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 June 2014

[07/2014]

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

| Version: | Rev. 0 | Date: 11 July 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-0204
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

11 July 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/B**
**Condition 3.3 – Submission of Monthly EM&A Report for June 2014 (Stage 1)**

We refer to the captioned Monthly EM&A Report received on 10 and 11 July 2014 submitted by Environmental Team (ET) via email. Pursuant to EP Condition 3.3, I hereby verify the Monthly EM&A Report for June 2014 (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**

| | | Page |
|---|---|---|
| EXECUTIVE SUMMARY | | 1 |
| | Reporting Change | 1 |
| 1 | INTRODUCTION | 3 |
| | 1.1 Background | 3 |
| | 1.2 Scope of Report | 4 |
| | 1.3 Project Organization | 4 |
| | 1.4 Summary of Construction Works | 5 |
| | 1.5 Summary of EM&A Programme Requirements | 5 |
| 2 | AIR QUALITY MONITORING | 6 |
| | 2.1 Monitoring Requirements | 6 |
| | 2.2 Monitoring Equipment | 6 |
| | 2.3 Monitoring Locations | 6 |
| | 2.4 Monitoring Parameters and Frequency | 7 |
| | 2.5 Monitoring Methodology | 7 |
| | 2.6 Monitoring Schedule for the Reporting Month | 8 |
| | 2.7 Monitoring Results | 9 |
| | 2.8 Results and Observations | 9 |
| 3 | NOISE MONITORING | 10 |
| | 3.1 Monitoring Requirements | 10 |
| | 3.2 Monitoring Equipment | 10 |
| | 3.3 Monitoring Locations | 10 |
| | 3.4 Monitoring Parameters and Frequency | 11 |
| | 3.5 Monitoring Methodology | 11 |
| | 3.6 Monitoring Schedule for the Reporting Month | 12 |
| | 3.7 Monitoring Results | 12 |
| 4 | ENVIRONMENTAL SITE INSPECTION AND AUDIT | 13 |
| | 4.1 Site Inspection | 13 |
| | 4.2 Advice on the Solid and Liquid Waste Management Status | 14 |
| | 4.3 Environmental Licenses and Permits | 14 |
| | 4.4 Implementation Status of Environmental Mitigation Measures | 17 |
| | 4.5 Summary of Exceedances of the Environmental Quality Performance Limit | 18 |
| | 4.6 Summary of Complaints, Notification of Summons and Successful Prosecutions | 18 |
| 5 | FUTURE KEY ISSUES | 19 |
| | 5.1 Construction Programme for the Coming Month | 19 |
| | 5.2 Key Issues for the Coming Month | 19 |
| | 5.3 Monitoring Schedule for the Coming Month | 19 |
| 6 | CONCLUSIONS AND RECOMMENDATIONS | 20 |
| | 6.1 Conclusions | 20 |
| | 6.2 Recommendations | 20 |

**List of Tables**

Table 1.1 Contact Information of Key Personnel
Table 2.1 Air Quality Monitoring Equipment
Table 2.2 Locations of Impact Air Quality Monitoring Stations
Table 2.3 Air Quality Monitoring Parameters and Frequency
Table 2.4 Summary of 1-hour TSP Monitoring Results in the Reporting Period
Table 2.5 Summary of 24-hour TSP Monitoring Results in the Reporting Period
Table 3.1 Noise Monitoring Equipment
Table 3.2 Locations of Impact Noise Monitoring Stations
Table 3.3 Noise Monitoring Parameters and Frequency
Table 3.4 Summary of Construction Noise Monitoring Results in the Reporting Period
Table 4.1 Summary of Environmental Licensing and Permit Status

**Figures**

Figure 1.1 General Project Layout Plan
Figure 2.1 EM&A Monitoring Locations
Figure 4.1 Environmental Complaint Handling Procedures

**List of Appendices**

Appendix A Project Organization Structure
Appendix B Construction Programmes
Appendix C Implementation Schedule of Environmental Mitigation Measures (EMIS)
Appendix D Summary of Action and Limit Levels
Appendix E Calibration Certificates of Monitoring Equipments
Appendix F EM&A Monitoring Schedules
Appendix G Impact Air Quality Monitoring Results and their Graphical Presentation
Appendix H Meteorological Data for the Reporting Month
Appendix I Impact Daytime Construction Noise Monitoring Results and their Graphical Presentation
Appendix J Event Action Plan
Appendix K Site Inspection Summaries
Appendix L Statistics on Complaints, Notifications of Summons and Successful Prosecutions

# 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 VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.

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 August 2014. 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 30 June 2014.

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
- Retaining wall construction
- Noise barrier footing construction
- Noise barrier installation
- Asphalt laying
- Installation of Drainage Pipes
- Landscape Softworks

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

- Temporary traffic arrangements
- Slope outstanding and remedial works
- Noise barrier outstanding and remedial works
- Entrusted watermains works
- Road and drainage outstanding and remedial works
- 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) water-related complaint was received on 23 June 2014 and followed up by the Environmental Team in the reporting month. The investigation result is reported in Section 4.6.

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 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 VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.

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 July 2014; while the construction works of Stage 2 commenced on 21 November 2013. 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 fifty-sixth 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 June 2014.

## 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<br><br>(Hyder-Arup-Black & Veatch Joint Venture) | Chief Resident Engineer /TOLO1 | James Tsang | 9038 8797 | 26674000 |
| **ER** of Stage 1, Contract 2<br><br>(Hyder-Arup-Black & Veatch Joint Venture) | Chief Resident Engineer /TOLO2 | Paul Appleton | 9097 5833 | 2653 2348 |
| **IEC** of Stage 1<br><br>(Mott MacDonald Hong Kong Limited) | Independent Environmental Checker | Terence Kong | 2828 5919 | 2827 1823 |
| **Contractor** of Stage 1, Contract 1<br><br>(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<br><br>(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 |
| | | Jimmy Tsang | 9720 9738 | 2559 3410 |

| Party | Position | Name | Telephone | Fax |
|---|---|---|---|---|
| **ET** of Stage 1<br><br>(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
- Retaining wall construction
- Noise barrier footing construction
- Noise barrier installation
- Asphalt laying
- Installation of Drainage Pipes
- Landscape Softworks

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:-

- Temporary traffic arrangements
- Slope outstanding and remedial works
- Noise barrier outstanding and remedial works
- Entrusted watermains works
- Road and drainage outstanding and remedial works
- 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 and Frequency

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

**Table 2.3 Air Quality Monitoring Parameters and Frequency**

| Parameter | Frequency |
|---|---|
| 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 June 2014 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** | 74.5 | 68.9 – 78.0 | 302.1 | 500 |
| **AM2** | 73.5 | 67.1 – 78.3 | 301.9 | 500 |
| **AM3** | 68.4 | 66.9 – 77.6 | 301.9 | 500 |
| **AM4A** | 73.9 | 67.1 – 79.1 | 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** | 24.0 | 14.8 – 39.1 | 176.6 | 260 |
| **AM2** | 19.7 | 12.9 – 22.6 | 178.6 | 260 |
| **AM3** | 22.0 | 17.4 – 28.2 | 193.1 | 260 |
| **AM4A** | 19.6 | 15.2 – 22.7 | 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 June 2014 from the Tai Mei Tuk Automatic Weather Station were missing, the weather data from Tai Po Automatic Weather Station in June 2014 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 |
| 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 and Frequency

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

**Table 3.3 Noise Monitoring Parameters and Frequency**

| Parameter | Frequency |
|---|---|
| 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 June 2014 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 | 62.1 | 59.0 – 63.3 | 75 |
| NM2 | 63.3 | 51.8 – 67.5 | 75 |
| NM3 | 61.4 | 58.4 – 63.9 | 70/65# |
| NM4 | 65.0 | 62.1 – 67.2 | 75 |
| NM5 | 62.0 | 56.1 – 64.1 | 75 |
| NM6 | 62.2* | 61.0 – 64.5* | 70# |
| NM7 | 59.3 | 53.9 – 61.2 | 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 25 June 2014 for Contract 1 of the Project, and 4 site inspections for Contract 2 of the Project were carried out on 5, 12, 19 and 26 June 2014 2014.

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 No adverse observation was identified in the reporting month.

***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 Waste batteries were observed on the ground. The Contractor should collect and dispose of the unwanted batteries properly..

***Landscape and Visual Impact***

4.1.8 No adverse observation was identified in the reporting month.

***Miscellaneous***

4.1.9 No adverse observation was identified in the reporting month.

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

***Air Quality***

4.1.11 No adverse observation was identified in the reporting month.

***Noise***

4.1.12 No adverse observation was identified in the reporting month.

***Water Quality***

4.1.13 Silt and grit were observed in the drains and the U-channel was observed to be obstructed. The Contractor should remove the deposited materials in the U-channel regularly.

4.1.14 Mud was observed on the public road outside Gate 30. The Contractor should clear the mud regularly and ensure vehicles have their wheels washed before they leave the site.

4.1.15 Mud was observed on the footpath. The Contractor should clear the mud regularly.

4.1.16 A water hose was disconnected and water spilled on the footpath. The Contractor should clear the mud washed onto the footpath.

***Chemical and Waste Management***

4.1.17 No adverse observation was identified in the reporting month.

***Landscape and Visual Impact***

4.1.18 No adverse observation was identified in the reporting month.

***Miscellaneous***

4.1.19 Water was observed in plastic containers. The Contractor should clear the water to prevent mosquito breeding.

## 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), 12$m^3$ of inert C&D materials was disposed of to the public fill at Tuen Mun 38 (of which 0$m^3$ was broken concrete), while 98$m^3$ of general refuse was disposed of at the NENT landfill. 0kg of paper/cardboard packaging, 0kg of plastics and 0kg of metals were collected by recycling contractors in the reporting month. 345$m^3$ and 0$m^3$ of inert C&D materials were reused on site and reused in other projects 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), 15$m^3$ of inert C&D materials was disposed of to Tuen Mun 38 and 245$m^3$ 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. 0$m^3$ and 0$m^3$ of inert C&D materials were reused on site and reused in other projects respectively. 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/B | 17/03/2014 | N/A | HyD | Tolo Highway/Fanling Highway between Island House Interchange and Ma Wo<br><br>The VEP (EP-324/2008/B) was granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). |
| 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-RN0039-14 | 27/01/2014 | 26/07/2014 | CSHK | Construction wroks at Island House Interchange |
| | | GW-RN0172-14 | 28/03/2014 | 17/06/2014 | CSHK | Laying of Crossroad Ducts near Ma Lui Shui |
| | | GW-RN0185-14 | 16/03/2014 | 01/06/2014 | CSHK | Road pavement for Slip Road C |
| | | GW-RN0197-14 | 30/03/2014 | 01/06/2014 | CSHK | Road Paving Works at Slip Road L |

| Statutory Reference | License/ Permit | License or Permit No. | Valid Period | | License/ Permit Holder | Remarks |
|---|---|---|---|---|---|---|
| | | | From | To | | |
| | | GW-RN0210-14 | 11/04/2014 | 09/10/2014 | CSHK | Modification of Sign Gantries G13, 16, 66 & 70 |
| | | GW-RN0242-14 | 10/04/2014 | 30/06/2014 | CSHK | Construction works next to MTRC's tracks protection zone |
| | | GW-RN0261-14 | 20/04/2014 | 01/06/2014 | CSHK | Slip Road leading from Tolo Highway (Fanling Bound) to Tat Wan Road |
| | | GW-RN0312-14 | 04/06/2014 | 28/06/2014 | CSHK | Installation of Noise Barrier on Kwong Fuk West Viaduct |
| | | GW-RN0320-14 | 04/06/2014 | 30/08/2014 | CSHK | Noise Barrier Installation Works on Tolo Highway |
| | | GW-RN0336-14 | 30/05/2014 | 30/09/2014 | CSHK | Construction wroks at Island House Interchange |
| | | GW-RN0341-14 | 04/06/2014 | 30/08/2014 | CSHK | Road Re-pavement at Tolo Highway Between Yuen Chau Tsai and Ma Wo |
| | | GW-RN0347-14 | 08/06/2014 | 17/08/2014 | CSHK | Road pavement for Slip Road N |
| | | GW-RN0352-14 | 01/06/2014 | 27/07/2014 | CSHK | Installation of Noise Barrier on Slip Road to Tat Wan Road |
| | | GW-RN0372-14 | 17/06/2014 | 31/07/2014 | CSHK | Road pavement for Slip Road C |
| | | GW-RN0373-14 | 17/06/2014 | 31/07/2014 | CSHK | Road pavement for Slip Road D |
| | | GW-RN0389-14 | 29/06/2014 | 31/08/2014 | CSHK | Road Paving Works at Slip Road L |
| | | GW-RN0390-14 | 26/06/2014 | 30/08/2014 | CSHK | Paving and Road Marking for Slip Road A |
| | | 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 |
| | | GW-RN0080-14 | 07/02/2014 | 02/08/2014 | GCL | (Renewal of GW-RN0530-13) General Works at a section of Tolo Highway near Tai Po Tau Raw Water |

| Statutory Reference | License/ Permit | License or Permit No. | Valid Period | | License/ Permit Holder | Remarks |
|---|---|---|---|---|---|---|
| | | | From | To | | |
| | | | | | | Pumping Station |
| | | GW-RN0230-14 | 08/04/2014 | 10/06/2014 | GCL | Erection of sign gantry at CH18.7 to CH18.5A |
| | | GW-RN0255-14 | 16/05/2014 | 24/06/2014 | GCL | Road reconstruction at 2 sections of Tolo Highway (Shatin and Fanling Bound) |
| | | GW-RN0293-14 | 11/05/2014 | 20/07/2014 | GCL | Lane shifting and modification of road marking at Tolo Highway (South Bound) CH21.1 to 20.8 A/B near Lam Kam Flyover |
| | | GW-RN0313-14 | 17/05/2014 | 09/07/2014 | GCL | Road Re-construction at Tolo Highway CH17.96 to CH21.0 Northbound near Fanling Highway |
| | | GW-RN0314-14 | 31/05/2014 | 09/08/2014 | GCL | Road reconstruction at a section between Lam Kam Interhange and Tai Wo Service Road West (Stage 1 & 2) near Fanling Highway Slip Road |
| | | GW-RN0319-14 | 21/05/2014 | 29/07/2014 | GCL | Renewal of GW-RN0115-14 Maintenance works at Tolo Highway and Fanling Highway near Tai Po Tai Wo Road, Lam Kam Interchange and TWSRW |
| | | GW-RN0337-14 | 28/05/2014 | 09/08/2014 | GCL | Road reconstruction at Tolo Highway CH21 to CH17.96 South bound near Fanling Highway |

### 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 One (1) water-related complaint was received on 23 June 2014 and followed up by the Environmental Team in the reporting month.

4.6.3 EPD referred a complaint concerning a construction site of the Widening of Tolo Highway Project (Stage 1) near Wan Tau Tong Estate, opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School, on 23 June 2014.

4.6.4 The complaint is regarding muddy water discharged from the construction site into Tai Po River on 20 June 2014.

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, no construction works were carried out on 20 June 2014 due to rainfall. The muddy water was likely caused by the surface runoff from rainwater which flowed across exposed slopes before discharging to Tai Po River.

4.6.6 On the day of complaint (20 June 2014), there were scattered heavy rainstorms in Tai Po area. Within 20 June 2014 from around 10a.m. to 11:30a.m., the highest rainfall rate reached 10-15mm/h. It is believed that the surface runoff owing to the heavy rainfall might have led to the complaint.

4.6.7 During wet seasons, the Contractor was urged to pay special attention to the covering of exposed slopes and open stockpiles. Following the receipt of the complaint, the Contractor covered the remaining part of exposed slope opposite to Lee Heng Kwei Secondary School to prevent soil erosion by rainfall on 24 June 2014 morning. Sand bags have been laid in the U-channel to form silt traps to improve the quality of surface runoff. The Contractor will also clear the blockage of the U-channel after rainfall to prevent the overflowing of muddy runoff to Tai Po River, preventing the contamination of river water.

4.6.8 Upon investigation, although the mud had likely been washed into Tai Po River by heavy rainfall, the muddy water mentioned in the complaint was considered project related. Therefore, the Contractor was reminded to carry out the mitigation measures as stated in “Recommended Mitigation Measures”.

4.6.9 Recommended Mitigation Measures:

1) Rectify the muddy water overflowing and propose preventive measures for muddy runoff;
2) Maintain the frequency of environmental supervision (by the Contractor) to regularly review the adequacy and effectiveness of muddy water control to suit the construction progress;
3) Foster better public relations with the sensitive receivers and complainants nearby; and
4) Maintain properly all drainage faculties on site and keep the drains clear of silt and debris.

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

4.6.11 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 Month

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

- Temporary shoring, sheetpiling and excavation
- Asphalt laying
- Installation of drainage pipes
- Landscape softworks

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

- Temporary traffic arrangements
- Slope outstanding and remedial works
- Noise barrier outstanding and remedial works
- Entrusted watermains works
- Road and drainage outstanding and remedial works
- Landscaping works

## 5.2 Key Issues for the Coming Month

5.2.1 Key issues to be considered in July 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 July 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 8 times in June 2014. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site audits.

6.1.6 No new complaint, notification of summons or 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***

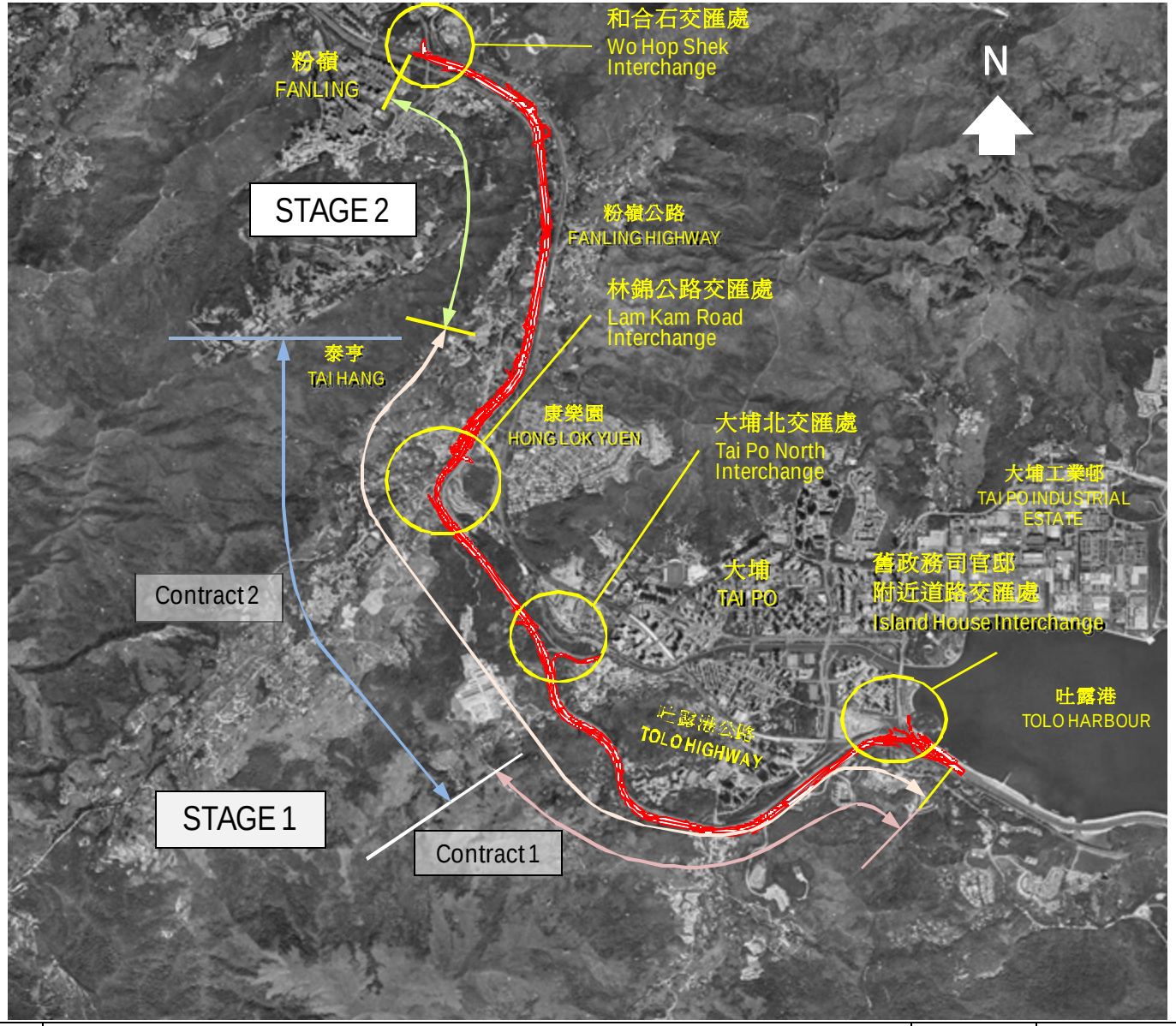
- C&D materials and wastes, general refuse should be sorted properly and removed timely.
- All chemical containers and oil drums should be properly stored.
- All plants and vehicles on site should be properly maintained to prevent oil leakage.

- 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.

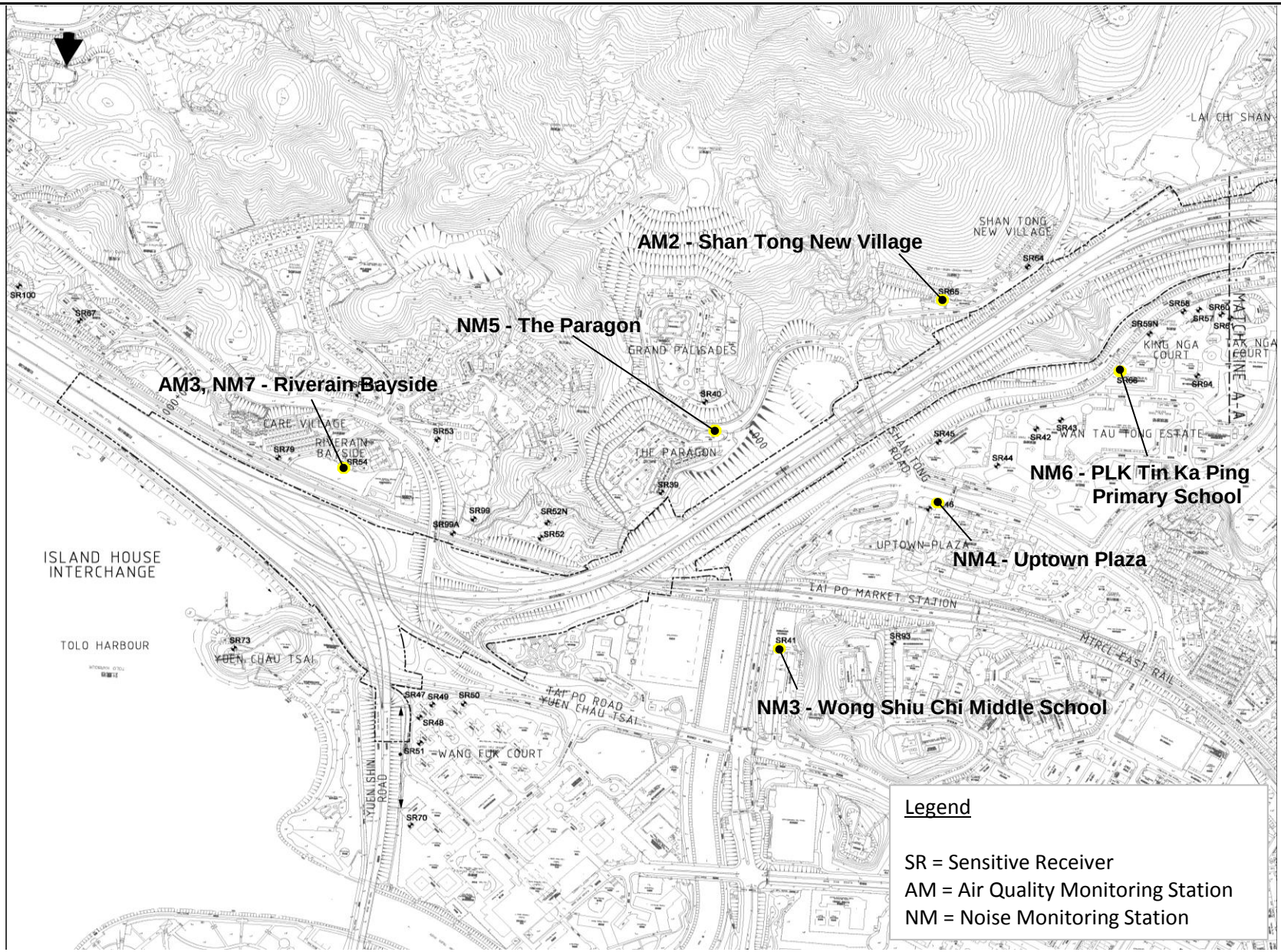
***Landscape and Visual Impact***

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

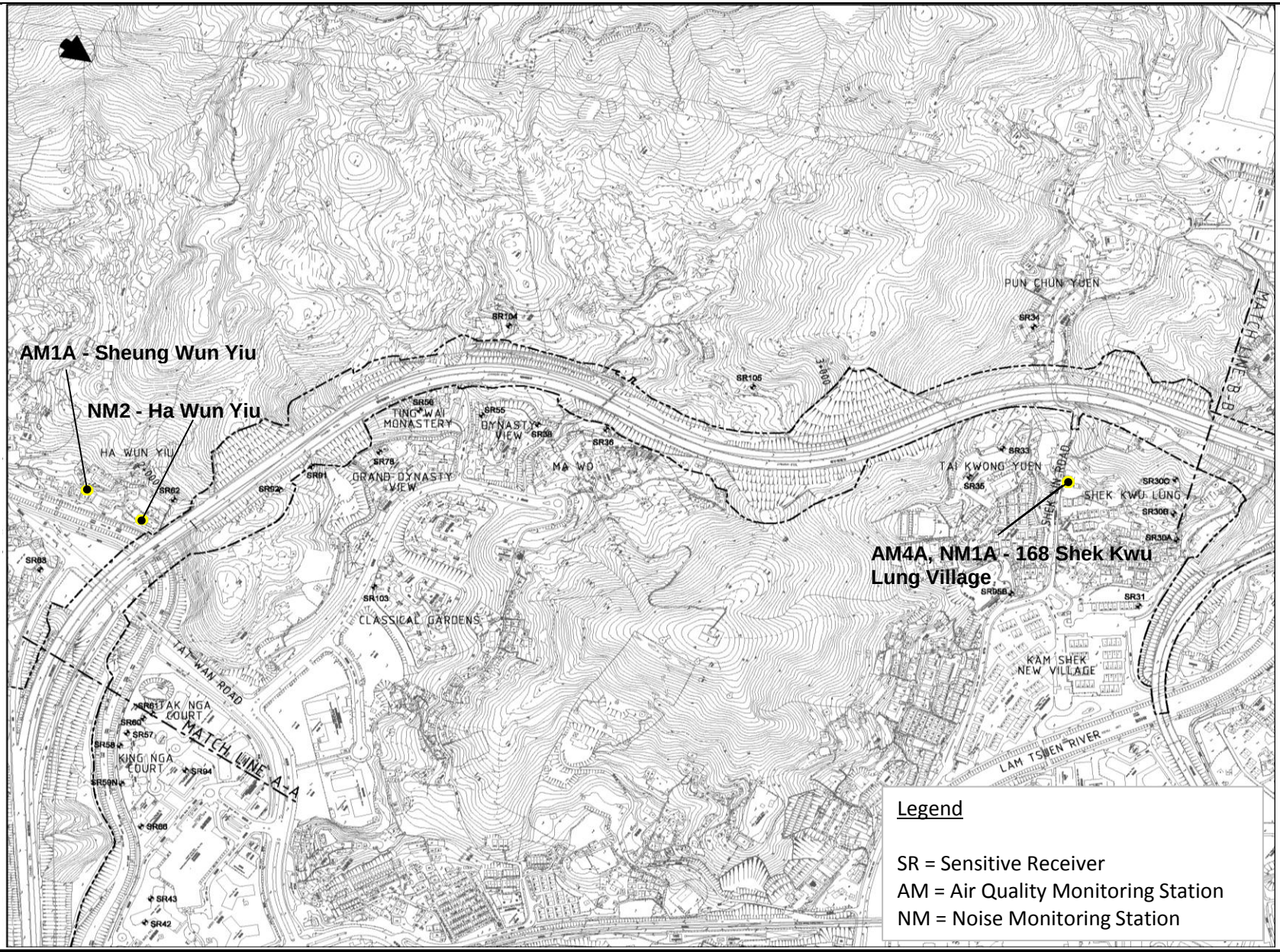
## FIGURES



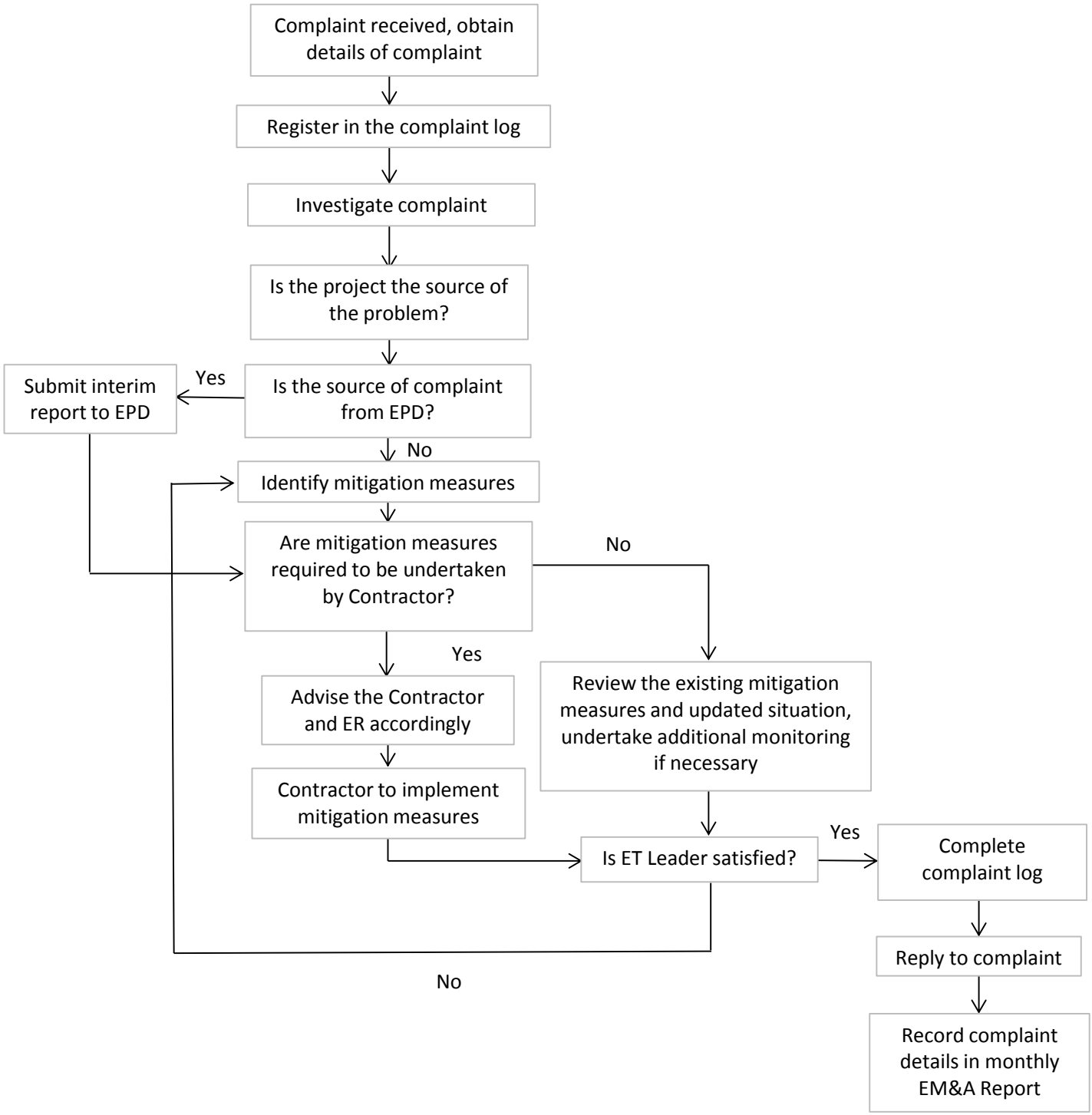

| | | | | | |
|---|---|---|---|---|---|
| AECOM | **Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation** | SCALE | N.T.S. | DATE | Dec-09 |
| | | CHECK | ENFL | DRAWN | RWHW |
| | General Project Layout Plan | JOB NO. | 60102979 | FIGURE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

