-11 A	25-Jun-11 A
S32G4005	Application XP for Construct Roadside Fully Variable Message Sign	-18	80%	60	11-Mar-13 A	09-Dec-13
S32G4015	Construct Roadside Fully Variable Message Sign (RFVMS3)(include duct, footing and column)	-18	10%	30	26-Sep-13 A	13-Jan-14
S32G4025	Construct Roadside Fully Variable Message Sign (RFVMS2)(include duct, footing and column)	-18	10%	30	26-Sep-13 A	13-Jan-14
S32G4035	Construct Roadside Fully Variable Message Sign (RFVMS1)(include duct, footing and column)	-18	10%	30	26-Sep-13 A	17-Feb-14
S32G4045	Construct Roadside Fully Variable Message Sign (TP04)(include duct, footing and column)	-18	10%	30	26-Sep-13 A	17-Feb-14
S32G4060	VO 13: Relocation of existing Directional Signs in the Vicinity of Lam Kam Road Interchange		100%	10	27-Apr-11 A	11-Sep-12 A
Construction of New Lam Kam Road						
Substructure and Pier Construction						
South Ramp						
S28N1213	Temporary Work for Excavation		100%	15	27-Jul-12 A	13-Aug-12 A
S28N1214	Excavation		100%	20	23-Jul-12 A	08-Aug-12 A
S28N1215	Construction of South Ramp (incl. VO72: revised North & South Ramps Retaining ...		100%	145	23-Jul-12 A	26-Jan-13 A
S28N1216	Base Slab		100%	60	23-Jul-12 A	19-Oct-12 A
S28N1217	Wing Wall		100%	75	24-Sep-12 A	31-Dec-12 A
S28N1227	Backfilling to South Ramp		100%	40	28-Dec-12 A	25-Jan-13 A
Pier NLKP1						
S28N1200	Gas Main Diversion		100%	45	28-Dec-11 A	28-Jan-12 A
S28N1232	Piling (16shp)		100%	50	13-Apr-12 A	25-Aug-12 A
S28N1234	Cap and Pier (incl. VO29: revised piling details)		100%	70	03-Oct-12 A	26-Nov-12 A
S28N1236	Pile Cap		100%	25	03-Oct-12 A	11-Oct-12 A
S28N1238	Pier		100%	45	15-Oct-12 A	26-Nov-12 A
South Abutment						
S28N1220	Gas Main Diversion		100%	24	28-Dec-11 A	30-Jan-12 A
S28N1230	Piling Work (24shp)		100%	60	15-Feb-12 A	28-Jul-12 A
S28N1240	Cap and Abutment (incl. VO29: revised piling details)		100%	115	15-Oct-12 A	25-Jan-13 A
S28N1250	Pile Cap		100%	40	15-Oct-12 A	10-Nov-12 A
S28N1260	Abutment		100%	50	12-Nov-12 A	15-Dec-12 A
S28N1270	Backfilling to South Abutment		100%	40	28-Dec-12 A	25-Jan-13 A
Pier NLKP2						
S28N1254	Piling Work (28shp)		100%	57	20-Sep-10 A	11-Nov-10 A
S28N1259	Pile Cap Construction (incl. VO29: revised piling details)		100%	46	06-Dec-10 A	10-Feb-11 A



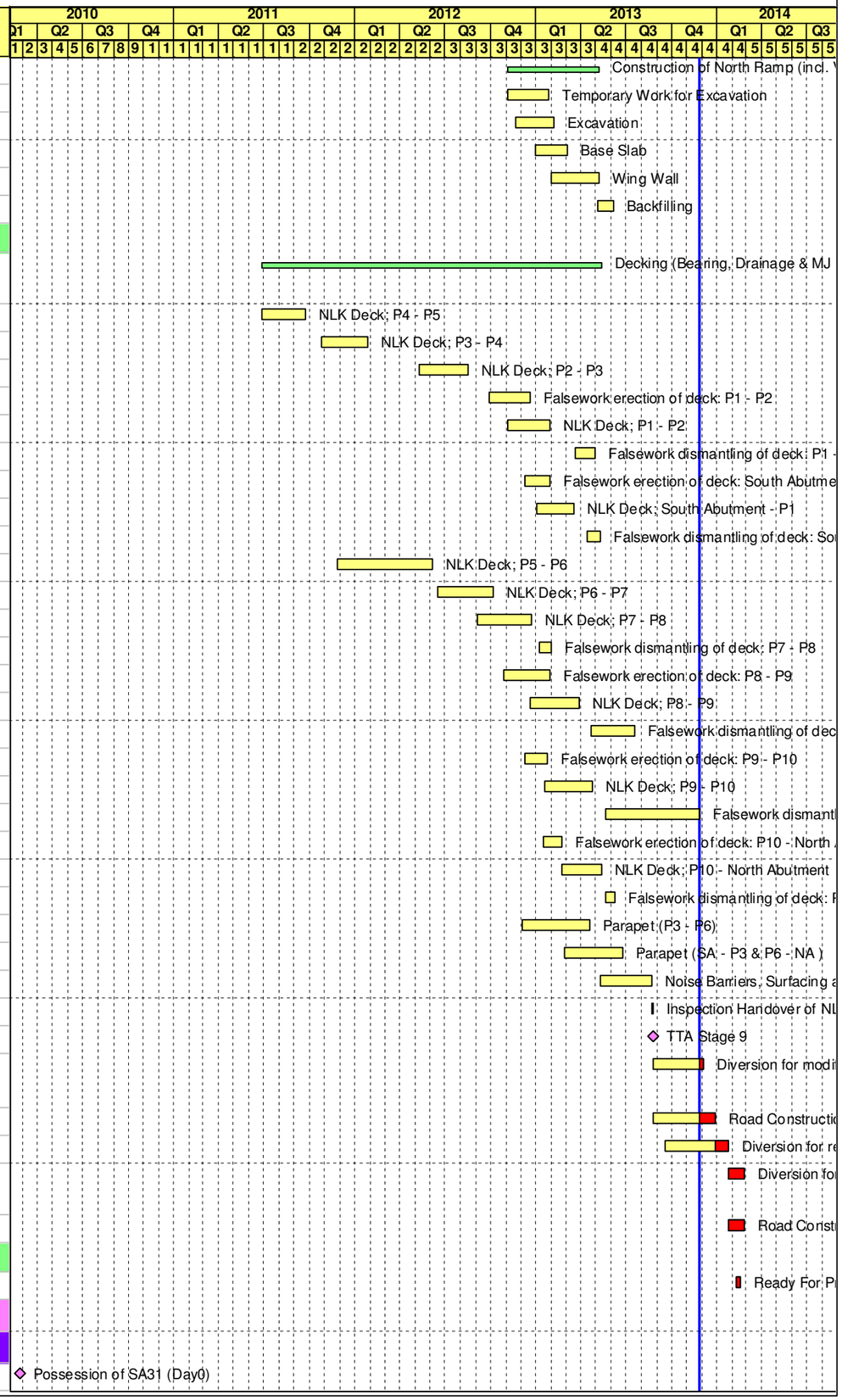
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N1261	Pier Construction		100%	36	11-Feb-11 A	18-Jul-11 A
Pier NLKP3						
S28N1271	Pre-drilling for Piles		100%	11	11-Sep-10 A	24-Sep-10 A
S28N1272	Confirmation of Founding Level		100%	21	12-Sep-10 A	15-Oct-10 A
S28N1273	Piling Work (24shp)		100%	68	20-Sep-10 A	16-Nov-10 A
S28N1274	Temporary Shoring System		100%	31	17-Nov-10 A	03-Dec-10 A
S28N1275	Excavation to Formation Level		100%	10	06-Dec-10 A	18-Dec-10 A
S28N1276	Pile Head Trimming and bearing plate		100%	11	20-Dec-10 A	24-Dec-10 A
S28N1277	Pile Cap Construction (incl. VO29: revised piling details)		100%	24	20-Dec-10 A	05-Jan-11 A
S28N1278	Backfilling		100%	30	26-Feb-11 A	01-Apr-11 A
S28N1279	Pier Construction		100%	61	02-Apr-11 A	11-Jun-11 A
Pier NLKP4						
S28N1281	Gas main Diversion		100%	120	13-May-10 A	31-Jul-10 A
S28N1282	Pre-drilling for Piles		100%	9	01-Aug-10 A	14-Aug-10 A
S28N1283	Confirmation of Founding Level		100%	22	16-Aug-10 A	31-Aug-10 A
S28N1284	Piling Work (16shp)		100%	63	01-Sep-10 A	30-Sep-10 A
S28N1285	Temporary Shoring System		100%	44	20-Oct-10 A	23-Oct-10 A
S28N1286	Excavation to Formation Level		100%	7	25-Oct-10 A	28-Oct-10 A
S28N1287	Pile Head Trimming and bearing plate		100%	14	29-Oct-10 A	06-Nov-10 A
S28N1288	Pile Cap Construction (incl. VO29: revised piling details)		100%	21	08-Nov-10 A	19-Nov-10 A
S28N1289	Backfilling		100%	30	20-Dec-10 A	11-Jan-11 A
S28N1290	Pier Construction		100%	71	02-Feb-11 A	26-Mar-11 A
Pier NLKP5						
S28N1301	Gas main Diversion		100%	120	13-May-10 A	31-Aug-10 A
S28N1302	Pre-drilling for Piles		100%	7	01-Sep-10 A	11-Sep-10 A
S28N1303	Confirmation of Founding Level		100%	14	13-Sep-10 A	25-Sep-10 A
S28N1304	Piling Work (16shp) (incl. VO001: Revised Layout of Piles at New Lam Kam Road ...		100%	62	26-Sep-10 A	19-Oct-10 A
S28N1305	Temporary Shoring System		100%	44	20-Oct-10 A	05-Nov-10 A
S28N1306	Excavation to Formation Level		100%	7	08-Nov-10 A	12-Nov-10 A
S28N1307	Pile Head Trimming and bearing plate		100%	14	15-Nov-10 A	27-Nov-10 A
S28N1308	Pile Cap Construction (incl. VO29: revised piling details)		100%	21	29-Nov-10 A	11-Dec-10 A
S28N1309	Backfilling		100%	30	13-Dec-10 A	18-Dec-10 A
S28N1310	Pier Construction		100%	74	28-Dec-10 A	28-Mar-11 A
Pier NLKP6						
S28N1321	Gas main Diversion		100%	150	13-May-10 A	10-Nov-10 A
S28N1322	Pre-drilling for Piles		100%	14	21-Jul-10 A	23-Feb-11 A
S28N1323	Confirmation of Founding Level		100%	14	21-Jul-10 A	25-Feb-11 A
S28N1324	Piling Work (23shp)		100%	75	28-Feb-11 A	28-Mar-11 A
S28N1325	Temporary Shoring System		100%	44	26-May-11 A	18-Jul-11 A
S28N1326	Excavation to Formation Level		100%	7	05-May-11 A	23-Jun-11 A
S28N1327	Pile Head Trimming and bearing plate		100%	14	29-Jun-11 A	05-Jul-11 A
S28N1328	Pile Cap Construction (incl. VO29: revised piling details)		100%	23	28-Jul-11 A	24-Aug-11 A
S28N1329	Backfilling		100%	28	26-Sep-11 A	29-Oct-11 A
S28N1330	Pier Construction		100%	71	28-Sep-11 A	12-Nov-11 A
Pier NLKP7						
S28N1341	Realignment of Existing slip road		100%	45	19-May-10 A	13-Jul-10 A
S28N1342	Existing Water main Diversion		100%	45	14-Jul-10 A	03-Sep-10 A
S28N1343	Pre-drilling for Piles		100%	7	04-Sep-10 A	18-Sep-10 A



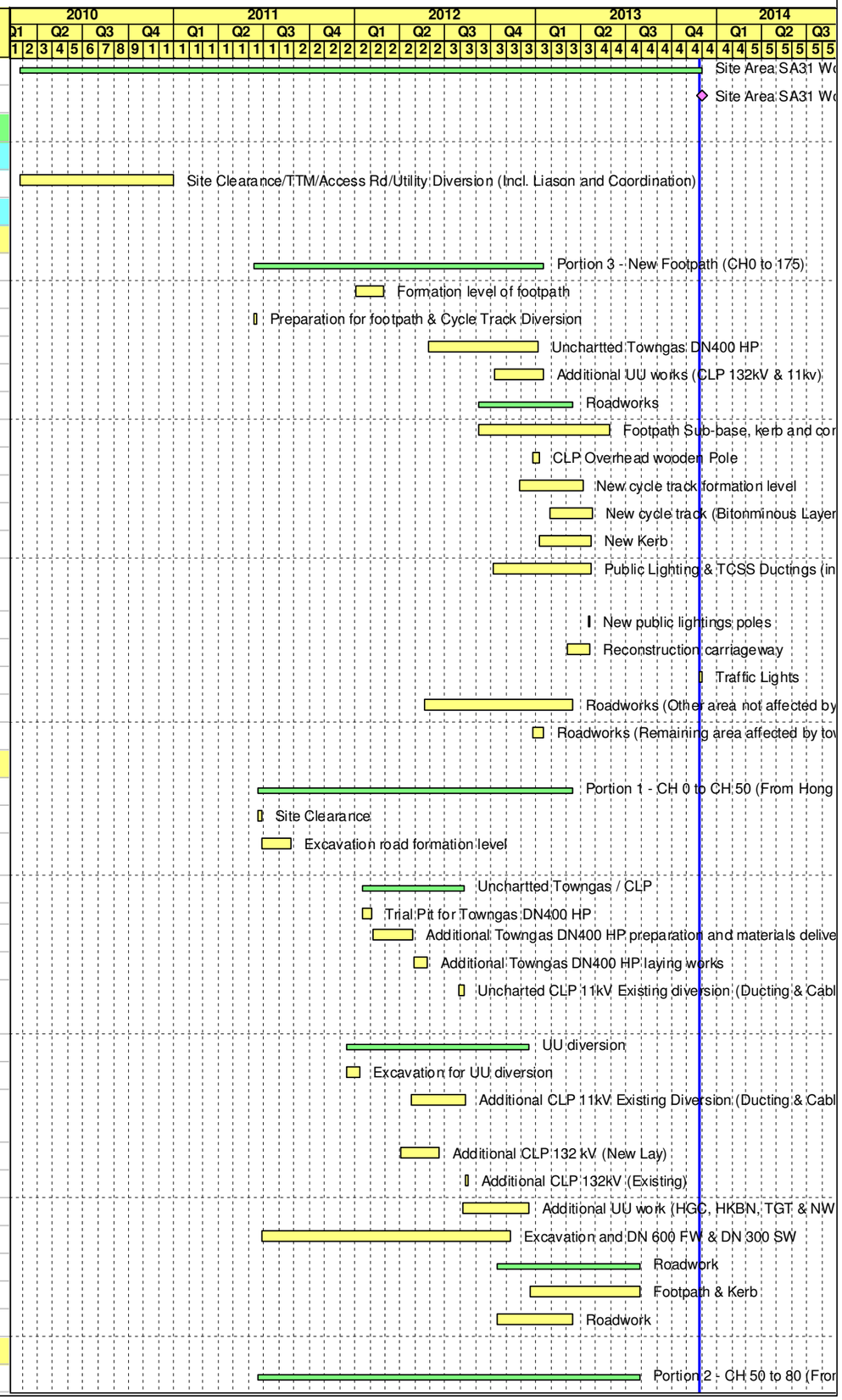
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N1344	Confirmation of Founding Level		100%	14	13-Sep-10 A	25-Sep-10 A
S28N1345	Piling Work (16shp)		100%	62	26-Jan-11 A	28-Feb-11 A
S28N1346	Temporary Shoring System		100%	44	08-Mar-11 A	16-Apr-11 A
S28N1347	Excavation to Formation Level		100%	7	08-Mar-11 A	16-Apr-11 A
S28N1348	Pile Head Trimming and bearing plate		100%	14	27-Apr-11 A	17-May-11 A
S28N1349	Pile Cap Construction (incl. VO29: revised piling details)		100%	21	19-May-11 A	31-May-11 A
S28N1350	Backfilling		100%	30	26-Sep-11 A	01-Nov-11 A
S28N1351	Pier Construction		100%	72	03-Oct-11 A	24-Dec-11 A
Pier NLKP8						
S28N1361	Realignment of Existing slip road		100%	45	19-May-10 A	13-Jul-10 A
S28N1363	Existing Water main Diversion		100%	45	14-Jul-10 A	03-Sep-10 A
S28N1364	Pre-drilling for Piles		100%	18	04-Sep-10 A	25-Sep-10 A
S28N1365	Confirmation of Founding Level		100%	14	27-Sep-10 A	13-Oct-10 A
S28N1366	Piling Work (24shp)		100%	75	14-Jan-11 A	05-Feb-11 A
S28N1367	Temporary Shoring System		100%	44	26-Apr-11 A	25-May-11 A
S28N1368	Excavation to Formation Level		100%	30	26-Sep-11 A	22-Oct-11 A
S28N1369	Pile Head Trimming and bearing plate		100%	7	15-Oct-11 A	22-Oct-11 A
S28N1370	Pile Cap Construction (incl. VO29: revised piling details)		100%	24	26-Oct-11 A	02-Nov-11 A
S28N1371	Backfilling		100%	24	26-Nov-11 A	23-Dec-11 A
S28N1372	Pier Construction		100%	72	21-Dec-11 A	31-Jan-12 A
Pier NLKP9						
S28N1381	Realignment of Existing slip road		100%	45	19-May-10 A	13-Jul-10 A
S28N1382	Existing Water main Diversion		100%	45	14-Jul-10 A	03-Sep-10 A
S28N1383	Pre-drilling for Piles		100%	14	04-Sep-10 A	20-Sep-10 A
S28N1384	Confirmation of Founding Level		100%	14	21-Sep-10 A	08-Oct-10 A
S28N1385	COD: Drainage (ADN 72, 86, 121, 145, 225), Fire Services Mains (DAN 202) and related UU works)		100%	75	21-Sep-10 A	21-Oct-11 A
S28N1386	Piling Work (24shp)		100%	75	22-Oct-11 A	19-Dec-11 A
S28N1387	Temporary Shoring System		100%	30	01-Feb-12 A	19-Apr-12 A
S28N1388	Excavation to Formation Level		100%	36	19-Apr-12 A	26-Jun-12 A
S28N1389	Pile Head Trimming and bearing plate		100%	12	27-Jun-12 A	11-Jul-12 A
S28N1390	Pile Cap Construction (incl. VO29: revised piling details)		100%	12	12-Jul-12 A	01-Aug-12 A
S28N1391	Backfilling		100%	12	28-Jul-12 A	14-Sep-12 A
S28N1392	Pier Construction		100%	40	15-Sep-12 A	18-Oct-12 A
Pier NLKP10						
S28N1401	132 kv Cable Diversion		100%	75	26-Oct-11 A	27-Jan-12 A
S28N1402	Existing Water main Diversion		100%	50	23-Apr-12 A	16-Aug-12 A
S28N1405	Piling Work (17shp)		100%	60	23-Jul-12 A	19-Sep-12 A
S28N1409	Pile Cap construction (incl. VO29: revised piling details)		100%	25	03-Oct-12 A	01-Dec-12 A
S28N1411	Pier Construction		100%	25	11-Dec-12 A	29-Dec-12 A
North Abutment						
S28N1422	Existing Water Main Utilities Diversion		100%	30	09-Jul-12 A	30-Aug-12 A
S28N1426	Piling Work (24shp)		100%	60	20-Sep-12 A	12-Nov-12 A
S28N1428	Pile Cap Construction (incl. VO29: revised piling details)		100%	30	26-Nov-12 A	02-Jan-13 A
S28N1430	Abutment		100%	30	05-Jan-13 A	24-Jan-13 A
S28N1580	Backfilling		100%	20	20-May-13 A	31-May-13 A
North Ramp						
S28N1434	COD: RFI 399 HP Gas Main Clashing with abutment (incl. trail pit excavation)		100%	50	19-Sep-12 A	31-Dec-12 A