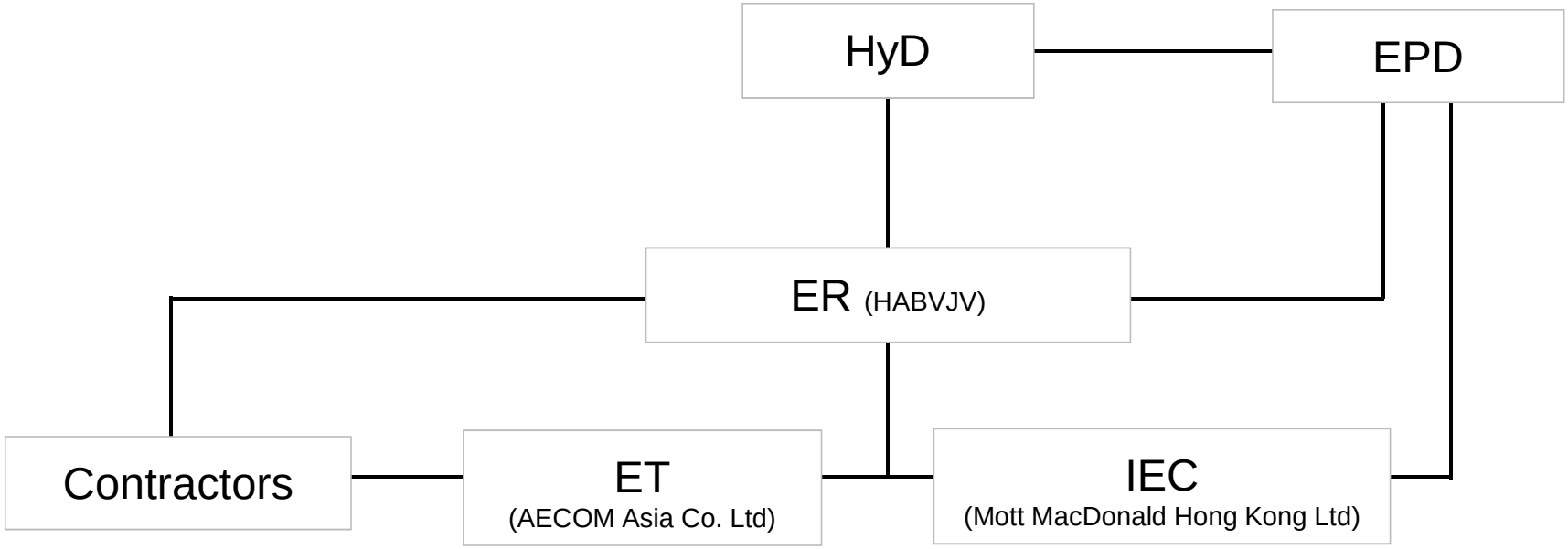



| | | | | | |
|---|---|---|---|---|---|
| AECOM | **Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation** | SCALE | N.T.S. | DATE | Sep-11 |
| | | CHECK | ENFL | DRAWN | LCHC |
| | EM&A Monitoring Locations (Sheet 2 of 2) | JOB NO. | 60102979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

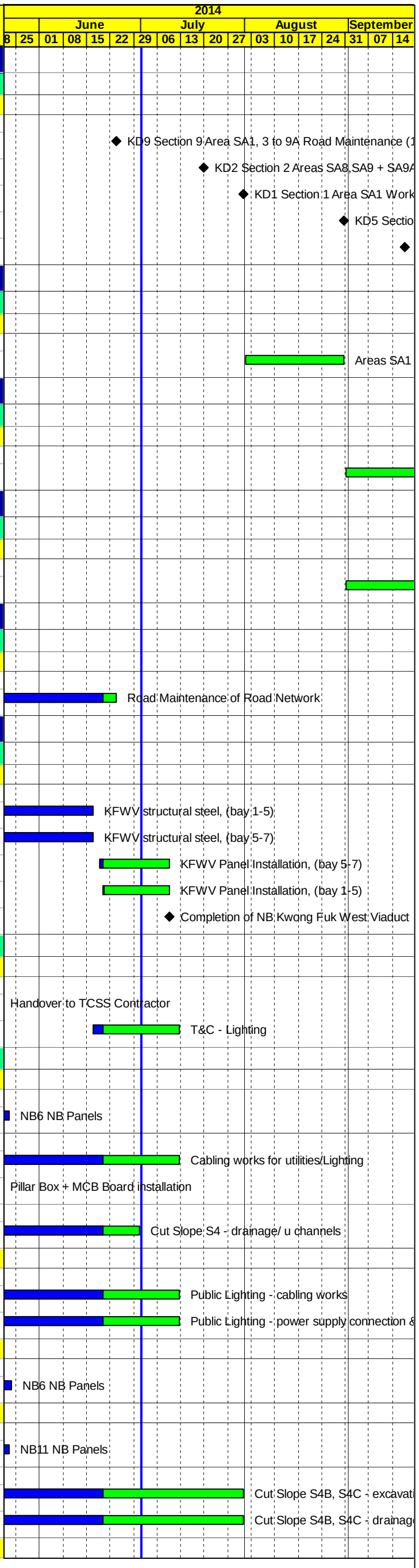
**Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation**

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 Duration | 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-Jun-14* |
| KD-300200 | KD2 Section 2 Areas SA8,SA9 + SA9A Work (1052d) | 0 | | 19-Jul-14* |
| KD-300100 | KD1 Section 1 Area SA1 Work, Except LS + EW (1311d) | 0 | | 31-Jul-14* |
| KD-300500 | KD5 Section 5 Area SA1 Landscape Softwork (1337d) | 0 | | 30-Aug-14* |
| KD-300400 | KD4 Section 4 Remainder of the Work (1328d) | 0 | | 17-Sep-14* |
| **SOFT LANDSCAPE IN SA1: SECT. 5 WORKS** | | | | |
| **Landscaping Works** | | | | |
| **Landscape Works** | | | | |
| S5-212800 | Areas SA1 Irrigation + Landscape Soft Works | 30 | 01-Aug-14 | 30-Aug-14 |
| **REMAINDER OF SOFT LANDSCAPE: SECT. 6 WORKS** | | | | |
| **Landscaping Works** | | | | |
| **Landscape Works** | | | | |
| S6-212800 | Remainder Irrigation + Landscape Soft Works | 30 | 31-Aug-14 | 29-Sep-14 |
| **ESTABLISHMENT WORKS AT SA1: SECT. 7 WORKS** | | | | |
| **Establishment Works** | | | | |
| **Landscape and Establishment Works** | | | | |
| S7-211800 | Area SA1 Establishment Works | 365 | 31-Aug-14 | 30-Aug-15 |
| **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-Jun-14* |
| **Z1: CH 0 to CH 500: SECT. 1 WORKS** | | | | |
| **Noise Barrier at Kwong Fuk West** | | | | |
| **Noise Barrier at Kwong Fuk West Viaduct** | | | | |
| **Noise Barrier Foundation Works** | | | | |
| S1-180700A | KFWV structural steel, (bay 1-5) | 18 | 08-Apr-14 A | 17-Jun-14 A |
| S1-180810 | KFWV structural steel, (bay 5-7) | 26 | 08-Apr-14 A | 17-Jun-14 A |
| S1-180820 | KFWV Panel Installation, (bay 5-7) | 24 | 19-Jun-14 A | 09-Jul-14 |
| S1-180800 | KFWV Panel Installation, (bay 1-5) | 24 | 20-Jun-14 A | 09-Jul-14 |
| S1-180900 | Completion of NB Kwong Fuk West Viaduct | 0 | | 09-Jul-14 |
| **TCSS Works** | | | | |
| **TCSS E&M Works & Handover** | | | | |
| S1-700090 | Handover to TCSS Contractor | 0 | | 20-May-14 A |
| S1-700075 | T&C - Lighting | 20 | 17-Jun-14 A | 12-Jul-14 |
| **Southbound Work- Ret. Wall, Noise B, Rd** | | | | |
| **NB6, and Slope S4** | | | | |
| **Noise Barrier NB6** | | | | |
| S1-208060 | NB6 NB Panels | 8 | 22-Apr-14 A | 23-May-14 A |
| **Road Lighting/ or High Mast** | | | | |
| S1-700050 | Cabling works for utilities/Lighting | 20 | 20-Feb-14 A | 12-Jul-14 |
| S1-700070 | Pillar Box + MCB Board installation | 18 | 15-Mar-14 A | 20-May-14 A |
| **Cut Slope S4** | | | | |
| S1-031060B | Cut Slope S4 - drainage/ u channels | 20 | 15-Oct-13 A | 30-Jun-14 |
| **SB Road & Drain, Ch 0-300, after NB3** | | | | |
| **Road Lighting/ or High Mast** | | | | |
| S1-051215A | Public Lighting - cabling works | 8 | 22-Apr-14 A | 12-Jul-14 |
| S1-051215B | Public Lighting - power supply connection & test | 8 | 22-Apr-14 A | 12-Jul-14 |
| **NB6 and Slope S4A, after TB1 demolition** | | | | |
| **Noise Barrier NB6 (remaining 1 bay after TB1 removal)** | | | | |
| S1-208135 | NB6 NB Panels | 6 | 22-Mar-14 A | 23-May-14 A |
| **NB11, Slope S4B & F124, after TB2 dem.** | | | | |
| **Noise Barrier NB11** | | | | |
| S1-208110 | NB11 NB Panels | 10 | 28-Mar-14 A | 23-May-14 A |
| **Cut Slope S4B, S4C** | | | | |
| S1-031040A | Cut Slope S4B, S4C - excavation | 21 | 04-Mar-14 A | 31-Jul-14 |
| S1-031040B | Cut Slope S4B, S4C - drainage/ channels | 48 | 20-Mar-14 A | 31-Jul-14 |
| **South Bound Road and Drain, Ch 300-500** | | | | |




**Contract: HY/2008/09**

**Widening of Tolo Highway / Fanling Highway**

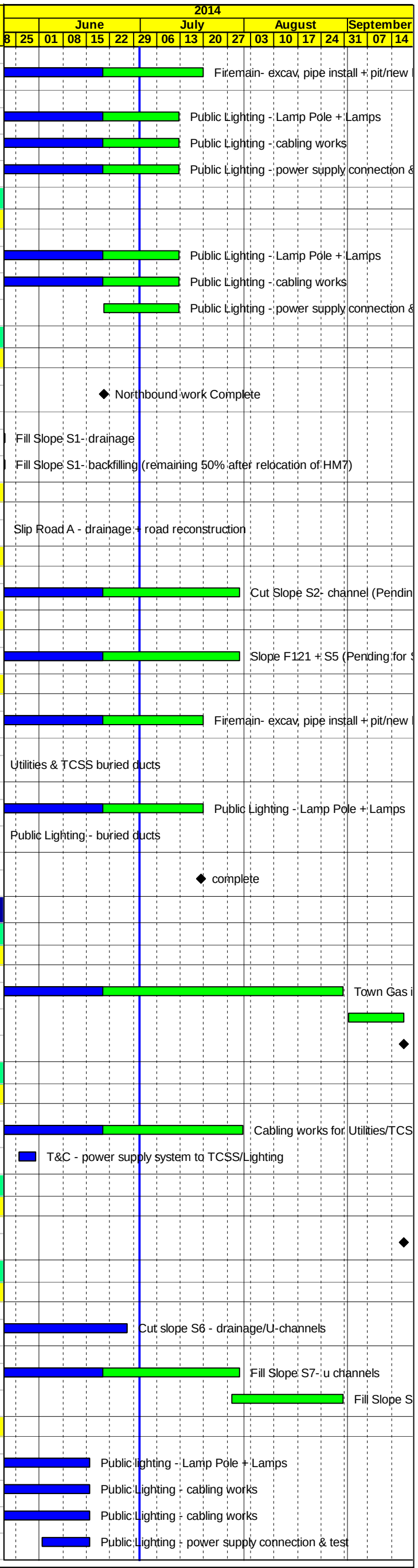
**Between Island House Interchange and Fanling**

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

**Three Months Rolling Programme**

**for the Period of 21 Jun 2014 to 20 Sept 2014**

| Activity ID | Activity Name | Original Duration | Start | Finish |
|---|---|---|---|---|
| | **Firemain** | | | |
| S1-051305 | Firemain- excav, pipe install + pit/new hydrants | 14 | 01-Mar-14 A | 19-Jul-14 |
| | **Road Lighting/ or High Mast** | | | |
| S1-051350 | Public Lighting - Lamp Pole + Lamps | 18 | 26-Nov-13 A | 12-Jul-14 |
| S1-051350A | Public Lighting - cabling works | 18 | 17-Mar-14 A | 12-Jul-14 |
| S1-051350B | Public Lighting - power supply connection & test | 18 | 17-Mar-14 A | 12-Jul-14 |
| | **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 | 12-Jul-14 |
| S1-208040A | Public Lighting - cabling works | 18 | 22-Aug-13 A | 12-Jul-14 |
| S1-208040B | Public Lighting - power supply connection & test | 20 | 20-Jun-14* | 12-Jul-14 |
| | **Northbound Work- Ret. Wall, Noise B, Rd** | | | |
| | **RW W1+ NB1+S1, NB2 Ch200-300** | | | |
| | **Noise Barrier NB1** | | | |
| S1-208015 | Northbound work Complete | 0 | 20-Jun-14 | |
| | **Cut Slope S1** | | | |
| S1-031015020 | Fill Slope S1- drainage | 26 | 18-Oct-13 A | 21-May-14 A |
| S1-031015015 | Fill Slope S1- backfilling (remaining 50% after relocation of HM7) | 57 | 20-Nov-13 A | 21-May-14 A |
| | **Slip Rd A after Banyan West Completion** | | | |
| | **Slip Rd A** | | | |
| S1-051155 | Slip Road A - drainage + road reconstruction | 175 | 20-Oct-12 A | 21-May-14 A |
| | **NB2 & Slope S2, after TB1 demolition** | | | |
| | **Cut Slope S2** | | | |
| S1-031025B | Cut Slope S2- channel (Pending for Slope Profile design) | 24 | 01-Apr-14 A | 30-Jul-14 |
| | **NB9, Slope F121, S5, (after TB2 demolition)** | | | |
| | **Cut Slope S5** | | | |
| S1-200140 | Slope F121 + S5 (Pending for Slope Profile design) | 24 | 01-Apr-14 A | 30-Jul-14 |
| | **North Bound Road and Drain, Ch 300-500** | | | |
| | **Firemain** | | | |
| S1-200170 | Firemain- excav, pipe install + pit/new hydrants | 10 | 22-Apr-14 A | 19-Jul-14 |
| | **TCSS Works/Other Utlities** | | | |
| S1-200180 | Utilities & TCSS buried ducts | 15 | 10-Jan-14 A | 20-May-14 A |
| | **Road Lighting/ or High Mast** | | | |
| S1-200205 | Public Lighting - Lamp Pole + Lamps | 15 | 10-Dec-13 A | 19-Jul-14 |
| S1-200175 | Public Lighting - buried ducts | 20 | 22-Apr-14 A | 20-May-14 A |
| | **Roadworks** | | | |
| S1-200215 | complete | 0 | 19-Jul-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** | | | |
| VO28-1085 | Town Gas installation works (from main to complete connection to MTRC) by TGC contractor | 50 | 05-Dec-13 A | 30-Aug-14 |
| VO28-1090 | Backfill Topsoil Manhole Z to P | 14 | 01-Sep-14 | 17-Sep-14 |
| VO28-1150 | Completion of VO28 | 0 | | 17-Sep-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 | 31-Jul-14 |
| S4-208370 | T&C - power supply system to TCSS/Lighting | 6 | 26-May-14 A | 31-May-14 A |
| | **Section Completion** | | | |
| | **Section Completion Date** | | | |
| KD-300400A | ZONE 2 COMPLETE - KD4 Section 4 | 0 | | 17-Sep-14 |
| | **Stage 1: Southbound Work- Ret. Wall, Noise B, Rd** | | | |
| | **RW W4-W7+Slope S7+NB15, NB12+Slip Rd L** | | | |
| | **Cut Slope S6 and Slip Rd L** | | | |
| S1-203065B | Cut slope S6 - drainage/U-channels | 20 | 22-Apr-14 A | 27-Jun-14 A |
| | **Fill Slope S7** | | | |
| S4-031070C | Fill Slope S7- u channels | 20 | 22-Apr-14 A | 30-Jul-14 |
| S4-031070D | Fill Slope S7- metal works + hand rails etc. | 30 | 28-Jul-14 | 30-Aug-14 |
| | **SB: CH500-1100, Road&Drain+Utilities** | | | |
| | **Road Lighting/ or High Mast** | | | |
| S4-031178 | Public lighting - Lamp Pole + Lamps | 12 | 18-Oct-13 A | 16-Jun-14 A |
| S4-031178A | Public Lighting - cabling works | 6 | 18-Oct-13 A | 16-Jun-14 A |
| S4-031178A10 | Public Lighting - cabling works | 23 | 20-May-14 A | 16-Jun-14 A |
| S4-031178B | Public Lighting - power supply connection & test | 4 | 02-Jun-14 A | 16-Jun-14 A |




**Contract: HY/2008/09**

**Widening of Tolo Highway / Fanling Highway**

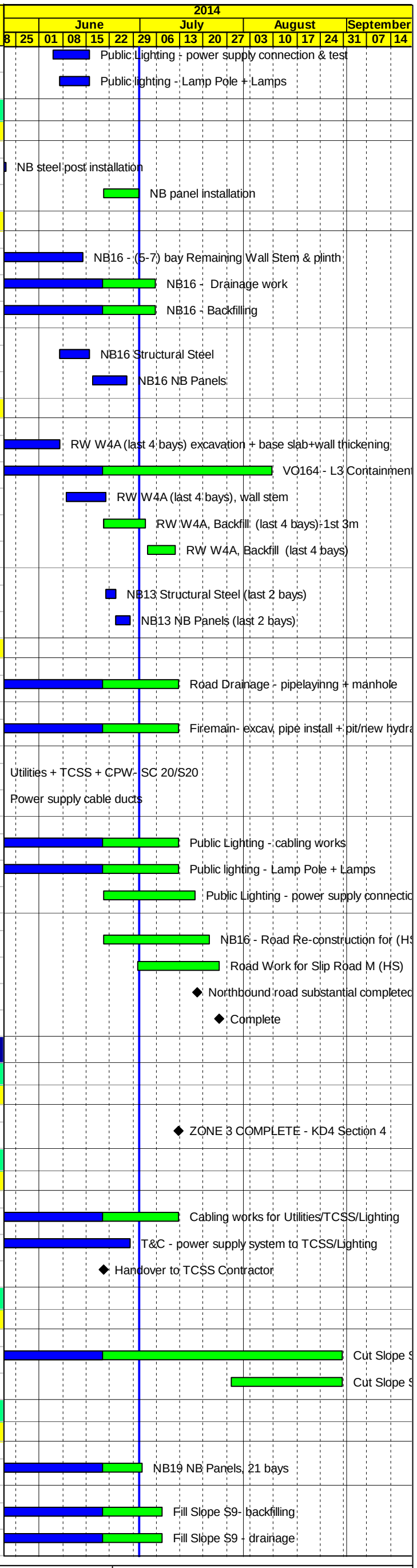
**Between Island House Interchange and Fanling**

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

**Three Months Rolling Programme**

**for the Period of 21 Jun 2014 to 20 Sept 2014**

| Activity ID | Activity Name | Original Duration | Start | Finish |
|---|---|---|---|---|
| S4-031178B10 | Public Lighting - power supply connection & test | 8 | 05-Jun-14 A | 16-Jun-14 A |
| S4-512930 | Public lighting - Lamp Pole + Lamps | 8 | 07-Jun-14 A | 16-Jun-14 A |
| **Stage 2: Northbound Work- Ret. Wall, Noise B, Rd** | | | | |
| **Mod. Existing Lam Kam Railway Br. +Noise B.** | | | | |
| S4-193910 | NB steel post installation | 8 | 05-May-14 A | 22-May-14 A |
| S4-193920 | NB panel installation | 5 | 20-Jun-14 | 30-Jun-14 |
| **Noise Barrier NB16** | | | | |
| **Noise Barrier Foundation Works** | | | | |
| S4-513145 | NB16 - (5-7) bay Remaining Wall Stem & plinth | 42 | 06-Dec-13 A | 14-Jun-14 A |
| S4-513150 | NB16 - Drainage work | 26 | 16-Dec-13 A | 05-Jul-14 |
| S4-513160 | NB16 - Backfilling | 12 | 18-Mar-14 A | 05-Jul-14 |
| **Noise Barrier Structural Steel & Panels** | | | | |
| S4-207160 | NB16 Structural Steel | 10 | 07-Jun-14 A | 16-Jun-14 A |
| S4-208160 | NB16 NB Panels | 10 | 17-Jun-14 A | 27-Jun-14 A |
| **Retaining Wall W4A & NB13 & Slip Rd M** | | | | |
| **Retaining Wall W4A** | | | | |
| S4-03504A040 | RW W4A (last 4 bays) excavation + base slab+wall thickening | 30 | 06-Jan-14 A | 07-Jun-14 A |
| S4-03504A070 | VO164 - L3 Containment barrier | 31 | 22-Apr-14 A | 09-Aug-14 |
| S4-03504A050 | RW W4A (last 4 bays), wall stem | 12 | 09-Jun-14 A | 21-Jun-14 A |
| S4-03504A055 | RW W4A, Backfill (last 4 bays)-1st 3m | 7 | 20-Jun-14 A | 02-Jul-14 |
| S4-03504A060 | RW W4A, Backfill (last 4 bays) | 8 | 03-Jul-14 | 11-Jul-14 |
| **Noise Barrier NB13** | | | | |
| S4-208140 | NB13 Structural Steel (last 2 bays) | 5 | 21-Jun-14 A | 24-Jun-14 A |
| S4-208170 | NB13 NB Panels (last 2 bays) | 8 | 24-Jun-14 A | 28-Jun-14 A |
| **NB: CH500-1100, Road&Drain+Utilities** | | | | |
| **Road Drainage** | | | | |
| S4-031210 | Road Drainage - pipelayinng + manhole | 44 | 02-Jul-13 A | 12-Jul-14 |
| **Firemain** | | | | |
| S4-031220 | Firemain- excav, pipe install + pit/new hydrants | 36 | 25-Jul-13 A | 12-Jul-14 |
| **TCSS Works/Other Utlities** | | | | |
| S4-031225 | Utilities + TCSS + CPW- SC 20/S20 | 36 | 17-Jul-13 A | 20-May-14 A |
| S4-031230 | Power supply cable ducts | 36 | 20-Jul-13 A | 20-May-14 A |
| **Road Lighting/ or High Mast** | | | | |
| S4-031250A | Public Lighting - cabling works | 18 | 04-Oct-13 A | 12-Jul-14 |
| S4-031250 | Public lighting - Lamp Pole + Lamps | 24 | 20-Dec-13 A | 12-Jul-14 |
| S4-031250B | Public Lighting - power supply connection & test | 24 | 20-Jun-14 | 17-Jul-14 |
| **Roadworks** | | | | |
| A1170 | NB16 - Road Re-construction for (HS) | 27 | 20-Jun-14 | 21-Jul-14 |
| A1210 | Road Work for Slip Road M (HS) | 22 | 30-Jun-14 | 24-Jul-14 |
| S4-031260 | Northbound road substantial completed in Zone 2 | 0 | 18-Jul-14 | |
| A1220 | Complete | 0 | | 24-Jul-14 |
| **Z3: CH 1100 to CH 2000: SECT. 4 WORKS** | | | | |
| **Section Completion** | | | | |
| **Section Completion Date** | | | | |
| KD-300400B | ZONE 3 COMPLETE - KD4 Section 4 | 0 | | 12-Jul-14 |
| **TCSS Works** | | | | |
| **TCSS E&M Works & Handover** | | | | |
| S4-0512765 | Cabling works for Utilities/TCSS/Lighting | 24 | 20-Sep-13 A | 12-Jul-14 |
| S4-0512780 | T&C - power supply system to TCSS/Lighting | 36 | 20-Sep-13 A | 28-Jun-14 A |
| S4-0512785 | Handover to TCSS Contractor | 0 | | 20-Jun-14 |
| **Stage 3: Central Median - Ret. Wall, Noise B, Rd** | | | | |
| **W20A + Slope S20** | | | | |
| **Cut Slope S20A** | | | | |
| S4-03120AA | Cut Slope S20A - excavation | 30 | 20-Jan-14 A | 30-Aug-14 |
| S4-03120AB | Cut Slope S20A - drainage/channels | 30 | 28-Jul-14 | 30-Aug-14 |
| **Stage 2: Northbound Work- Ret. Wall, Noise B, Rd** | | | | |
| **RW W9, Slope S9, & Noise Barrier NB19, NB22** | | | | |
| **Noise Barrier NB19** | | | | |
| S4-208190A | NB19 NB Panels, 21 bays | 10 | 01-Apr-14 A | 01-Jul-14 |
| **Fill Slope S9** | | | | |
| S4-031095A | Fill Slope S9- backfilling | 24 | 01-Apr-14 A | 07-Jul-14 |
| S4-031095B | Fill Slope S9 - drainage | 12 | 01-Apr-14 A | 07-Jul-14 |




**Contract: HY/2008/09**

**Widening of Tolo Highway / Fanling Highway**

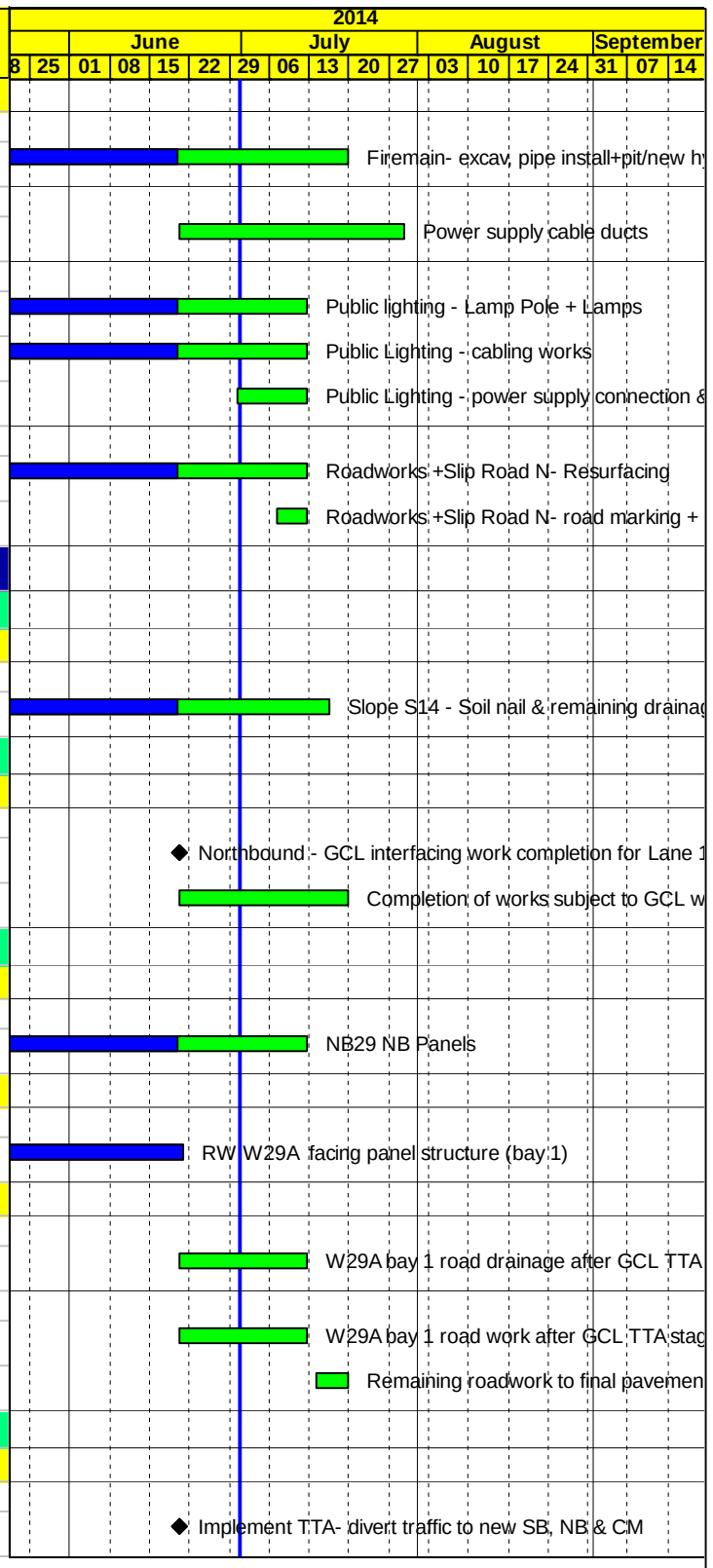
**Between Island House Interchange and Fanling**

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

**Three Months Rolling Programme**

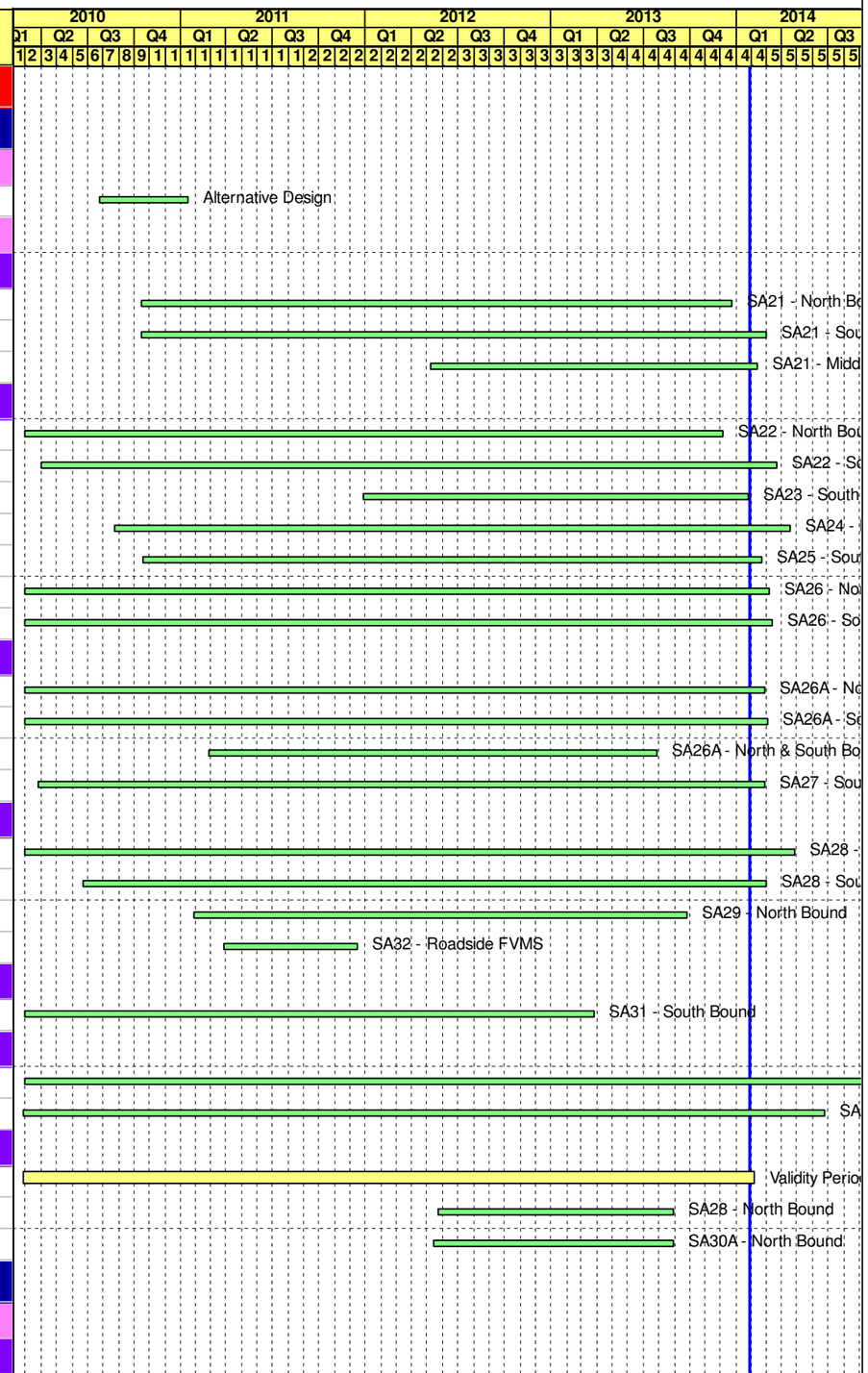
**for the Period of 21 Jun 2014 to 20 Sept 2014**

| Activity ID | Activity Name | Original Duration | Start | Finish |
|---|---|---|---|---|
| **NB: CH1260-1750, L=410m, Road&Drain+Utilities** | | | | |
| **Firemain** | | | | |
| S4-0512630 | Firemain- excav, pipe install+pit/new hydrants | 24 | 17-Sep-13 A | 19-Jul-14 |
| **TCSS Works/Other Utlities** | | | | |
| S4-0512640 | Power supply cable ducts | 34 | 20-Jun-14* | 29-Jul-14 |
| **Road Lighting/ or High Mast** | | | | |
| S4-0512660 | Public lighting - Lamp Pole + Lamps | 36 | 21-Oct-13 A | 12-Jul-14 |
| S4-051266A | Public Lighting - cabling works | 36 | 21-Oct-13 A | 12-Jul-14 |
| S4-051266B | Public Lighting - power supply connection & test | 12 | 30-Jun-14 | 12-Jul-14 |
| **Roadworks** | | | | |
| S4-0512645 | Roadworks +Slip Road N- Resurfacing | 26 | 18-Oct-13 A | 12-Jul-14 |
| S4-0512655 | Roadworks +Slip Road N- road marking + furnitures | 6 | 07-Jul-14 | 12-Jul-14 |
| **Z4: CH 2000 to CH 2400: SECT. 2 WORKS** | | | | |
| **Stage 1A: Southbound - S14-, RW21-28, TP7,Rd/Dr** | | | | |
| **Cut Slope S14** | | | | |
| S2-031140E10 | Slope S14 - Soil nail & remaining drainage work (VO343-additional soil nail) | 61 | 10-Jun-13 A | 16-Jul-14 |
| **Stage 1B: Northbound- S15-S19, RW31-33, Rd/Dr** | | | | |
| **Retaining Wall W30, W31, W32(Piled), W33** | | | | |
| **Retaining Wall W31,32, 33** | | | | |
| S2-GCL036 | Northbound - GCL interfacing work completion for Lane 1,2,3 open | 0 | | 20-Jun-14* |
| S2-GCL046 | Completion of works subject to GCL works completion | 26 | 20-Jun-14 | 19-Jul-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 | 12-Jul-14 |
| **Retaining Wall, W29 & NB27(@W29)** | | | | |
| **Retaining Wall W29A** | | | | |
| S2-03529AB | RW W29A facing panel structure (bay 1) | 34 | 22-Apr-14 A | 21-Jun-14 A |
| **SB: CH2200-2400, L=200m, Road&Drain+Utilities** | | | | |
| **Road Drainage** | | | | |
| S2-031250 | W29A bay 1 road drainage after GCL TTA stage 6A | 20 | 20-Jun-14 | 12-Jul-14 |
| **Roadworks** | | | | |
| S2-031255 | W29A bay 1 road work after GCL TTA stage 6A | 20 | 20-Jun-14 | 12-Jul-14 |
| S2-031265 | Remaining roadwork to final pavement level after GCL TTA stage 6A | 6 | 14-Jul-14 | 19-Jul-14 |
| **Stage 3: Central Median- NB26, NB29 +Road&Drain** | | | | |
| **CM: NB26 & NB28 L=400m & Road&Drain+Utilities** | | | | |
| **Noise Barrier Structural Steel & Panels** | | | | |
| S2-208395 | Implement TTA- divert traffic to new SB, NB & CM | 0 | 20-Jun-14 | |




| | | |
|---|---|---|
| | **Contract: HY/2008/09**<br>**Widening of Tolo Highway / Fanling Highway**<br>**Between Island House Interchange and Fanling**<br>**(Stage 1 - Between Island House Interchange and Ma Wo)** | **Three Months Rolling Programme**<br>**for the Period of 21 Jun 2014 to 20 Sept 2014** |

| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| **HY/2009/08 TOLO HIGHWAY WIDENING, Updated on 20140126** | | | | | | |
| **EXECUTIVE SUMMARY** | | | | | | |
| **Design** | | | | | | |
| A1330 | Alternative Design | | 100% | 292 | 26-Jul-10 A | 14-Jan-11 A |
| **Construction** | | | | | | |
| **Section 1** | | | | | | |
| A1000 | SA21 - North Bound | | 100% | 959 | 15-Oct-10 A | 25-Dec-13 A |
| A1010 | SA21 - South Bound | -100 | 95.99% | 814 | 15-Oct-10 A | 28-Feb-14 |
| A1020 | SA21 - Middle Lane | -84 | 94% | 275 | 08-May-12 A | 12-Feb-14 |
| **Section 2** | | | | | | |
| A1030 | SA22 - North Bound | | 100% | 1016 | 26-Feb-10 A | 07-Dec-13 A |
| A1040 | SA22 - South Bound | -70 | 94.7% | 1037 | 01-Apr-10 A | 22-Mar-14 |
| A1060 | SA23 - South Bound | | 100% | 388 | 28-Dec-11 A | 25-Jan-14 A |
| A1070 | SA24 - North Bound | -95 | 89.83% | 787 | 25-Aug-10 A | 16-Apr-14 |
| A1080 | SA25 - South Bound | -48 | 96.98% | 777 | 20-Oct-10 A | 19-Feb-14 |
| A1090 | SA26 - North Bound | -55 | 96.75% | 1216 | 26-Feb-10 A | 07-Mar-14 |
| A1100 | SA26 - South Bound | -61 | 96.22% | 1216 | 26-Feb-10 A | 13-Mar-14 |
| **Section 3** | | | | | | |
| A1110 | SA26A - North Bound | -15 | 97.48% | 1191 | 26-Feb-10 A | 25-Feb-14 |
| A1120 | SA26A - South Bound | -21 | 95.96% | 879 | 26-Feb-10 A | 03-Mar-14 |
| A1130 | SA26A - North & South Bound | | 100% | 612 | 26-Feb-11 A | 30-Jul-13 A |
| A1140 | SA27 - South Bound | -15 | 96.43% | 826 | 27-Mar-10 A | 25-Feb-14 |
| **Section 4** | | | | | | |
| A1150 | SA28 - North Bound | -65 | 92.64% | 1216 | 26-Feb-10 A | 26-Apr-14 |
| A1160 | SA28 - South Bound | -8 | 97.01% | 1099 | 23-Jun-10 A | 28-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 | -71 | 85.96% | 1581 | 26-Feb-10 A | 05-Sep-14 |
| A1210 | SA42 - Temporary Contractor's Works Area | 0 | 90.52% | 1582 | 25-Feb-10 A | 25-Jun-14 |
| **Section 17 (Subject to Excision, Engineer may instruct within 819 days)** | | | | | | |
| A1300 | Validity Period | 140 | 98.6% | 819 | 25-Feb-10 A | 07-Feb-14 |
| 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 2014JAN
**Project Name:** HY/2009/08 TOLO HIGHWAY WIDENING...
**Print Date:**30-Jan-14
**Data Date:** 27-Jan-14
**Page** 1 **of** 46

Current Bar
Level of Effort
Critical
Milestone

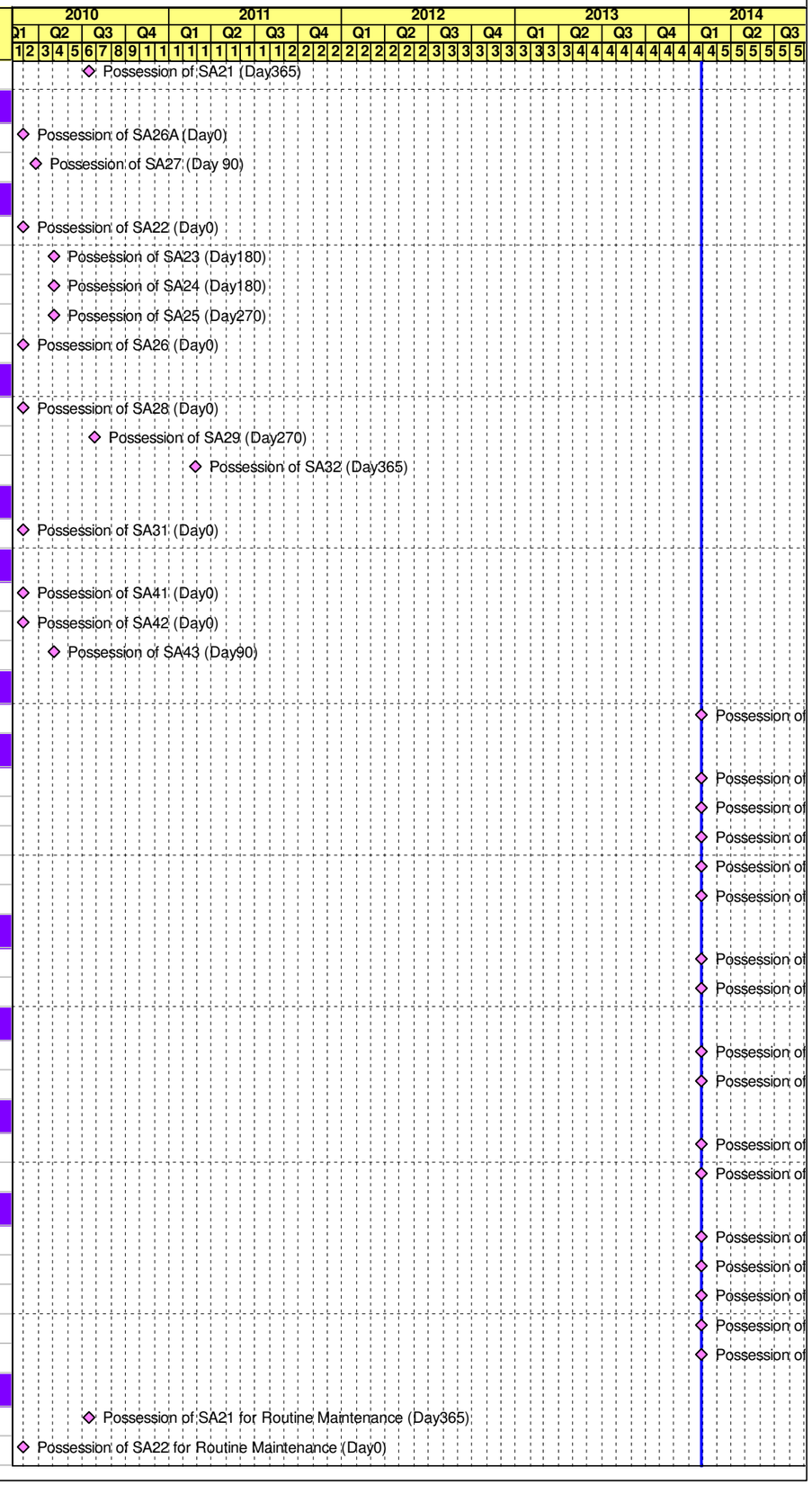
**Highways Department - Contract No. HY/2009/08**

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

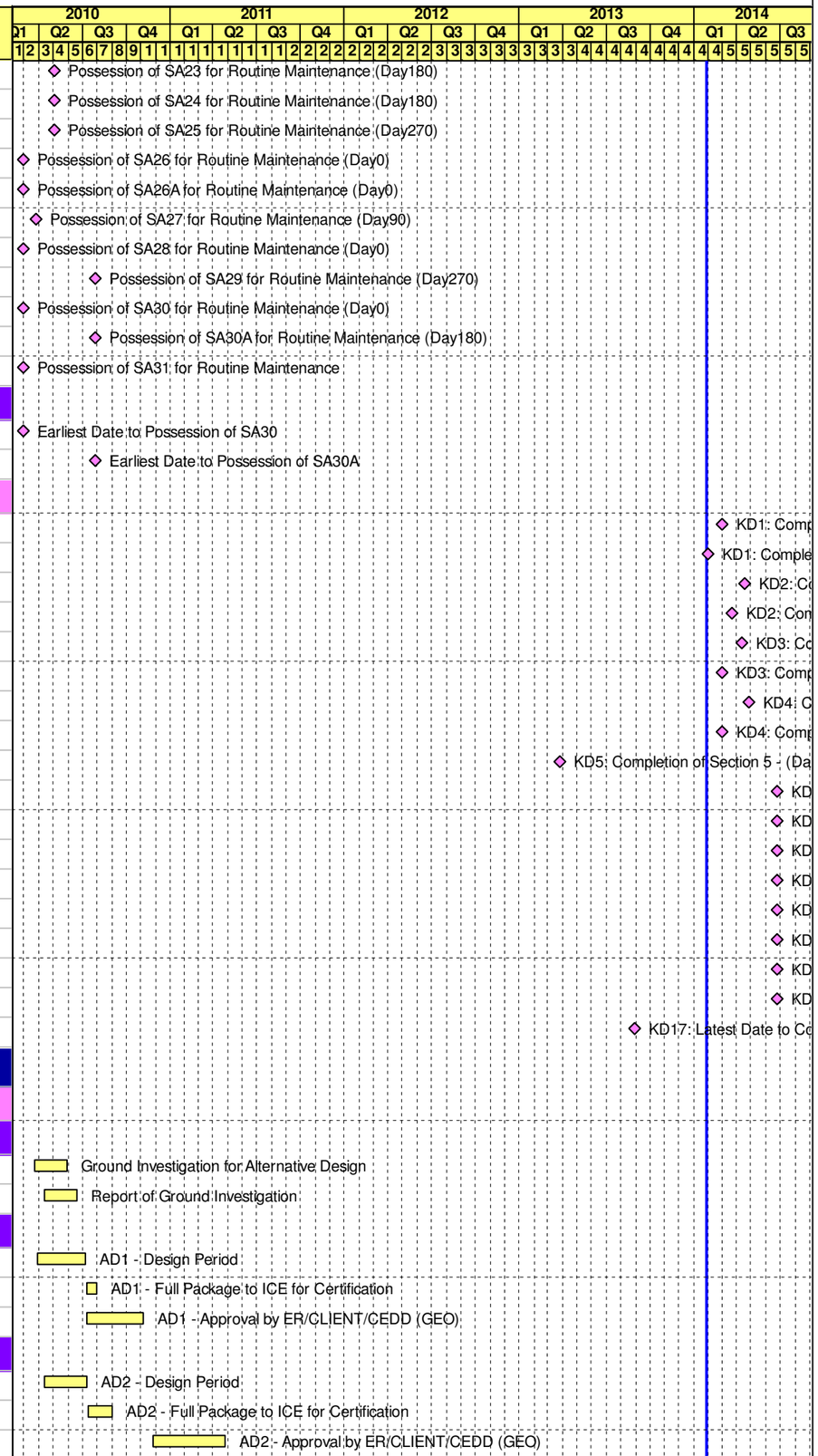
**Updated Works Programme, 26 January 2014**

| UWP Revision | | | |
|---|---|---|---|
| Date | Revision | Checked | Approved |
| 27-Jan-14 | UWP January, 2014 | WY | JC |

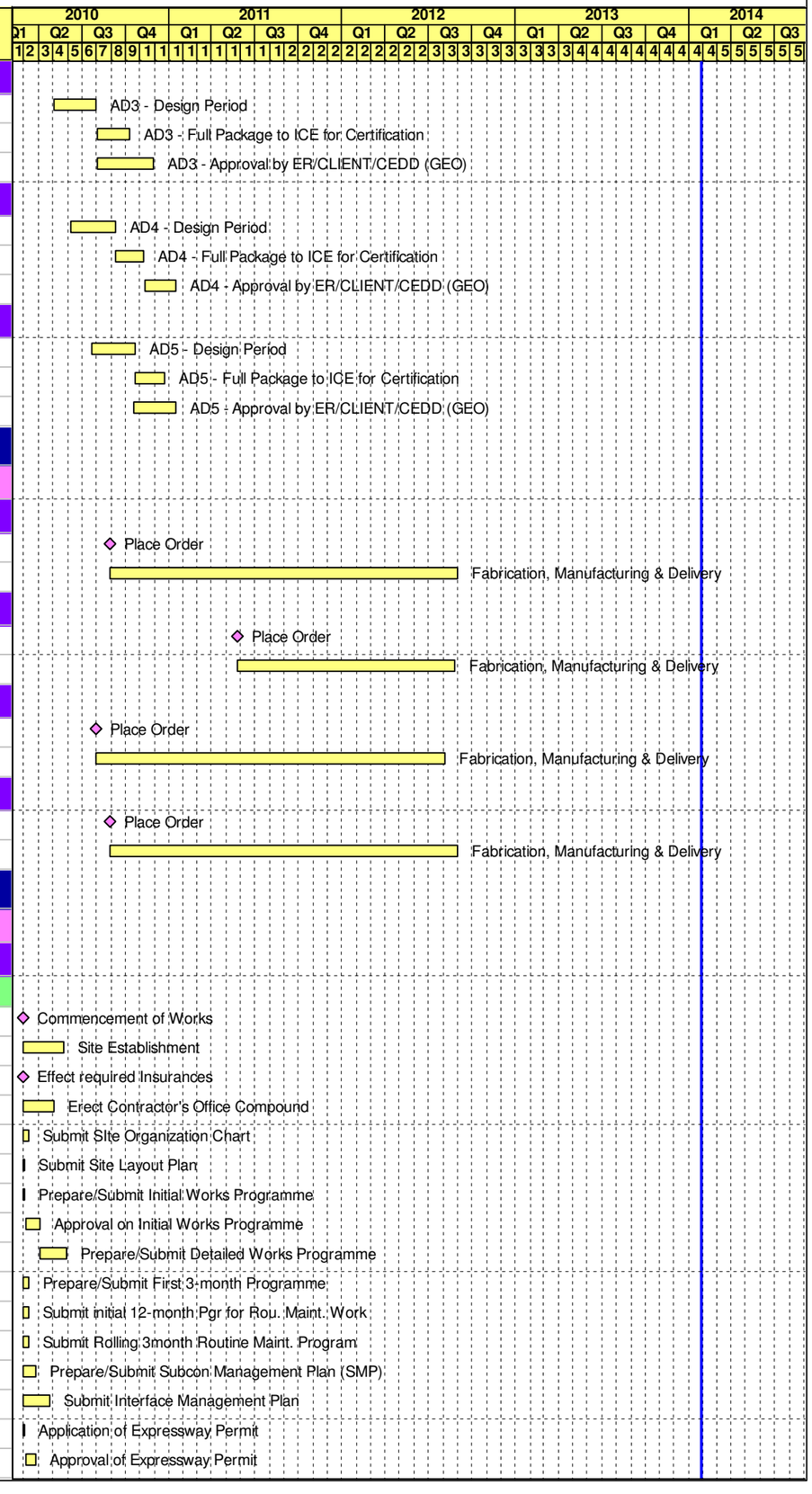
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| PHSA2100 | Possession of SA21 (Day365) | | 100% | 0 | 16-Jul-10 A | |
| **Section 3 (Site Area SA26A and SA 27)** | | | | | | |
| PHSA26A0 | Possession of SA26A (Day0) | | 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) | -214 | 0% | 0 | 27-Jan-14 | |
| **Section 9 (Estiblishment Works in Site Area SA22, SA23, SA24, SA25 and SA26)** | | | | | | |
| PHSA2210 | Possession of SA22 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2310 | Possession of SA23 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2420 | Possession of SA24 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2510 | Possession of SA25 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2610 | Possession of SA26 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| **Section 10 (Estiblishment Works in Site Area SA26A and SA27)** | | | | | | |
| PHSA26A1 | Possession of SA26A (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2710 | Possession of SA27 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| **Section 11 (Estiblishment Works in Site Area SA28 and SA29)** | | | | | | |
| PHSA2810 | Possession of SA28 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA2910 | Possession of SA29 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| **Section 12 (Estiblishment Works in Site Area SA30 and SA30A)** | | | | | | |
| PHSA3000 | Possession of SA30 (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| PHSA30A0 | Possession of SA30A (Day1217) | -214 | 0% | 0 | 27-Jan-14 | |
| **Section 13 (Remainder of Estiblishment Works)** | | | | | | |
| PHSA3110 | Possession of SA31 (Day1217) | -178 | 0% | 0 | 27-Jan-14* | |
| PHSA3220 | Possession of SA32 (Day1217) | -178 | 0% | 0 | 27-Jan-14* | |
| PHSA4120 | Possession of SA41 (Day1217) | -178 | 0% | 0 | 27-Jan-14* | |
| PHSA4220 | Possession of SA42 (Day1217) | -178 | 0% | 0 | 27-Jan-14* | |
| PHSA4330 | Possession of SA43 (Day1217) | -178 | 0% | 0 | 27-Jan-14* | |
| **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 | |



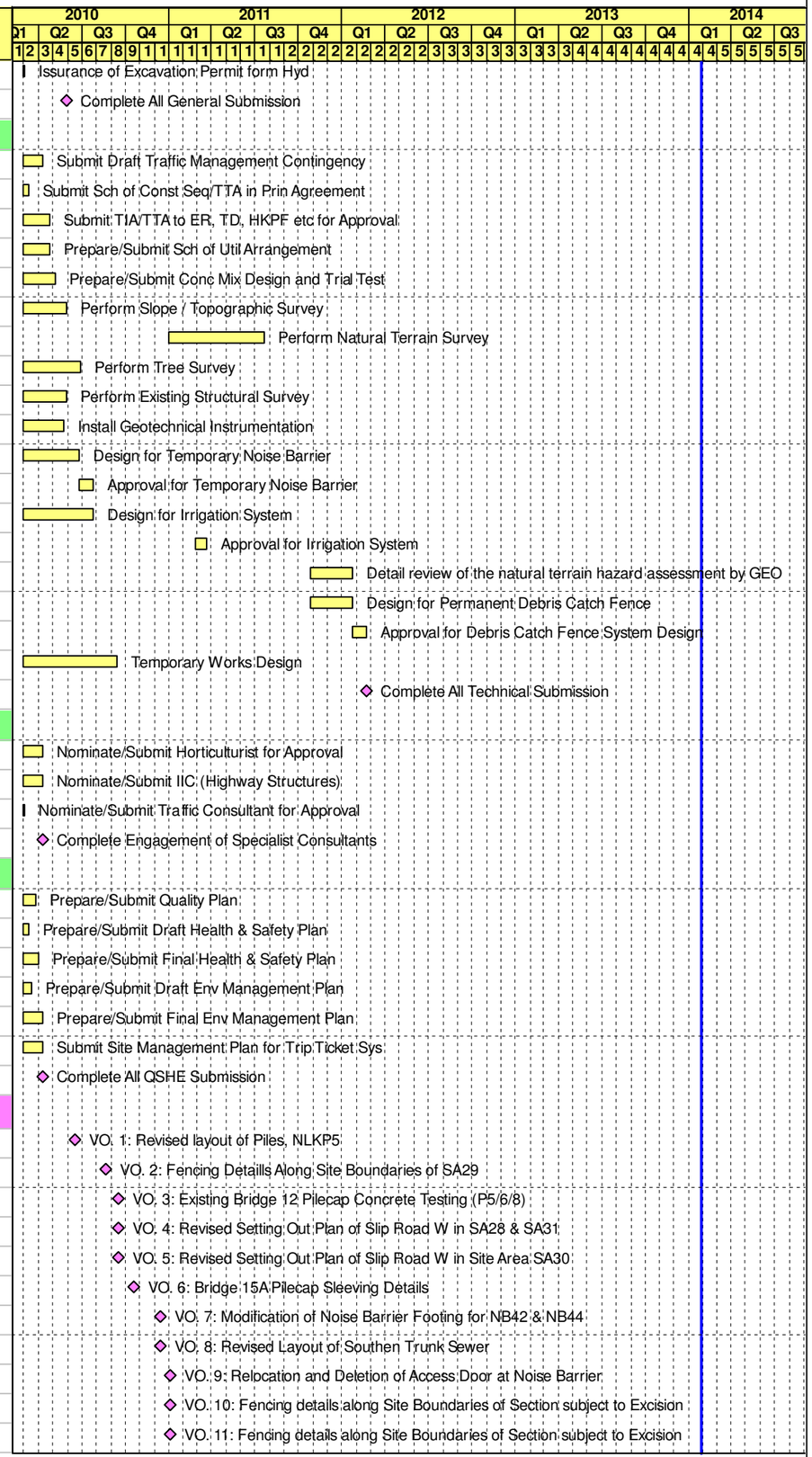
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| PHSA2330 | Possession of SA23 for Routine Maintenance (Day180) | | 100% | 0 | 04-May-10 A | |
| PHSA2430 | Possession of SA24 for Routine Maintenance (Day180) | | 100% | 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 Aug 2013)** | | | | | | |
| HDS01000 | KD1: Completion of Section 1 - (Day1216) - Overall Completion of Works | -100 | 0% | 0 | | 28-Feb-14* |
| HDS01100 | KD1: Completion of Section 1 - (Day1216) - Substantial Completion for Road Opening | -71 | 0% | 0 | | 30-Jan-14* |
| HDS02000 | KD2: Completion of Section 2 - (Day1216) - Overall Completion of Works | -95 | 0% | 0 | | 16-Apr-14* |
| HDS02100 | KD2: Completion of Section 2 - (Day1216) - Substantial Completion for Road Opening | -70 | 0% | 0 | | 22-Mar-14* |
| HDS03000 | KD3: Completion of Section 3 - (Day1216) - Overall Completion of Works | -59 | 0% | 0 | | 10-Apr-14* |
| HDS03100 | KD3: Completion of Section 3 - (Day1216) - Substantial Completion for Road Opening | -17 | 0% | 0 | | 28-Feb-14* |
| HDS04000 | KD4: Completion of Section 4 - (Day1216) - Overall Completion of Works | -65 | 0% | 0 | | 26-Apr-14* |
| HDS04100 | KD4: Completion of Section 4 - (Day1216) - Substantial Completion for Road Opening | -8 | 0% | 0 | | 28-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 |



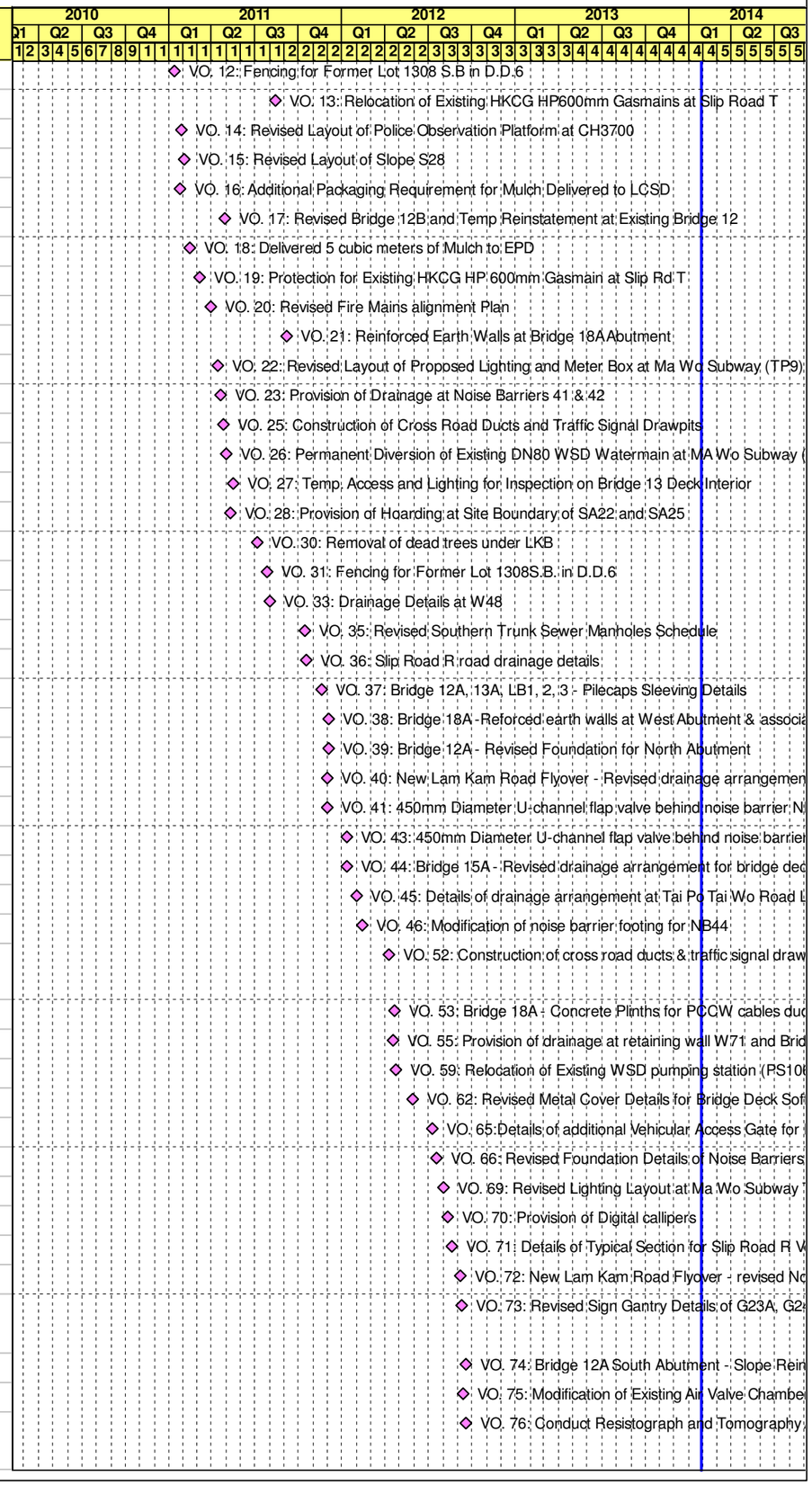
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| **Package AD3: W69** | | | | | | |
| AD000310 | AD3 - Design Period | | 100% | 75 | 03-May-10 A | 31-Jul-10 A |
| AD000320 | AD3 - Full Package to ICE for Certification | | 100% | 57 | 02-Aug-10 A | 08-Oct-10 A |
| 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 |



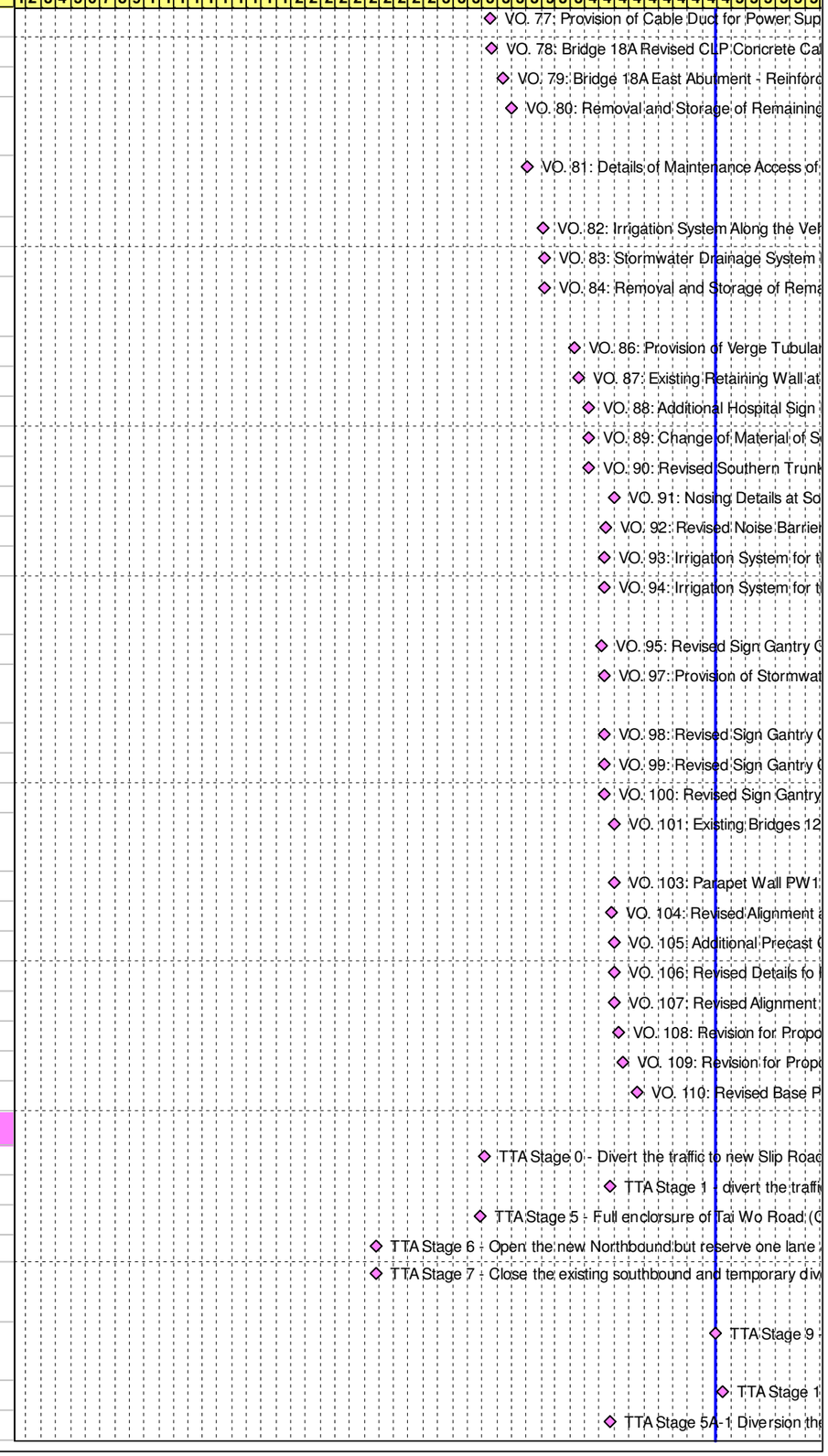
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| PR001246 | Issurance of Excavation Permit form Hyd | | 100% | 7 | 26-Feb-10 A | 03-Mar-10 A |
| PR001256 | Complete All General Submission | | 100% | 0 | | 30-May-10 A |
| ***Technical Submission*** | | | | | | |
| 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 | |



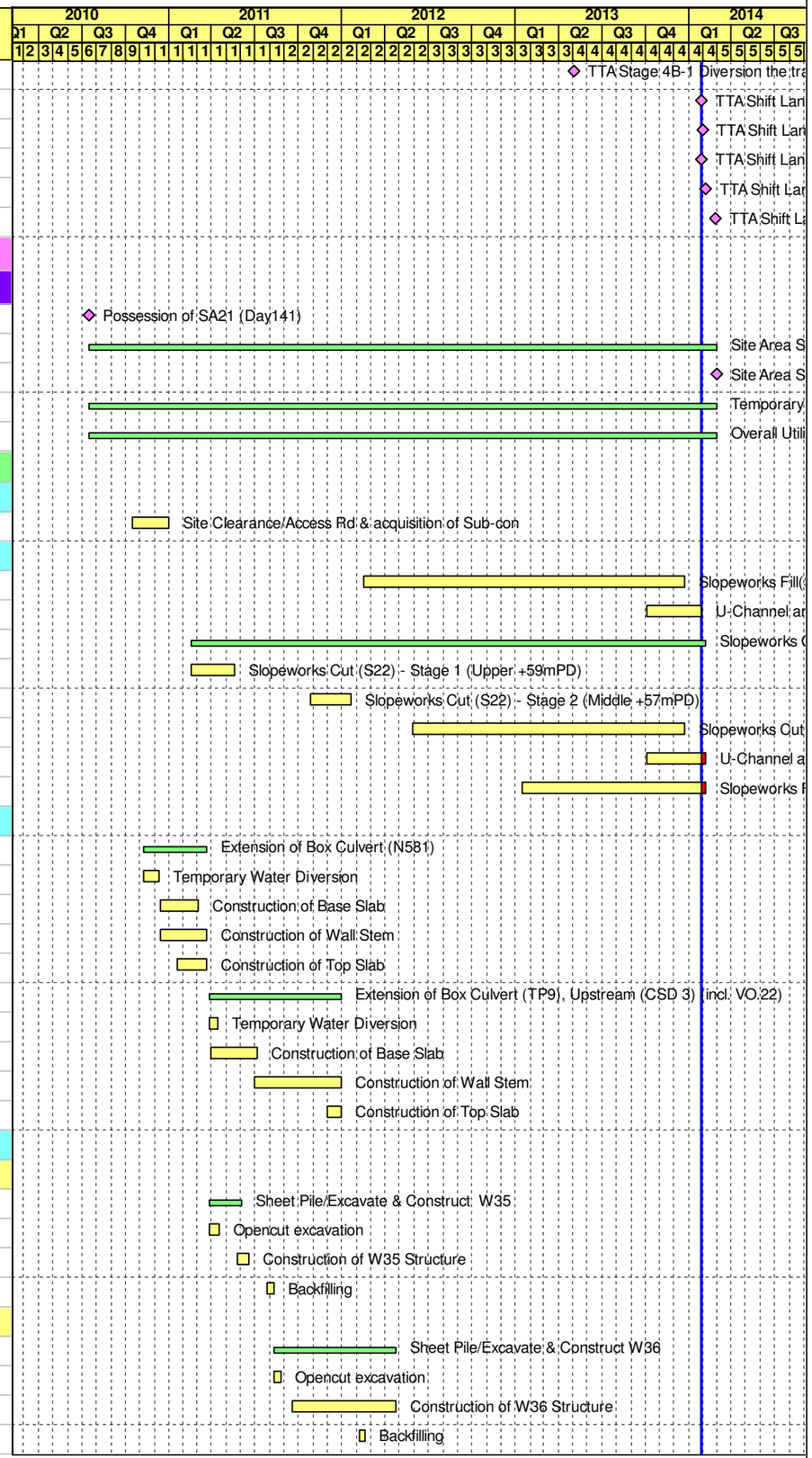
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| VO000120 | VO. 12: Fencing for Former Lot 1308 S.B in D.D.6 | | 100% | 0 | 12-Jan-11 A | |
| VO000130 | VO. 13: Relocation of Existing HKCG HP600mm Gasmains at Slip 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 | |
| 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 (TP9) | | 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 deck | | 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 Road west | | 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 Wall | | 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 | |