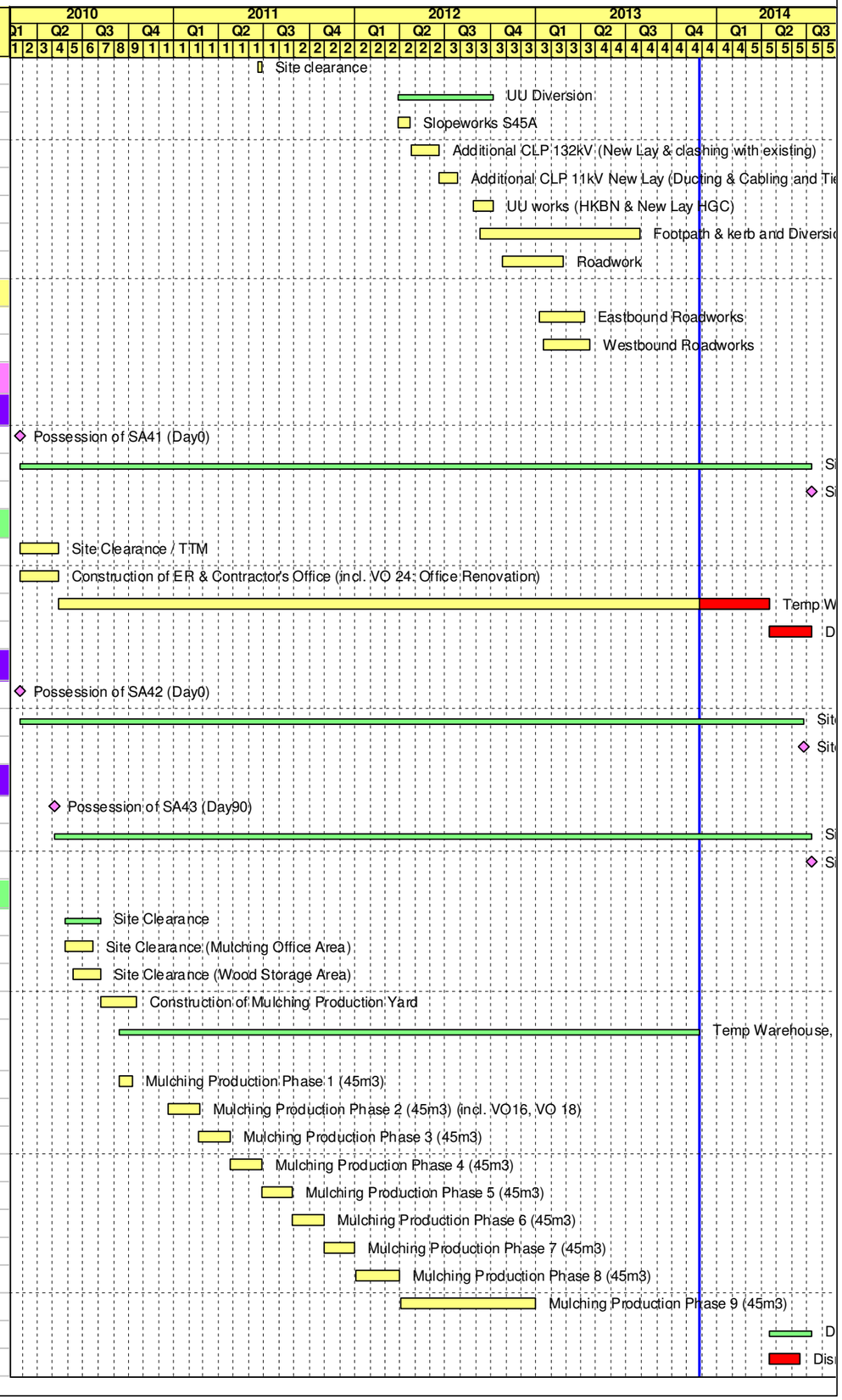
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S28N1435	Construction of North Ramp (incl. VO72: revised North & South Ramps Retaining ...		100%	148	06-Nov-12 A	08-May-13 A
S28N1436	Temporary Work for Excavation		100%	24	06-Nov-12 A	26-Jan-13 A
S28N1437	Excavation		100%	22	22-Nov-12 A	06-Feb-13 A
S28N1438	Base Slab		100%	14	31-Dec-12 A	05-Mar-13 A
S28N1439	Wing Wall		100%	48	01-Feb-13 A	08-May-13 A
S28N1449	Backfilling		100%	20	06-May-13 A	07-Jun-13 A
Decking and Finishing						
S28N1440	Decking (Bearing, Drainage & MJ included) (incl. VO 40: NLK - Revised Drainage Arrangement for Bridge Deck)		100%	559	27-Jun-11 A	14-May-13 A
S28N1450	NLK Deck; P4 - P5		100%	75	27-Jun-11 A	23-Sep-11 A
S28N1460	NLK Deck; P3 - P4		100%	75	26-Oct-11 A	27-Jan-12 A
S28N1470	NLK Deck; P2 - P3		100%	72	11-May-12 A	16-Aug-12 A
S28N1475	Falsework erection of deck: P1 - P2		100%	50	29-Sep-12 A	21-Dec-12 A
S28N1480	NLK Deck; P1 - P2		100%	62	06-Nov-12 A	30-Jan-13 A
S28N1484	Falsework dismantling of deck: P1 - P2		100%	18	21-Mar-13 A	30-Apr-13 A
S28N1485	Falsework erection of deck: South Abutment - P1		100%	25	10-Dec-12 A	30-Jan-13 A
S28N1490	NLK Deck; South Abutment - P1		100%	60	03-Jan-13 A	18-Mar-13 A
S28N1495	Falsework dismantling of deck: South Abutment - P1		100%	18	15-Apr-13 A	11-May-13 A
S28N1500	NLK Deck; P5 - P6		100%	75	26-Nov-11 A	04-Jun-12 A
S28N1510	NLK Deck; P6 - P7		100%	75	16-Jun-12 A	06-Oct-12 A
S28N1520	NLK Deck; P7 - P8		100%	75	03-Sep-12 A	22-Dec-12 A
S28N1524	Falsework dismantling of deck: P7 - P8		100%	26	07-Jan-13 A	01-Feb-13 A
S28N1525	Falsework erection of deck: P8 - P9		100%	18	29-Oct-12 A	29-Jan-13 A
S28N1530	NLK Deck; P8 - P9		100%	75	20-Dec-12 A	29-Mar-13 A
S28N1534	Falsework dismantling of deck: P8 - P9		100%	26	23-Apr-13 A	20-Jul-13 A
S28N1535	Falsework erection of deck: P9 - P10		100%	34	10-Dec-12 A	23-Jan-13 A
S28N1540	NLK Deck; P9 - P10		100%	65	18-Jan-13 A	25-Apr-13 A
S28N1544	Falsework dismantling of deck: P9 - P10	-46	98%	18	20-May-13 A	26-Nov-13
S28N1545	Falsework erection of deck: P10 - North Abutment		100%	18	17-Jan-13 A	21-Feb-13 A
S28N1550	NLK Deck; P10 - North Abutment		100%	55	21-Feb-13 A	14-May-13 A
S28N1554	Falsework dismantling of deck: P10 - North Abutment		100%	18	20-May-13 A	08-Jun-13 A
S28N1570	Parapet (P3 - P6)		100%	45	03-Dec-12 A	18-Apr-13 A
S28N1660	Parapet (SA - P3 & P6 - NA)		100%	65	28-Feb-13 A	26-Jun-13 A
S28N1680	Noise Barriers, Surfacing and Road Lighting		100%	30	10-May-13 A	22-Aug-13 A
S28N1690	Inspection Handover of NLK Bridge		100%	3	22-Aug-13 A	24-Aug-13 A
S28N1700	TTA Stage 9		100%	0	24-Aug-13 A	
S28N1710	Diversion for modifying kerb and laying asphalt paving road (N/B) reconstruction of 1 lane Stage 1	-40	80%	43	26-Aug-13 A	05-Dec-13
S28N1715	Road Construction Works (N/B) C2/C3 interface	-40	40%	43	26-Aug-13 A	27-Dec-13
S28N1720	Diversion for removing central barriers Stage 2	-40	45%	40	17-Sep-13 A	23-Jan-14
S28N1730	Diversion for modifying kerb and laying asphalt paving road (S/B) reconstruction of 1 lane Stage 3	-40	0%	25	23-Jan-14	25-Feb-14
S28N1735	Road Construction Works (S/B) C2/C3 interface	-40	0%	25	23-Jan-14	25-Feb-14
Ready For Pre-Handover Retaining Wall of Section 4						
HRW0040	Ready For Pre-Handover Retaining Wall W72B, W73 and W74	-18	0%	7	08-Feb-14	17-Feb-14
Section 5						
Site Area SA31						
PHSA3120	Possession of SA31 (Day0)		100%	0	26-Feb-10 A	



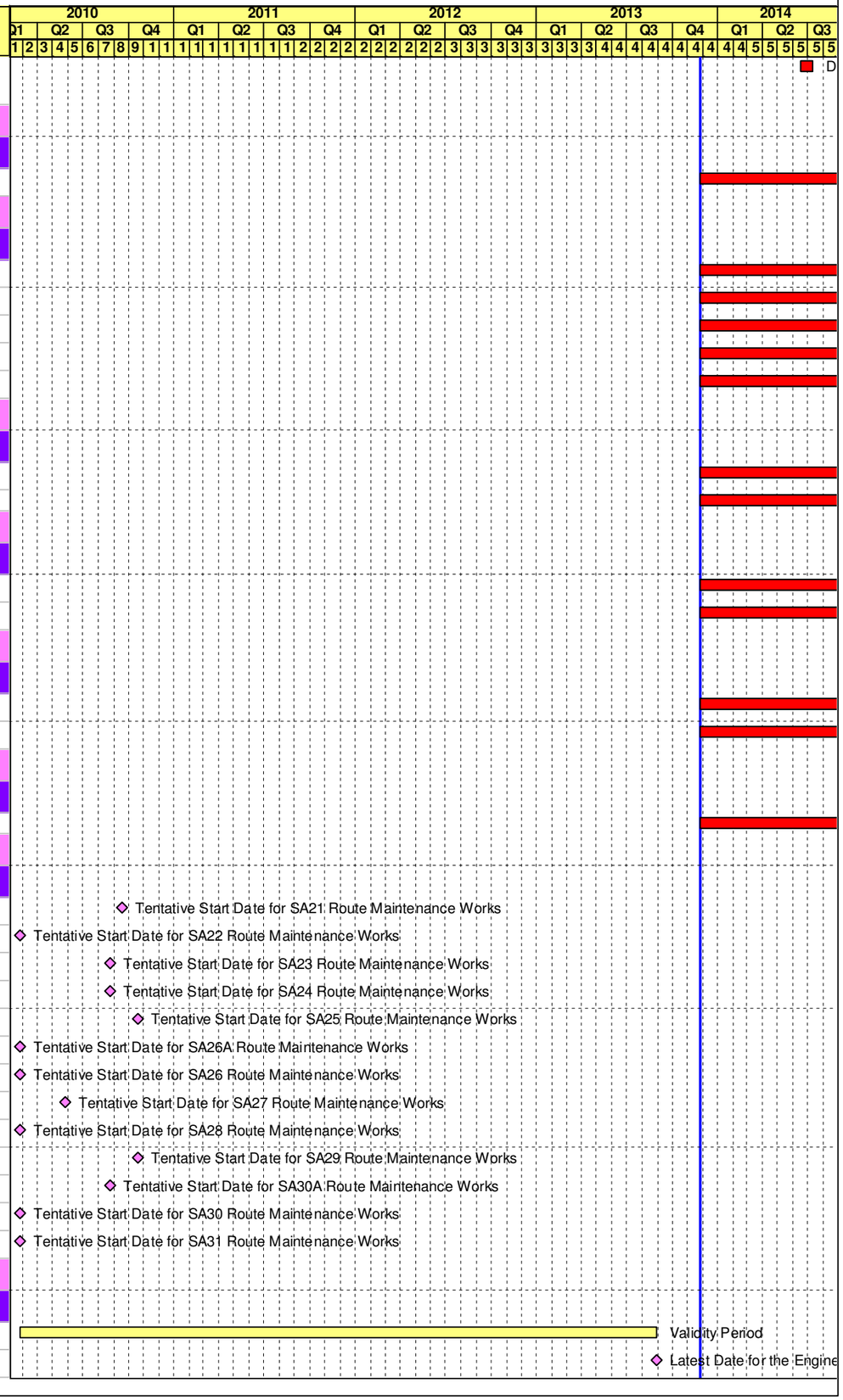
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
SA310000	Site Area SA31 Works Period (incl. VO42, VO52, VO59 & VO65)	208	99.43%	884	26-Feb-10 A	30-Nov-13
SA310010	Site Area SA31 Works Completion	208	0%	0		30-Nov-13
South Bound						
Preliminaries						
S31S0000	Site Clearance/TTM/Access Rd/Utility Diversion (Incl. Liason and Coordination)		100%	252	26-Feb-10 A	31-Dec-10 A
Roadworks, Drainage & Utilities						
Portion 3						
S31S5000	Portion 3 - New Footpath (CH0 to 175)		100%	165	11-Jun-11 A	15-Jan-13 A
S31S5010	Formation level of footpath		100%	45	04-Jan-12 A	28-Feb-12 A
S31S5020	Preparation for footpath & Cycle Track Diversion		100%	7	11-Jun-11 A	18-Jun-11 A
S31S5025	Unchartted Towngas DN400 HP		100%	178	29-May-12 A	05-Jan-13 A
S31S5030	Additional UU works (CLP 132kV & 11kv)		100%	17	10-Oct-12 A	16-Jan-13 A
S31S5035	Roadworks		100%	215	07-Sep-12 A	16-Mar-13 A
S31S5040	Footpath Sub-base, kerb and concrete surface		100%	17	07-Sep-12 A	30-May-13 A
S31S5050	CLP Overhead wooden Pole		100%	12	26-Dec-12 A	07-Jan-13 A
S31S5060	New cycle track formation level		100%	15	28-Nov-12 A	06-Apr-13 A
S31S5070	New cycle track (Bitonminous Layer)		100%	10	29-Jan-13 A	25-Apr-13 A
S31S5080	New Kerb		100%	7	07-Jan-13 A	23-Apr-13 A
S31S5090	Public Lighting & TCSS Ductings (incl. VO 77 Provision of cable duct for power supply)		100%	7	06-Oct-12 A	23-Apr-13 A
S31S5100	New public lightings poles		100%	15	17-Apr-13 A	20-Apr-13 A
S31S5110	Reconstruction carriageway		100%	7	05-Mar-13 A	20-Apr-13 A
S31S5120	Traffic Lights	166	0%	5	26-Nov-13	30-Nov-13
S31S5130	Roadworks (Other area not affected by towngas)		100%	60	21-May-12 A	16-Mar-13 A
S31S5132	Roadworks (Remaining area affected by towngas)		100%	19	26-Dec-12 A	15-Jan-13 A
Portion 1						
S31S4620	Portion 1 - CH 0 to CH 50 (From Hong Lok Yuen Junction to WSD Gate)		100%	146	20-Jun-11 A	16-Mar-13 A
S31S4630	Site Clearance		100%	7	20-Jun-11 A	27-Jun-11 A
S31S4640	Excavation road formation level		100%	50	28-Jun-11 A	25-Aug-11 A
S31S4648	Unchartted Towngas / CLP		100%	65	16-Jan-12 A	10-Aug-12 A
S31S4650	Trial Pit for Towngas DN400 HP		100%	14	16-Jan-12 A	04-Feb-12 A
S31S4660	Additional Towngas DN400 HP preparation and materials deliverary		100%	50	06-Feb-12 A	27-Apr-12 A
S31S4670	Additional Towngas DN400 HP laying works		100%	12	28-Apr-12 A	26-May-12 A
S31S4675	Uncharted CLP 11kV Existing diversion (Ducting & Cabling, Tie - in and uncharted cables)		100%	65	30-Jul-12 A	10-Aug-12 A
S31S4678	UU diversion		100%	67	15-Dec-11 A	18-Dec-12 A
S31S4679	Excavation for UU diversion		100%	20	15-Dec-11 A	10-Jan-12 A
S31S4680	Additional CLP 11kV Existing Diversion (Ducting & Cabling, Tie-in and uncharted cables)		100%	10	25-Apr-12 A	10-Aug-12 A
S31S4690	Additional CLP 132 kV (New Lay)		100%	17	02-Apr-12 A	18-Jun-12 A
S31S4700	Additional CLP 132kV (Existing)		100%	22	11-Aug-12 A	16-Aug-12 A
S31S4710	Additional UU work (HGC, HKBN, TGT & NWT)		100%	35	06-Aug-12 A	18-Dec-12 A
S31S4720	Excavation and DN 600 FW & DN 300 SW		100%	68	28-Jun-11 A	09-Nov-12 A
S31S4725	Roadwork		100%	0	15-Oct-12 A	29-Jul-13 A
S31S4730	Footpath & Kerb		100%	30	20-Dec-12 A	29-Jul-13 A
S31S4740	Roadwork		100%	30	15-Oct-12 A	16-Mar-13 A
Portion 2						
S31S4750	Portion 2 - CH 50 to 80 (From WSD Gate to Hong Lok Yuen)		100%	108	20-Jun-11 A	29-Jul-13 A