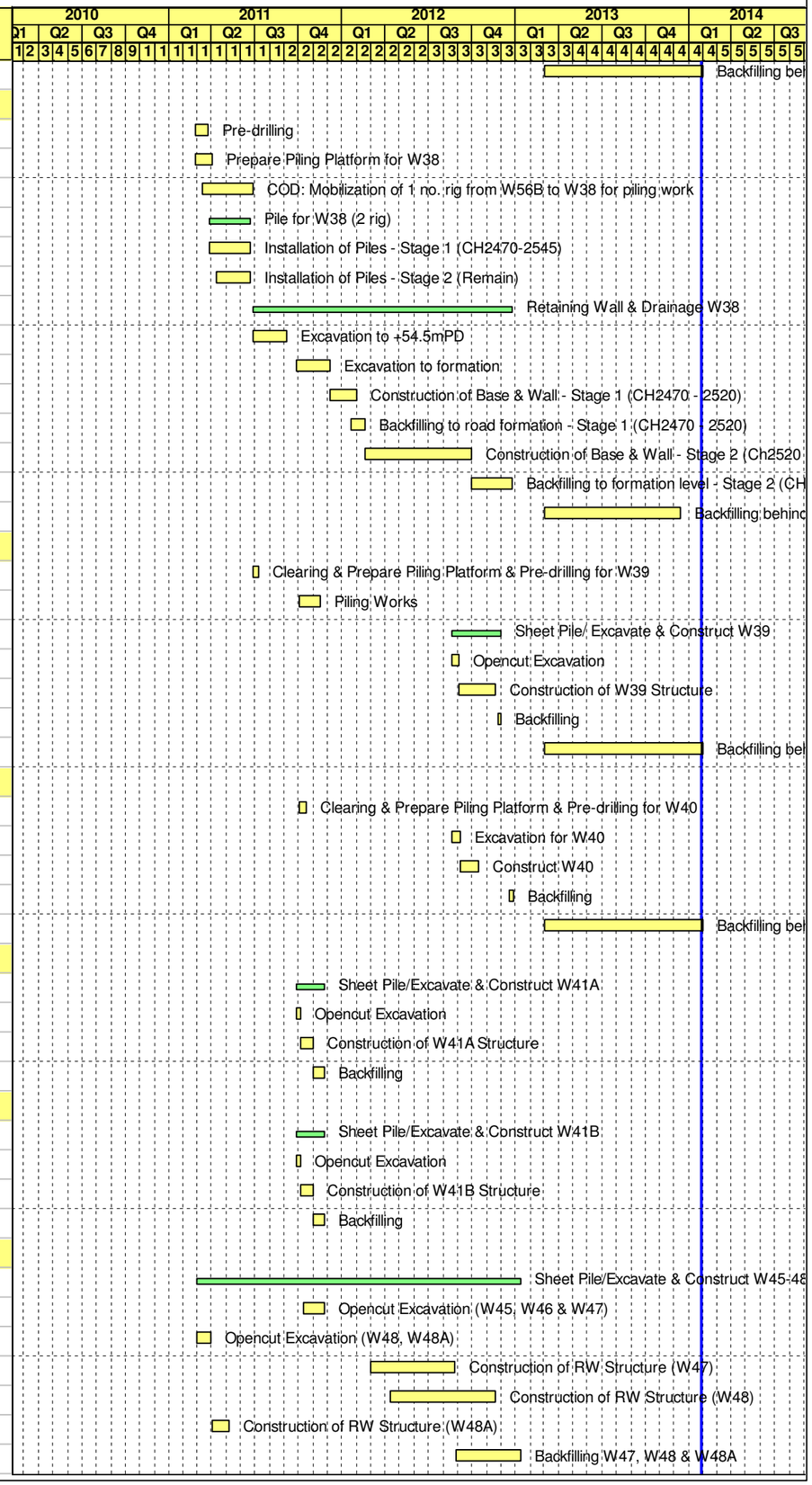
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| VO000770 | VO. 77: Provision of Cable Duct for Power Supply in Site Area SA28 and SA31 | | 100% | 0 | 17-Oct-12 A | |
| VO000780 | VO. 78: Bridge 18A Revised CLP Concrete 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 Wall W56B | | 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 DSX05B | | 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 | |
| TTA090 | TTA Stage 9 - NLK Open the new Northbound but reserve one lane & close the existing Northbound | -21 | 0% | 0 | 27-Jan-14 | |
| TTA110 | TTA Stage 11 - Open the new LB2 and link up the LB1 & LB3 | -24 | 0% | 0 | 13-Feb-14 | |
| TTA310 | TTA Stage 5A-1 Diversion the traffic to B13A and B15A | | 100% | 0 | 23-Jun-13 A | |



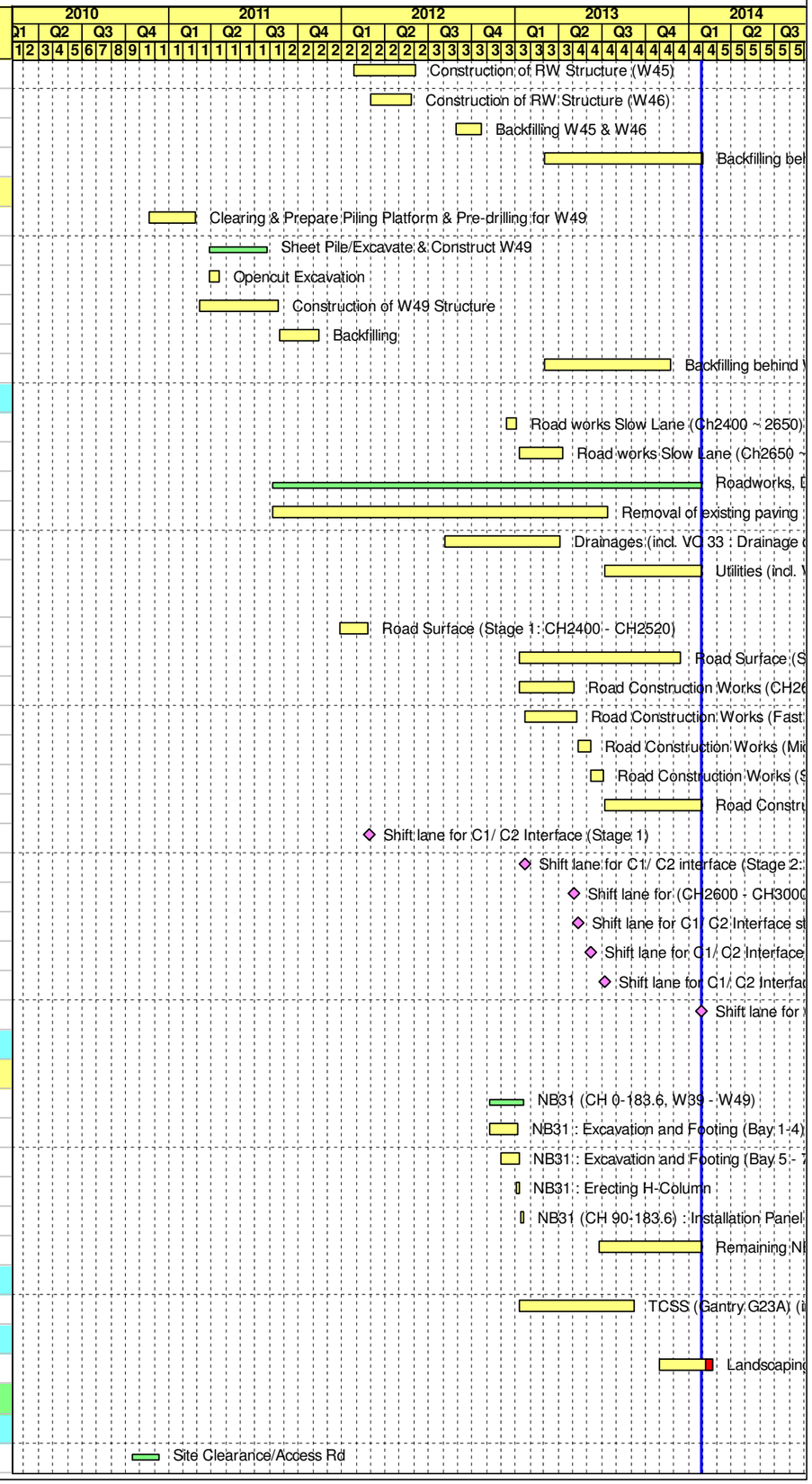
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| TTA320 | TTA Stage 4B-1 Diversion the traffic to (CH2600 - CH3000) N/B | | 100% | 0 | 05-May-13 A | |
| TTA330 | TTA Shift Lane for C1/C2 interface Final Stage (N/B) | -57 | 0% | 0 | 28-Jan-14 | |
| TTA340 | TTA Shift Lane for C1/C2 interface Final Stage (S/B) | -58 | 0% | 0 | 30-Jan-14 | |
| TTA350 | TTA Shift Lane for C2/C3 interface at TWSRW Road (Transition) | 19 | 0% | 0 | 27-Jan-14 | |
| TTA360 | TTA Shift Lane for C2/C3 interface (N/B) | 13 | 0% | 0 | 06-Feb-14 | |
| TTA370 | TTA Shift Lane for C2/C3 interface (S/B) | -6 | 0% | 0 | 27-Feb-14 | |
| **Section 1** | | | | | | |
| **Site Area SA21** | | | | | | |
| PHSA2120 | Possession of SA21 (Day141) | | 100% | 0 | 16-Jul-10 A | |
| SA210000 | Site Area SA21 Works Period | 118 | 96.97% | 1076 | 16-Jul-10 A | 28-Feb-14 |
| SA210010 | Site Area SA21 Works Completion | 118 | 0% | 0 | | 28-Feb-14 |
| SA210020 | Temporary Traffic Management (Detail shall refer to supplementary information) | 95 | 97.06% | 872 | 16-Jul-10 A | 28-Feb-14 |
| SA210030 | Overall Utilities Diversion (Detail shall refer to supplementary information) | 95 | 97.06% | 872 | 16-Jul-10 A | 28-Feb-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) | | 100% | 10 | 16-Feb-12 A | 25-Dec-13 A |
| S21N5010 | U-Channel and Berm | -57 | 75% | 10 | 05-Oct-13 A | 29-Jan-14 |
| S21N5100 | Slopeworks Cut (S22) | -61 | 97.74% | 266 | 17-Feb-11 A | 05-Feb-14 |
| 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) | | 100% | 72 | 28-May-12 A | 25-Dec-13 A |
| S21N5140 | U-Channel and Berm | -61 | 70% | 20 | 05-Oct-13 A | 05-Feb-14 |
| S21N5210 | Slopeworks Fill(S24) | -73 | 90% | 55 | 14-Jan-13 A | 05-Feb-14 |
| **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** | | | | | | |
| 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 |



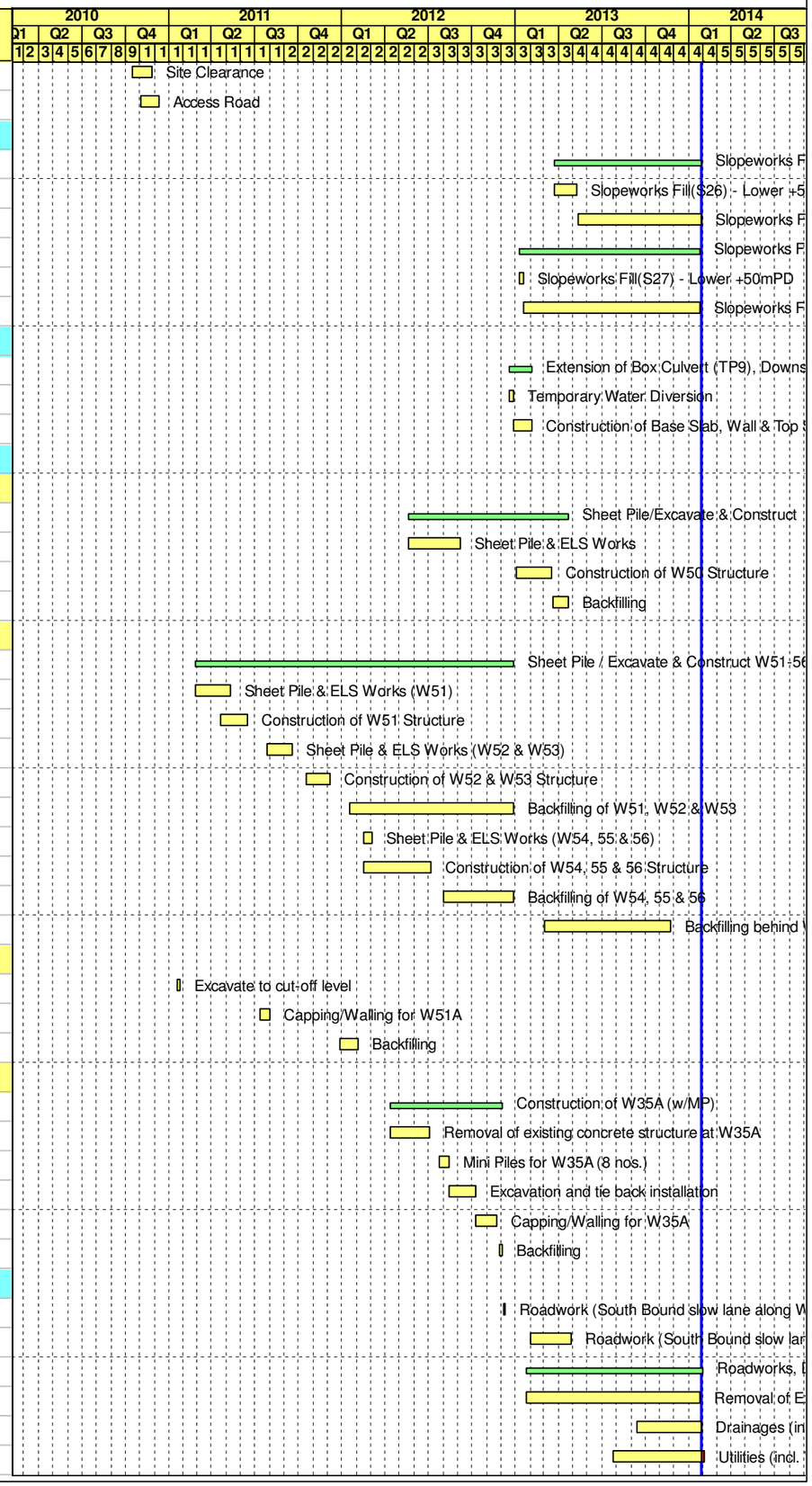
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S21N2140 | Backfilling behind W36 and drainage works | -58 | 95% | 70 | 04-Mar-13 A | 30-Jan-14 |
| **Retaining Wall W38 (AD4)** | | | | | | |
| S21N2210 | Pre-drilling | | 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 | | 100% | 70 | 04-Mar-13 A | 14-Dec-13 A |
| **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 | -58 | 95% | 70 | 04-Mar-13 A | 30-Jan-14 |
| **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 | -58 | 95% | 70 | 04-Mar-13 A | 30-Jan-14 |
| **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 |
| 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 |



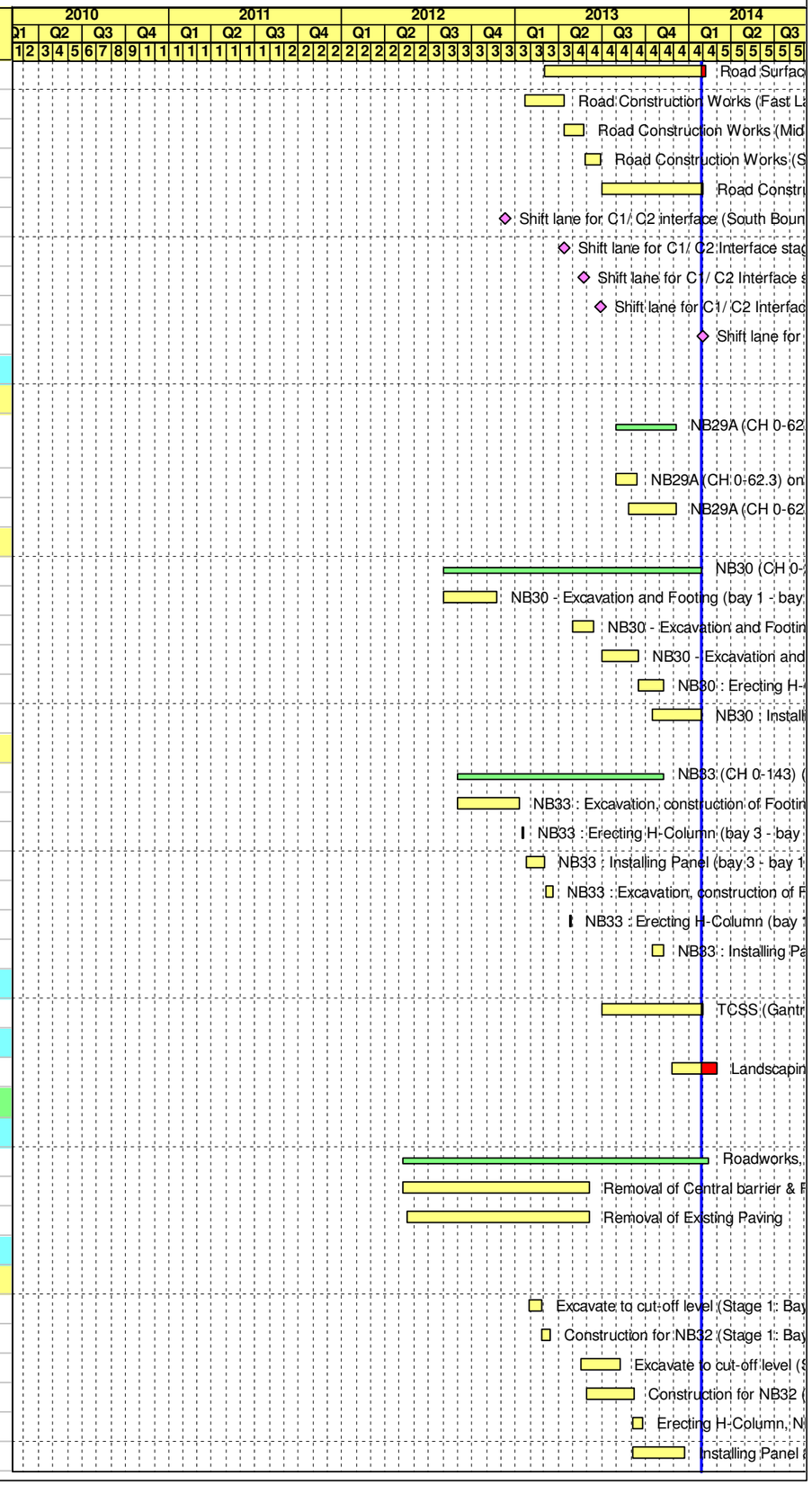
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S21N2570 | Construction of RW Structure (W45) | | 100% | 75 | 26-Jan-12 A | 04-Jun-12 A |
| S21N2580 | Construction of RW Structure (W46) | | 100% | 75 | 01-Mar-12 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 | -58 | 95% | 70 | 04-Mar-13 A | 30-Jan-14 |
| **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) | -57 | 98.65% | 133 | 06-Aug-11 A | 28-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) | -56 | 95% | 25 | 08-Jul-13 A | 28-Jan-14 |
| S21N4135 | Road Surface (Stage 1: CH2400 - CH2520) | | 100% | 75 | 26-Dec-11 A | 24-Feb-12 A |
| S21N4140 | Road Surface (Stage 2 : CH2520 - CH2840) | | 100% | 75 | 08-Jan-13 A | 14-Dec-13 A |
| 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 | -57 | 95% | 36 | 08-Jul-13 A | 28-Jan-14 |
| 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 | -57 | 0% | 0 | 28-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 | -55 | 98.01% | 7 | 27-Jun-13 A | 27-Jan-14 |
| **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** | | | | | | |
| S21N6000 | Landscaping Works | -73 | 50% | 25 | 02-Nov-13 A | 19-Feb-14 |
| ***South Bound*** | | | | | | |
| **Preliminaries** | | | | | | |
| S21S0000 | Site Clearance/Access Rd | | 100% | 48 | 15-Oct-10 A | 10-Dec-10 A |



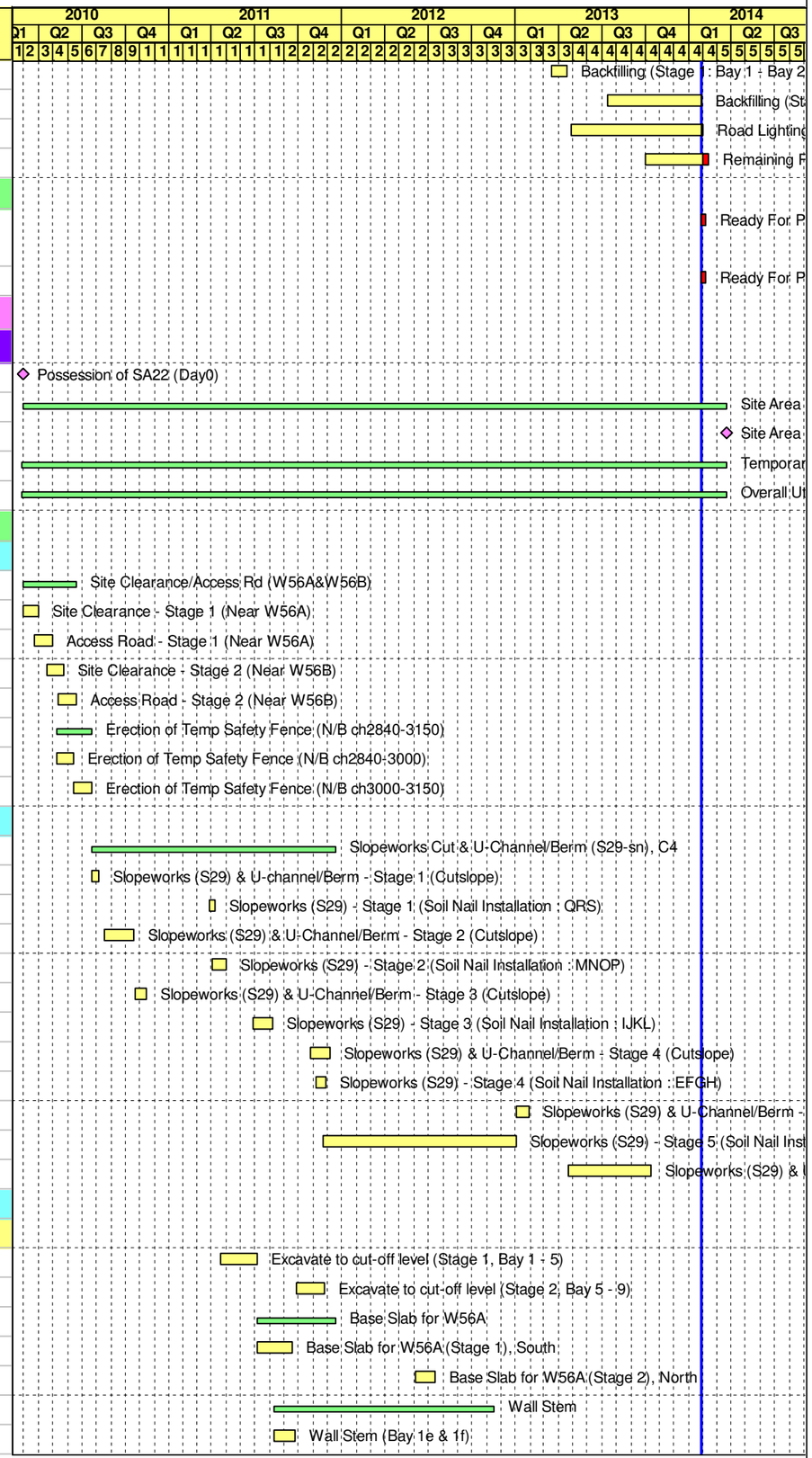
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S21S0010 | Site Clearance | | 100% | 36 | 15-Oct-10 A | 26-Nov-10 A |
| S21S0030 | Access Road | | 100% | 34 | 02-Nov-10 A | 10-Dec-10 A |
| **Slopeworks** | | | | | | |
| S21S5000 | Slopeworks Fill(S26) | -80 | 97.19% | 40 | 25-Mar-13 A | 28-Jan-14 |
| S21S5010 | Slopeworks Fill(S26) - Lower +50mPD | | 100% | 15 | 25-Mar-13 A | 10-May-13 A |
| S21S5020 | Slopeworks Fill(S26) - Upper +55mPD | -80 | 95% | 23 | 13-May-13 A | 28-Jan-14 |
| S21S5100 | Slopeworks Fill(S27) | | 100% | 120 | 09-Jan-13 A | 25-Jan-14 A |
| S21S5110 | Slopeworks Fill(S27) - Lower +50mPD | | 100% | 60 | 09-Jan-13 A | 17-Jan-13 A |
| S21S5120 | Slopeworks Fill(S27) - Lower +55mPD | | 100% | 60 | 18-Jan-13 A | 25-Jan-14 A |
| **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 |
| S21S3900 | Roadworks, Drainages & Utilities (CH 2400 - 2840) | -58 | 97.9% | 150 | 25-Jan-13 A | 30-Jan-14 |
| S21S4001 | Removal of Existing Paving | | 100% | 40 | 25-Jan-13 A | 25-Jan-14 A |
| S21S4002 | Drainages (incl. VO33: Drainage details at W48) | -59 | 95% | 30 | 14-Sep-13 A | 28-Jan-14 |
| S21S4003 | Utilities (incl. VO 26 & VO69) | -59 | 90% | 30 | 27-Jul-13 A | 04-Feb-14 |



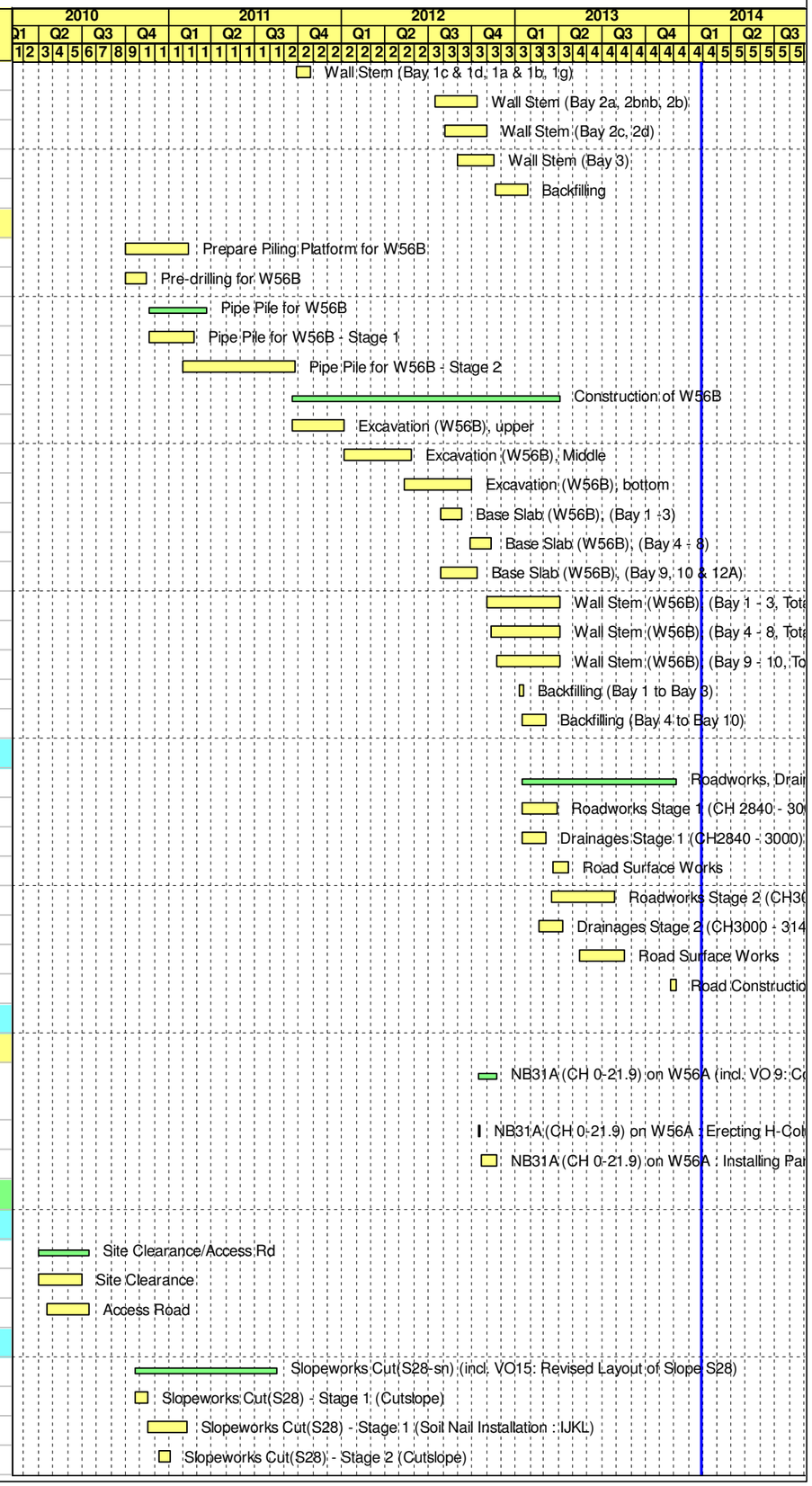
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S21S4010 | Road Surface (CH2400 - CH2840) | -58 | 90% | 65 | 04-Mar-13 A | 06-Feb-14 |
| S21S4011 | Road Construction Works (Fast Lane) for C1/ C2 Interface stage 4A | | 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 | -58 | 93% | 45 | 02-Jul-13 A | 30-Jan-14 |
| 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 | 30-Jan-14 | |
| **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) | | 100% | 20 | 01-Aug-13 A | 07-Dec-13 A |
| 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 | | 100% | 10 | 27-Aug-13 A | 07-Dec-13 A |
| **Noise barrier NB30** | | | | | | |
| S21S3020 | NB30 (CH 0-201.9) (incl. VO 9: Construction of double leaf access door for noise barrier) | -55 | 99.52% | 104 | 01-Aug-12 A | 27-Jan-14 |
| 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 | -55 | 95% | 10 | 17-Oct-13 A | 27-Jan-14 |
| **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 & Surveillance System** | | | | | | |
| S21S4800 | TCSS (Gantry G60A) (incl. VO73 Revised Sign Gantry Details) | -58 | 90% | 30 | 02-Jul-13 A | 29-Jan-14 |
| **Landscaping** | | | | | | |
| S21S6000 | Landscaping Works | -80 | 30% | 35 | 26-Nov-13 A | 28-Feb-14 |
| ***Middle Lane*** | | | | | | |
| **Road Re-construction Works** | | | | | | |
| S21M4030 | Roadworks, Drainage & Utilities (CH 2400 - 2840) | -66 | 82.31% | 65 | 08-May-12 A | 12-Feb-14 |
| 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** | | | | | | |
| 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 | | 100% | 30 | 05-Sep-13 A | 25-Dec-13 A |