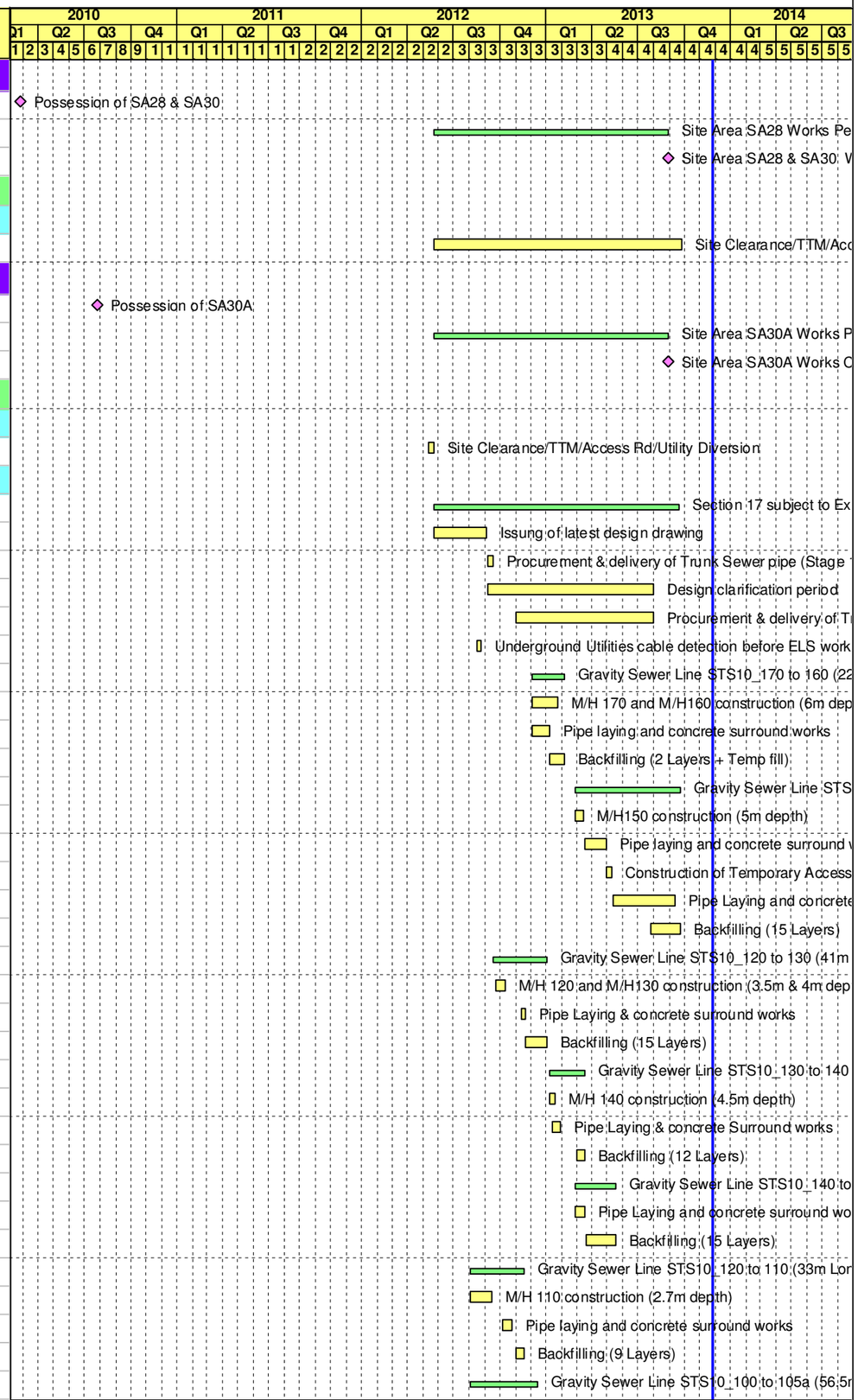
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S31S4760	Site clearance		100%	7	20-Jun-11 A	27-Jun-11 A
S31S4765	UU Diversion		100%	82	28-Mar-12 A	05-Oct-12 A
S31S4766	Slopeworks S45A		100%	18	28-Mar-12 A	21-Apr-12 A
S31S4770	Additional CLP 132kV (New Lay & clashing with existing)		100%	45	25-Apr-12 A	18-Jun-12 A
S31S4780	Additional CLP 11kV New Lay (Ducting & Cabling and Tie-in)		100%	46	19-Jun-12 A	27-Jul-12 A
S31S4790	UU works (HKBN & New Lay HGC)		100%	12	27-Aug-12 A	05-Oct-12 A
S31S4800	Footpath & kerb and Diversion of footpath		100%	15	10-Sep-12 A	29-Jul-13 A
S31S4810	Roadwork		100%	21	25-Oct-12 A	25-Feb-13 A
Roadworks, Drainage & Utilities						
S31S4820	Eastbound Roadworks		100%	50	07-Jan-13 A	08-Apr-13 A
S31S4830	Westbound Roadworks		100%	50	17-Jan-13 A	20-Apr-13 A
Section 7						
Site Area SA41						
PHSA4110	Possession of SA41 (Day0)		100%	0	26-Feb-10 A	
SA410000	Site Area SA41 Works Period	-15	85.59%	1581	26-Feb-10 A	11-Jul-14
SA410010	Site Area SA41 Works Completion	-15	0%	0		11-Jul-14
Temporary Site Office						
S41G0000	Site Clearance / TTM		100%	60	26-Feb-10 A	12-May-10 A
S41G9000	Construction of ER & Contractor's Office (incl. VO 24: Office Renovation)		100%	60	26-Feb-10 A	12-May-10 A
S41G9100	Temp Warehouse, Fabrication & Equip Yard	-16	90%	1419	13-May-10 A	16-Apr-14
S41G9120	Dismantle of ER & Contractor's Office	-12	0%	68	16-Apr-14	11-Jul-14
Site Area SA42 (Core Storage & Works Area)						
PHSA4210	Possession of SA42 (Day0)		100%	0	26-Feb-10 A	
SA410040	Site Area SA42 Works Period	0	86.59%	1581	26-Feb-10 A	25-Jun-14
SA420010	Site Area SA42 Works Completion	0	0%	0		25-Jun-14*
Site Area SA43						
PHSA4310	Possession of SA43 (Day90)		100%	0	04-May-10 A	
SA410020	Site Area SA43 Works Period	-16	84.73%	1492	04-May-10 A	11-Jul-14
SA410030	Site Area SA43 Works Completion	-16	0%	0		11-Jul-14*
Mulching Production Area						
S41G010	Site Clearance		100%	59	27-May-10 A	05-Aug-10 A
S41G020	Site Clearance (Mulching Office Area)		100%	45	27-May-10 A	20-Jul-10 A
S41G030	Site Clearance (Wood Storage Area)		100%	45	12-Jun-10 A	05-Aug-10 A
S41G040	Construction of Mulching Production Yard		100%	60	06-Aug-10 A	18-Oct-10 A
S41G050	Temp Warehouse, Fabrication & Equip Yard (Site allcated for period till 8 May 2012) : Expected production = 900m3	213	100%	1260	13-Sep-10 A	26-Nov-13
S41G060	Mulching Production Phase 1 (45m3)		100%	63	13-Sep-10 A	09-Oct-10 A
S41G070	Mulching Production Phase 2 (45m3) (incl. VO16, VO 18)		100%	63	21-Dec-10 A	21-Feb-11 A
S41G080	Mulching Production Phase 3 (45m3)		100%	63	20-Feb-11 A	24-Apr-11 A
S41G090	Mulching Production Phase 4 (45m3)		100%	63	24-Apr-11 A	26-Jun-11 A
S41G100	Mulching Production Phase 5 (45m3)		100%	63	27-Jun-11 A	28-Aug-11 A
S41G110	Mulching Production Phase 6 (45m3)		100%	63	29-Aug-11 A	30-Oct-11 A
S41G120	Mulching Production Phase 7 (45m3)		100%	63	31-Oct-11 A	01-Jan-12 A
S41G130	Mulching Production Phase 8 (45m3)		100%	63	02-Jan-12 A	31-Mar-12 A
S41G140	Mulching Production Phase 9 (45m3)		100%	63	02-Apr-12 A	31-Dec-12 A
S41G260	Dismantle of Mulching Production Yard	-13	0%	68	16-Apr-14	11-Jul-14
S41G270	Dismantle of Mulching Production Yard : Removing Mulching Office	-13	0%	48	16-Apr-14	17-Jun-14



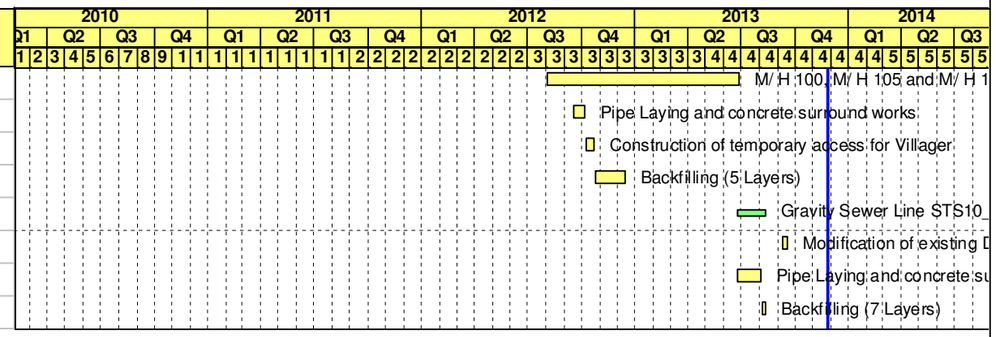
Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S41G280	Dismantle of Mulching Production Yard : Removing Security Fence and Security Device	-13	0%	20	17-Jun-14	11-Jul-14
Section 8						
Establishment Works						
S21G8000	SA21 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
Section 9						
Establishment Works						
S22G8000	SA22 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S23G8000	SA23 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S24G8000	SA24 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S25G8000	SA25 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S26G8000	SA26 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
Section 10						
Establishment Works						
S26AG800	SA26A Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S27G8000	SA27 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
Section 11						
Establishment Works						
S28G8000	SA28 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S29G8000	SA29 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
Section 12						
Establishment Works						
S30AG800	SA30A Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
S30G8000	SA30 Establishment Works	-152	0%	365	26-Nov-13	25-Nov-14
Section 13						
Establishment Works						
S30AG810	Remainder of Establishment Works (Exclude Section 8 to 12)	-152	0%	365	26-Nov-13	25-Nov-14
Section 14						
Route Network Maintenance (Subject to the the Engineer's Instruction)						
S21G7000	Tentative Start Date for SA21 Route Maintenance Works		100%	0	17-Sep-10 A	
S22G7000	Tentative Start Date for SA22 Route Maintenance Works		100%	0	26-Feb-10 A	
S23G7000	Tentative Start Date for SA23 Route Maintenance Works		100%	0	25-Aug-10 A	
S24G7000	Tentative Start Date for SA24 Route Maintenance Works		100%	0	25-Aug-10 A	
S25G7000	Tentative Start Date for SA25 Route Maintenance Works		100%	0	20-Oct-10 A	
S26AG700	Tentative Start Date for SA26A Route Maintenance Works		100%	0	26-Feb-10 A	
S26G7000	Tentative Start Date for SA26 Route Maintenance Works		100%	0	26-Feb-10 A	
S27G7000	Tentative Start Date for SA27 Route Maintenance Works		100%	0	27-May-10 A	
S28G7000	Tentative Start Date for SA28 Route Maintenance Works		100%	0	26-Feb-10 A	
S29G7000	Tentative Start Date for SA29 Route Maintenance Works		100%	0	20-Oct-10 A	
S30AG700	Tentative Start Date for SA30A Route Maintenance Works		100%	0	25-Aug-10 A	
S30G7000	Tentative Start Date for SA30 Route Maintenance Works		100%	0	26-Feb-10 A	
S31G7000	Tentative Start Date for SA31 Route Maintenance Works		100%	0	26-Feb-10 A	
Section 17 (Subject to Excision and Instruct by Engineer within 819 days)						
General						
SC150025	Validity Period		100%	819	25-Feb-10 A	31-Aug-13 A
SC150030	Latest Date for the Engineer to Issue EI		100%	0		31-Aug-13 A



Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
Site Area SA28 & SA30						
PHSA2840	Possession of SA28 & SA30		100%	0	26-Feb-10 A	
SA280005	Site Area SA28 Works Period		100%	0	24-May-12 A	31-Aug-13 A
SA280020	Site Area SA28 & SA30 Works Completion		100%	0		31-Aug-13 A
All Area						
Preliminaries						
S28N1000	Site Clearance/TTM/Access Rd/Utility Diversion		100%	45	24-May-12 A	26-Sep-13 A
Site Area SA30A						
PHSA30A5	Possession of SA30A		100%	0	27-Jul-10 A	
SA30A005	Site Area SA30A Works Period		100%	155	23-May-12 A	31-Aug-13 A
SA30A020	Site Area SA30A Works Completion		100%	0		31-Aug-13 A
North Bound						
Preliminaries						
S30AN100	Site Clearance/TTM/Access Rd/Utility Diversion		100%	75	14-May-12 A	23-May-12 A
Roadworks, Drainage & Utilities						
S30AN415	Section 17 subject to Excision Works Instruction date (Trunk Sewer Line)		100%	245	23-May-12 A	20-Sep-13 A
S30AN420	Issung of latest design drawing		100%	75	24-May-12 A	05-Sep-12 A
S30AN430	Procurement & delivery of Trunk Sewer pipe (Stage 1)		100%	75	06-Sep-12 A	17-Sep-12 A
S30AN440	Design clarification period		100%	60	06-Sep-12 A	31-Jul-13 A
S30AN450	Procurement & delivery of Trunk Sewer pipe (Stage 2)		100%	75	01-Nov-12 A	31-Jul-13 A
S30AN460	Underground Utilities cable detection before ELS works		100%	60	17-Aug-12 A	24-Aug-12 A
S30AN470	Gravity Sewer Line STS10_170 to 160 (22m Long)		100%	90	05-Dec-12 A	06-Feb-13 A
S30AN480	M/H 170 and M/H160 construction (6m depth)		100%	75	05-Dec-12 A	23-Jan-13 A
S30AN490	Pipe laying and concrete surround works		100%	60	05-Dec-12 A	07-Jan-13 A
S30AN500	Backfilling (2 Layers + Temp fill)		100%	30	08-Jan-13 A	06-Feb-13 A
S30AN510	Gravity Sewer Line STS10_160 to 150 (40m Long)		100%	95	27-Feb-13 A	23-Sep-13 A
S30AN520	M/H150 construction (5m depth)		100%	40	27-Feb-13 A	16-Mar-13 A
S30AN530	Pipe laying and concrete surround works (Stage 1)		100%	25	18-Mar-13 A	30-Apr-13 A
S30AN540	Construction of Temporary Access for Villager		100%	8	30-Apr-13 A	10-May-13 A
S30AN550	Pipe Laying and concrete works (Stage 2)		100%	21	13-May-13 A	14-Sep-13 A
S30AN560	Backfilling (15 Layers)		100%	8	27-Jul-13 A	23-Sep-13 A
S30AN570	Gravity Sewer Line STS10_120 to 130 (41m Long)		100%	120	17-Sep-12 A	03-Jan-13 A
S30AN580	M/H 120 and M/H130 construction (3.5m & 4m depth)		100%	70	24-Sep-12 A	12-Oct-12 A
S30AN585	Pipe Laying & concrete surround works		100%	30	14-Nov-12 A	20-Nov-12 A
S30AN590	Backfilling (15 Layers)		100%	20	21-Nov-12 A	03-Jan-13 A
S30AN600	Gravity Sewer Line STS10_130 to 140 (40m Long)		100%	88	08-Jan-13 A	18-Mar-13 A
S30AN610	M/H 140 construction (4.5m depth)		100%	40	08-Jan-13 A	19-Jan-13 A
S30AN620	Pipe Laying & concrete Surround works		100%	40	14-Jan-13 A	28-Jan-13 A
S30AN630	Backfilling (12 Layers)		100%	25	01-Mar-13 A	18-Mar-13 A
S30AN640	Gravity Sewer Line STS10_140 to 150 (38m Long)		100%	80	28-Feb-13 A	18-May-13 A
S30AN650	Pipe Laying and concrete surround works		100%	50	28-Feb-13 A	18-Mar-13 A
S30AN660	Backfilling (15 Layers)		100%	30	22-Mar-13 A	18-May-13 A
S30AN670	Gravity Sewer Line STS10_120 to 110 (33m Long)		100%	205	03-Aug-12 A	17-Nov-12 A
S30AN680	M/H 110 construction (2.7m depth)		100%	30	03-Aug-12 A	15-Sep-12 A
S30AN690	Pipe laying and concrete surround works		100%	40	06-Oct-12 A	26-Oct-12 A
S30AN700	Backfilling (9 Layers)		100%	20	01-Nov-12 A	17-Nov-12 A
S30AN710	Gravity Sewer Line STS10_100 to 105a (56.5m Long)		100%	75	03-Aug-12 A	15-Dec-12 A



Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish
S30AN720	M/ H 100, M/ H 105 and M/ H 105a construction (2.5m depth)		100%	45	03-Aug-12 A	27-Jun-13 A
S30AN730	Pipe Laying and concrete surround works		100%	50	17-Sep-12 A	06-Oct-12 A
S30AN740	Construction of temporary access for Villager		100%	30	08-Oct-12 A	22-Oct-12 A
S30AN750	Backfilling (5 Layers)		100%	25	24-Oct-12 A	15-Dec-12 A
S30AN760	Gravity Sewer Line STS10_105a to 110 and STS10_105 to STS10_105a		100%	8	24-Jun-13 A	13-Aug-13 A
S30AN770	Modification of existing DN2200 valve chamber		100%	1	09-Sep-13 A	17-Sep-13 A
S30AN780	Pipe Laying and concrete surround works (2.5m depth)		100%	26	24-Jun-13 A	05-Aug-13 A
S30AN790	Backfilling (7 Layers)		100%	7	06-Aug-13 A	13-Aug-13 A



APPENDIX C
IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)

Appendix C - Implementation Schedule of Environmental Mitigation Measures (EMIS)

Air Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Air Quality during Construction	• Restricting heights from which materials are dropped, as far as practicable to minimize the fugitive dust arising from unloading/loading.	During construction	V
	• All stockpiles of excavated materials or spoil of more than $50m^3$ shall be enclosed, covered or dampened during dry or windy conditions.		@
	• Effective water sprays shall be used to control potential dust emission sources such as unpaved haul roads and active construction areas.		@
	• All spraying of materials and surfaces shall avoid excessive water usage.		V
	• Vehicles that have the potential to create dust while transporting materials shall be covered, with the cover properly secured and extended over the edges of the side and tail boards.		V
	• Materials shall be dampened, if necessary, before transportation.		V
	• Travelling speeds shall be controlled to reduce traffic induced dust dispersion and resuspension within the site from the operating haul trucks.		V
	• Vehicle washing facilities shall be provided to minimize the quantity of material deposited on public roads.		V

Noise - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Noise during Construction	• Use of silenced plant or plant equipped with mufflers or dampers in substitute of ordinary plant.	During construction	V
	• Reduce the number of equipment and their percentage on-time.		V
	• 3.5 m and 5.5 m high temporary noise barrier at culvert construction work area (Figure 2a of the Environmental Permit).		V
	• 3 m high temporary noise barrier along the northern edge of Bridge 12 at ground level (Figure 2b of the Environmental Permit).		V
	• 2 m high temporary noise barrier along the northern edge of Bridge 12 at bridge level (Figure 2b of the Environmental Permit).		In progress
	• 2.5 m high temporary noise barrier along TaiWo Service Road West (Figure 2c of the Environmental Permit).		V
	• 3.5m high temporary noise barrier along Tai Wo Services Road West near Tai Hang (Figure2c of the Environmental Permit).		In progress

Water Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Water quality during Construction	Demolition and reconstruction of bridges	During construction	
	• Prevent off-site migration through use of sheet piles.		V
	• Minimize duration of works as far as practical.		V
	• All sewer and drainage connections should be sealed to prevent debris, soil, sand, etc, from entering public sewers/drains.		V
	• Site surface runoff should be settled to remove sand/silt before it is discharged into the existing storm drains.		V
	River training works		
	• Inspection and testing of water quality in the nullah on the Tai Po River.		N/A
	Road Widening Works and Earthworks		
	• Wastewater generated from any concrete batching washdown of equipment or similar activities should be discharged into foul sewers, after the removal of settable solids, and pH adjustment as necessary. All sewage discharges from the study area should meet the TM standards and approval from EPD through the licensing process is required.		V
	• Sand traps, oil interceptors and other pollution prevention installations should be provided, properly cleaned and maintained.		@
	• Runoff from exposed working areas, unfinished slopes and from unlined temporary channels should be directed to stilling basins and/or silt traps before discharging to the drainage outfalls.		@
	• Regular inspections of stilling basins and/or silt traps are required to ensure that sediment is not conveyed into the existing drainage system.		V
	• Open stockpiles should be covered with a tarpaulin cover.		@
	• During the wet season, any exposed top soils should be covered with a tarpaulin, shotcreted or hydroseeded.		V
	• Sand and silt from wash-water from vehicle washing should be settled out before discharging into storm drains.		V
	• Fuels should be stored in bunded areas such that spillage can be easily collected.		V

Waste - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	General Waste	During construction	
	• Transport of wastes off site as soon as possible.		V
	• Maintenance of accurate waste records		V
	• Minimization of waste generation for disposal (via reduction/recycling/re-use).		V
	• No on-site burning will be permitted.		V
	• Use of re-useable metal hoardings/signboards.		V
	Vegetation from site clearance		
	• Segregation of materials to facilitate disposal.		V
	• Mulching to reduce bulk and where possible review opportunities for the possible beneficial use within landscaping areas.		V
	Demolition Wastes		
	• Segregation of materials to facilitate disposal.		V

	• Appropriate stockpile management.		V
	Excavated Materials		
	• Segregation of materials to facilitate disposal / reuse.		V
	• Appropriate stockpile management.		V
	• Re-use of excavated material on or off site (where possible).		V
	• Special handling and disposal procedures in the event that contaminated materials are excavated.		N/A
	Construction Wastes		
	• Segregation of materials to facilitate recycling/reuse (within designated area in appropriate containers/stockpiles).		V
	• Appropriate stockpile management.		V
	• Planning to reduce over ordering and waste generation.		V
	• Recycling and re-use of materials where possible (e.g. metal, wood from formwork)		V
	• For material which cannot be re-used/recycled, collection should be carried out by an approved waste contractor for landfill disposal.		V
	Bentonite Slurries		
	• Bentonite slurries should be reused as far as possible.		N/A
	• Disposal in accordance with *Practice Note For Professional Persons ProPECC PN 1/94.*		N/A
	Chemical Wastes		
	• Storage within locked, covered and bunded area.		V
	• The storage area shall not be located adjacent to sensitive receivers e.g. drains.		V
	• Minimize waste production and recycle oils/solvents where possible.		V
	• A spill response procedure shall be in place and absorption material available for minor spillages.		@
	• Use appropriate and labelled containers.		V
	• Educate site workers on site cleanliness/waste management procedures.		V
	• If chemical wastes are to be generated, the contractor must register with EPD as a Chemical Waste Producer.		V
	• The chemical wastes shall be collected by a licensed chemical waste collector.		V
	Municipal Wastes		
	• Waste shall be stored within a temporary refuse collection facility, in appropriate containers prior to collection and disposal.		V
	• Regular, daily collections are required by an approved waste collector.		V

Ecology - Schedule of Recommended Mitigation Measures

Impact	**Mitigation Measures**	**Timing**	**Implementation Status**
Ecology during Construction	Accurate Delineation of Works Area	During construction	
	• Boundaries of proposed works areas shall be clearly identified and separated from external areas by a physical barrier to prevent encroachment of adjacent habitats.		V
	• Individual trees which fall within the works areas but which work plans show do not require removal are to be retained and fenced off to maximize protection.		V
	Vegetation Clearance		
	• No fires shall be lit within the works area for the purpose of burning cleared vegetation.		V
	• The Contractor shall give consideration to mulching the cleared vegetation for recycling within the works area /		V

	adjacent land.		
	Dust generation		
	• Vehicle washing facilities to be provided at every discernible or designated vehicle exit point;		V
	• All temporary site access roads shall be sprayed with water to suppress dust as necessary;		V
	• All dusty materials should be sprayed with water immediately prior to any handling; and		V
	• All debris should be covered entirely by impervious sheeting or stored in a sheltered debris collection area.		V
	Surface Run-off		
	• Bund and cover stockpiles to avoid run-off;		V
	• Channel any run-off through a system of oil, grease and sediment / silt traps and reuse water on site where ever practical;		V
	• All vehicle maintenance to be undertaken within a bunded area; and		N/A
	• Maximize vegetation retention on-site to maximize absorption (minimize transport).		V

Landscape and Visual Impact - Schedule of Recommended Mitigation Measures

Impact	**Mitigation Measures**	**Timing**	**Implementation Status**
Landscape and Visual Impact during Construction	Preservation of Existing Vegetation	During construction	
	• Trees identified for retention within the project limit would be protected during the works		V
	• The tree transplanting and planting works shall be implemented by approved Landscape Contractors		V
	Temporary Works Areas		
	• Where feasible the works areas would be screened using hoarding and existing vegetation would be retained where possible to reduce the landscape and visual impacts arising from the construction activity. The landscape of these works areas would be restored following the completion of the construction phase.		V
	Hoarding		
	• A hoarding would be erected where practicable in the most visually sensitive locations to screen the temporary construction works from the local VSR's.		V
	Top Soils		
	• The works will result in disturbance to extensive areas of topsoil. Topsoil worthy of retention should be stockpiled for use following completion of the civil engineering works. It should either be temporarily vegetated with hydroseeded grass or turned over on a regular basis.		N/A
	Protection of Important Landscape Features		
	• Important features such as temples, Island House and kilns within the study area, although remote from the proposed works retained and adequately protected.		V

Legend: V = implemented;
x = not implemented;
@ = partially implemented;
N/A = not applicable - No such work was undertaken or no such material was used on site.

APPENDIX D
SUMMARY OF ACTION AND LIMIT LEVELS

Appendix D - Summary of Action and Limit Levels

Table 1 – Action and Limit Levels for 1-hour TSP

Location	Action Level	Limit Level
AM1A	302.1 μg/m3	500 μg/m3
AM2	301.9 μg/m3	500 μg/m3
AM3	301.9 μg/m3	500 μg/m3
AM4A	302.3 μg/m3	500 μg/m3

Table 2 – Action and Limit Levels for 24-hour TSP

Location	Action Level	Limit Level
AM1A	176.6 μg/m3	260 μg/m3
AM2	178.6 μg/m3	260 μg/m3
AM3	193.1 μg/m3	260 μg/m3
AM4A	198.5 μg/m3	260 μg/m3

Table 3 – Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)

Location	Action Level	Limit Level
NM1A	When one documented complaint, related to 0700 – 1900 hours on normal weekdays, is received from any one of the sensitive receivers	75 dB(A)
NM2		75 dB(A)
NM3		65/70 dB(A)*
NM4		75 dB(A)
NM5		75 dB(A)
NM6		70 dB(A)*
NM7		75 dB(A)

*Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period

APPENDIX E
CALIBRATION CERTIFICATES OF MONITORING EQUIPMENTS

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Sheung Wun Yiu (AM1A)	Operator:	Gary Choi
Cal. Date:	16-Nov-13	Next Due Date:	16-Jan-14
Equipment No.:	A-001-53T	Serial No.	10216

Ambient Condition			
Temperature, Ta (K)	297.4	Pressure, Pa (mmHg)	763.4

Orifice Transfer Standard Information					
Serial No:	843	Slope, mc	1.99238	Intercept, bc	-0.00351
Last Calibration Date:	6-Dec-12	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	6-Dec-13	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.8	2.98	1.50	46.0	46.15
13	6.2	2.50	1.26	38.0	38.12
10	4.4	2.10	1.06	32.0	32.10
7	3.5	1.88	0.94	27.0	27.09
5	2.3	1.52	0.77	20.0	20.06

By Linear Regression of Y on X

Slope , mw = 35.4352 **Intercept, bw =** -6.4026

Correlation Coefficient* = 0.9959

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

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

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2}$ = **39.53**

Remarks: _____

QC Reviewer: K. M. CHEK Signature: _____ Date: 18 Nov 13

E:\AM

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Shan Tong New Village (AM2)	Operator:	Choi Wing Ho
Cal. Date:	22-Oct-13	Next Due Date:	22-Dec-13
Equipment No.:	A-001-29T	Serial No.	10202

Ambient Condition			
Temperature, Ta (K)	297.8	Pressure, Pa (mmHg)	760.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-May-14	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.8	2.97	1.51	46.0	46.02
13	6.7	2.59	1.32	39.0	39.01
10	5.3	2.30	1.17	35.0	35.01
7	3.7	1.92	0.98	28.0	28.01
5	2.6	1.61	0.82	22.0	22.01

By Linear Regression of Y on X

Slope , mw = 34.0930 **Intercept, bw =** -5.4880

Correlation Coefficient* = 0.9980

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

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

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2}$ = **38.82**

Remarks: _____

QC Reviewer: K. M. CHEK Signature: Mike Date: 23. Oct. 13

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Shan Tong New Village (AM2)	Operator:	Choi Wing Ho
Cal. Date:	22-Dec-13	Next Due Date:	22-Feb-14
Equipment No.:	A-001-29T	Serial No.	10202

Ambient Condition			
Temperature, Ta (K)	289	Pressure, Pa (mmHg)	756.9

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-May-14	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	9.0	3.04	1.55	47.0	47.63
13	6.5	2.58	1.31	40.0	40.54
10	5.3	2.33	1.19	35.0	35.47
7	3.6	1.92	0.98	29.0	29.39
5	2.6	1.63	0.83	22.0	22.29

By Linear Regression of Y on X

Slope , mw = 34.4706 **Intercept, bw =** -5.2867

Correlation Coefficient* = 0.9935

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

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

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2}$ = **39.00**

Remarks: _____

QC Reviewer: KT Lam Signature: _____ Date: 23-12-13

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Riverain Bayside (AM3)	Operator:	Choi Wing Ho
Cal. Date:	22-Oct-13	Next Due Date:	22-Dec-13
Equipment No.:	A-001-69T	Serial No.	716

Ambient Condition			
Temperature, Ta (K)	297.8	Pressure, Pa (mmHg)	760.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	**mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	20-May-14	**Qstd = {[DH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	9.0	3.00	1.53	48.0	48.02
13	7.4	2.72	1.39	42.0	42.01
10	5.6	2.37	1.20	35.0	35.01
7	4.0	2.00	1.02	26.0	26.01
5	3.0	1.73	0.88	21.0	21.01

By Linear Regression of Y on X

Slope , mw = 41.9095 **Intercept, bw =** -15.9768

Correlation Coefficient* = 0.9986

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; IC = (mw x Qstd + bw) x [(760 / Pa) x (Ta / 298)]$^{1/2}$= **38.49**

Remarks: _____

QC Reviewer: K. H. SHEK Signature: Mike Date: 23. Oct. 13

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Riverain Bayside (AM3)	Operator:	Choi Wing Ho
Cal. Date:	22-Dec-13	Next Due Date:	22-Feb-14
Equipment No.:	A-001-69T	Serial No.	716

Ambient Condition			
Temperature, Ta (K)	289	Pressure, Pa (mmHg)	756.9

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	**mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	20-May-14	**Qstd = {[DH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.8	3.01	1.53	47.0	47.63
13	7.3	2.74	1.39	43.0	43.58
10	5.6	2.40	1.22	35.0	35.47
7	3.9	2.00	1.02	26.0	26.35
5	2.9	1.73	0.87	22.0	22.29

By Linear Regression of Y on X

Slope , mw = **40.2648** **Intercept, bw =** **-13.5403**

Correlation Coefficient* = **0.9943**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; IC = (mw x Qstd + bw) x [(760 / Pa) x (Ta / 298)]$^{1/2}$= **38.29**

Remarks:

QC Reviewer: YT Leung Signature: Date: 23-12-13

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	168 Shek Kwu Lung Village (AM4A)	Operator:	Gary Choi
Cal. Date:	16-Nov-13	Next Due Date:	16-Jan-14
Equipment No.:	A-001-70T	Serial No.	10273

Ambient Condition			
Temperature, Ta (K)	297.4	Pressure, Pa (mmHg)	763.4

Orifice Transfer Standard Information					
Serial No:	843	Slope, mc	1.99238	Intercept, bc	-0.00351
Last Calibration Date:	6-Dec-12	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	6-Dec-13	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.9	2.99	1.50	47.0	47.15
13	7.5	2.75	1.38	42.0	42.14
10	5.1	2.27	1.14	34.0	34.11
7	3.5	1.88	0.94	28.0	28.09
5	2.4	1.55	0.78	22.0	22.07

By Linear Regression of Y on X

Slope , mw = **34.0386** **Intercept, bw =** **-4.4274**

Correlation Coefficient* = **0.9986**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

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

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

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2} =$ **39.69**

Remarks: _____

QC Reviewer: K. H. SHEK Signature: Mike Date: 18-Nov-13

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 - May 20, 2013 Rootsmeter S/N 0438320 Ta (K) - 297
Operator Tisch Orifice I.D. - 0988 Pa (mm) - 751.84

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3900	3.2	2.00
2	NA	NA	1.00	0.9720	6.4	4.00
3	NA	NA	1.00	0.8670	7.9	5.00
4	NA	NA	1.00	0.8270	8.7	5.50
5	NA	NA	1.00	0.6800	12.6	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9884	0.7110	1.4090		0.9957	0.7163	0.8889
0.9842	1.0125	1.9926		0.9915	1.0201	1.2570
0.9821	1.1327	2.2278		0.9894	1.1412	1.4054
0.9811	1.1863	2.3365		0.9884	1.1952	1.4740
0.9759	1.4352	2.8179		0.9832	1.4459	1.7777
Qstd slope (m) =		1.94727		Qa slope (m) =		1.21935
intercept (b) =		0.02332		intercept (b) =		0.01471
coefficient (r) =		0.99998		coefficient (r) =		0.99998
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

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

For subsequent flow rate calculations:

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

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.07a***
Sensitivity Adjustment Scale Setting:	***557 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*
Venue:	*Cyberport (Pui Ying Secondary School)*
Model No.:	*Series 1400AB*
Serial No:	Control: *140AB219899803*
	Sensor: *1200C143659803* K_o: *12500*
Last Calibration Date*:	*18 May 2013*

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *557* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *557* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1887*	*31.45*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1970*	*32.83*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2056*	*34.27*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2026*	*33.77*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9978*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.08a***
Sensitivity Adjustment Scale Setting:	***702 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*
Venue:	*Cyberport (Pui Ying Secondary School)*
Model No.:	*Series 1400AB*
Serial No:	Control: *140AB219899803*
	Sensor: *1200C143659803* K_o: *12500*
Last Calibration Date*:	*18 May 2013*

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *702* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *702* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1764*	*29.40*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1846*	*30.77*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*1935*	*32.25*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*1899*	*31.65*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0016*
Correlation coefficient: *0.9976*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.09a***
Sensitivity Adjustment Scale Setting:	***797 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *797* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *797* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1885*	*31.42*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1965*	*32.75*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2059*	*34.32*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2024*	*33.73*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9973*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.10a***
Sensitivity Adjustment Scale Setting:	***753 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *753* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *753* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1886*	*31.43*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1968*	*32.80*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2061*	*34.35*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2026*	*33.77*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9983*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

AECOM

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.11a***
Sensitivity Adjustment Scale Setting:	***799 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *799* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *799* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*1871*	*31.18*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*1979*	*32.98*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2055*	*34.25*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2021*	*33.68*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9976*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3B***
Equipment No.:	***A.005.13a***
Sensitivity Adjustment Scale Setting:	***643 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *643* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *643* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*1867*	*31.12*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*1975*	*32.92*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2048*	*34.13*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2017*	*33.62*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9986*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3B***
Equipment No.:	***A.005.14a***
Sensitivity Adjustment Scale Setting:	***786 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *786* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *786* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*2005*	*33.42*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*2121*	*35.35*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2194*	*36.57*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2167*	*36.12*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0014*
Correlation coefficient: *0.9987*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3B***
Equipment No.:	***A.005.16a***
Sensitivity Adjustment Scale Setting:	***521 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *521* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *521* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*27-07-13*	*11:00 - 12:00*	*27.3*	*75*	*0.04734*	*1893*	*31.55*
2	*27-07-13*	*12:00 - 13:00*	*27.3*	*75*	*0.04789*	*1915*	*31.92*
3	*27-07-13*	*13:00 - 14:00*	*27.4*	*74*	*0.04953*	*1976*	*32.93*
4	*27-07-13*	*14:00 - 15:00*	*27.4*	*75*	*0.04867*	*1949*	*32.48*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9934*

Validity of Calibration Record: *26 July 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 29 July 2013

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533
HOKLAS 028

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA1107 01-02 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion Co., Ltd.
Type/Model No.:	NC-73
Serial/Equipment No.:	10307223 / N.004.08
Adaptors used:	-

Item submitted by

Curstomer:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	07-Nov-2013

Date of test: 08-Nov-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	17-Apr-2014	SCL
Preamplifier	B&K 2673	2239857	16-Apr-2014	CEPREI
Measuring amplifier	B&K 2610	2346941	24-Apr-2014	CEPREI
Signal generator	DS 360	61227	15-Apr-2014	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	15-Apr-2014	CEPREI
Universal counter	53132A	MY40003662	15-Apr-2014	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 11-Nov-2013 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533
HOKLAS 028
CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-03 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion Co., Ltd.
Type/Model No.:	NC-73
Serial/Equipment No.:	10186482 / N.004.09
Adaptors used:	-

Item submitted by

Curstomer:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	29-May-2013	SCL
Preamplifier	B&K 2673	2239857	17-Dec-2013	CEPREI
Measuring amplifier	B&K 2610	2346941	17-Dec-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	29-May-2013	CEPREI
Universal counter	53132A	MY40003662	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. Tel : (852) 2873 6860
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓 Fax : (852) 2555 7533
E-mail: smec@cigismec.com Website: www.cigismec.com
HOKLAS 028

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA1107 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	Rion Co., Ltd.	,	Rion Co., Ltd.
Type/Model No.:	NL-31	,	UC-53A
Serial/Equipment No.:	00320528 / N.007.03A	,	90565
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	07-Nov-2013

Date of test: 08-Nov-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2014	CIGISMEC
Signal generator	DS 360	33873	15-Apr-2014	CEPREI
Signal generator	DS 360	61227	15-Apr-2014	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 11-Nov-2013 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2238	,	4188
Serial/Equipment No.:	2285692 N009.04	,	2250420
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533
HOKLAS 028
CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0305 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2250-L	,	4950
Serial/Equipment No.:	2681366 (N.011.01)	,	2665582
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO LIMITED
Address of Customer:	-
Request No.:	-
Date of receipt:	05-Mar-2013

Date of test: 05-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-May-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature:	21 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 05-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

APPENDIX F
EM&A MONITORING SCHEDULES

Widening of Tolo Highway / Fanling Highway (Stage 1) Between Island House Interchange and Tai Hang - Investigation
Tentative Impact Monitoring and Audit Schedule for December 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec
		24-hour TSP	1-hour TSP & Noise Site inspection (Contract 1)	Site inspection (Contract 2)		
8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
	24-hour TSP	1-hour TSP & Noise	Site inspection (Contract 1)	Site inspection (Contract 2)	24-hour TSP	1-hour TSP
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
			Site inspection (Contract 1)	24-hour TSP Site inspection (Contract 2)	1-hour TSP & Noise	
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
	24-hour TSP	1-hour TSP & Noise Site inspection (Contract 1) Site inspection (Contract 2)				
29-Dec	30-Dec	31-Dec				
	24-hour TSP 1-hour TSP & Noise	Site inspection (Contract 2)				

Widening of Tolo Highway / Fanling Highway (Stage 1) Between Island House Interchange and Tai Hang - Investigation
Tentative Impact Monitoring and Audit Schedule for January 2014

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

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

APPENDIX G
IMPACT AIR QUALITY MONITORING RESULTS AND THEIR GRAPHICAL PRESENTATION

Appendix G
Impact Air Quality Monitoring Results

1-hour TSP Monitoring Results at Station AM1A
(Fan Sin Temple, 3 Sheung Wun Yiu G/F)

Date	Start Time (hh:mm)	1st Hour Conc. (μg/m^3)	2nd Hour Conc. (μg/m^3)	3rd Hour Conc. (μg/m^3)
4-Dec-13	10:30	83.5	84.1	82.8
10-Dec-13	10:04	83.6	84.1	82.7
14-Dec-13	10:58	78.5	77.7	79.4
20-Dec-13	9:48	75.7	72.6	74.9
24-Dec-13	9:50	74.1	75.6	72.9
30-Dec-13	10:20	86.2	83.0	81.2
			Average	79.6
			Min	72.6
			Max	86.2

1-hour TSP Monitoring Results at Station AM2
(12 Shan Tong New Village G/F)