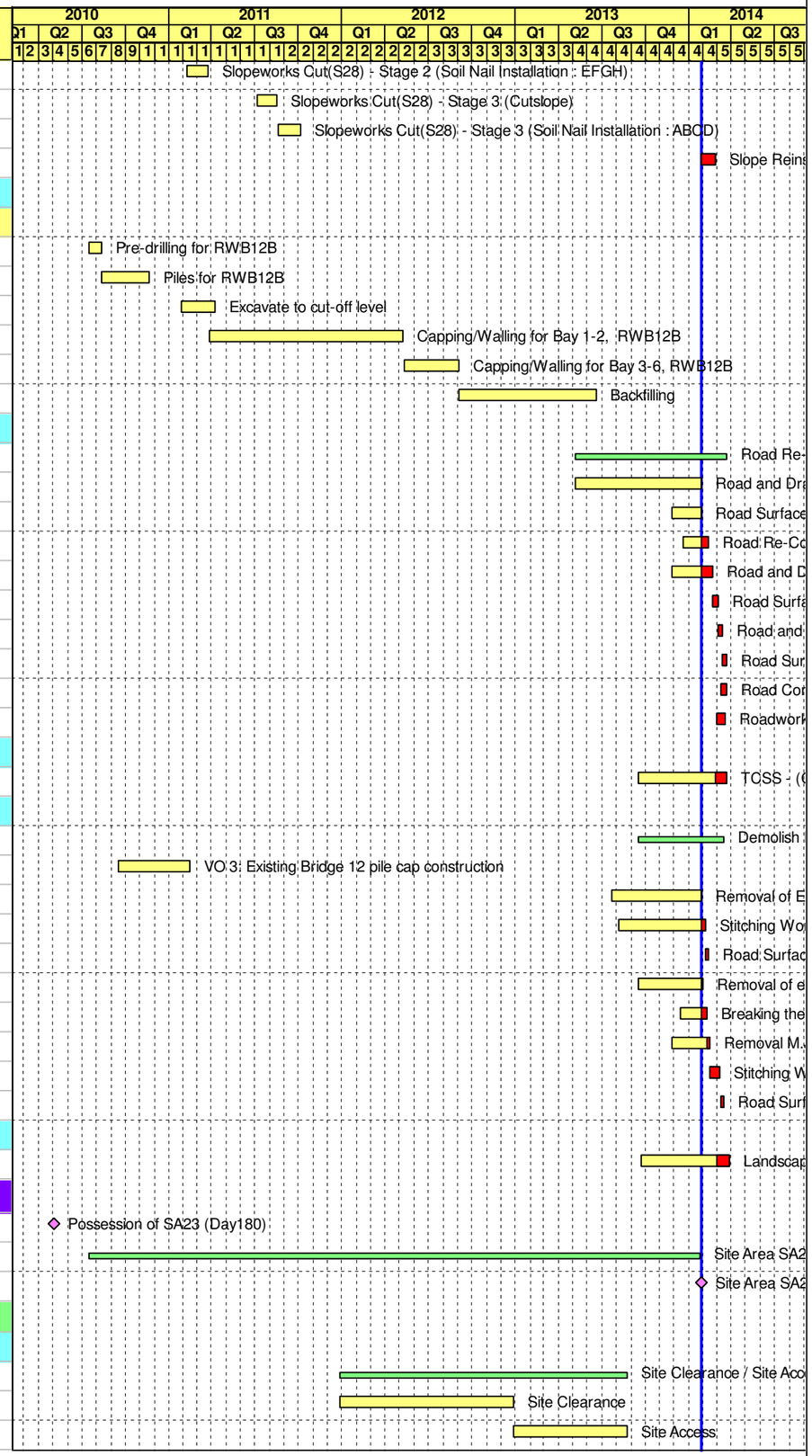
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S21M400 | Backfilling (Stage 1: Bay 1 - Bay 2) | | 100% | 10 | 18-Mar-13 A | 20-Apr-13 A |
| S21M401 | Backfilling (Stage 2: Bay 3 - Bay 26) | -66 | 90% | 20 | 15-Jul-13 A | 28-Jan-14 |
| S21M403 | Road Lighting Works | -66 | 85% | 10 | 29-Apr-13 A | 30-Jan-14 |
| S21M404 | Remaining Roadworks & Road Surfacing | -66 | 80% | 40 | 03-Oct-13 A | 12-Feb-14 |
| ***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 | -62 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| HRW0011 | Ready For Pre-Handover Retaining Wall W35A, W50, W51, W52, W53, W54, W55, W56 | -62 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| **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 SA 22) | 96 | 95.48% | 1216 | 26-Feb-10 A | 22-Mar-14 |
| SA220010 | Site Area SA22 Works Completion | 96 | 0% | 0 | | 22-Mar-14 |
| SA220020 | Temporary Traffic Management (Detail shall refer to supplementary information) | 96 | 94.42% | 985 | 25-Feb-10 A | 22-Mar-14 |
| SA220030 | Overall Utilities Diversion (Detail shall refer to supplementary information) | 96 | 94.42% | 985 | 25-Feb-10 A | 22-Mar-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)** | | | | | | |
| 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 |



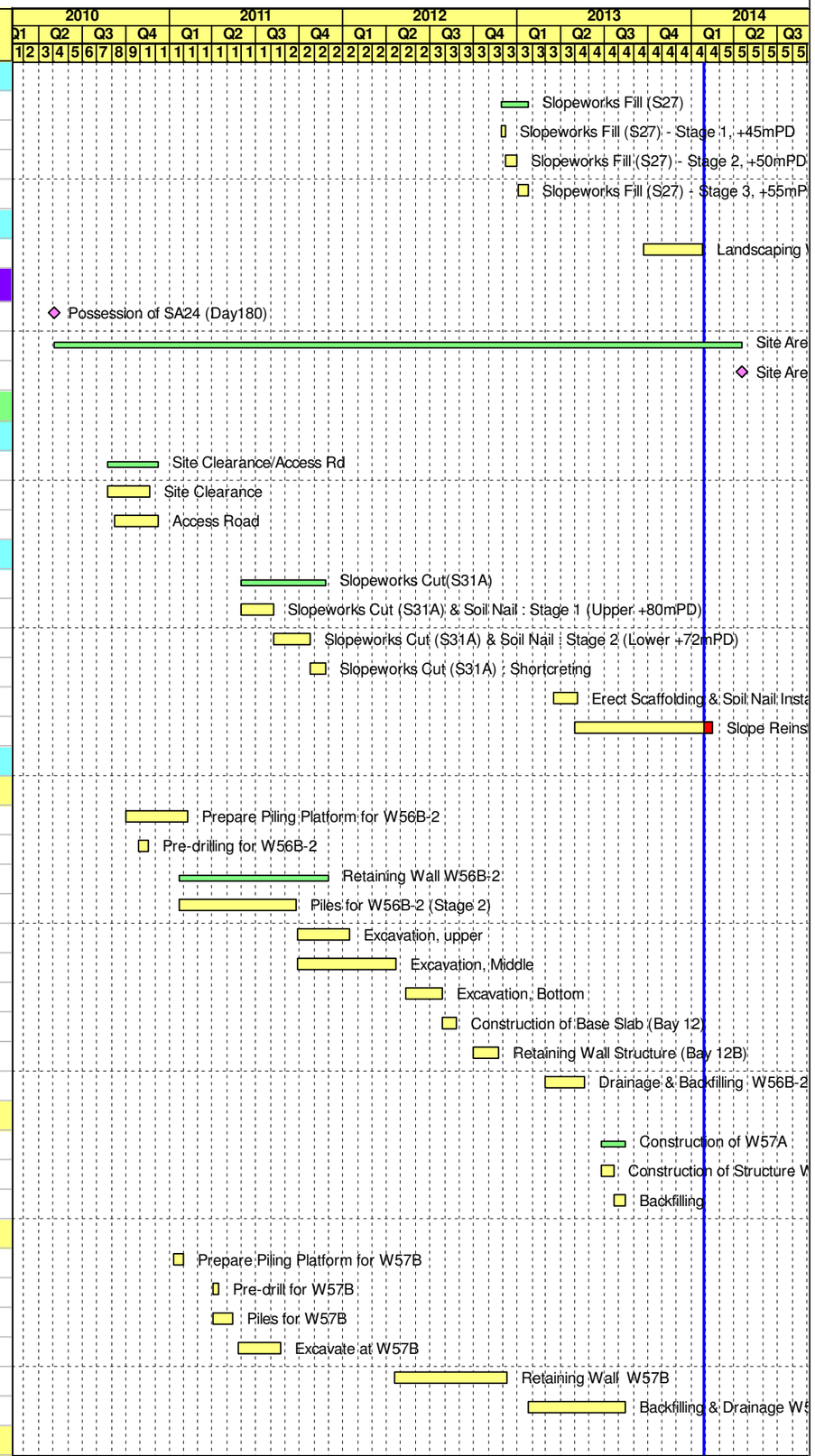
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S22N2173 | Wall Stem (Bay 1c & 1d, 1a & 1b, 1g) | | 100% | 25 | 26-Sep-11 A | 26-Oct-11 A |
| S22N2174 | Wall Stem (Bay 2a, 2bnb, 2b) | | 100% | 75 | 16-Jul-12 A | 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) | | 100% | 129 | 15-Jan-13 A | 07-Dec-13 A |
| 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) | | 100% | 50 | 25-Nov-13 A | 07-Dec-13 A |
| **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 |
| 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 |



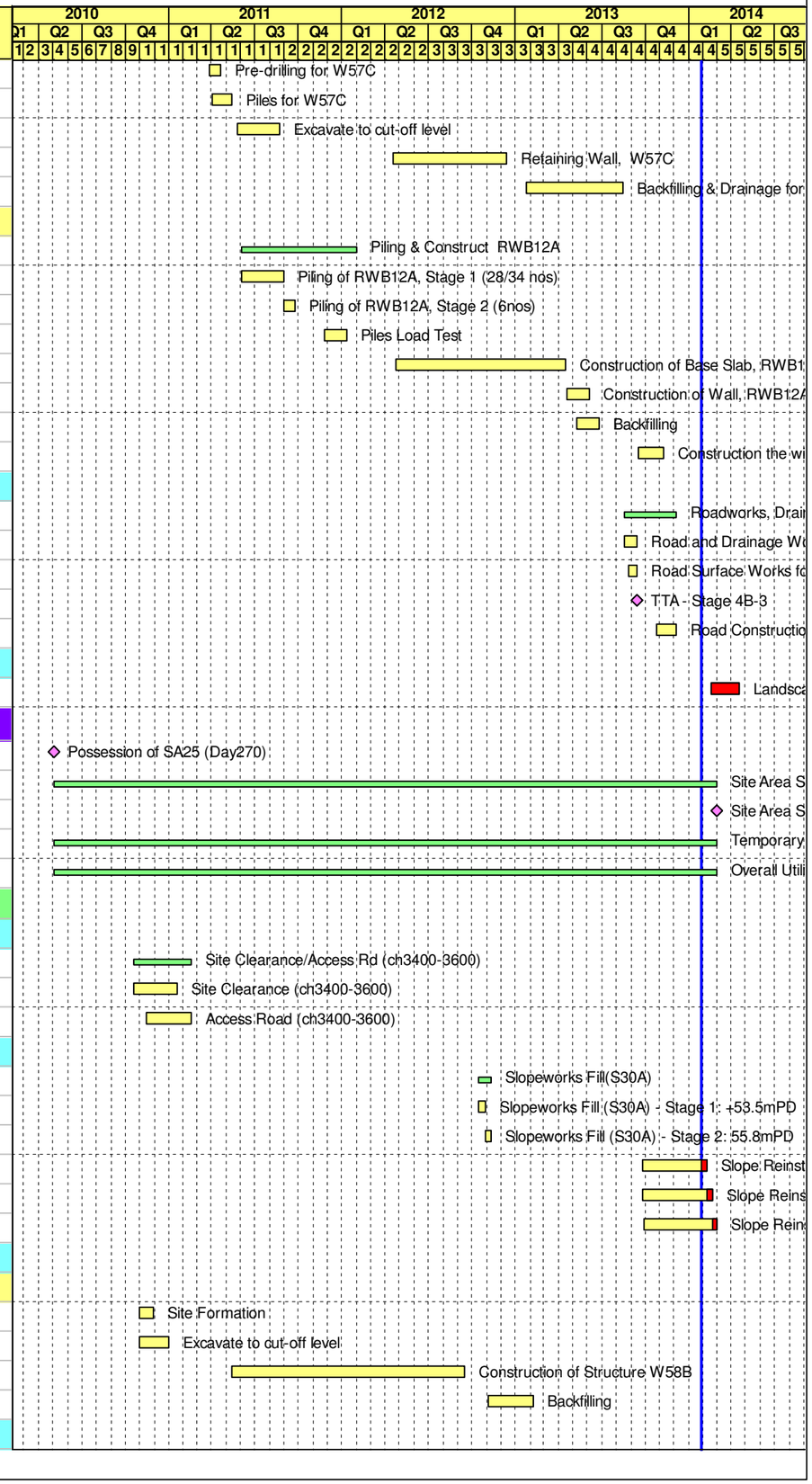
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S22S5060 | Slopeworks Cut(S28) - Stage 2 (Soil Nail Installation : EFGH) | | 100% | 37 | 08-Feb-11 A | 23-Mar-11 A |
| S22S5070 | Slopeworks Cut(S28) - Stage 3 (Cutslope) | | 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) | -61 | 0% | 25 | 27-Jan-14 | 27-Feb-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) | -57 | 75.64% | 185 | 06-May-13 A | 22-Mar-14 |
| S22S4405 | Road and Drainages Works for Fast Lane (CH2840 - 3000) | -56 | 95% | 45 | 06-May-13 A | 29-Jan-14 |
| S22S4410 | Road Surface Works for Fast Lane (CH2840 - 3000) | -56 | 95% | 12 | 26-Nov-13 A | 29-Jan-14 |
| S22S4415 | Road Re-Construction Works for Mid 2 Lane (CH2840 - 3000) | -49 | 70% | 24 | 20-Dec-13 A | 11-Feb-14 |
| S22S4420 | Road and Drainages Works for Fast and Mid Lane (CH3000 - 3450) | -56 | 20% | 18 | 26-Nov-13 A | 19-Feb-14 |
| S22S4425 | Road Surface Works for Fast Lane and Mid Lane (CH3000 - 3450) | -56 | 0% | 10 | 19-Feb-14 | 03-Mar-14 |
| S22S4430 | Road and Drainages Works for Slow Lane (CH2840 - 3450) | -56 | 0% | 10 | 03-Mar-14 | 14-Mar-14 |
| S22S4435 | Road Surface Works for Slow Lane (CH3000 - 3450) | -56 | 0% | 7 | 14-Mar-14 | 22-Mar-14 |
| S22S4440 | Road Construction Works Remaining Works (along CH2840 - 3450) | -57 | 0% | 12 | 10-Mar-14 | 22-Mar-14 |
| S22S4500 | Roadworks for Realignment of Existing Shek Lin Road | -55 | 0% | 18 | 28-Feb-14 | 20-Mar-14 |
| **Traffic Control & Survelance System** | | | | | | |
| S22S4820 | TCSS - (Gantry 60) (incl. VO73 Revised Sign Gantry Details) | -56 | 60% | 50 | 16-Sep-13 A | 22-Mar-14 |
| **Modification of Existing Bridge 12** | | | | | | |
| S22S1300 | Demolish Existing Parapet & Stitching Works for bridge 12 & 12B (incl. VO3 & VO29) | -51 | 44.29% | 70 | 16-Sep-13 A | 15-Mar-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 | -24 | 85% | 8 | 22-Jul-13 A | 28-Jan-14 |
| S22S1323 | Stitching Works of Existing Bridge Decks B12 and B12B | -24 | 80% | 20 | 08-Aug-13 A | 05-Feb-14 |
| S22S1324 | Road Surface of B12B for TW Slip Road | -24 | 0% | 7 | 05-Feb-14 | 13-Feb-14 |
| S22S1326 | Removal of existing central barrier along B12 and Erection breaking platform | -57 | 70% | 12 | 16-Sep-13 A | 30-Jan-14 |
| S22S1328 | Breaking the existing stitch of B12 and condition survey | -57 | 50% | 18 | 14-Dec-13 A | 08-Feb-14 |
| S22S1329 | Removal M.J and Replacement M.J | -57 | 50% | 8 | 26-Nov-13 A | 13-Feb-14 |
| S22S1331 | Stitching Works for B12 | -57 | 0% | 20 | 14-Feb-14 | 08-Mar-14 |
| S22S1332 | Road Surface Works | -51 | 0% | 6 | 10-Mar-14 | 15-Mar-14 |
| **Landscaping** | | | | | | |
| S22S6000 | Landscaping Works | -61 | 20% | 30 | 23-Sep-13 A | 27-Mar-14 |
| **Site Area SA23** | | | | | | |
| PHSA2320 | Possession of SA23 (Day180) | | 100% | 0 | 04-May-10 A | |
| SA230000 | Site Area SA23 Works Period | | 100% | 586 | 16-Jul-10 A | 25-Jan-14 A |
| SA230010 | Site Area SA23 Works Completion | 151 | 0% | 0 | | 27-Jan-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 |



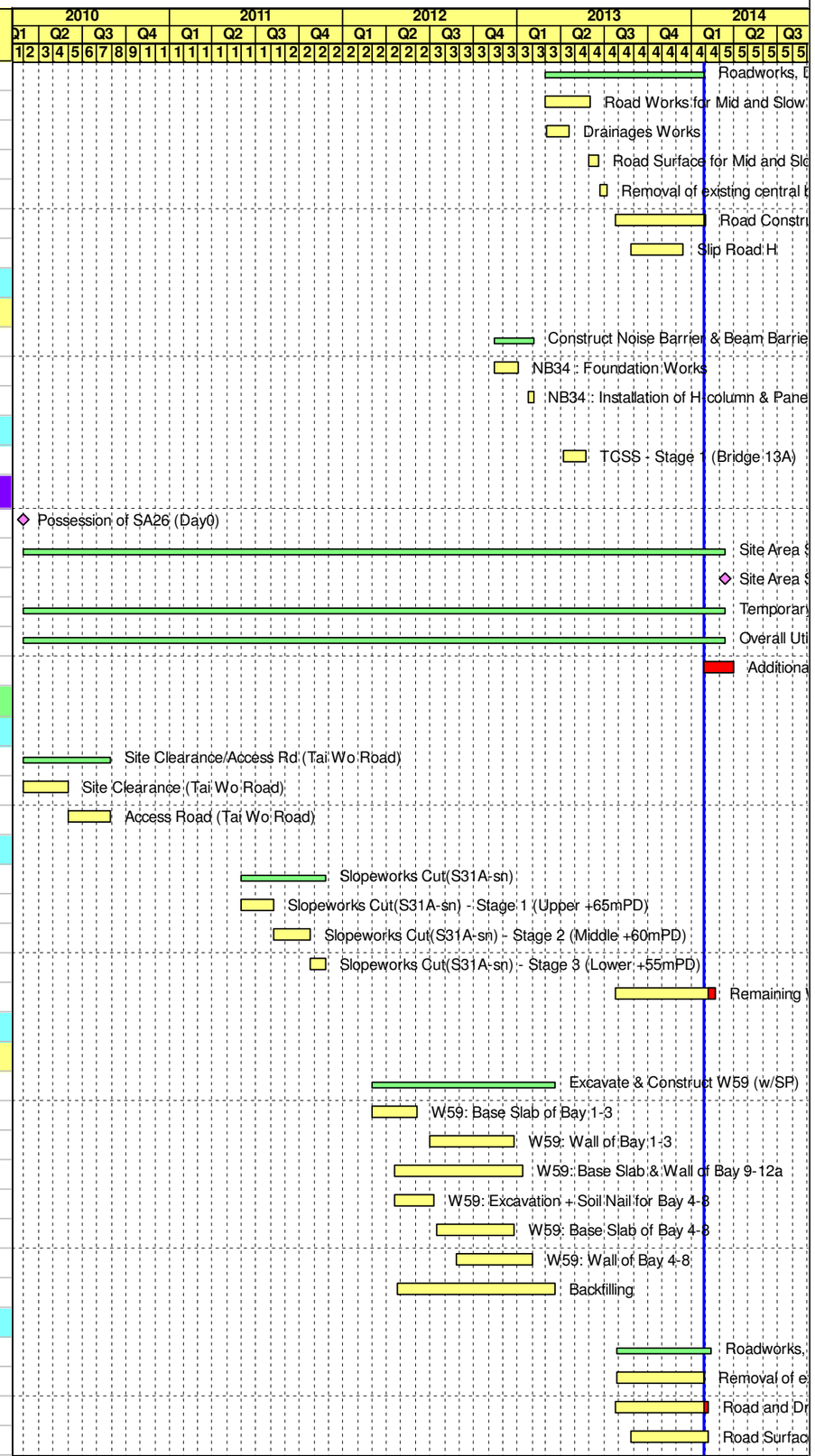
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| **Slopeworks** | | | | | | |
| S21N2638 | Slopeworks Fill (S27) | | 100% | 99 | 29-Nov-12 A | 24-Jan-13 A |
| S21N26381 | Slopeworks Fill (S27) - Stage 1, +45mPD | | 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 | | 100% | 50 | 23-Sep-13 A | 25-Jan-14 A |
| **Site Area SA24** | | | | | | |
| PHSA2410 | Possession of SA24 (Day180) | | 100% | 0 | 04-May-10 A | |
| SA240000 | Site Area SA24 Works Period | -95 | 89.85% | 788 | 04-May-10 A | 16-Apr-14 |
| SA240010 | Site Area SA24 Works Completion | 71 | 0% | 0 | | 16-Apr-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) | -77 | 80% | 75 | 30-Apr-13 A | 15-Feb-14 |
| **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 |
| 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)** | | | | | | |



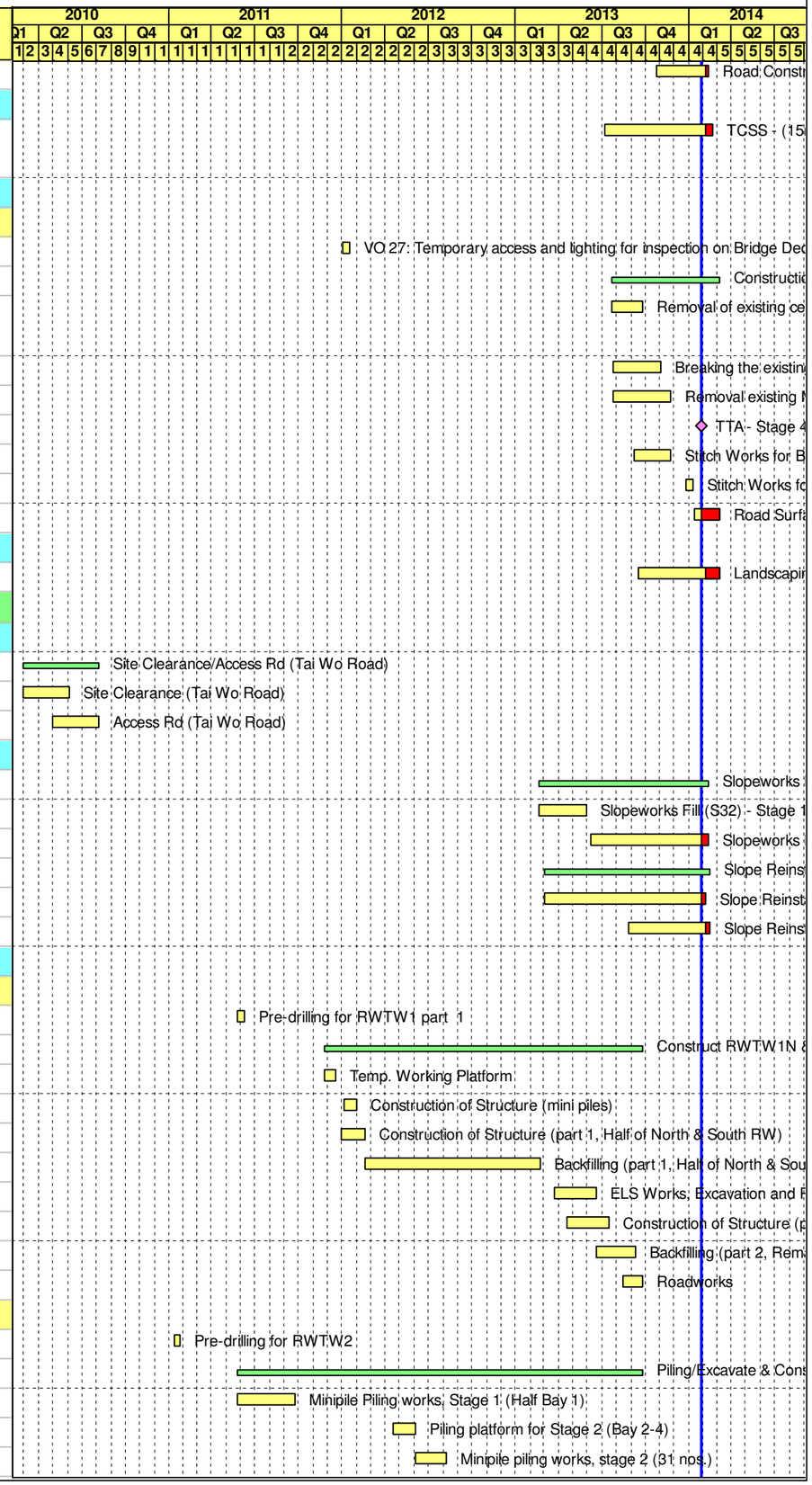
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S24N2402 | Pre-drilling for W57C | | 100% | 20 | 26-Mar-11 A | 19-Apr-11 A |
| S24N2404 | Piles for W57C | | 100% | 45 | 01-Apr-11 A | 14-May-11 A |
| S24N2407 | Excavate 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) | | 100% | 109 | 19-Aug-13 A | 07-Dec-13 A |
| 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) | | 100% | 50 | 26-Oct-13 A | 07-Dec-13 A |
| **Landscaping** | | | | | | |
| S24N6000 | Landscaping Works | -77 | 0% | 50 | 17-Feb-14 | 16-Apr-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) | 118 | 95.68% | 770 | 04-May-10 A | 01-Mar-14 |
| SA250010 | Site Area SA25 Works Completion | 118 | 0% | 0 | | 01-Mar-14 |
| SA250020 | Temporary Traffic Management (Detail shall refer to supplementary information) | 95 | 96.57% | 765 | 04-May-10 A | 01-Mar-14 |
| SA250030 | Overall Utility Diversion (Detail shall refer to supplementary information) | 95 | 96.57% | 765 | 04-May-10 A | 01-Mar-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) | -38 | 65% | 25 | 26-Sep-13 A | 08-Feb-14 |
| S25S5140 | Slope Reinstatement Works (Bridge LB1) | -38 | 65% | 25 | 26-Sep-13 A | 19-Feb-14 |
| S25S5150 | Slope Reinstatement Works (S30A) | -38 | 65% | 25 | 28-Sep-13 A | 01-Mar-14 |
| **Construction of Retaining Wall** | | | | | | |
| **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** | | | | | | |



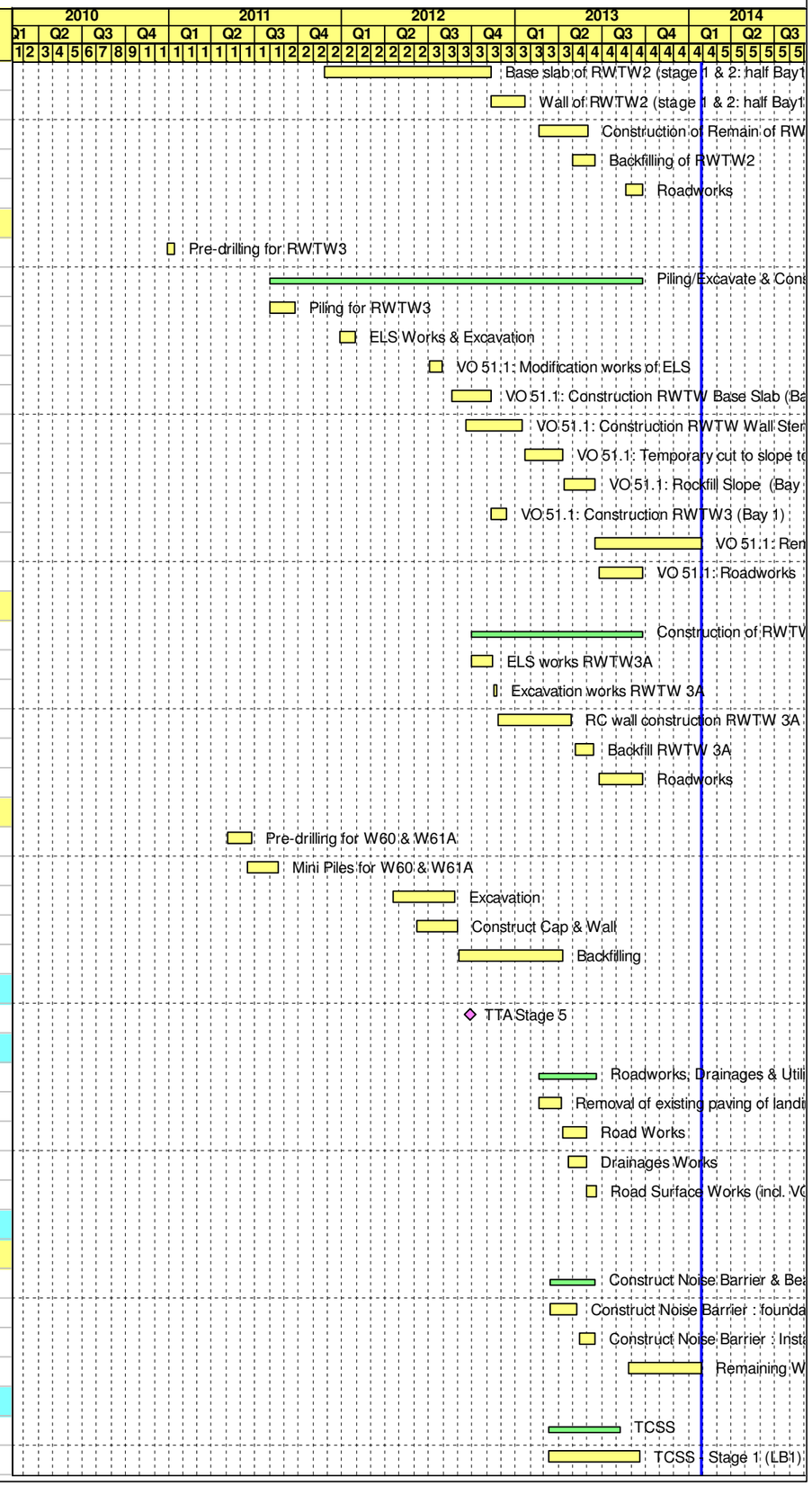
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S25S4000 | Roadworks, Drainages & Utilities (CH 3400 - 3600) | 121 | 100% | 109 | 27-Feb-13 A | 27-Jan-14 |
| S25S4025 | Road Works for Mid and Slow Lane | | 100% | 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) | -15 | 90% | 30 | 27-Jul-13 A | 29-Jan-14 |
| S25S4200 | Slip Road H | | 100% | 50 | 27-Aug-13 A | 14-Dec-13 A |
| **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 | -61 | 96.22% | 1216 | 26-Feb-10 A | 13-Mar-14 |
| SA260010 | Site Area SA26 Works Completion | -61 | 0% | 0 | | 13-Mar-14 |
| SA260020 | Temporary Traffic Management (Detail shall refer to supplementary information) | -49 | 96.24% | 983 | 26-Feb-10 A | 13-Mar-14 |
| SA260030 | Overall Utility Diversion (Detail shall refer to supplementary information) | -49 | 96.24% | 983 | 26-Feb-10 A | 13-Mar-14 |
| SA260040 | Additional work to existing ball valves, HKCG | -64 | 0% | 52 | 27-Jan-14 | 31-Mar-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 | -29 | 70% | 40 | 27-Jul-13 A | 19-Feb-14 |
| **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 |
| S26N2020 | Backfilling | | 100% | 24 | 23-Apr-12 A | 22-Mar-13 A |
| **Roadworks, Drainage & Utilities** | | | | | | |
| S26N4000 | Roadworks, Drainages & Utilities (ch3400-3720) | -23 | 87.72% | 92 | 29-Jul-13 A | 12-Feb-14 |
| S26N4035 | Removal of existing paving | -43 | 60% | 7 | 29-Jul-13 A | 29-Jan-14 |
| S26N4055 | Road and Drainage Works for Slow and Mid Lane | -43 | 90% | 25 | 27-Jul-13 A | 05-Feb-14 |
| S26N4065 | Road Surface for Slow and Mid Lane | -43 | 90% | 10 | 27-Aug-13 A | 06-Feb-14 |