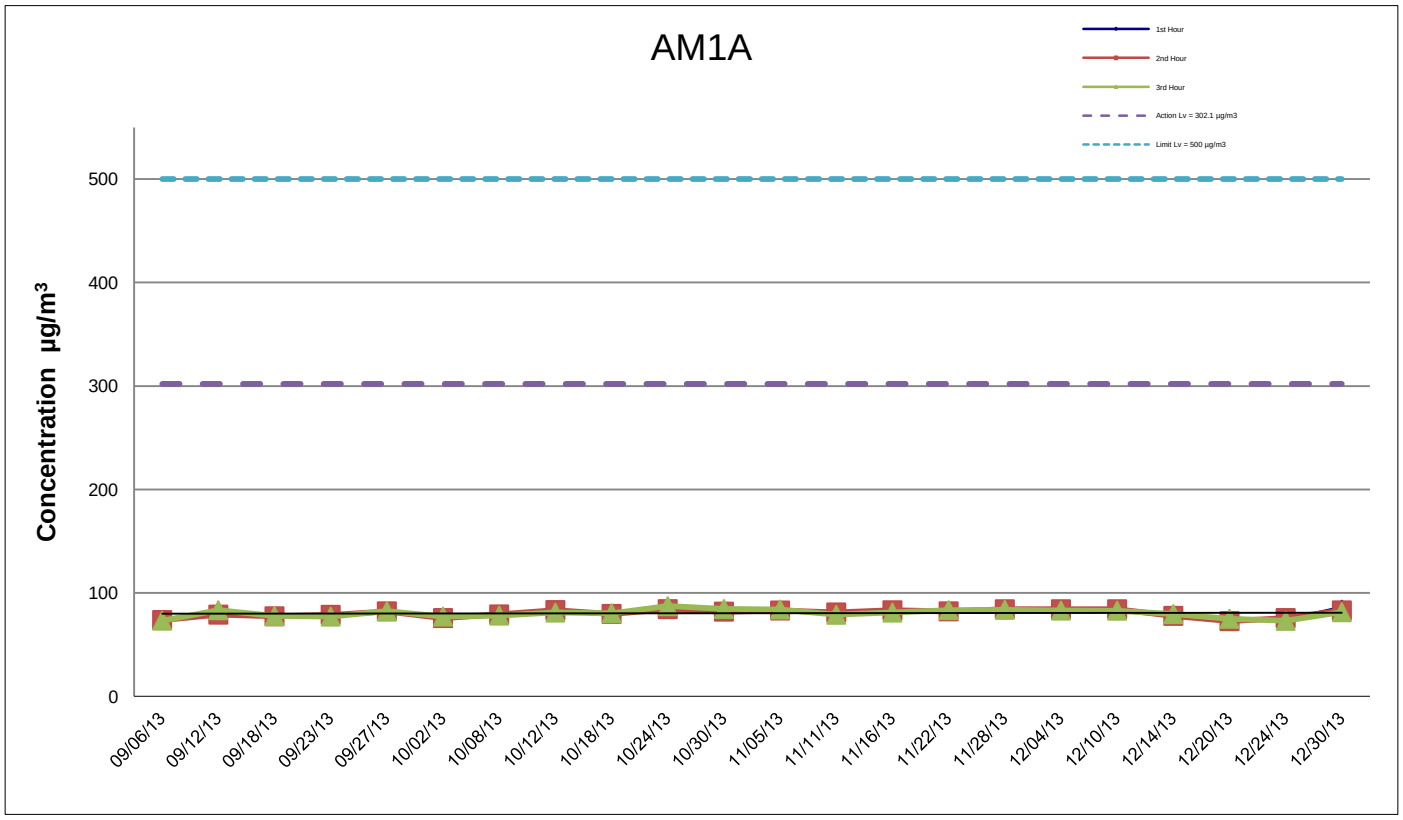
Date	Start Time (hh:mm)	1st Hour Conc. (μg/m^3)	2nd Hour Conc. (μg/m^3)	3rd Hour Conc. (μg/m^3)
4-Dec-13	10:15	83.7	84.4	83.1
10-Dec-13	9:53	84.4	82.5	82.7
14-Dec-13	10:43	79.7	78.8	79.4
20-Dec-13	10:09	76.1	77.4	75.9
24-Dec-13	9:40	76.7	74.9	73.2
30-Dec-13	10:05	83.0	78.9	80.7
			Average	79.8
			Min	73.2
			Max	84.4

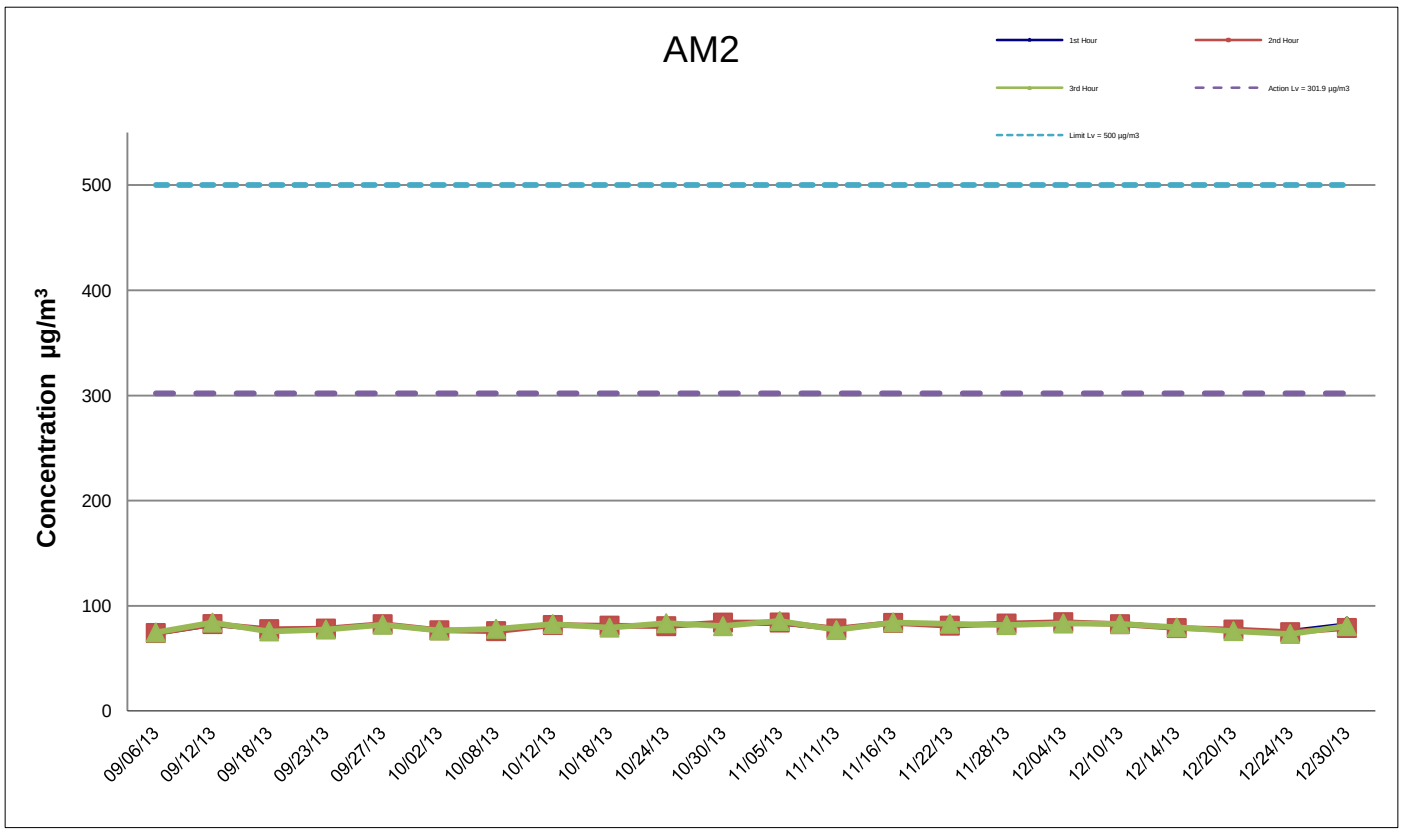
1-hour TSP Monitoring Results at Station AM3
(Roof of Switch Room at Riverain Bayside)

Date	Start Time (hh:mm)	1st Hour Conc. (μg/m^3)	2nd Hour Conc. (μg/m^3)	3rd Hour Conc. (μg/m^3)
4-Dec-13	10:05	82.6	83.2	84.3
10-Dec-13	9:40	83.9	83.3	82.0
14-Dec-13	10:30	77.9	78.7	79.1
20-Dec-13	10:42	73.5	76.5	74.2
24-Dec-13	9:28	74.4	73.6	75.1
30-Dec-13	10:50	81.8	84.2	78.9
			Average	79.3
			Min	73.5
			Max	84.3

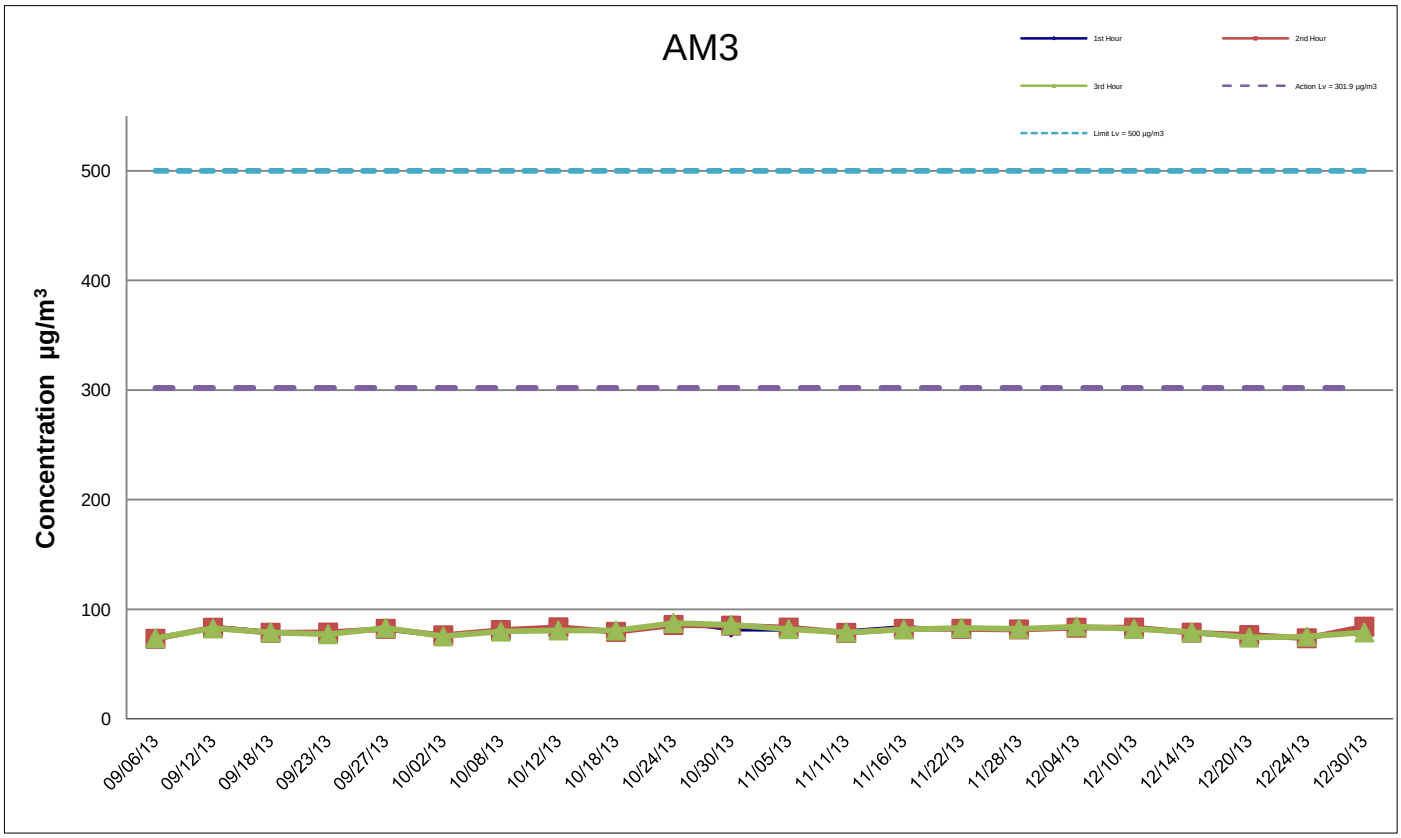
1-hour TSP Monitoring Results at Station AM4A
(Roof of Switch Room at 168 Shek Kwu Lung Village)

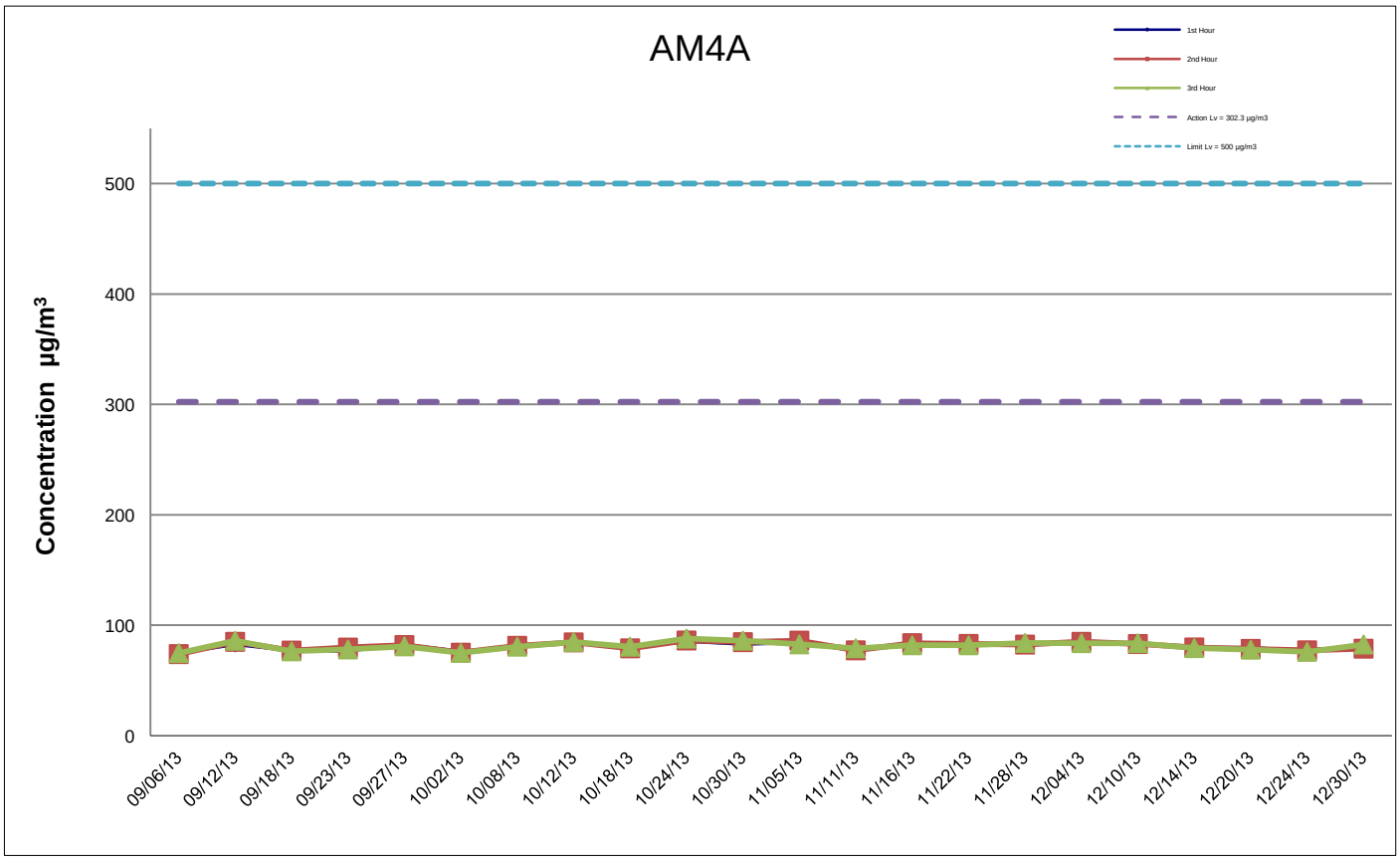
Date	Start Time (hh:mm)	1st Hour Conc. (μg/m^3)	2nd Hour Conc. (μg/m^3)	3rd Hour Conc. (μg/m^3)
4-Dec-13	10:44	82.9	85.0	83.8
10-Dec-13	10:22	82.6	83.0	83.8
14-Dec-13	11:16	80.1	79.9	79.3
20-Dec-13	10:28	80.2	78.6	77.9
24-Dec-13	10:04	76.8	77.3	75.9
30-Dec-13	10:35	80.6	78.8	82.6
			Average	80.5
			Min	75.9
			Max	85.0





AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact 1-hour TSP Monitoring Results	JOB NO.	60102979	**APPENDIX No.** G	**Rev.** -





Remark: The monitoring station at Tai Kwong Secondary School (AM4) was relocated to 168 Shek Kwu Lung Village (AM4A) starting from 1 September 2011 due to the mentioned school was closed down.

AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact 1-hour TSP Monitoring Results	JOB NO.	60102979	**APPENDIX No.** G	**Rev.** -

Impact Air Quality Monitoring Results

24-hour TSP Monitoring Results at Station AM1A (Fan Sin Temple, 3 Sheung Wun Yiu G/F)

Date	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. (μg/m^3)
4-Dec-13	Fine	19.2	1018.2	1.33	1.33	1.33	1916.6	2.6946	2.8206	0.1260	20235.46	20259.46	24.00	65.7
10-Dec-13	Fine	20.1	1014.5	1.33	1.33	1.33	1916.6	2.6915	2.948	0.2565	20259.46	20283.46	24.00	133.8
14-Dec-13	Cloudy	18.8	1018.8	1.33	1.33	1.33	1916.6	2.7498	2.9224	0.1726	20283.46	20307.46	24.00	90.1
20-Dec-13	Sunny	13.9	1022.9	1.33	1.33	1.33	1916.6	2.6677	2.8171	0.1494	20307.46	20331.46	24.00	77.9
24-Dec-13	Sunny	14.8	1023.1	1.33	1.33	1.33	1916.6	2.7739	2.9224	0.1485	20331.46	20355.46	24.00	77.5
30-Dec-13	Fine	13.8	1022.5	1.33	1.33	1.33	1916.6	2.8024	3.0145	0.2121	20355.46	20379.46	24.00	110.7
													Average	92.6
													Min	65.7
													Max	133.8

24-hour TSP Monitoring Results at Station AM2 (12 Shan Tong New Village G/F)

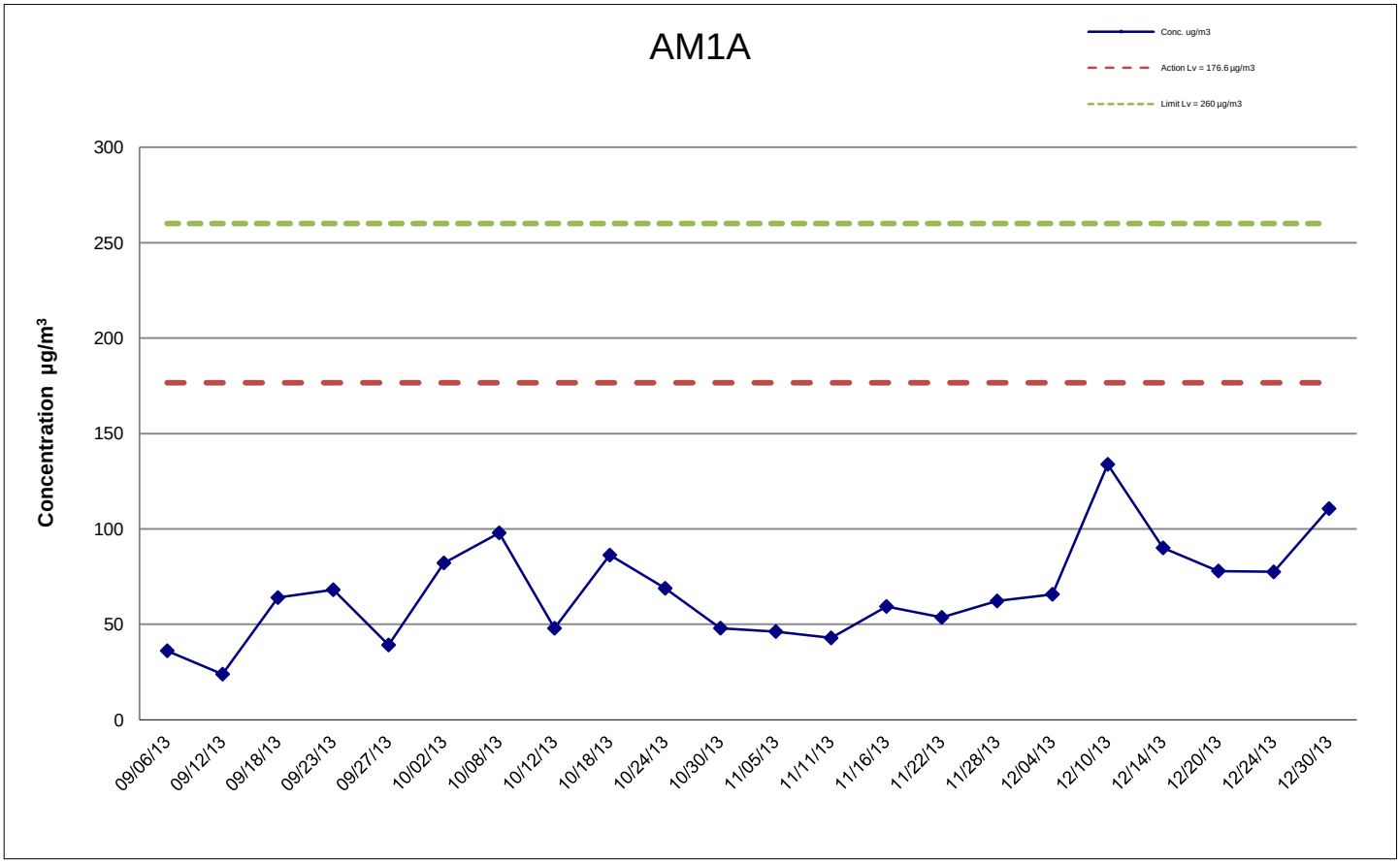
Date	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. (μg/m^3)
4-Dec-13	Fine	19.2	1018.2	1.34	1.34	1.34	1925.3	2.6947	2.8258	0.1311	16807.12	16831.12	24.00	68.1
10-Dec-13	Fine	20.1	1014.5	1.34	1.34	1.34	1925.3	2.7220	2.7684	0.0464	16831.12	16855.12	24.00	24.1
14-Dec-13	Cloudy	18.8	1018.8	1.34	1.34	1.34	1925.3	2.7494	2.855	0.1056	16855.12	16879.12	24.00	54.8
20-Dec-13	Sunny	13.9	1022.9	1.34	1.34	1.34	1925.3	2.7329	2.8300	0.0971	16879.12	16903.12	24.00	50.4
24-Dec-13	Sunny	14.8	1023.1	1.34	1.34	1.34	1925.3	2.7656	2.8140	0.0484	16903.12	16927.12	24.00	25.1
30-Dec-13	Fine	13.8	1022.5	1.34	1.34	1.34	1925.3	2.8003	2.9013	0.1010	16927.12	16951.12	24.00	52.5
													Average	45.8
													Min	24.1
													Max	68.1

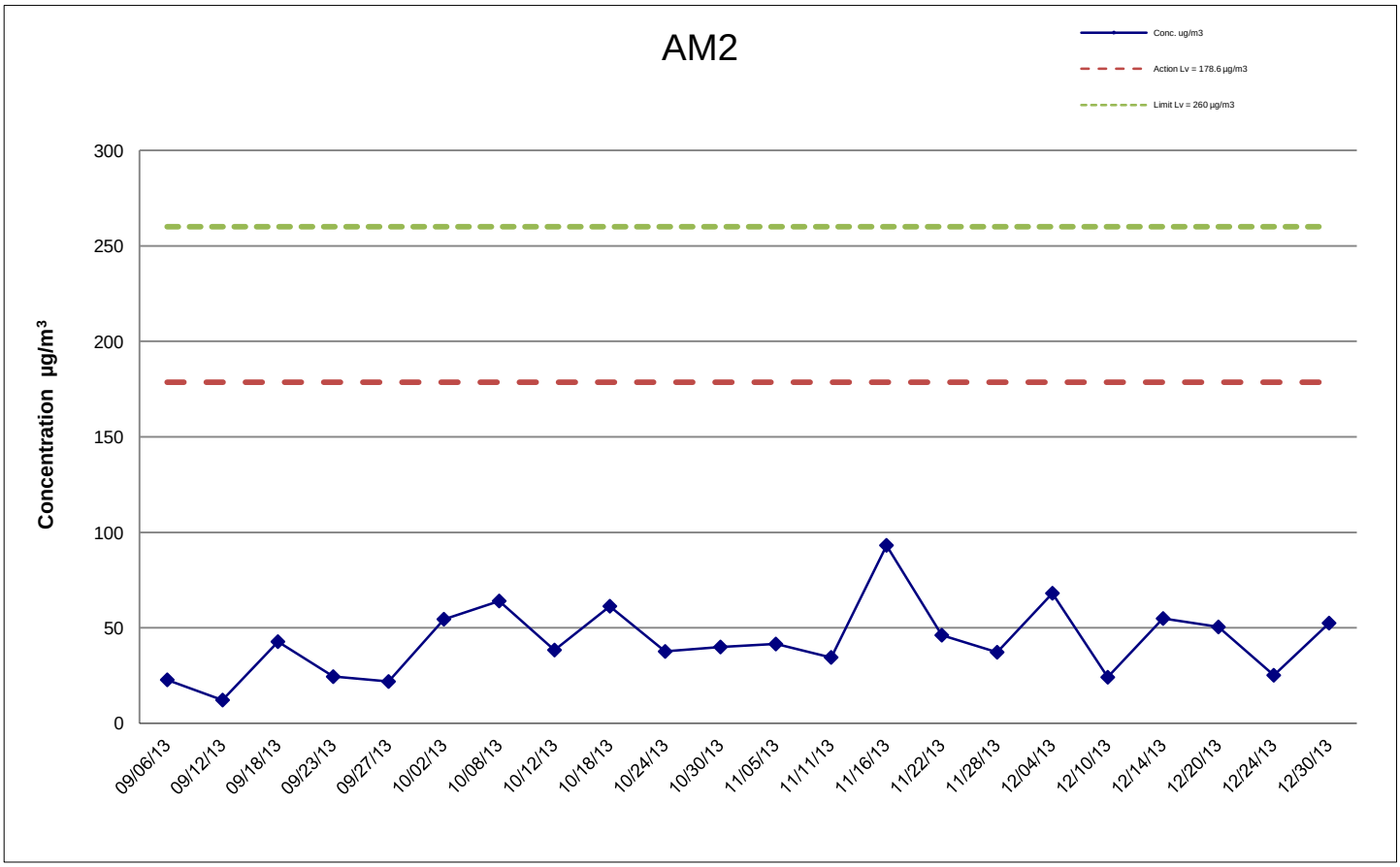
24-hour TSP Monitoring Results at Station AM3 (Roof of Switch Room at Riverain Bayside)

Date	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. (μg/m^3)
4-Dec-13	Fine	19.2	1018.2	1.33	1.33	1.33	1921.0	2.6778	2.7619	0.0841	20536.59	20560.59	24.00	43.8
10-Dec-13	Fine	20.1	1014.5	1.33	1.33	1.33	1921.0	2.6924	2.7826	0.0902	20560.59	20584.59	24.00	47.0
14-Dec-13	Cloudy	18.8	1018.8	1.33	1.33	1.33	1921.0	2.7311	2.8887	0.1576	20584.59	20608.59	24.00	82.0
20-Dec-13	Sunny	13.9	1022.9	1.33	1.33	1.33	1921.0	2.7388	2.8044	0.0656	20608.59	20632.59	24.00	34.1
24-Dec-13	Sunny	14.8	1023.1	1.33	1.33	1.33	1921.0	2.8344	2.9411	0.1067	20632.59	20656.59	24.00	55.5
30-Dec-13	Fine	13.8	1022.5	1.33	1.33	1.33	1921.0	2.8034	2.9510	0.1476	20656.59	20680.59	24.00	76.8
													Average	56.6
													Min	34.1
													Max	82.0

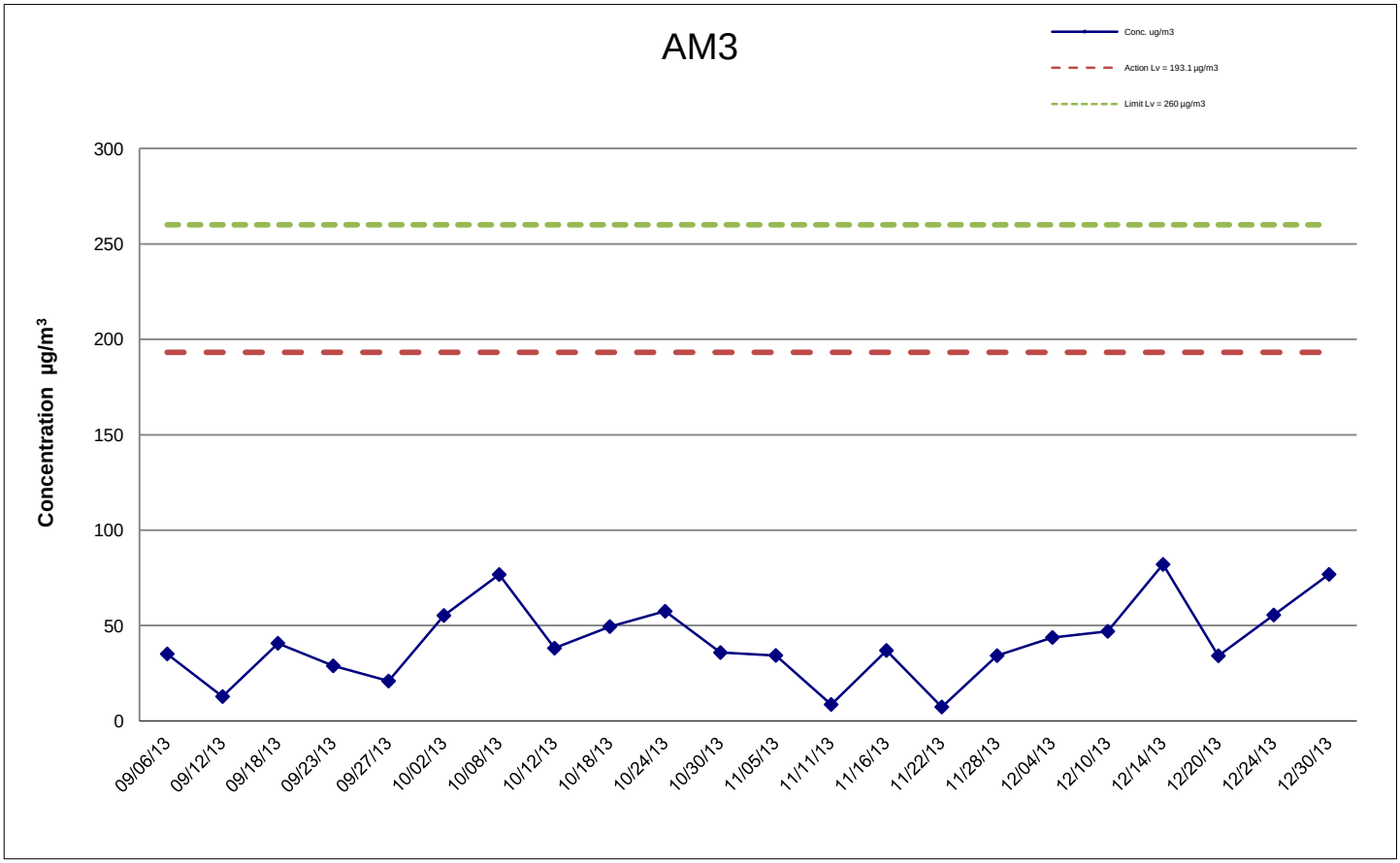
24-hour TSP Monitoring Results at Station AM4A (Roof of Switch Room at 168 Shek Kwu Lung Village)

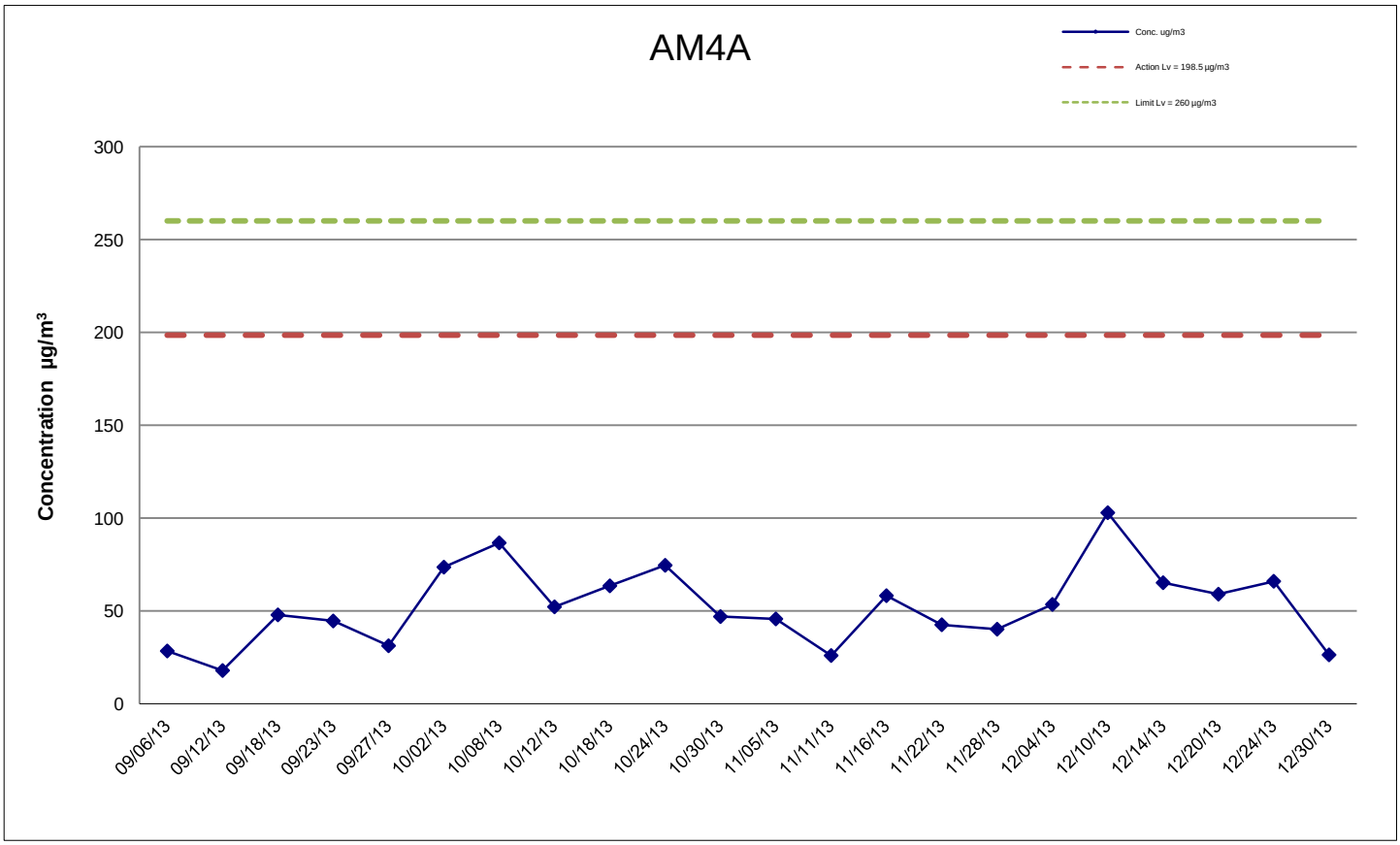
Date	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. (μg/m^3)
4-Dec-13	Fine	19.2	1018.2	1.33	1.33	1.33	1918.1	2.6968	2.7995	0.1027	16666.36	16690.36	24.00	53.5
10-Dec-13	Fine	20.1	1014.5	1.33	1.33	1.33	1918.1	2.6841	2.8815	0.1974	16690.36	16714.36	24.00	102.9
14-Dec-13	Cloudy	18.8	1018.8	1.33	1.33	1.33	1918.1	2.7100	2.8351	0.1251	16714.36	16738.36	24.00	65.2
20-Dec-13	Sunny	13.9	1022.9	1.33	1.33	1.33	1918.1	2.7329	2.8462	0.1133	16738.36	16762.36	24.00	59.1
24-Dec-13	Sunny	14.8	1023.1	1.33	1.33	1.33	1918.1	2.7606	2.8872	0.1266	16762.36	16786.36	24.00	66.0
30-Dec-13	Fine	13.8	1022.5	1.33	1.33	1.33	1918.1	2.7998	2.8504	0.0506	16786.36	16810.36	24.00	26.4
													Average	62.2
													Min	26.4
													Max	102.9





AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact 24-hour TSP Monitoring Results	JOB NO.	60102979	**APPENDIX No.** G	**Rev.** -





Remark: The monitoring station at Tai Kwong Secondary School (AM4) was relocated to 168 Shek Kwu Lung Village (AM4A) starting from 1 September 2011 due to the mentioned school was closed down.

AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact 24-hour TSP Monitoring Results	JOB NO.	60102979	**APPENDIX No.** G	**Rev.** -

APPENDIX H
METEOROLOGICAL DATA FOR THE REPORTING MONTH

Extract of Meteorological Observations for Tai Mei Tuk Automatic Weather Station, December 2013

Date	Mean Pressure at M.S.L. (hPa)	Air Temperature			Mean Dew Point Temperature (deg C)	Relative Humidity		
		Max. (deg C)	Mean (deg C)	Min. (deg C)		Max. (%)	Mean (%)	Min. (%)
1-Dec	******	22.5	17	12.4	****	***	***	***
2-Dec	******	23.3	17.6	12.9	****	***	***	***
3-Dec	******	23.8	18.9	15.3	****	***	***	***
4-Dec	******	24.1	18.9	14.3	****	***	***	***
5-Dec	******	23.5	17.9	13.9	****	***	***	***
6-Dec	******	22.5	17.8	13.5	****	***	***	***
7-Dec	******	23.9	18.6	14.7	****	***	***	***
8-Dec	******	24.1	19.7	16.4	****	***	***	***
9-Dec	******	27	22.2	18.6	****	***	***	***
10-Dec	******	22.9	19.7	16.5	****	***	***	***
11-Dec	******	21.2	18.3	16	****	***	***	***
12-Dec	******	21.1	17.2	15.2	****	***	***	***
13-Dec	******	20.3	17.9	15.1	****	***	***	***
14-Dec	******	20.3	18.1	16.6	****	***	***	***
15-Dec	******	17.2	16.2	15.4	****	***	***	***
16-Dec	******	16	12.6	11.1	****	***	***	***
17-Dec	******	12.6	11.6	10.2	****	***	***	***
18-Dec	******	13.2	10.2	8.2	****	***	***	***
19-Dec	******	16.2	12	8.4	****	***	***	***
20-Dec	******	18	13.8	9.8	****	***	***	***
21-Dec	******	16.5	13.9	12.1	****	***	***	***
22-Dec	******	17.8	13.1	9.4	****	***	***	***
23-Dec	******	19.7	14.2	9.7	****	***	***	***
24-Dec	******	19.5	14.3	10	****	***	***	***
25-Dec	******	20.2	15.1	11.2	****	***	***	***
26-Dec	******	18.2	14.4	10.5	****	***	***	***
27-Dec	******	16.2	12.5	9.3	****	***	***	***
28-Dec	******	16.1	11.1	7.3	****	***	***	***
29-Dec	******	16.8	11.5	7.0	****	***	***	***
30-Dec	******	19.2	13.3	8.7	****	***	***	***
31-Dec	******	20.8	14.7#	10.1	****	***	***	***
Mean	******	19.8	15.6#	12.3	****	***	***	***
Maximum	******	27	22.2#	18.6	****	***	***	***
Minimum	******	12.6	10.2#	7.0	****	***	***	***

Extract of Meteorological Observations for Tai Mei Tuk Automatic Weather Station, December 2013

Date	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind (km/h)
1-Dec	0.0	260	6.3
2-Dec	0.0	50	5.8
3-Dec	0.0	40	13.9
4-Dec	0.0	40	11.9
5-Dec	0.0	120	6.9
6-Dec	0.0	260	8.3
7-Dec	0.0	120	5.3
8-Dec	0.0	50	5.3
9-Dec	0.0	40	12.8
10-Dec	0.0	50	11.5
11-Dec	0.0	40	16.4
12-Dec	0.0	30	16.2
13-Dec	1.0	50	6.3
14-Dec	0.0#	50	17.0
15-Dec	*****	40	15.4
16-Dec	*****	30	11.5
17-Dec	*****	270	8.2
18-Dec	0.0	30	21.3
19-Dec	0.0	10	14.5
20-Dec	0.0	40	12.1
21-Dec	0.0	40	12.5
22-Dec	0.0	40	9.5
23-Dec	0.0	30	8.0
24-Dec	0.0	260	6.1
25-Dec	0.0	30	7.3
26-Dec	0.0	40	17.3
27-Dec	0.0	30	19.0
28-Dec	0.0	260	7.9
29-Dec	0.0	100	6.5
30-Dec	0.0	260	3.4
31-Dec	0.0#	070#	3.3#
Mean	-----	040#	10.6#
Total	1.0#	---	-----
Maximum	1.0#	---	21.3#
Minimum	0.0#	---	3.3#

*** unavailable

missing (less than 24 hourly observations a day)

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Extract of Meteorological Observations for Tai Po Automatic Weather Station, December 2013

Date	Mean Pressure at M.S.L. (hPa)	Air Temperature			Mean Dew Point Temperature (deg C)	Relative Humidity		
		Max. (deg C)	Mean (deg C)	Min. (deg C)		Max. (%)	Mean (%)	Min. (%)
1-Dec	1021.8	21.3	15.2	10.4	4.7	74	52	27
2-Dec	1020.3	22	15.6	10.5	5.8	80	55	25
3-Dec	1019.1	22.4	17.9	13.3	9.5	84	59	35
4-Dec	1018.2	23.5	17.4	12.3	6.2	74	49	31
5-Dec	1017.9	21.7	16	11.4	5.7	67	51	38
6-Dec	1016.8	21.5	16.2	11.2	4.7	72	49	24
7-Dec	1017.4	21.9	16.9	12.8	10.6	82	67	50
8-Dec	1015.1	21.6	18.6	15.1	14	89	75	59
9-Dec	1013.5	25.8	21.8	18.8	12.4	76	57	37
10-Dec	1014.6	21.4	19.2	16.4	11.7	79	63	49
11-Dec	1017	20	18.3	15.6	9.8	81	58	48
12-Dec	1017.2	18.4	17.1	15.6	9.3	87	61	53
13-Dec	1018	19.6	17.5	14.8	13.1	91	76	60
14-Dec	1018.8	19.7	17.9	16.2	14.9	98	83	72
15-Dec	1016.9	16.8	15.7	15.1	15.2	98	97	94
16-Dec	1015.8	15.8	11.8	10.6	11	98	95	88
17-Dec	1016.7	11.6	10.9	10.5	9.9	97	94	82
18-Dec	1020.3	12.6	10.2	8.3	3.8	86	65	50
19-Dec	1022.3	15.3	10.9	7.6	3.4	76	61	42
20-Dec	1023.1	16.2	12.7	8.5	5.3	80	62	46
21-Dec	1024.3	15.6	13.3	10.9	4.7	72	57	43
22-Dec	1024.4	16.3	12.1	8.7	3.8	68	58	43
23-Dec	1022.7	18	12.5	7.9	4.8	84	61	35
24-Dec	1023.3	17.9	12.9	8.8	5.1	74	60	38
25-Dec	1021.7	18.1	13.8	10.4	4.8	71	55	39
26-Dec	1021.4	17.6	13.7	9.2	0.1	72	42	21
27-Dec	1023.9	15.5	12.1	8.6	-2.4	54	37	23
28-Dec	1023.3	14.2	9.8	6.2	-2.9	59	42	26
29-Dec	1023.2	14.8	10	5.3	-0.5	70	49	27
30-Dec	1022.6	17.4	11.7	6.8	1.0	76	51	19
31-Dec	1021.2	19.5	13.3	8.1	1.1	64	46	21
Mean	1019.8	18.5	14.6	11.2	6.5	78	61	43
Maximum	1024.4	25.8	21.8	18.8	15.2	98	97	94
Minimum	1013.5	11.6	9.8	5.3	-2.9	54	37	19

Extract of Meteorological Observations for Tai Po Automatic Weather Station, December 2013

Date	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind (km/h)
1-Dec	*****	***	*****
2-Dec	*****	***	*****
3-Dec	*****	***	*****
4-Dec	*****	***	*****
5-Dec	*****	***	*****
6-Dec	*****	***	*****
7-Dec	*****	***	*****
8-Dec	*****	***	*****
9-Dec	*****	***	*****
10-Dec	*****	***	*****
11-Dec	*****	***	*****
12-Dec	*****	***	*****
13-Dec	*****	***	*****
14-Dec	*****	***	*****
15-Dec	*****	***	*****
16-Dec	*****	***	*****
17-Dec	*****	***	*****
18-Dec	*****	***	*****
19-Dec	*****	***	*****
20-Dec	*****	***	*****
21-Dec	*****	***	*****
22-Dec	*****	***	*****
23-Dec	*****	***	*****
24-Dec	*****	***	*****
25-Dec	*****	***	*****
26-Dec	*****	***	*****
27-Dec	*****	***	*****
28-Dec	*****	***	*****
29-Dec	*****	***	*****
30-Dec	*****	***	*****
31-Dec	*****	***	*****
Mean	-----	***	*****
Total	*****	---	-----
Maximum	*****	---	*****
Minimum	*****	---	*****

*** unavailable

missing (less than 24 hourly observations a day)

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Extract of Meteorological Observations for Sha Tin Automatic Weather Station, December 2013

Date	Mean Pressure at M.S.L. (hPa)	Air Temperature			Mean Dew Point Temperature (deg C)	Relative Humidity		
		Max. (deg C)	Mean (deg C)	Min. (deg C)		Max. (%)	Mean (%)	Min. (%)
1-Dec	1022	21.5	14.6	9.0	5.0	93	59	16
2-Dec	1020.6	22.4	15	8.8	6.2	90	61	21
3-Dec	1019.3	22.2	17.2	10.8	9.7	86	63	32
4-Dec	1018.4	23.1	16.3	10	6.9	89	59	26
5-Dec	1018.1	21.8	15	10	6.2	88	58	32
6-Dec	1017.1	22.2	15.1	9.1	6.2	90	61	22
7-Dec	1017.7	22.7	16.3	11.1	10.3	92	70	42
8-Dec	1015.4	21.9	18.5	14.2	13.8	96	75	55
9-Dec	1013.7	26.1	21.9	18.7	12.3	88	55	37
10-Dec	1014.8	21.2	19.2	17.1	11.1	77	60	45
11-Dec	1017.2	20	18.1	16.5	8.7	81	55	42
12-Dec	1017.4	18.8	16.9	15.4	8.7	86	59	50
13-Dec	1018.2	20	17.8	15.5	13	87	74	61
14-Dec	1019	19.7	17.8	16.2	14.4	96	81	69
15-Dec	1017	17	15.9	15	14.9	98	94	88
16-Dec	1015.6	15.5	12.1	10.8	10.6	98	90	82
17-Dec	1016.6	11.8	11.2	10.5	9.7	95	90	80
18-Dec	1020	13.2	10.5	8.8	3.0	83	60	47
19-Dec	1022.2	15.5	11.6	8.1	3.1	71	56	43
20-Dec	1023.1	16.3	13.5	10.4	4.4	67	54	45
21-Dec	1024.2	15.7	13.8	12.4	4.0	65	52	44
22-Dec	1024.4	16.1	12.2	9.5	3.6	82	57	39
23-Dec	1022.7	18.4	12.6	7.2	4.8	94	62	32
24-Dec	1023.3	18.4	13.1	9.6	5.2	85	60	39
25-Dec	1021.7	18.4	14	10	5.2	86	56	39
26-Dec	1021.3	17.7	14.4	10.7	-0.9	75	36	22
27-Dec	1023.7	15.3	12.6	10.6	-3.9	40	32	25
28-Dec	1023.2	14.3	10.9	7.0	-3.8	60	36	22
29-Dec	1023.2	15.1	10.6	6.8	-2.5	87	44	23
30-Dec	1022.6	18.3	10.6	4.8	1.8	94	61	20
31-Dec	1021.3	19.9	11.9	5.7	3.3	90	62	20
Mean	1019.8	18.7	14.6	11	6.3	84	61	41
Maximum	1024.4	26.1	21.9	18.7	14.9	98	94	88
Minimum	1013.7	11.8	10.5	4.8	-3.9	40	32	16

Extract of Meteorological Observations for Sha Tin Automatic Weather Station, December 2013

Date	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind (km/h)
1-Dec	0.0	140	3.9
2-Dec	0.0	40	4.0
3-Dec	0.0	10	5.8
4-Dec	0.0	40	5.4
5-Dec	0.0	130	4.1
6-Dec	0.0	40	4.9
7-Dec	0.0	30	3.7
8-Dec	0.0	80	3.8
9-Dec	0.0	40	7.7
10-Dec	0.0	20	7.8
11-Dec	0.0	30	8.5
12-Dec	0.0	10	7.7
13-Dec	0.0	350	4.9
14-Dec	11.0	10	8.5
15-Dec	22.0	360	9.7
16-Dec	27.0	360	11.0
17-Dec	28.5	360	7.1
18-Dec	0.0	360	13.0
19-Dec	0.0	350	8.3
20-Dec	0.0	40	7.6
21-Dec	0.0	40	7.5
22-Dec	0.0	40	6.4
23-Dec	0.0	40	4.4
24-Dec	0.0	30	4.6
25-Dec	0.0	30	4.8
26-Dec	0.0	20	10.9
27-Dec	0.0	30	11.9
28-Dec	0.0	360	6.1
29-Dec	0.0	40	7.2
30-Dec	0.0	150	3.8
31-Dec	0.0	250	3.8
Mean	-----	30	6.7
Total	88.5	---	-----
Maximum	28.5	---	13.0
Minimum	0.0	---	3.7

*** unavailable

missing (less than 24 hourly observations a day)

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

APPENDIX I
IMPACT DAYTIME CONSTRUCTION NOISE MONITORING RESULTS AND THEIR GRAPHICAL PRESENTATION

Appendix I Impact Daytime Construction Noise Monitoring Results

Location : NM1A (168 Shek Kwu Lung Village G/F- Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Exceedance (Y/N)
	Start Time	Leq	L10	L90				
4-Dec-13	10:46	63.1	64.6	61.2	64.2	63.1	75	N
10-Dec-13	10:23	62.7	63.9	59.4	64.2	62.7	75	N
20-Dec-13	15:38	64.2	67.1	61.9	64.2	64.2	75	N
24-Dec-13	10:06	63.8	66.1	61.6	64.2	63.8	75	N
30-Dec-13	11:30	66.2	70.5	63.1	64.2	61.9	75	N

	Corrected Noise Level dB(A)
Average	63.2
Max	64.2
Min	61.9

Location : NM2 (38 Ha Wun Yiu G/F - Free Field)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)*	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Exceedance (Y/N)
	Start Time	Leq*	L10*	L90*				
4-Dec-13	11:30	67.5	69.3	63.8	68.1	67.5	75	N
10-Dec-13	13:10	66.7	68.2	63.9	68.1	66.7	75	N
20-Dec-13	14:47	62.9	64.7	60.3	68.1	62.9	75	N
24-Dec-13	11:30	66.2	68.1	64.3	68.1	66.2	75	N
30-Dec-13	14:30	64.5	69.8	61.9	68.1	64.5	75	N

	Corrected Noise Level dB(A)
Average	65.9
Max	67.5
Min	62.9

* +3dB(A) Façade effect correction included

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.

If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

Appendix I Impact Daytime Construction Noise Monitoring Results

Location : NM3 (Wong Shiu Chi Middle School Rooftop - Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)#	Exceedance (Y/N)
	Start Time	Leq	L10	L90				
4-Dec-13	11:09	66.8	68.5	64.0	64.8	62.5	70	N
10-Dec-13	10:49	66.3	68.0	63.5	64.8	61.0	70	N
20-Dec-13	9:37	67.2	68.4	65.1	64.8	63.5	70	N
24-Dec-13	10:30	65.8	68.7	62.5	64.8	58.9	70	N
30-Dec-13	13:08	65.7	69.8	60.8	64.8	58.4	70	N

	Corrected Noise Level dB(A)
Average	61.3
Max	63.5
Min	58.4

Location : NM4 (Uptown Plaza Block 4 Rooftop - Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Exceedance (Y/N)
	Start Time	Leq	L10	L90				
4-Dec-13	10:18	65.5	67.0	63.0	67.4	65.5	75	N
10-Dec-13	9:54	67.8	69.0	64.5	67.4	57.2	75	N
20-Dec-13	10:35	65.4	67.1	62.9	67.4	65.4	75	N
24-Dec-13	9:43	64.6	66.5	62.1	67.4	64.6	75	N
30-Dec-13	15:55	64.0	68.6	61.8	67.4	64.0	75	N

	Corrected Noise Level dB(A)
Average	64.1
Max	65.5
Min	57.2

- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.
If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

Appendix I Impact Daytime Construction Noise Monitoring Results

Location : NM5 (The Paragon Clubhouse Rooftop - Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Exceedance (Y/N)
	Start Time	Leq	L10	L90				
4-Dec-13	13:38	67.7	69.0	65.5	65.2	64.1	75	N
10-Dec-13	14:03	67.4	69.0	65.2	65.2	63.4	75	N
20-Dec-13	13:07	60.5	63.0	58.7	65.2	60.5	75	N
24-Dec-13	10:49	61.5	63.4	60.1	65.2	61.5	75	N
30-Dec-13	13:50	65.8	69.2	62.8	65.2	56.9	75	N

	Corrected Noise Level dB(A)
Average	61.9
Max	64.1
Min	56.9

Location : NM6 (PLK Tin Ka Ping Primary School near the entrance - Free Field)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)*	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)#	Exceedance (Y/N)
	Start Time	Leq*	L10*	L90*				
4-Dec-13	13:26	62.5	63.9	60.1	64.5	62.5	70	N
10-Dec-13	13:18	60.8	62.5	57.5	64.5	60.8	70	N
20-Dec-13	11:25	59.7	63.1	57.0	64.5	59.7	70	N
24-Dec-13	11:20	59.6	62.1	57.9	64.5	59.6	70	N
30-Dec-13	15:10	64.4	69.2	61.2	64.5	64.4	70	N

	Corrected Noise Level dB(A)
Average	61.8
Max	64.4
Min	59.6

Remarks

* +3dB(A) Façade effect correction included

- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.

If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

Appendix I Impact Daytime Construction Noise Monitoring Results

Location : NM7 (Riverain Bayside Switch Room Rooftop - Façade)

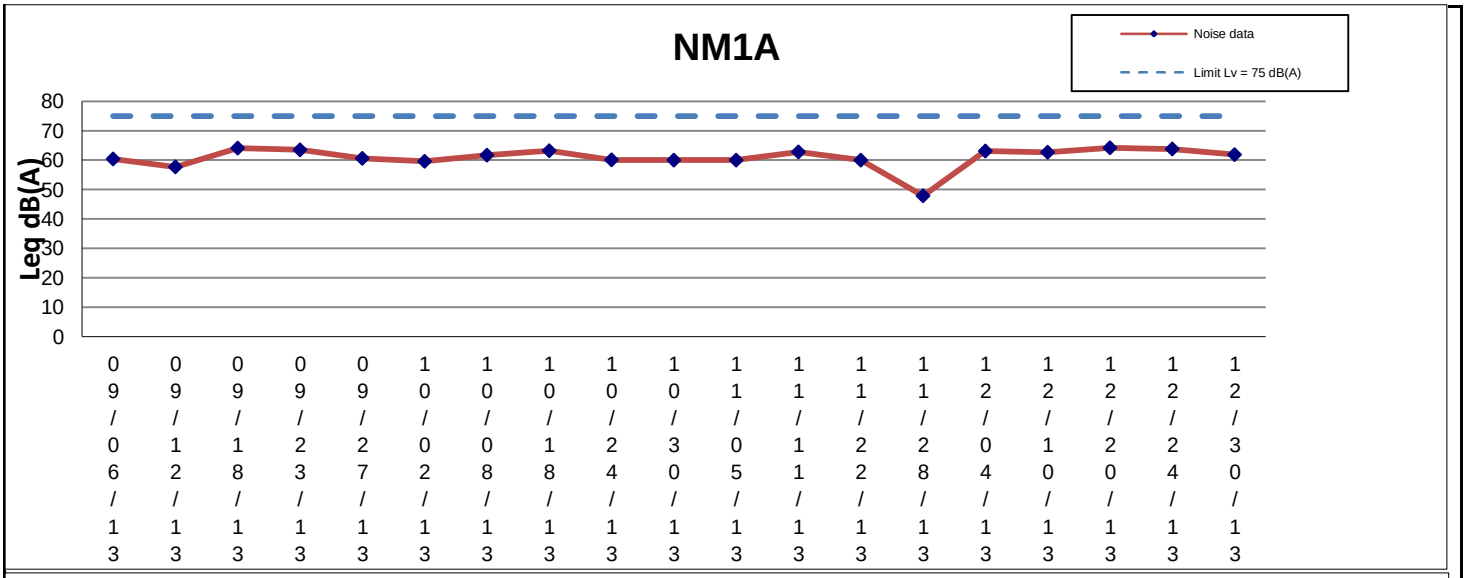
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

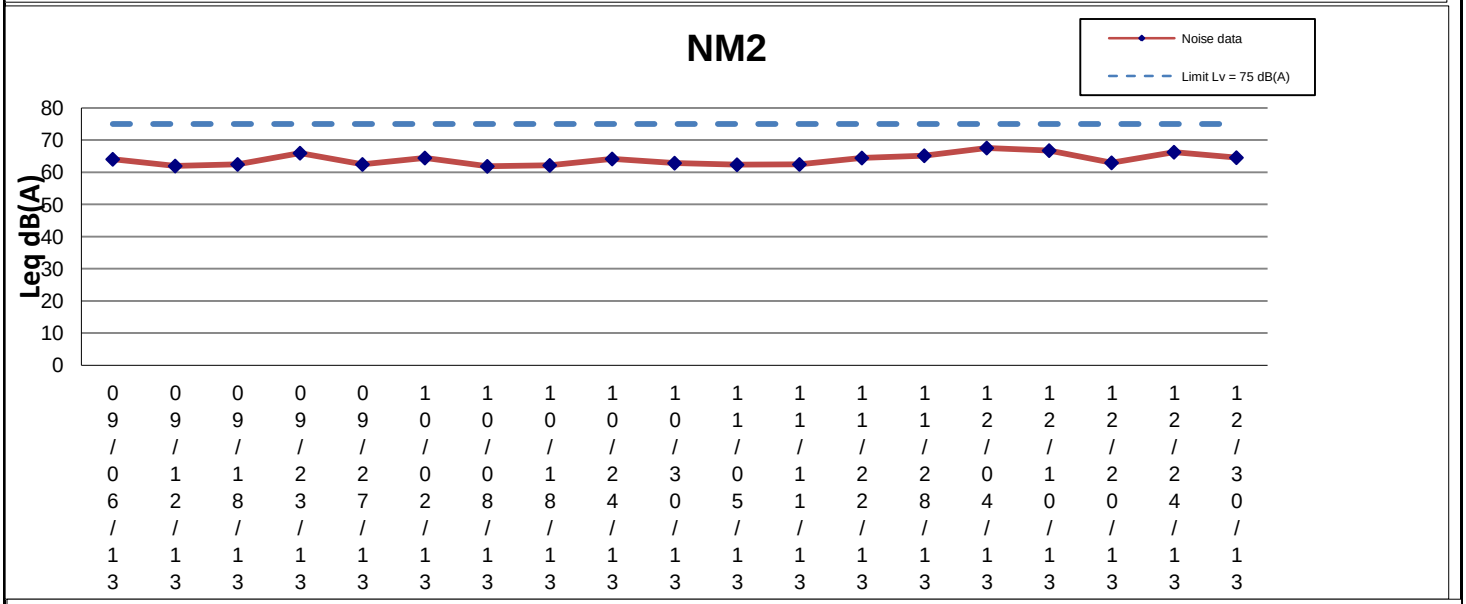
Date	Measured Noise Level for 30-min, dB(A)				Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Exceedance (Y/N)
	Start Time	Leq	L10	L90				
4-Dec-13	14:26	60.2	62.1	57.9	61.5	60.2	75	N
10-Dec-13	11:16	62.3	63.7	59.2	61.5	54.6	75	N
20-Dec-13	13:57	62.7	64.4	60.5	61.5	56.5	75	N
24-Dec-13	9:30	63.4	65.6	61.8	61.5	58.9	75	N
30-Dec-13	10:50	65.2	68.6	63.1	61.5	62.8	75	N