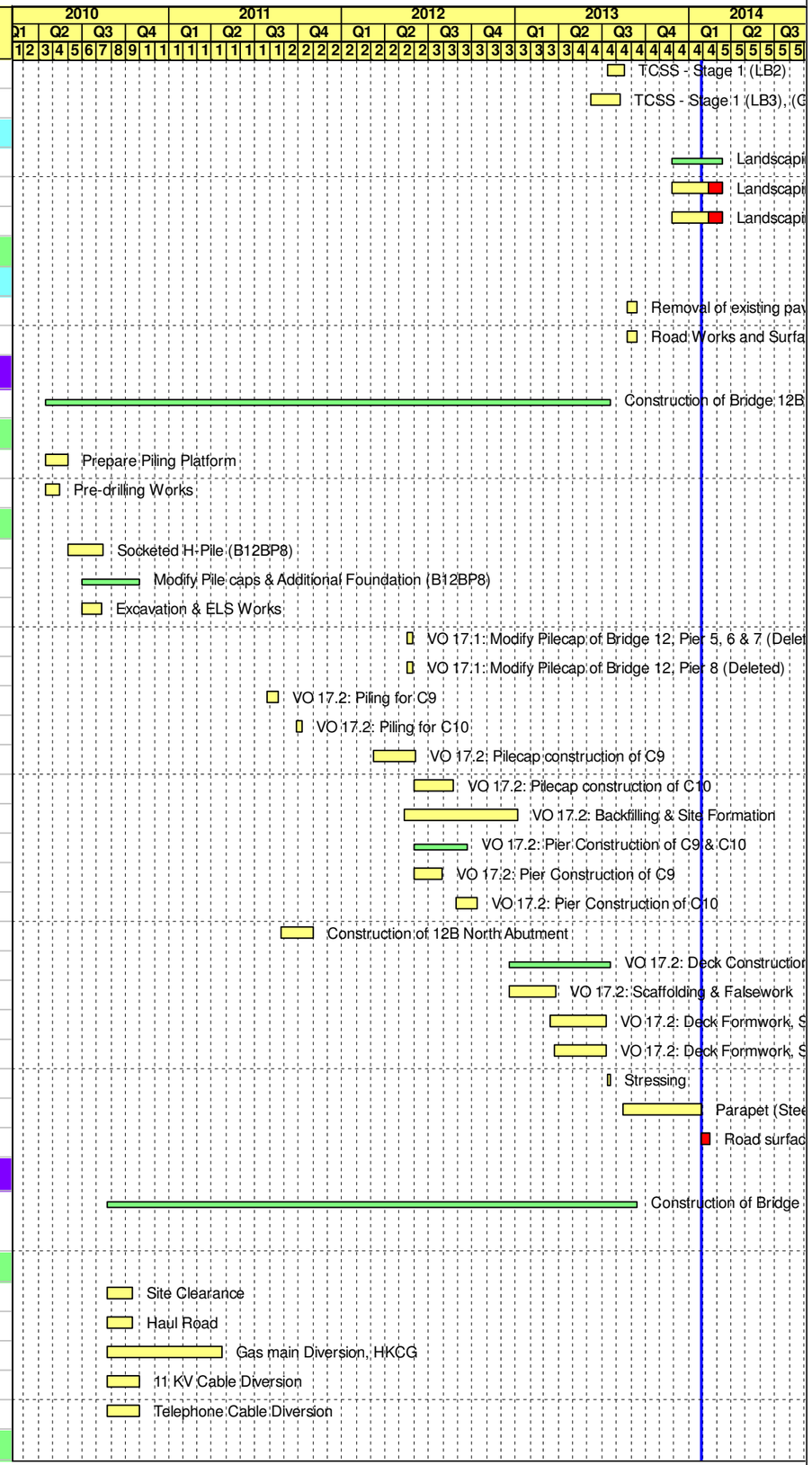
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26N4075 | Road Construction Fast Lane and Remaining Works (along CH3400 - 3720) | -23 | 90% | 50 | 26-Oct-13 A | 12-Feb-14 |
| **Traffic Control & Surveillance System** | | | | | | |
| S26N4810 | TCSS - (15m High mast M9), (SEC Poles SC24/ S24) & (Gantry 24) (incl. VO73 Revised Sign Gantry Details) | -31 | 65% | 40 | 08-Jul-13 A | 21-Feb-14 |
| **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 | -44 | 76.49% | 134 | 22-Jul-13 A | 07-Mar-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 | 121 | 0% | 0 | | 27-Jan-14 |
| S26N1350 | Stitch Works for B13 (Rebar and Formwork) | | 100% | 35 | 07-Sep-13 A | 25-Nov-13 A |
| S26N1355 | Stitch Works for B13 (Concreting) | | 100% | 12 | 27-Dec-13 A | 11-Jan-14 A |
| S26N1360 | Road Surfacing and Road Diversion | -44 | 10% | 35 | 13-Jan-14 A | 07-Mar-14 |
| **Landscaping** | | | | | | |
| S26N6040 | Landscaping Works (CH3400 - 3720) | -43 | 50% | 50 | 16-Sep-13 A | 07-Mar-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) | -49 | 58.33% | 24 | 18-Feb-13 A | 10-Feb-14 |
| 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) | -49 | 60% | 20 | 08-Jun-13 A | 10-Feb-14 |
| S26S5110 | Slope Reinstatement Works (besides LB3) | -27 | 37.5% | 24 | 04-Mar-13 A | 15-Feb-14 |
| S26S5120 | Slope Reinstatement Works (besides LB3) - Lower: below +24mPD | -27 | 70% | 20 | 04-Mar-13 A | 05-Feb-14 |
| S26S5130 | Slope Reinstatement Works (besides LB3) - Upper: above +24mPD | -27 | 55% | 20 | 27-Aug-13 A | 15-Feb-14 |
| **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 |
| 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 |



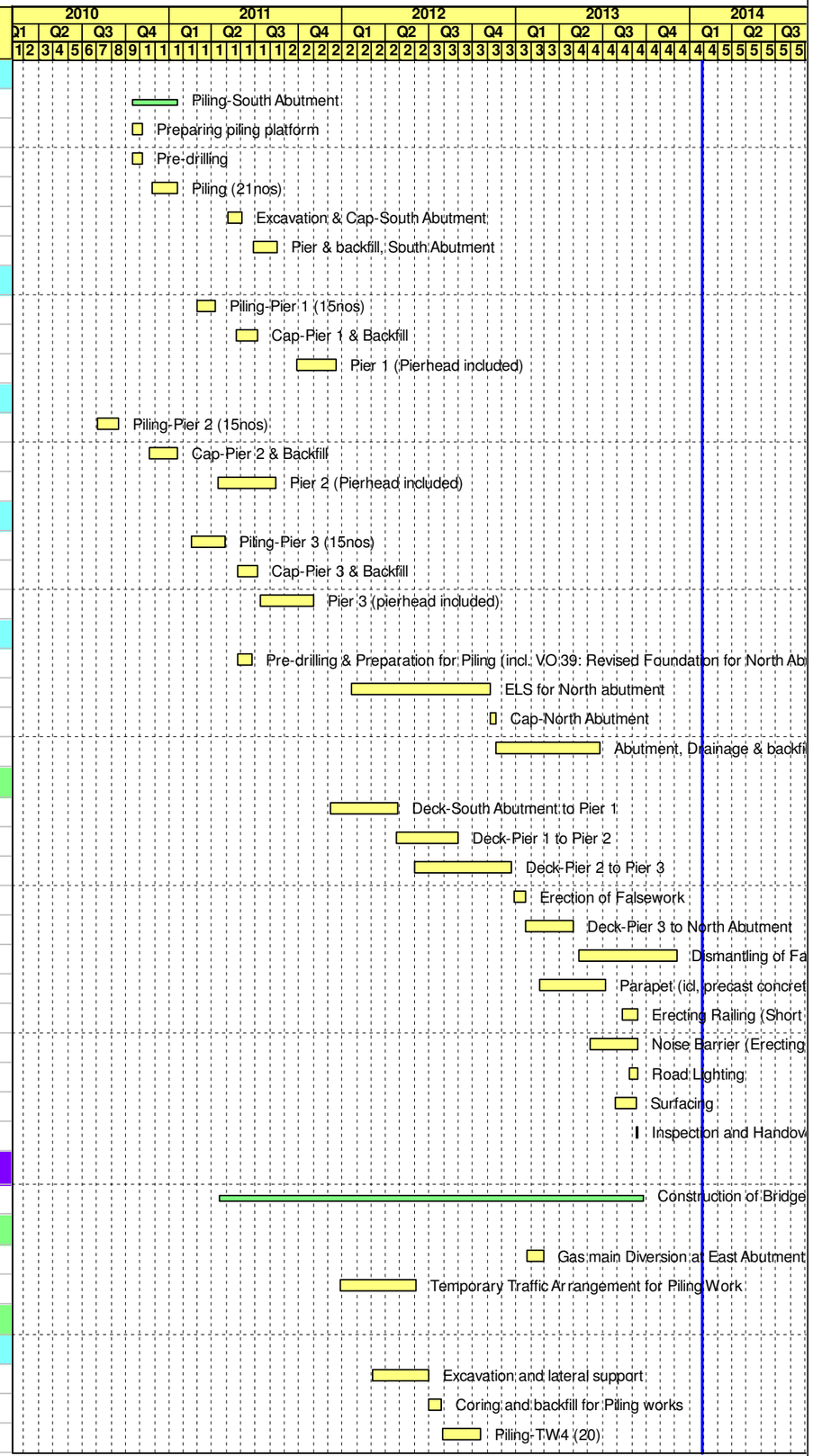
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S1384 | Base slab of RWTW2 (stage 1 & 2: half Bay1 & Bay 2-4) | | 100% | 75 | 26-Nov-11 A | 10-Nov-12 A |
| S26S1386 | Wall of RWTW2 (stage 1 & 2: half Bay1 & Bay 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 | 119 | 90% | 20 | 19-Jun-13 A | 28-Jan-14 |
| 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 - 3720) | | 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 |
| **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 | -49 | 80% | 10 | 27-Aug-13 A | 28-Jan-14 |
| **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 |



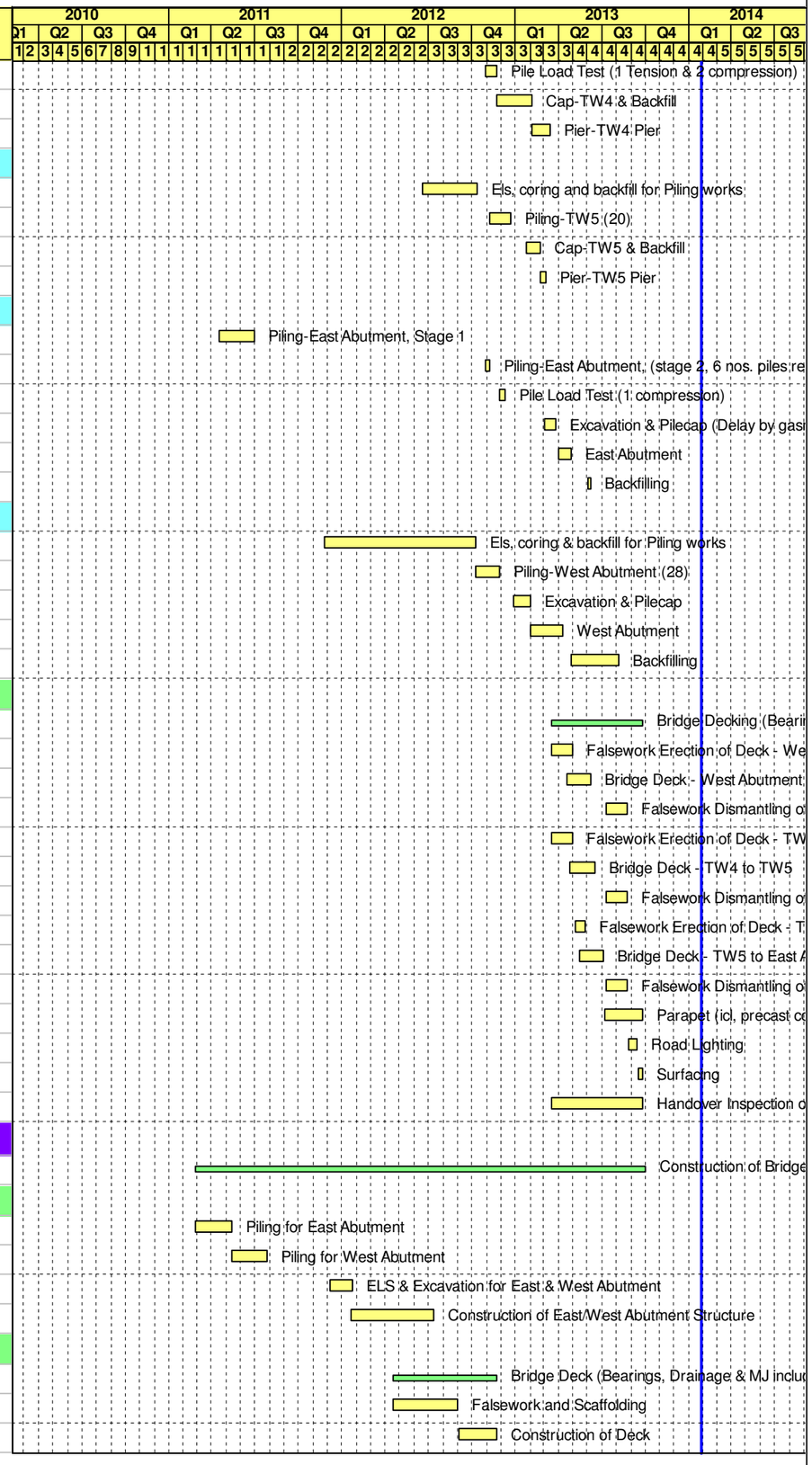
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S4820 | TCSS - Stage 1 (LB2) | | 100% | 15 | 15-Jul-13 A | 20-Aug-13 A |
| S26S4830 | TCSS - Stage 1 (LB3), (Gantry G101) (incl. VO73 Revised Sign Gantry Details) | | 100% | 30 | 10-Jun-13 A | 10-Aug-13 A |
| **Landscaping** | | | | | | |
| S26S6000 | Landscaping Works | -49 | 38.33% | 60 | 26-Nov-13 A | 13-Mar-14 |
| S26S6010 | Landscaping Works - Stage 1, East of B13A | -49 | 10% | 30 | 26-Nov-13 A | 13-Mar-14 |
| S26S6040 | Landscaping Works - Stage 2, West of B13A | -49 | 10% | 30 | 26-Nov-13 A | 13-Mar-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) | -51 | 95% | 15 | 15-Aug-13 A | 27-Jan-14 |
| S22S1540 | Road surface & road work | -51 | 0% | 14 | 27-Jan-14 | 15-Feb-14 |
| **Construction of Bridge 12A** | | | | | | |
| 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*** | | | | | | |



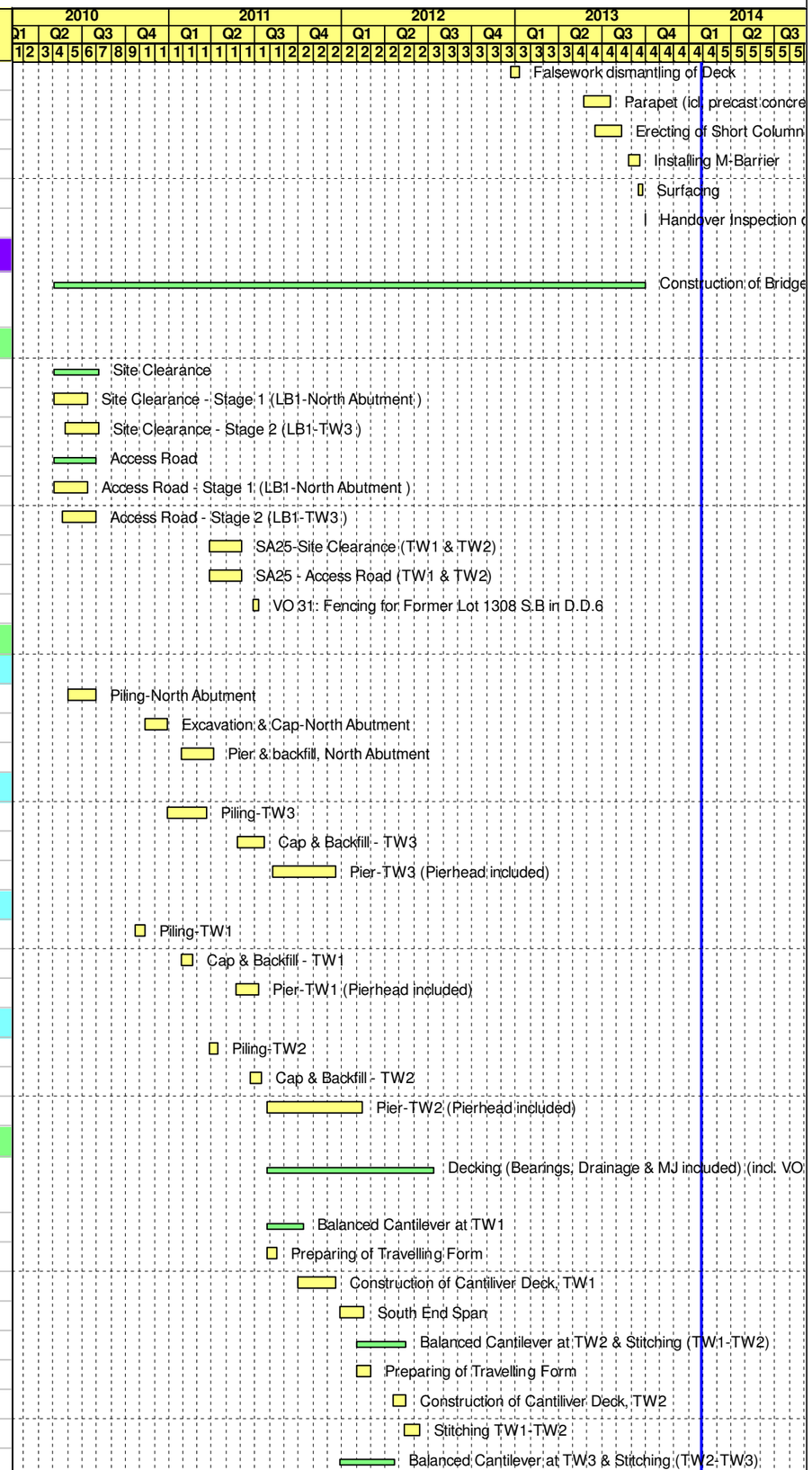
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| **South Abutment** | | | | | | |
| S24N1260 | Piling-South Abutment | | 100% | 29 | 15-Oct-10 A | 19-Jan-11 A |
| S24N1261 | Preparing piling platform | | 100% | 18 | 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 | | 100% | 25 | 14-May-13 A | 07-Dec-13 A |
| 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 |
| **Construction of Bridge LB2** | | | | | | |
| S26S1200 | Construction of Bridge LB2 (incl. VO29 & 37: revised piling details and pile caps sleeving detaills) | | 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 |



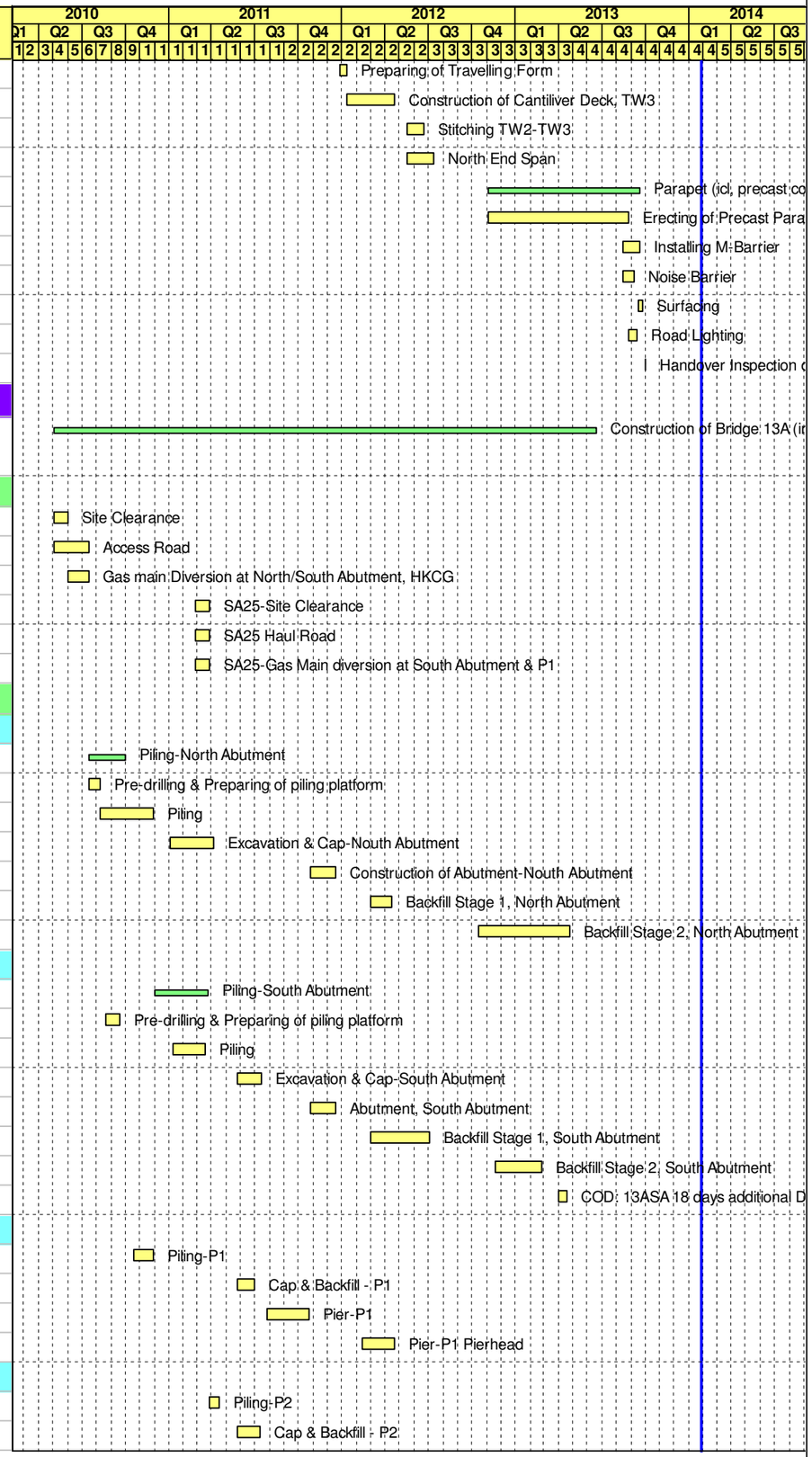
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S1217 | Pile Load Test (1 Tension & 2 compression) | | 100% | 25 | 31-Oct-12 A | 22-Nov-12 A |
| S26S1222 | Cap-TW4 & Backfill | | 100% | 35 | 23-Nov-12 A | 05-Feb-13 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** | | | | | | |
| 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 |



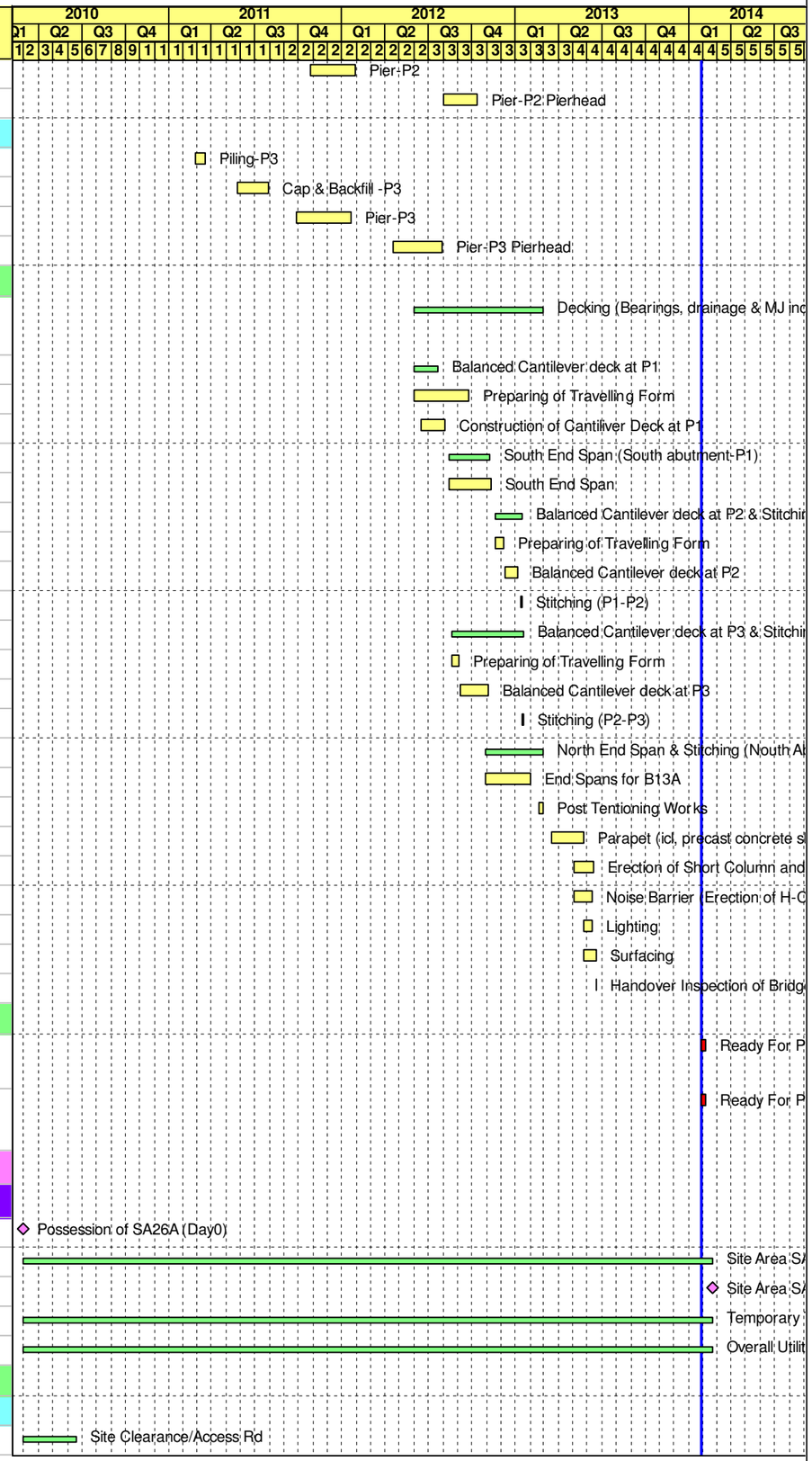
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S1373 | Falsework dismantling of Deck | | 100% | 24 | 21-Dec-12 A | 09-Jan-13 A |
| S26S1375 | Parapet (icl, precast concrete skin) | | 100% | 20 | 26-May-13 A | 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*** | | | | | | |
| 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 |



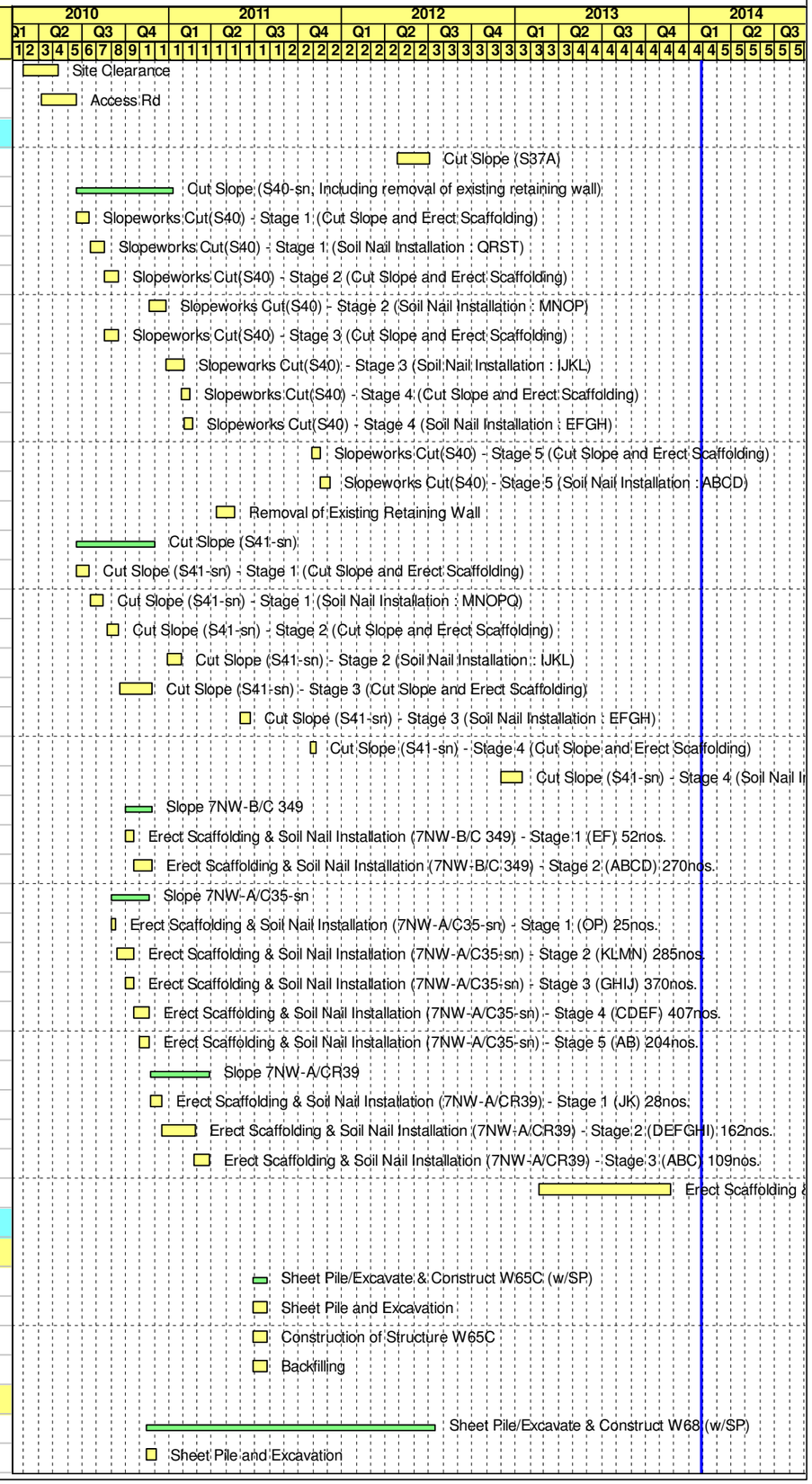
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S680 | Preparing of Travelling Form | | 100% | 12 | 28-Dec-11 A | 11-Jan-12 A |
| S26S690 | Construction of Cantiliver Deck, TW3 | | 100% | 40 | 12-Jan-12 A | 19-Apr-12 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 |
| 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 |



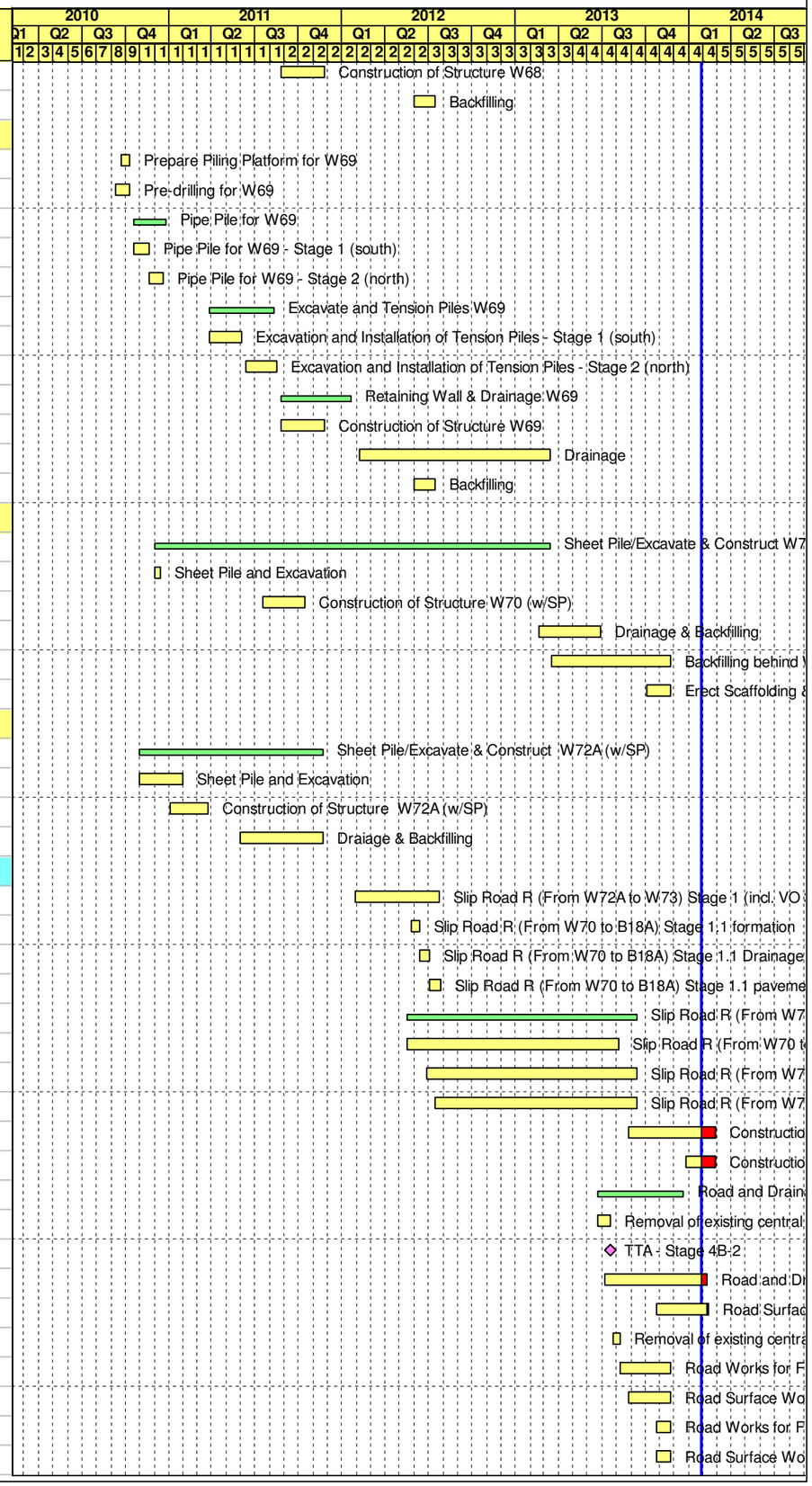
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26S1800 | Pier-P2 | | 100% | 75 | 26-Oct-11 A | 27-Jan-12 A |
| S26S1910 | Pier-P2 Pierhead | | 100% | 53 | 01-Aug-12 A | 12-Oct-12 A |
| **P3** | | | | | | |
| S26S1640 | 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) | -19 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| HRW0021 | Ready For Pre-Handover Retaining Wall W58, W60, W61A, RWTW1, RWTW2, RWTW3, RWTW3a and RWB12B | -19 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| **Section 3** | | | | | | |
| **Site Area SA26A** | | | | | | |
| PHSA26A2 | Possession of SA26A (Day0) | | 100% | 0 | 26-Feb-10 A | |
| SA26A000 | Site Area SA26A Works Period | -9 | 98.02% | 1215 | 26-Feb-10 A | 19-Feb-14 |
| SA26A010 | Site Area SA26A Works Completion | -9 | 0% | 0 | | 19-Feb-14 |
| SA26A020 | Temporary Traffic Arrangement (Detail shall refer to supplementary information) | -8 | 98.17% | 983 | 26-Feb-10 A | 19-Feb-14 |
| SA26A030 | Overall Utilities Diversion (Detail shall refer to supplementary information) | -8 | 98.17% | 983 | 26-Feb-10 A | 19-Feb-14 |
| ***North Bound*** | | | | | | |
| **Preliminaries** | | | | | | |
| S26AN000 | Site Clearance/Access Rd | | 100% | 75 | 26-Feb-10 A | 18-Jun-10 A |



| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| 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 |
| 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 |