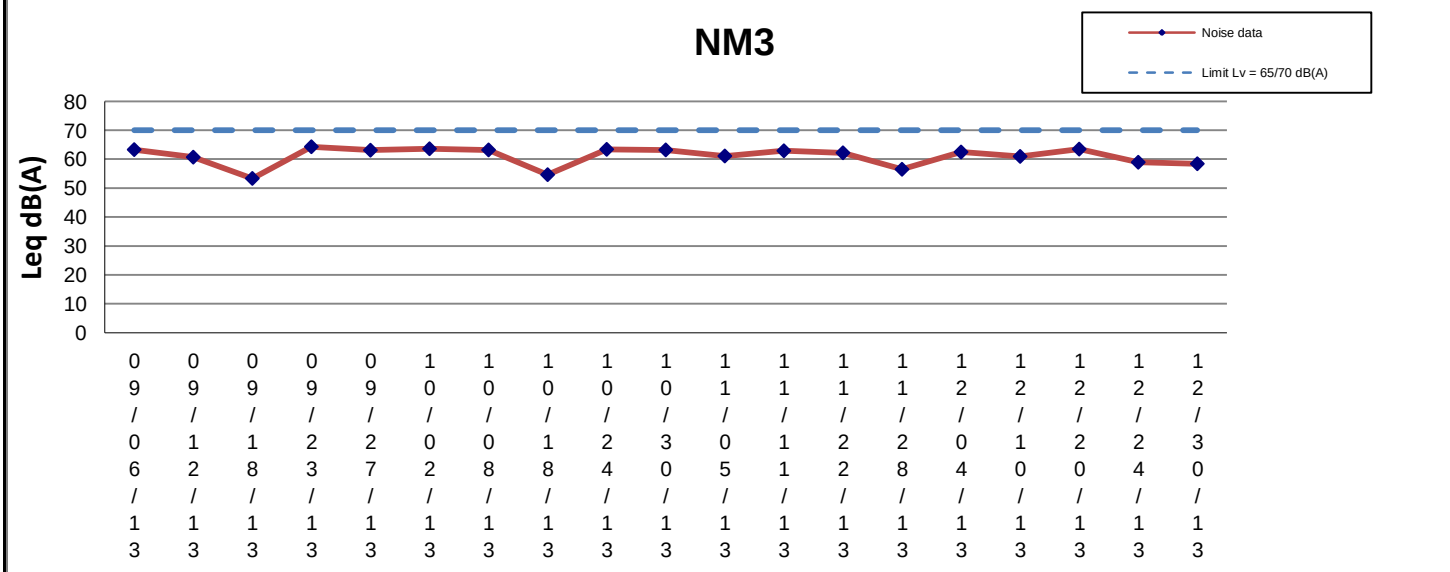
	Corrected Noise Level dB(A)
Average	59.5
Max	62.8
Min	54.6

Remarks

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.
If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

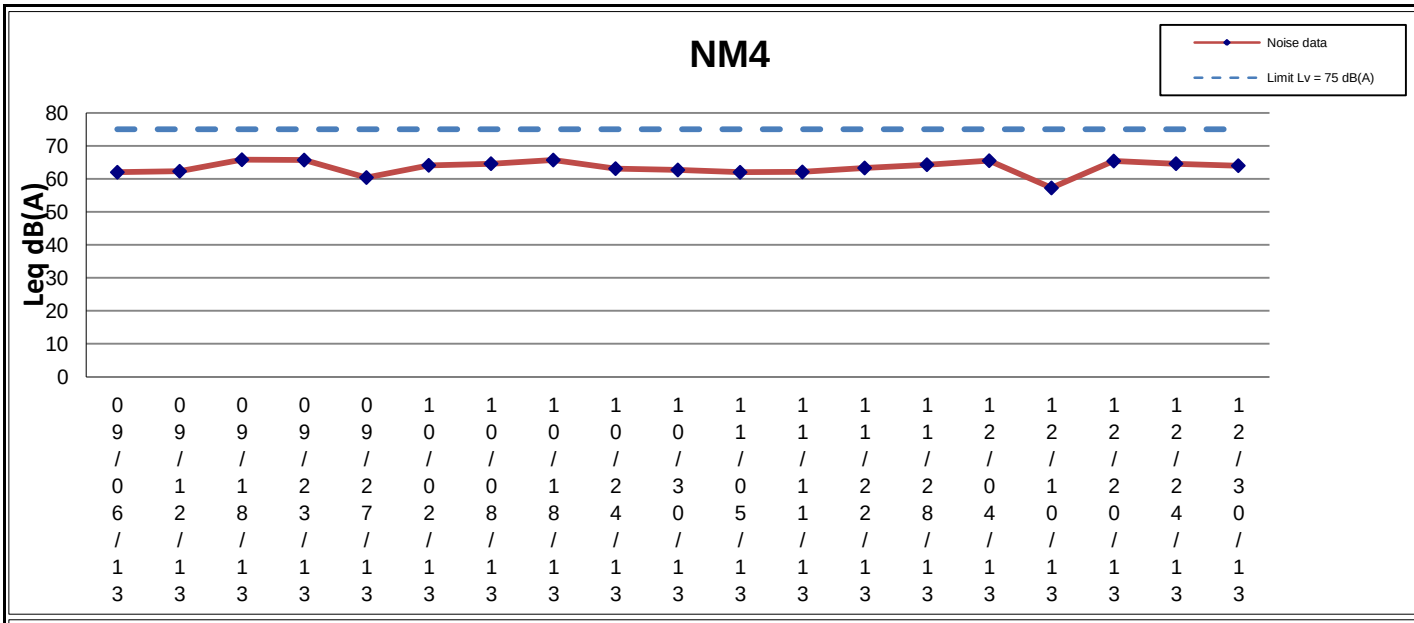


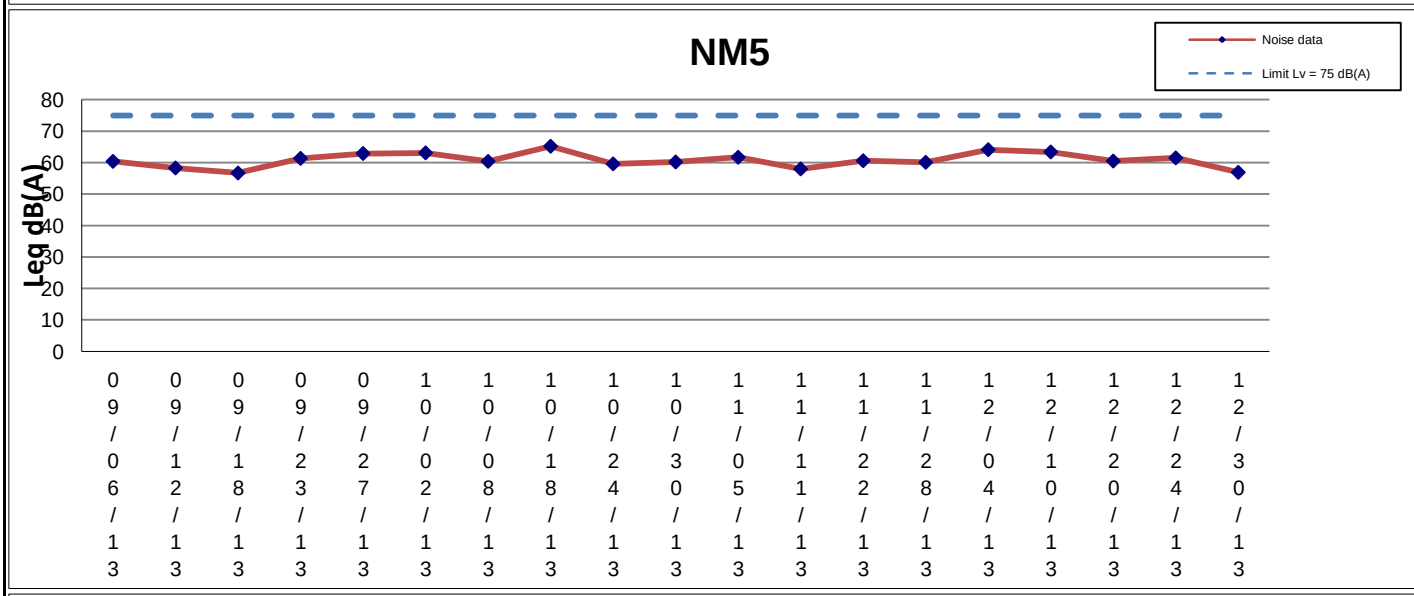


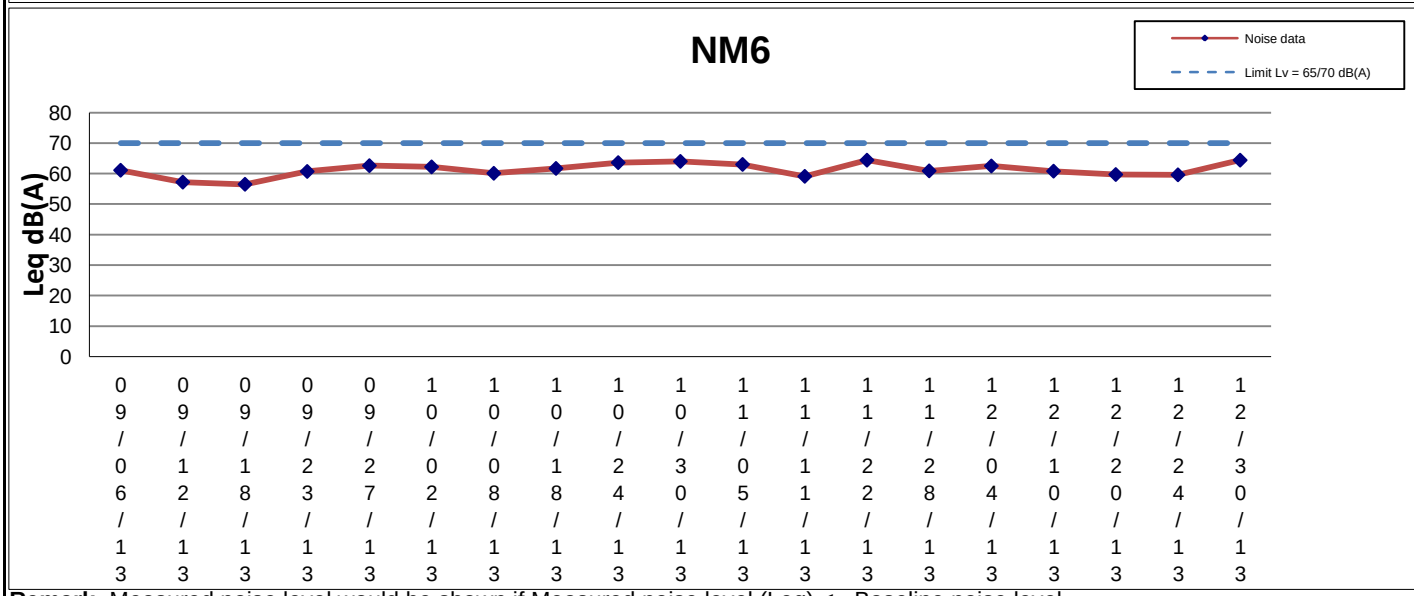


Remarks: (1) The monitoring station at Tai Kwong Secondary School (NM1) was relocated to 168 Shek Kwu Lung Village (NM1A) starting from 1 September 2011 due to the mentioned school was closed down;
(2) Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	**APPENDIX No.** I	**Rev.** -

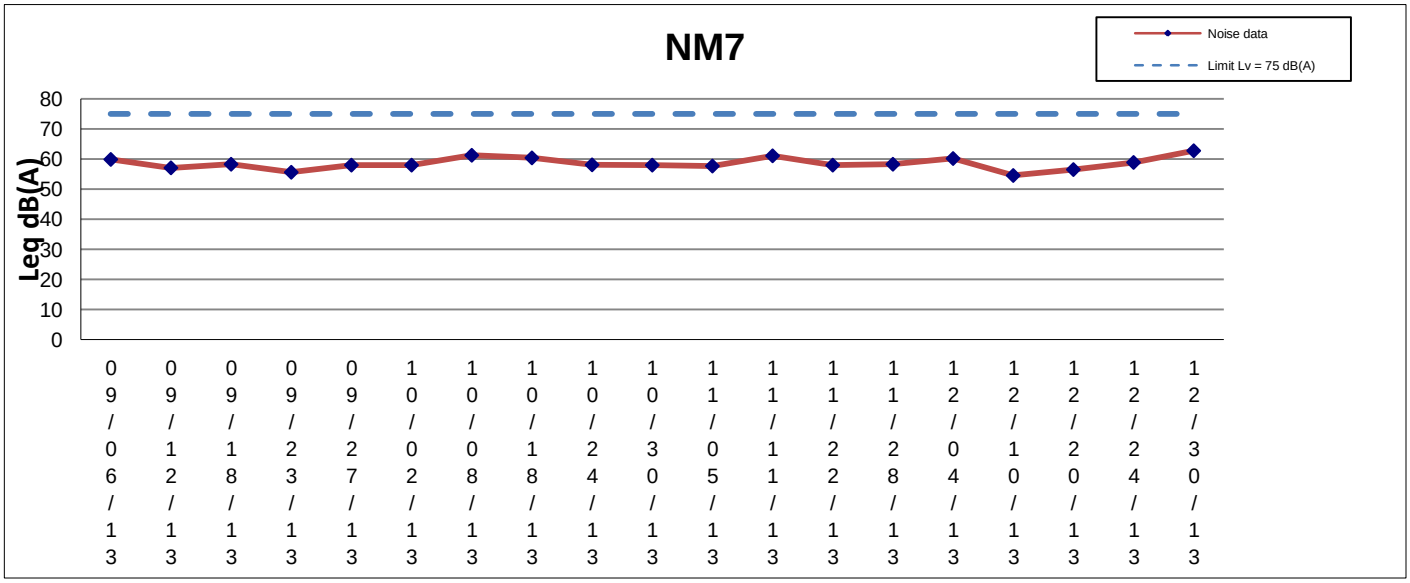






Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	**APPENDIX No.** I	**Rev.** -



Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

AECOM	**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**	SCALE	N.T.S.	DATE	Jan-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	**APPENDIX No.** I	**Rev.** -

APPENDIX J
EVENT ACTION PLAN

Appendix J – Event Action Plan

Event / Action Plan for Air Quality

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action Level				
Exceedance for one sample	1. Identify source; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to dailv.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. Discuss with IEC and Contractor on remedial actions required; 6. If exceedance continues, arrange meeting with IEC and ER; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Event / Action Plan for Air Quality

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

Event / Action Plan for Noise Impact

Event Limit Level	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action Level	1. Notify IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review with analysed results submitted by ET. 2. Review the proposed remedial measures by the Contractor and advise ER accordingly. 3. Supervise the implement of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	1. Notify, IEC, ER, EPD and the Contractor. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform IEC, ER, and EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

APPENDIX K
SITE INSPECTION SUMMARIES

Site Inspection Summary

Inspection Information

Contract No.	HY/2008/09 (Between Island House Interchange and Ma Wo)
Date:	4 December 2013
Time:	09:45
Inspection No.:	395

Non-compliance

Nil

Observations

Follow Up Observation

Nil.

New Observation

1. The Contractor was reminded to provide a drip tray to hold the oil can.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2009/08 (Between Ma Wo and Tai Hang)
Date:	5 December 2013
Time:	14:15
Inspection No.:	396

Non-compliance

Nil

Observations

Follow Up Observations

1. The excess general refuse in the waste skip at Bridge 13 was removed (Closed).

New Observations

2. The Contractor was reminded to provide a drip tray to oil cans at Gate 2 or remove the oil cans.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2008/09 (Between Island House Interchange and Ma Wo)
Date:	11 December 2013
Time:	14:00
Inspection No.:	397

Non-compliance

Nil

Observations

Follow Up Observation

1. The oil can was removed (Closed).

New Observation

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2009/08 (Between Ma Wo and Tai Hang)
Date:	12 December 2013
Time:	14:15
Inspection No.:	398

Non-compliance

Nil

Observations

Follow Up Observations

1. Oil cans at Gate 2 are removed (Closed).

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2008/09 (Between Island House Interchange and Ma Wo)
Date:	18 December 2013
Time:	09:15
Inspection No.:	399

Non-compliance

Nil

Observations

Follow Up Observation

Nil.

New Observation

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2009/08 (Between Ma Wo and Tai Hang)
Date:	19 December 2013
Time:	14:15
Inspection No.:	400

Non-compliance

Nil

Observations

Follow Up Observations

Nil.

New Observations

1. The Contractor was reminded to cover the exposed slope at Gate 48 with tarpaulin sheets.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2008/09 (Between Island House Interchange and Ma Wo)
Date:	24 December 2013
Time:	09:15
Inspection No.:	401

Non-compliance

Nil

Observations

Follow Up Observation

Nil.

New Observation

1 Dry soil surface was observed on access roads and the Contractor was reminded to spray the access road with water or dust suppression chemicals to maintain the entire surface wet. (Follow up)

2 Oil drums were observed without drip tray and the Contractor was reminded to provide trays to oil drums as a mitigation measure. (Follow up)

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2009/08 (Between Ma Wo and Tai Hang)
Date:	24 December 2013
Time:	09:30
Inspection No.:	402

Non-compliance

Nil

Observations

Follow Up Observations

1. The slope at Gate 48 is covered by tarpaulin sheets.

New Observations

Nil.

Remarks

Nil

Site Inspection Summary

Inspection Information

Contract No.	HY/2009/08 (Between Ma Wo and Tai Hang)
Date:	31 December 2013
Time:	09:15
Inspection No.:	403

Non-compliance

Nil

Observations

Follow Up Observations

Nil.

New Observations

1. Mud was observed at the edge of the footpath at NLKP3. The Contractor was reminded to clear the mud and increase the height of sand bags to prevent the overflow of sand from the construction site.

2. Muddy water was observed at the edge of the road at W74. The contractor was reminded to direct the water to an appropriate discharge point so that it will not mix with sand to produce muddy water.

Remarks

Nil

APPENDIX L
STATISTICS ON COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

Appendix L

Statistics on Complaints, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. followed up by ET this month	Total no. followed up by ET since project commencement
Environmental complaints	-	-	-	2	35
Notification of summons	-	-	-	0	0
Successful Prosecutions	-	-	-	0	0