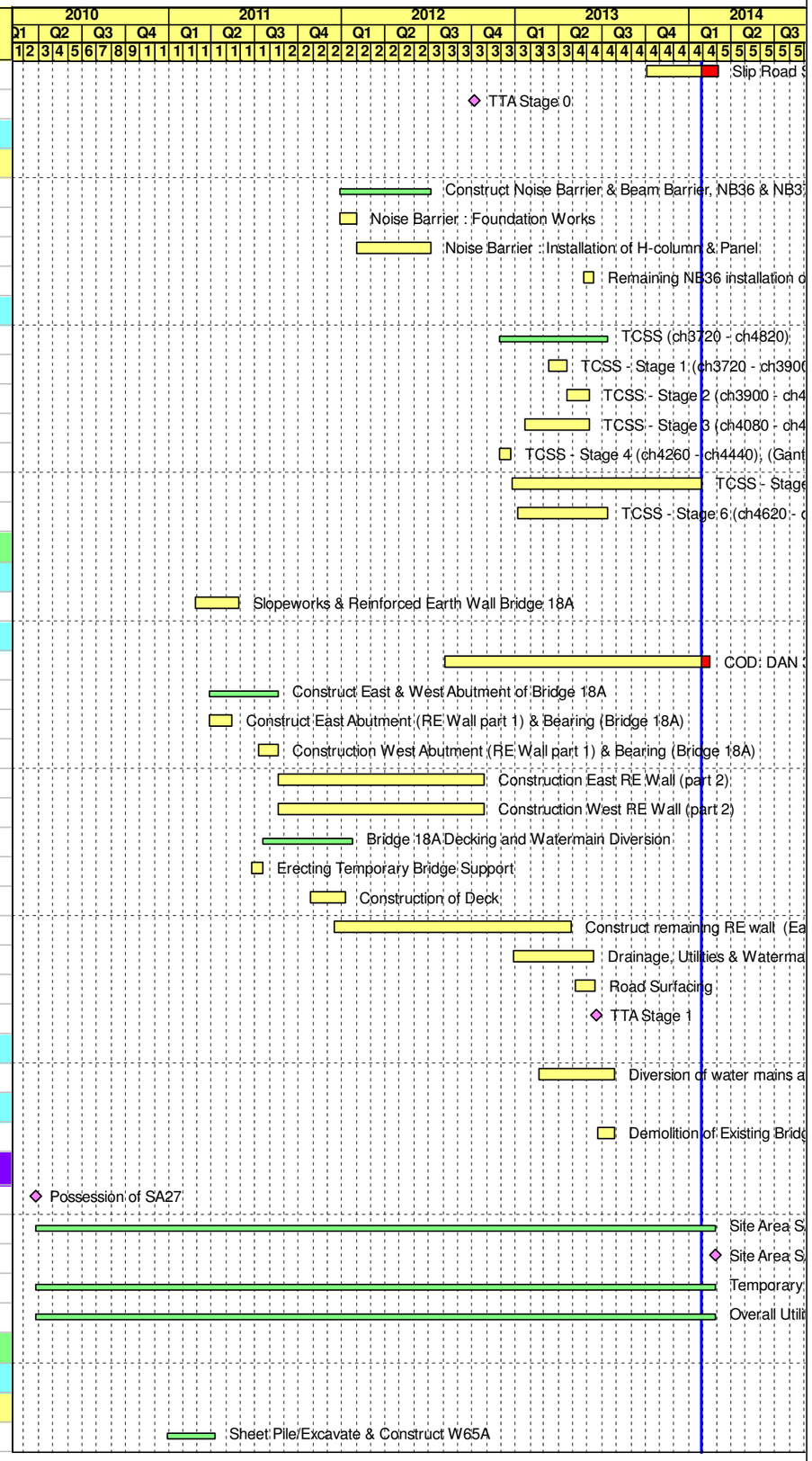


| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26AN122 | Construction of Structure W68 | | 100% | 75 | 26-Aug-11 A | 24-Nov-11 A |
| S26AN123 | Backfilling | | 100% | 54 | 01-Jun-12 A | 16-Jul-12 A |
| **Retaining 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 |
| S26AN447 | Construction Slip Road J (Under Bridge 15A) | -13 | 50% | 45 | 27-Aug-13 A | 25-Feb-14 |
| S26AN448 | Construction Slip Road Q (At W65C) | -13 | 50% | 45 | 27-Dec-13 A | 25-Feb-14 |
| S26AN451 | Road and Drainage Works (CH 3720 - 4550) | | 100% | 168 | 24-Jun-13 A | 20-Dec-13 A |
| 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) | -13 | 60% | 20 | 08-Jul-13 A | 07-Feb-14 |
| S26AN454 | Road Surface Works for Slow and Mid Lane (CH3720 - 3850) | -6 | 60% | 10 | 26-Oct-13 A | 12-Feb-14 |
| 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 |

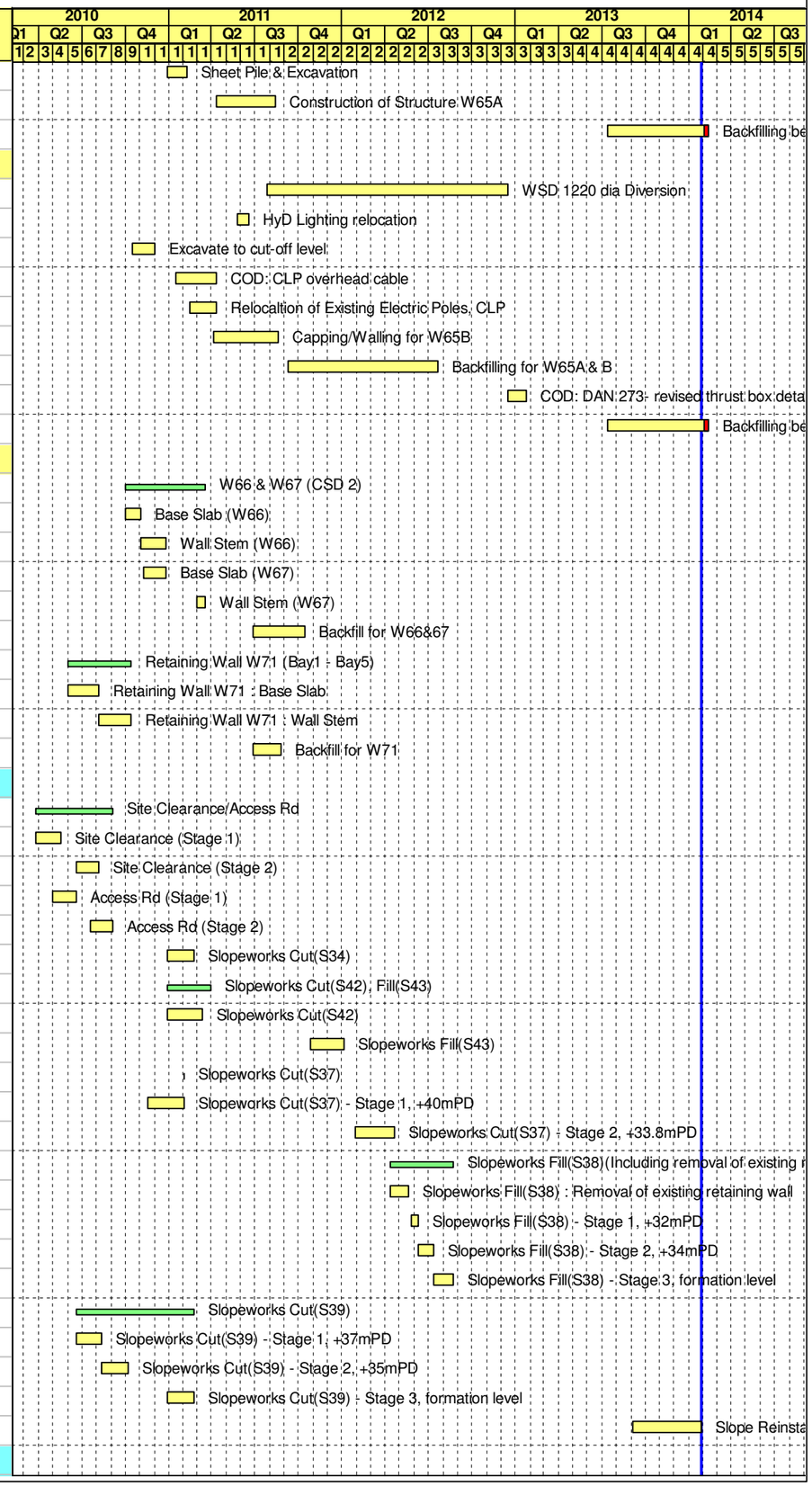


| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26AN460 | Road and Drainage Works for Slow Lane (CH4250 - 4550) | -13 | 60% | 35 | 05-Oct-13 A | 14-Feb-14 |
| S26AN461 | Road Surface Works for Slow Lane (CH4250 - 4550) | -8 | 60% | 10 | 26-Oct-13 A | 19-Feb-14 |
| S26AN462 | Road Construction and Remaining Works (along CH 3720 - 4550) | | 100% | 35 | 05-Oct-13 A | 20-Dec-13 A |
| S26AN470 | Road and Drainage Works (CH 4550 - 4720) | -15 | 71.36% | 88 | 26-Oct-13 A | 28-Feb-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) | -15 | 44% | 45 | 05-Oct-13 A | 28-Feb-14 |
| **Traffic Control & Surveillance System** | | | | | | |
| S26AN480 | TCSS (G25, G26, G27, G28 & SEC Poles SC58/S58) (incl. VO73 Revised Sign Gantry Details) | -13 | 70% | 50 | 15-Jun-13 A | 25-Feb-14 |
| **Modification of Existing Bridge** | | | | | | |
| S26AN200 | Modification of Existing Bridge 15 | -7 | 83.88% | 104 | 24-Jun-13 A | 18-Feb-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) | -7 | 85% | 8 | 02-Aug-13 A | 28-Jan-14 |
| S26AN260 | Raising of Concrete Edge for S/B (CH3800 - 4020) and N/B (CH3900 - 4020) | -7 | 50% | 25 | 09-Sep-13 A | 14-Feb-14 |
| 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) | -7 | 85% | 20 | 09-Sep-13 A | 18-Feb-14 |
| **Landscaping** | | | | | | |
| S26AN610 | Landscaping Works | 5 | 85% | 29 | 15-Mar-13 A | 04-Feb-14 |
| ***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) | -50 | 68.42% | 95 | 08-Aug-13 A | 05-Mar-14 |
| S26AS515 | Backfilling Slope | -50 | 85% | 30 | 08-Aug-13 A | 04-Feb-14 |
| S26AS520 | Soil Nail Installation | -50 | 70% | 50 | 27-Aug-13 A | 21-Feb-14 |
| S26AS540 | Slope Surface Treatment | -50 | 30% | 15 | 28-Oct-13 A | 05-Mar-14 |
| **Landscaping** | | | | | | |
| S26AS600 | Landscaping | -50 | 0% | 30 | 06-Mar-14 | 10-Apr-14 |
| **Road Re-Construction Works, Roadworks, Drainage & Utilities** | | | | | | |
| S26AS400 | Roadworks, Drainages & Utilities (CH 4020 - 4500) | -18 | 93.11% | 399 | 14-Feb-12 A | 03-Mar-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 |

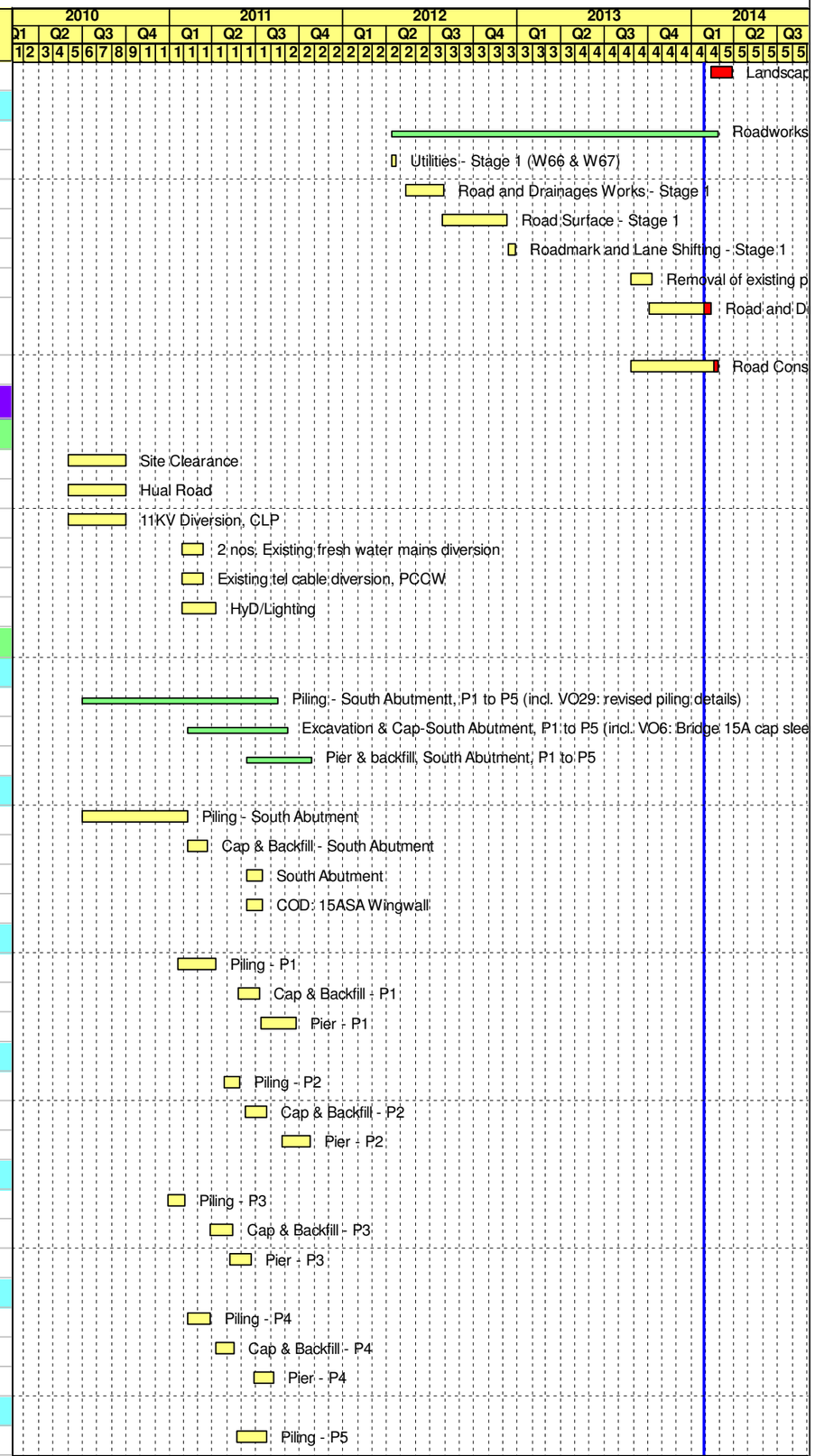
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S27S4110 | Slip Road S (utilities, drainage & roadwork) | -18 | 45% | 50 | 04-Oct-13 A | 03-Mar-14 |
| S27S4160 | TTA Stage 0 | | 100% | 0 | 07-Oct-12 A | |
| **Noise 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 & Survelance 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) | 17 | 90% | 24 | 24-Dec-12 A | 29-Jan-14 |
| 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** | | | | | | |
| 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 | -5 | 80% | 75 | 06-Aug-12 A | 15-Feb-14 |
| 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 & ' | | 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 | -15 | 97.51% | 1187 | 26-Mar-10 A | 25-Feb-14 |
| SA270010 | Site Area SA27 Works Completion | -15 | 0% | 0 | | 25-Feb-14 |
| SA270020 | Temporary Traffic Arrangement (Detail shall refer to supplementary information) | -13 | 97.65% | 959 | 26-Mar-10 A | 25-Feb-14 |
| SA270030 | Overall Utilities Diversion (Detail shall refer to supplementary information) | -13 | 97.65% | 959 | 26-Mar-10 A | 25-Feb-14 |
| ***South Bound*** | | | | | | |
| **Construction of Retaining Wall** | | | | | | |
| **Retaining Wall W65A** | | | | | | |
| S27S1000 | Sheet Pile/Excavate & Construct W65A | | 100% | 83 | 28-Dec-10 A | 08-Apr-11 A |



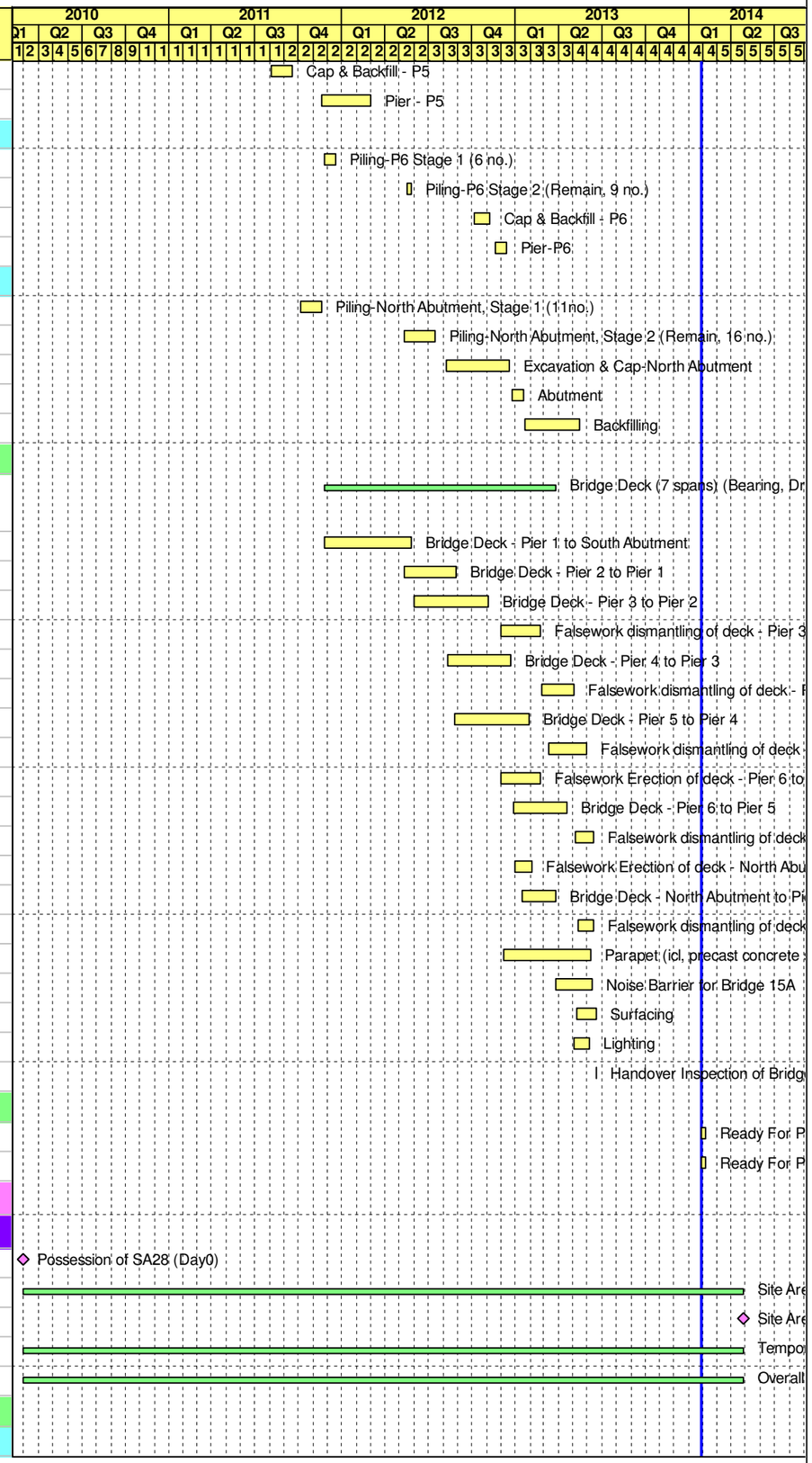
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S27S1001 | Sheet Pile & Excavation | | 100% | 32 | 28-Dec-10 A | 07-Feb-11 A |
| S27S1002 | Construction of Structure W65A | | 100% | 50 | 11-Apr-11 A | 13-Aug-11 A |
| S27S1012 | Backfilling behind W65A and drainage works | -41 | 85% | 40 | 15-Jul-13 A | 11-Feb-14 |
| **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 | -41 | 85% | 40 | 15-Jul-13 A | 11-Feb-14 |
| **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 |
| **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 |
| S27S5133 | Slopeworks Cut(S39) - Stage 3, formation level | | 100% | 46 | 28-Dec-10 A | 23-Feb-11 A |
| S27S5150 | Slope Reinstatement Works (S42) | -31 | 97% | 40 | 06-Sep-13 A | 28-Jan-14 |
| **Landscaping** | | | | | | |



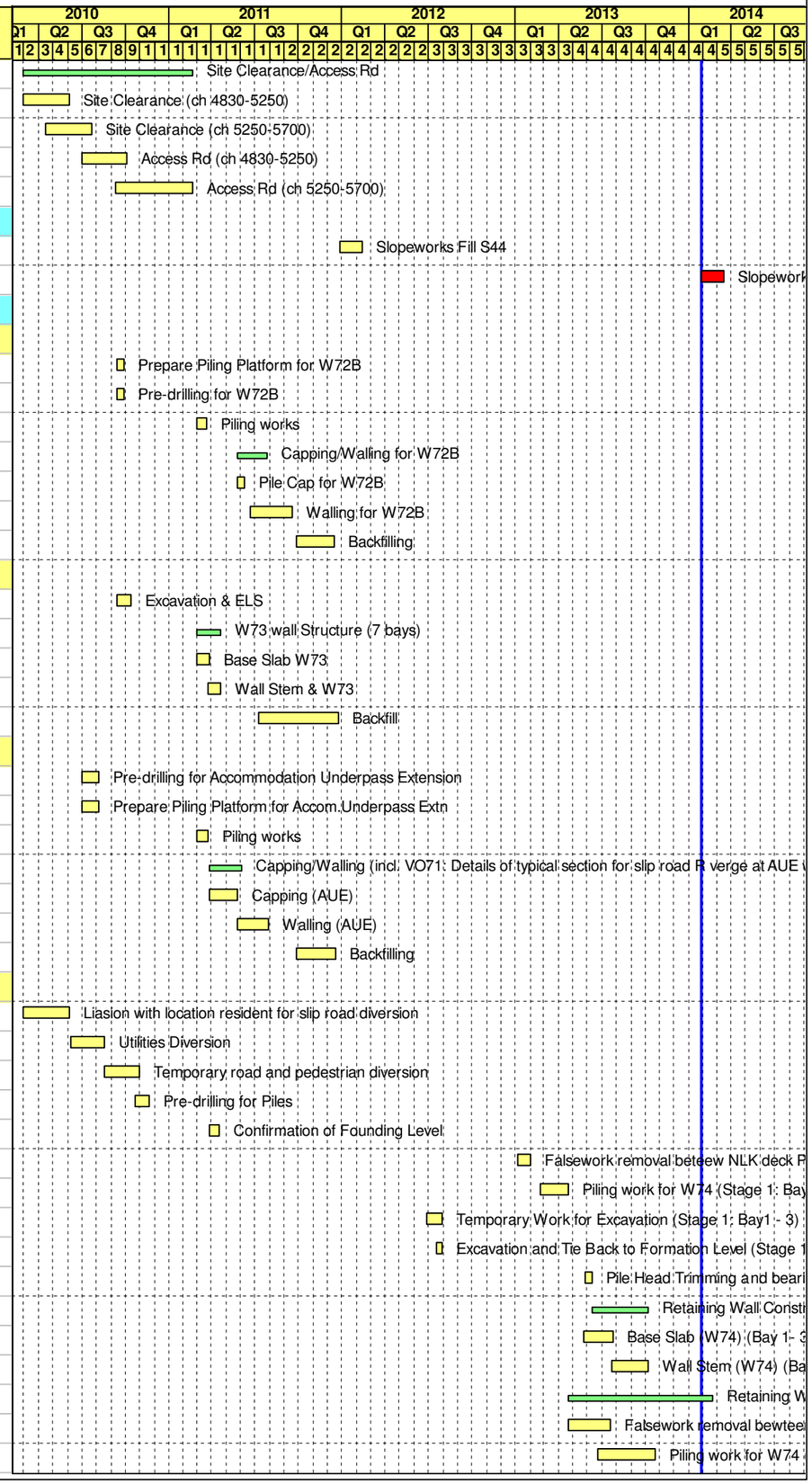
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S27S6010 | Landscaping | -41 | 0% | 40 | 11-Feb-14 | 29-Mar-14 |
| **Roadworks, Drainage & Utilities** | | | | | | |
| S27S4000 | Roadworks, Drainages & Utilities - Stage 1 (CH 3900 - 4740) | -13 | 93.7% | 357 | 13-Apr-12 A | 25-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) | -18 | 65% | 30 | 06-Oct-13 A | 11-Feb-14 |
| S27S4055 | Road Construction and Remaining Works (along CH4500 - 4740) | -13 | 75% | 30 | 27-Aug-13 A | 25-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 |
| **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 |



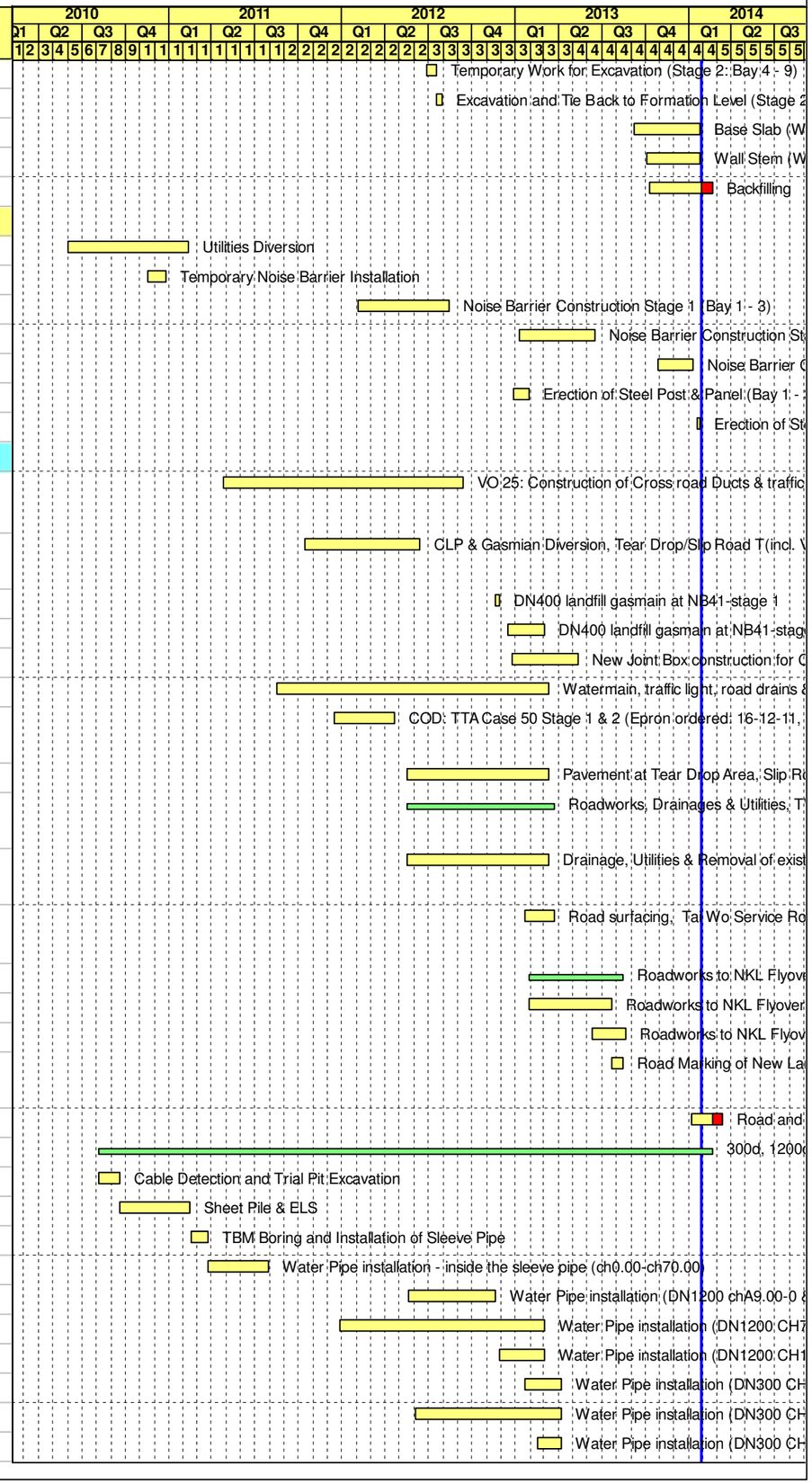
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S26AS580 | Cap & Backfill - P5 | | 100% | 36 | 04-Aug-11 A | 16-Sep-11 A |
| S26AS590 | Pier - P5 | | 100% | 36 | 18-Nov-11 A | 29-Feb-12 A |
| **P6** | | | | | | |
| 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 |
| 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 | 3 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| HRW0031 | Ready For Pre-Handover Retaining Wall W65A, W65B, W66, W67, W71 | 3 | 0% | 7 | 27-Jan-14 | 06-Feb-14 |
| **Section 4** | | | | | | |
| **Site Area SA28** | | | | | | |
| PHSA2820 | Possession of SA28 (Day0) | | 100% | 0 | 26-Feb-10 A | |
| SA280000 | Site Area SA28 Works Period | 62 | 92.64% | 1216 | 26-Feb-10 A | 26-Apr-14 |
| SA280010 | Site Area SA28 Works Completion | 62 | 0% | 0 | | 26-Apr-14 |
| SA280030 | Temporary Traffic Arrangement (Detail shall refer to supplementary information) | 50 | 92.73% | 983 | 26-Feb-10 A | 26-Apr-14 |
| SA280040 | Overall Utilities Diversion (Detail shall refer to supplementary information) | 50 | 92.73% | 983 | 26-Feb-10 A | 26-Apr-14 |
| ***North Bound*** | | | | | | |
| **Preliminaries** | | | | | | |



| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| 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 | -21 | 0% | 40 | 27-Jan-14 | 17-Mar-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 |
| 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) | -18 | 91.34% | 202 | 23-Apr-13 A | 19-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 |

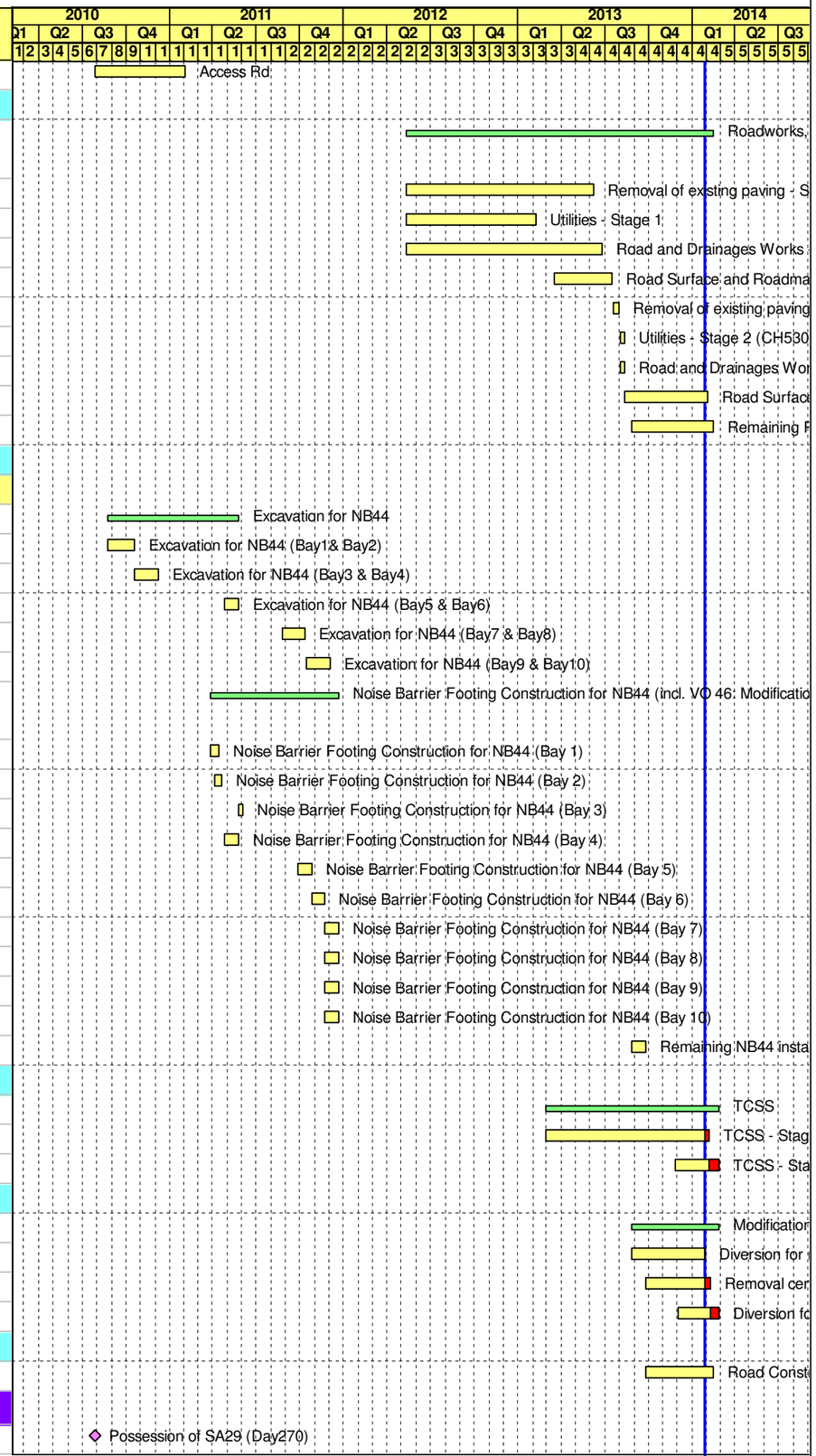


| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28N2164 | Temporary Work for Excavation (Stage 2: Bay 4 - 9) | | 100% | 18 | 27-Jun-12 A | 17-Jul-12 A |
| S28N2165 | Excavation and Tie Back to Formation Level (Stage 2: Bay 4 - 9) | | 100% | 19 | 18-Jul-12 A | 31-Jul-12 A |
| S28N2167 | Base Slab (W74) (Bay 4 - 9) | | 100% | 25 | 07-Sep-13 A | 25-Jan-14 A |
| S28N2168 | Wall Stem (W74) (Bay 4 - 9) | | 100% | 30 | 05-Oct-13 A | 25-Jan-14 A |
| S28N2190 | Backfilling | -18 | 30% | 25 | 12-Oct-13 A | 19-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 | | 100% | 30 | 28-Oct-13 A | 09-Jan-14 A |
| 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) | | 100% | 10 | 20-Jan-14 A | 25-Jan-14 A |
| **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 |
| 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) | -18 | 5% | 20 | 08-Jan-14 A | 13-Mar-14 |
| S28N4030 | 300d, 1200d watermain (chA9.00-ch182.00) & Firemains | -14 | 95.03% | 362 | 06-Aug-10 A | 19-Feb-14 |
| 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 |

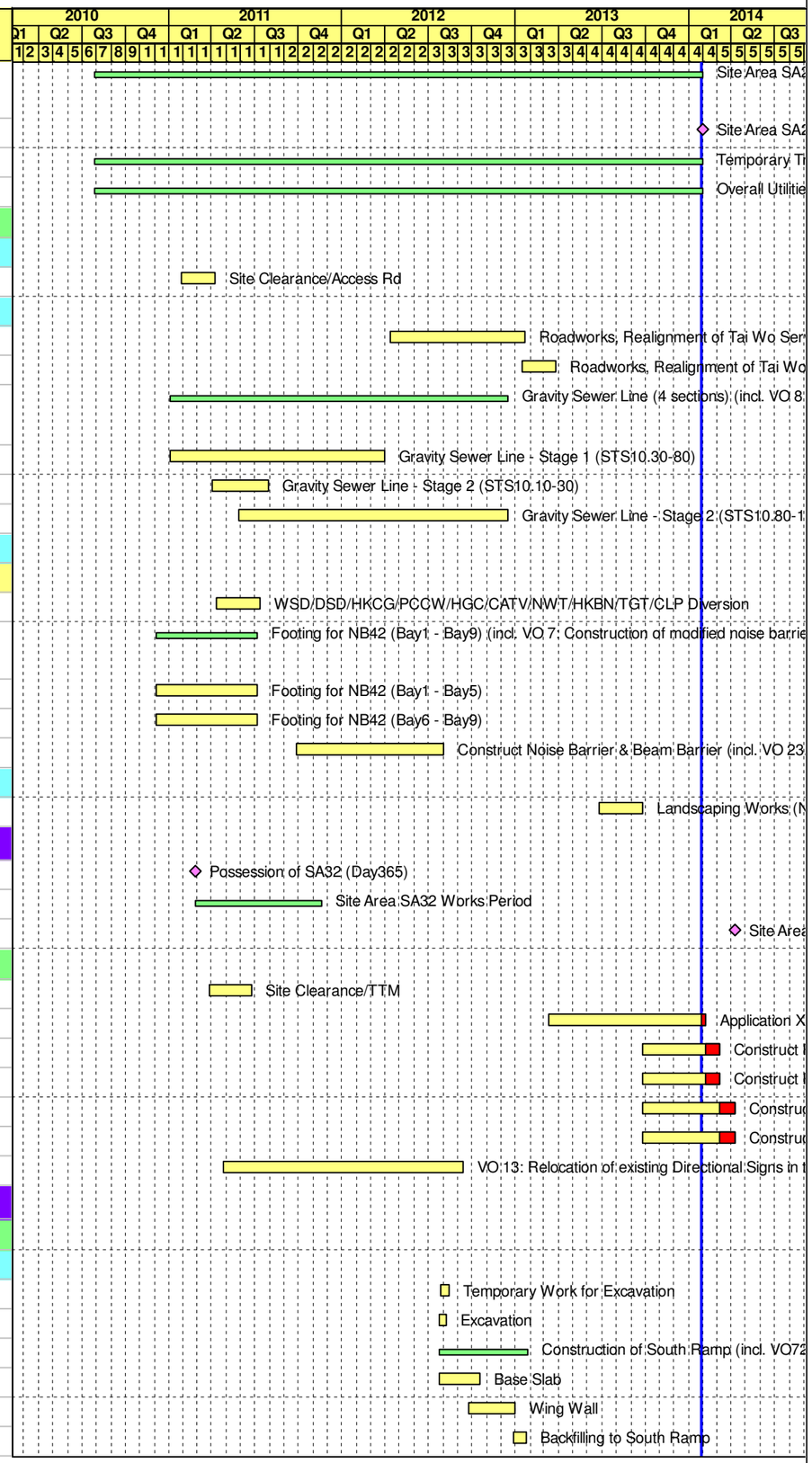


| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28N4250 | Water Pipe installation (DN600 CHB0-84 & CHC0-76 Cross Road) | | 100% | 75 | 28-Nov-12 A | 26-Apr-13 A |
| S28N4260 | Remaining Works for Water Pipe installation (DN1200 CH183 - 227 cross road) | -49 | 45% | 75 | 06-Sep-13 A | 19-Mar-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)) | -14 | 88% | 60 | 08-Jul-13 A | 07-Feb-14 |
| S28N4300 | Remaining Works for Water Pipe installation (DN600 CHC10.4 - 28.4(Revised 50)) | -14 | 70% | 60 | 08-Jul-13 A | 19-Feb-14 |
| S28N4310 | Remaining Works for Water Pipe installation (DN300 CH183 - 227 cross road) | -49 | 30% | 75 | 26-Nov-13 A | 01-Apr-14 |
| S28N4320 | Remaining Works for Water Pipe installation (DN300 CHBB0 - 11(Revised 59)) | -38 | 90% | 45 | 26-Oct-13 A | 07-Apr-14 |
| S28N4330 | Roadwork, Drainages & Utilities at TWSRW Road from NB38 to NB41-bay6 (TTA case 50 stage 7&8) | -48 | 0% | 0 | 26-Nov-12 A | 10-Mar-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) | -53 | 90% | 35 | 27-Aug-13 A | 30-Jan-14 |
| S28N4360 | Road Works and Road surfacing at Tai Wo Service Road West from NB38 to NB41 - bay6 | -48 | 0% | 30 | 30-Jan-14 | 10-Mar-14 |
| S28N4370 | Road Works and Road Surfacing at Slip Road T (Slow Lane) | -48 | 0% | 30 | 30-Jan-14 | 10-Mar-14 |
| S28N4380 | Roadworks, Drainages & Utilities at TWSRW Road from NB38 to NB41- bay6 (TTA case 50 stage 9 & 10) | -53 | 0% | 68 | 30-Jan-14 | 26-Apr-14 |
| S28N4390 | Removal existing paving, Drainage & Utilities (incl.TTA case 50 stage 9 & 10 and VO.77) | -53 | 0% | 35 | 30-Jan-14 | 15-Mar-14 |
| S28N4400 | Road Works and Road surfacing at Tai Wo Service Road West from NB38 to NB41 - bay6 | -53 | 0% | 18 | 15-Mar-14 | 07-Apr-14 |
| S28N4410 | Road Works and Road Surfacing at Slip Road T (Fast Lane) | -53 | 0% | 18 | 15-Mar-14 | 07-Apr-14 |
| S28N4420 | Remaining Road Works at Slip Road T and TWSRW Road from NB38 to NB41 - bay 6 | -53 | 0% | 15 | 07-Apr-14 | 26-Apr-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 |
| 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) | 0 | 100% | 937 | 26-Apr-11 A | 27-Jan-14 |
| S28N2316 | Noise barrier Construction NB38 | | 100% | 30 | 27-Aug-13 A | 22-Jan-14 A |
| 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) | 0 | 70% | 30 | 27-Feb-13 A | 08-Feb-14 |
| S28N2340 | Erection of steel and panel (NB41) | | 100% | 24 | 11-May-12 A | 05-Jun-12 A |
| S28N2350 | Erection of steel and panel (NB39) | 0 | 0% | 10 | 10-Feb-14 | 20-Feb-14 |
| S28N2355 | Erection of steel and panel (NB38) | | 100% | 10 | 20-Jan-14 A | 27-Jan-14 A |
| S28N2370 | Noise Barrier Construction NB40 (Bay1 to Bay3) | | 100% | 50 | 27-Aug-13 A | 24-Jan-14 A |
| 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) | | 100% | 10 | 20-Jan-14 A | 27-Jan-14 A |
| **Traffic Control & Survelance System** | | | | | | |
| S28N4800 | TCSS (ch4820-ch5640) & (Gantry G29) (incl. VO73 Revised Sign Gantry Details) | 7 | 70% | 40 | 29-Apr-13 A | 12-Feb-14 |
| **Landscaping** | | | | | | |
| S28N6000 | Landscaping Works (ch4820 - 5640) | -21 | 20% | 50 | 27-Apr-13 A | 17-Mar-14 |
| ***South Bound*** | | | | | | |
| **Preliminaries** | | | | | | |
| S28S0000 | Site Clearance/Access Rd (incl. VO4 & VO5: Revised setting out plan of Slip Road W) | | 100% | 0 | 23-Jun-10 A | 01-Feb-11 A |
| S28S0010 | Site Clearance | | 100% | 75 | 23-Jun-10 A | 18-Sep-10 A |

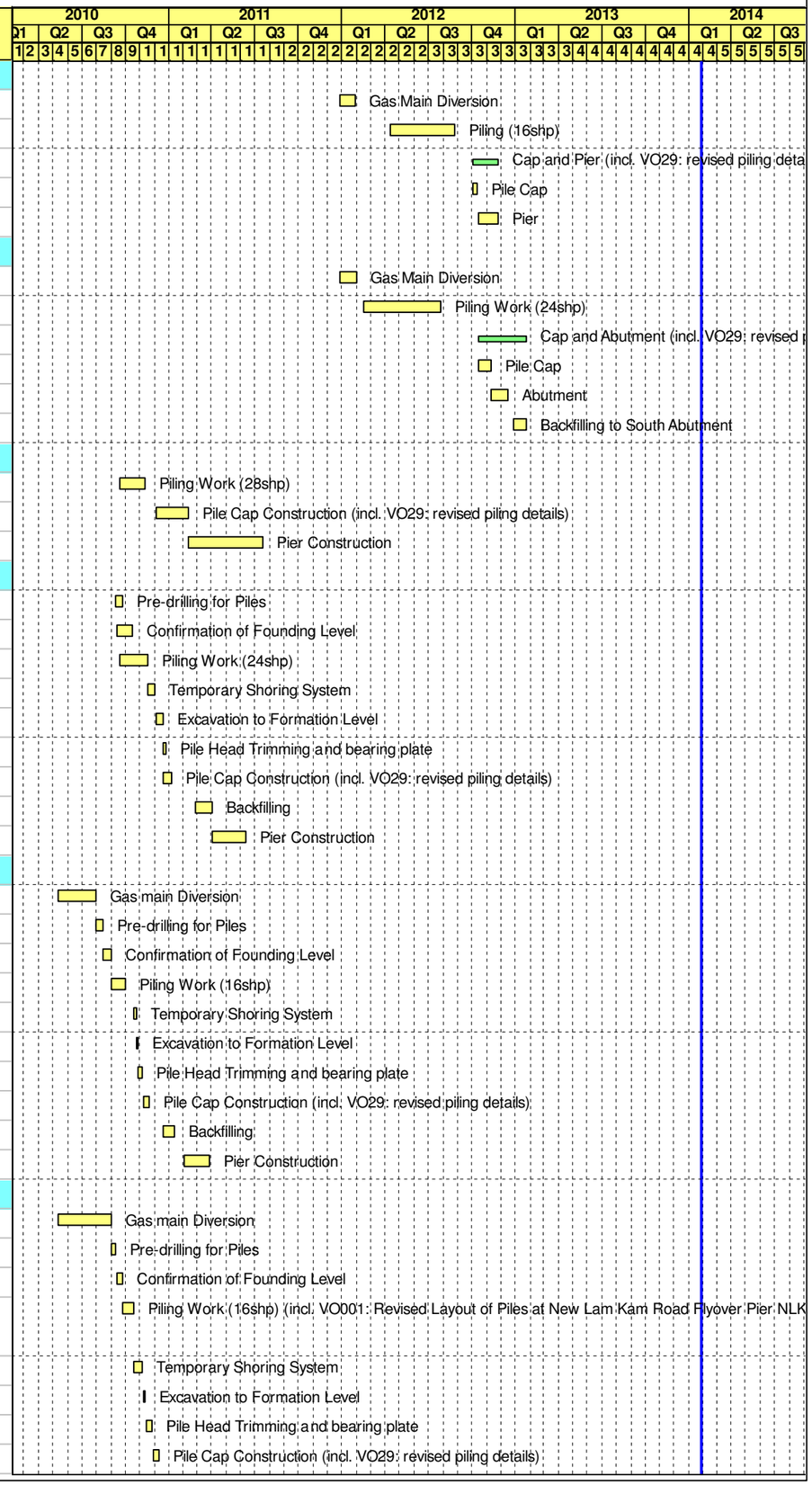
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28S0020 | Access Rd | | 100% | 75 | 27-Jul-10 A | 01-Feb-11 A |
| **Roadworks, Drainage & Utilities** | | | | | | |
| S28S4010 | Roadworks, Drainages & Utilities (CH4820 - Ch5700)(incl. VO20: Revised Fire mains alignment plan) | 6 | 97.25% | 454 | 11-May-12 A | 13-Feb-14 |
| 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) | 6 | 85% | 30 | 13-Aug-13 A | 04-Feb-14 |
| S28S4085 | Remaining Road Works at Slip Road W | 6 | 80% | 40 | 27-Aug-13 A | 13-Feb-14 |
| **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 |
| 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 | -5 | 81.5% | 130 | 28-Feb-13 A | 26-Feb-14 |
| S28S4810 | TCSS - Stage 1 (ch4820 - ch5520) | -5 | 80% | 24 | 28-Feb-13 A | 04-Feb-14 |
| S28S4850 | TCSS - Stage 5 (ch5520 - ch5640), (Gantry G56) (incl. VO73 Revised Sign Gantry Details) | -5 | 20% | 24 | 27-Nov-13 A | 26-Feb-14 |
| **Modification of Existing Bridge** | | | | | | |
| S28S1200 | Modification of Lam Kam Rd. Flyover | -21 | 79.23% | 119 | 26-Aug-13 A | 27-Feb-14 |
| S28S1240 | Diversion for modification kerb and road reconstruction (N/B) | -21 | 95% | 43 | 26-Aug-13 A | 29-Jan-14 |
| S28S1250 | Removal central barrier and road construction | -21 | 85% | 40 | 26-Sep-13 A | 08-Feb-14 |
| S28S1260 | Diversion for modification kerb and road reconstruction (S/B) | -21 | 45% | 30 | 02-Dec-13 A | 27-Feb-14 |
| **Road Construction and Road Resufacing** | | | | | | |
| S28S4960 | Road Construction and Resurfacing S/B for SA28 | 6 | 85% | 60 | 26-Sep-13 A | 14-Feb-14 |
| **Site Area SA29** | | | | | | |
| PHSA2920 | Possession of SA29 (Day270) | | 100% | 0 | 27-Jul-10 A | |



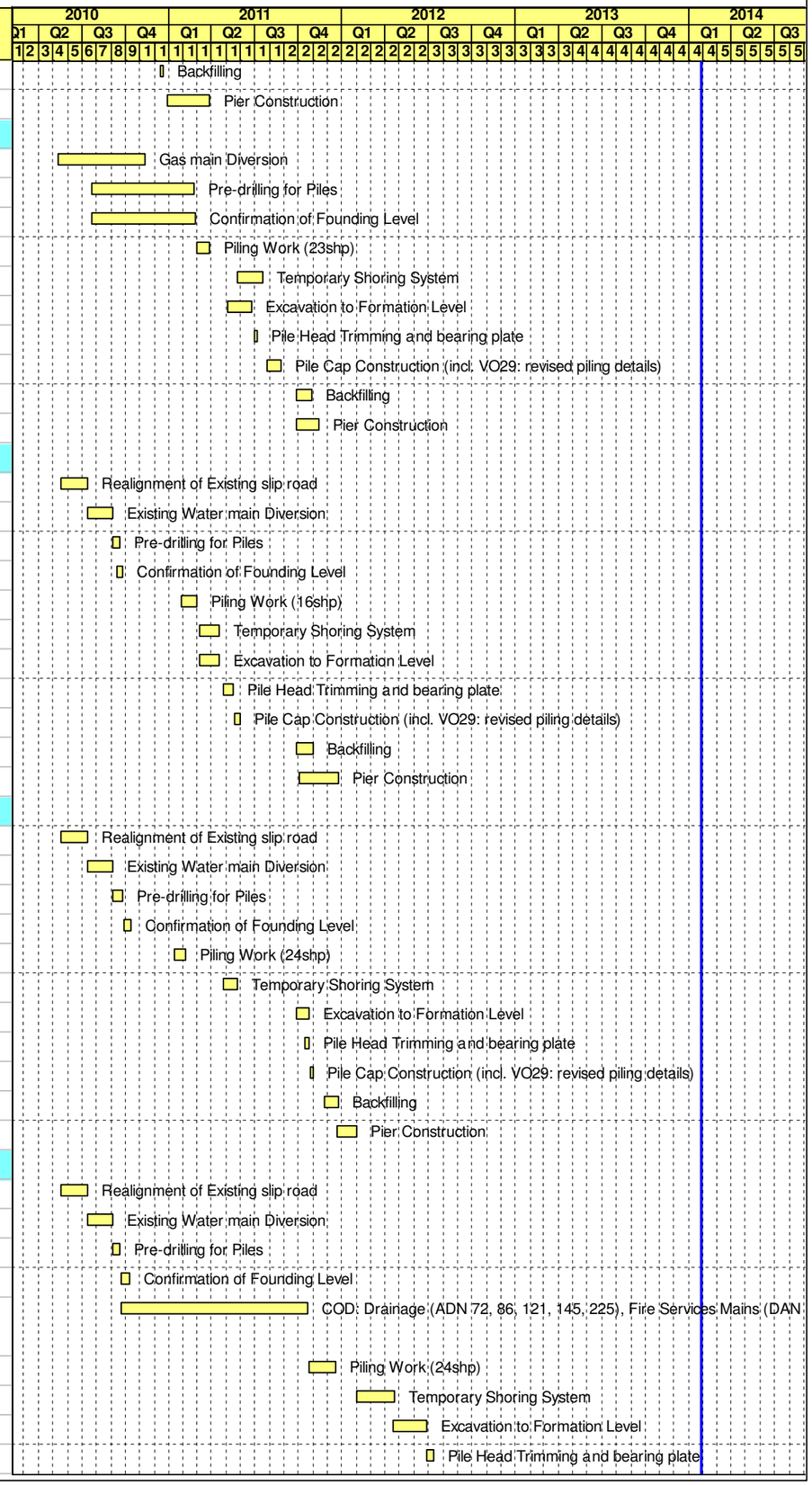
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| SA290000 | Site Area SA29 Works Period (incl. VO002 & VO0011: Fencing details along site boundaries SA 29) | 148 | 99.63% | 946 | 27-Jul-10 A | 30-Jan-14 |
| SA290010 | Site Area SA29 Works Completion | 148 | 0% | 0 | | 30-Jan-14 |
| SA290020 | Temporary Traffic Arrangement (Detail shall refer to supplementary information) | 118 | 99.54% | 764 | 27-Jul-10 A | 30-Jan-14 |
| SA290030 | Overall Utilities Diversion (Detail shall refer to supplementary information) | 118 | 99.54% | 764 | 27-Jul-10 A | 30-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 |
| 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 | -46 | 0% | 0 | | 07-Apr-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 | -38 | 90% | 60 | 11-Mar-13 A | 05-Feb-14 |
| S32G4015 | Construct Roadside Fully Variable Message Sign (RFVMS3)(include duct, footing and column) | -38 | 15% | 30 | 26-Sep-13 A | 07-Mar-14 |
| S32G4025 | Construct Roadside Fully Variable Message Sign (RFVMS2)(include duct, footing and column) | -38 | 15% | 30 | 26-Sep-13 A | 07-Mar-14 |
| S32G4035 | Construct Roadside Fully Variable Message Sign (RFVMS1)(include duct, footing and column) | -38 | 15% | 30 | 26-Sep-13 A | 07-Apr-14 |
| S32G4045 | Construct Roadside Fully Variable Message Sign (TP04)(include duct, footing and column) | -38 | 15% | 30 | 26-Sep-13 A | 07-Apr-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 Wall) | | 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 |



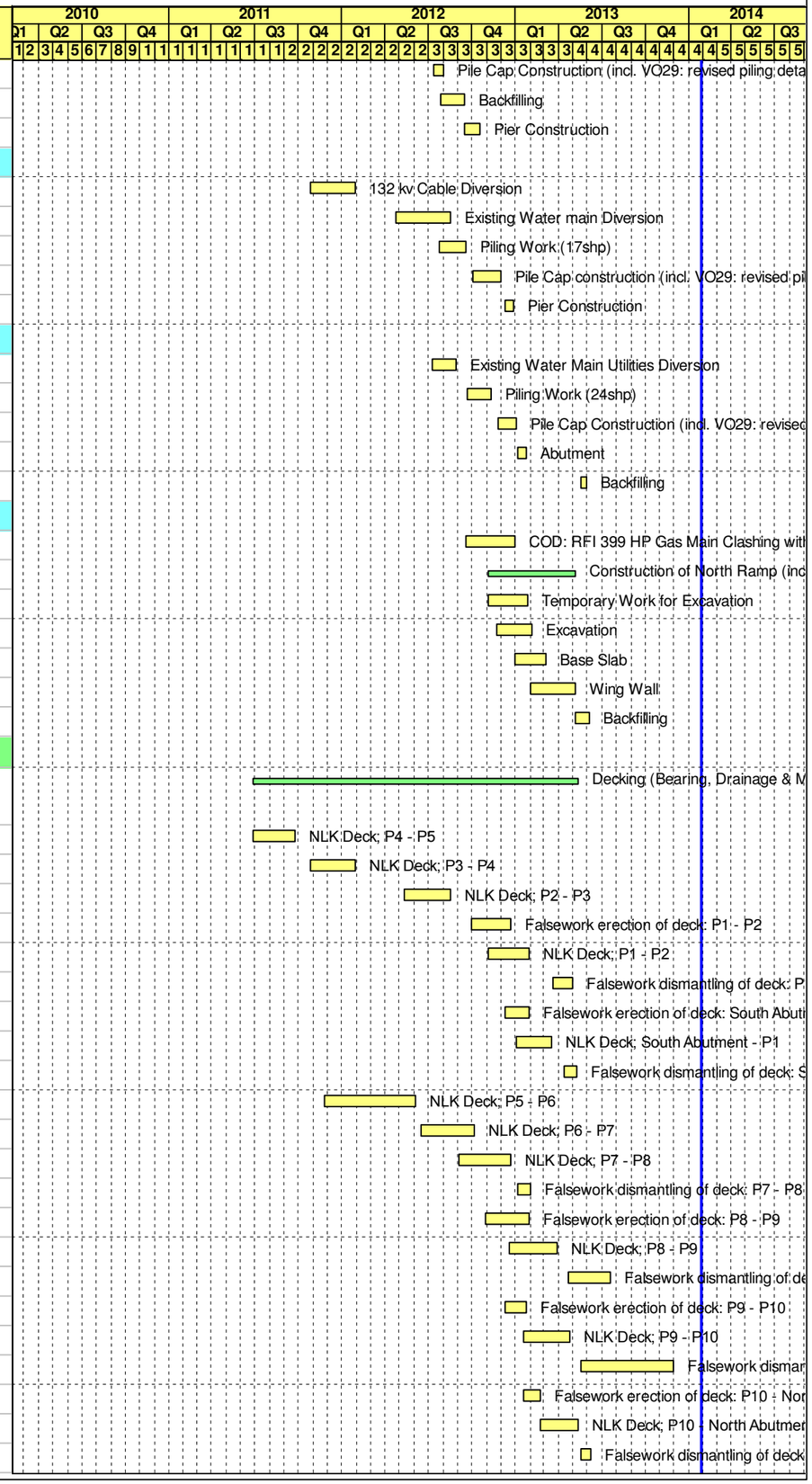
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| **Pier NLKP1** | | | | | | |
| S28N1200 | Gas Main Diversion | | 100% | 45 | 28-Dec-11 A | 28-Jan-12 A |
| S28N1232 | Piling (16shp) | | 100% | 50 | 13-Apr-12 A | 25-Aug-12 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 |
| 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 Flyover Pier NLKP5) | | 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 |



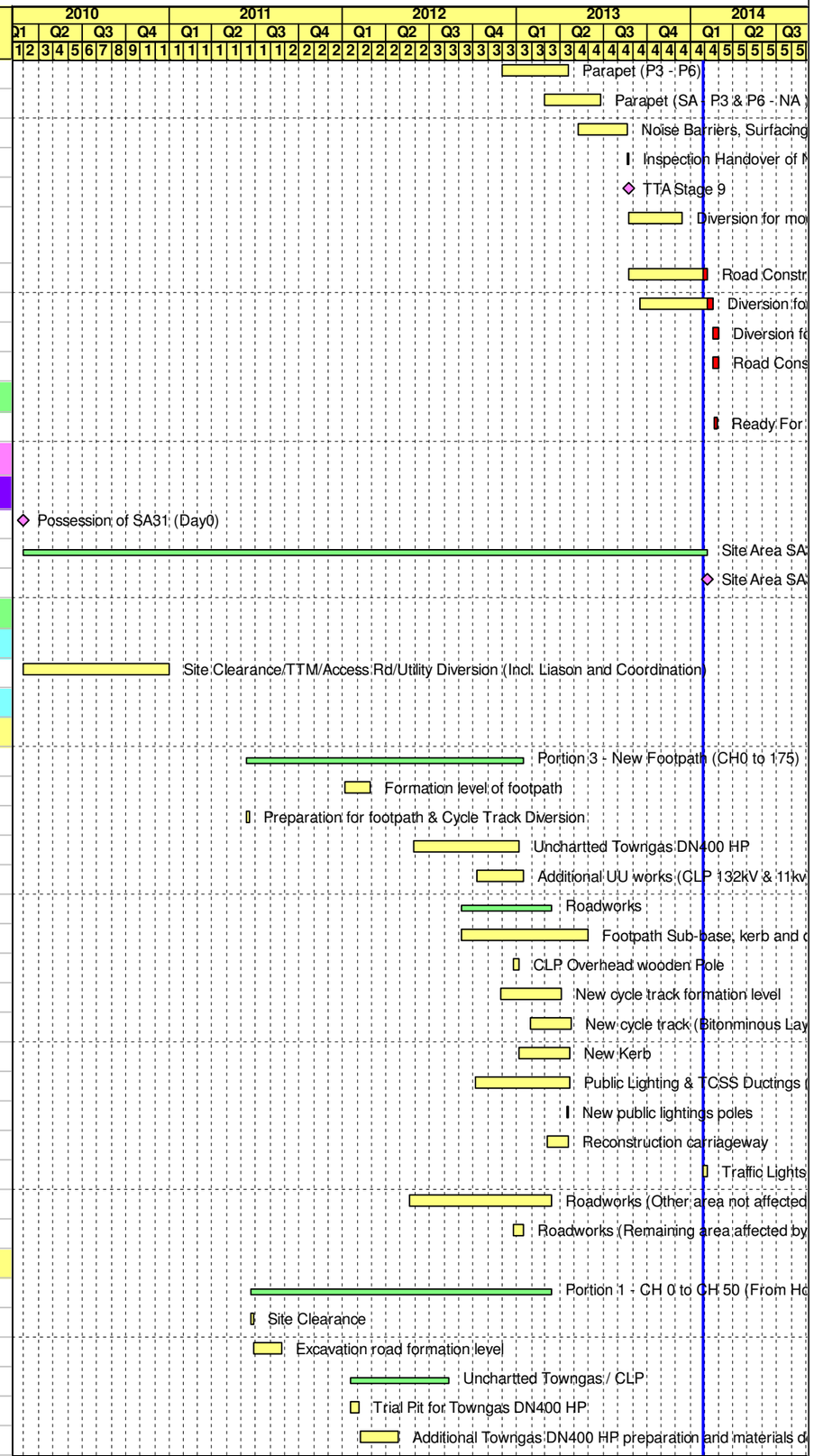
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28N1309 | Backfilling | | 100% | 30 | 13-Dec-10 A | 18-Dec-10 A |
| S28N1310 | Pier Construction | | 100% | 74 | 28-Dec-10 A | 28-Mar-11 A |
| **Pier NLKP6** | | | | | | |
| 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 |
| 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 |



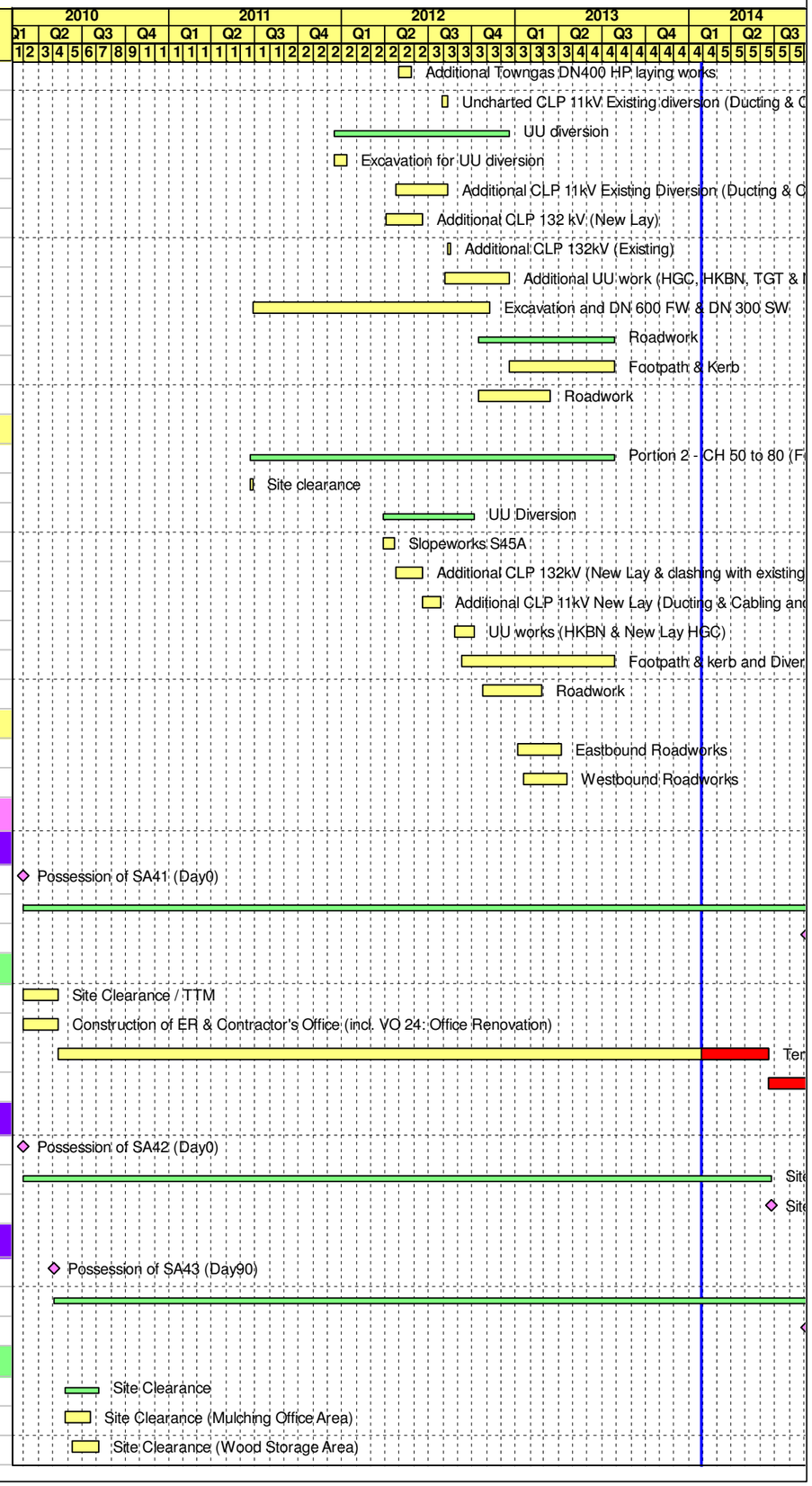
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28N1390 | Pile Cap Construction (incl. VO29: revised piling details) | | 100% | 12 | 12-Jul-12 A | 01-Aug-12 A |
| S28N1391 | Backfilling | | 100% | 12 | 28-Jul-12 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 |
| S28N1435 | Construction of North Ramp (incl. VO72: revised North & South Ramps Retaining Wall) | | 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 | | 100% | 18 | 20-May-13 A | 30-Nov-13 A |
| 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 |



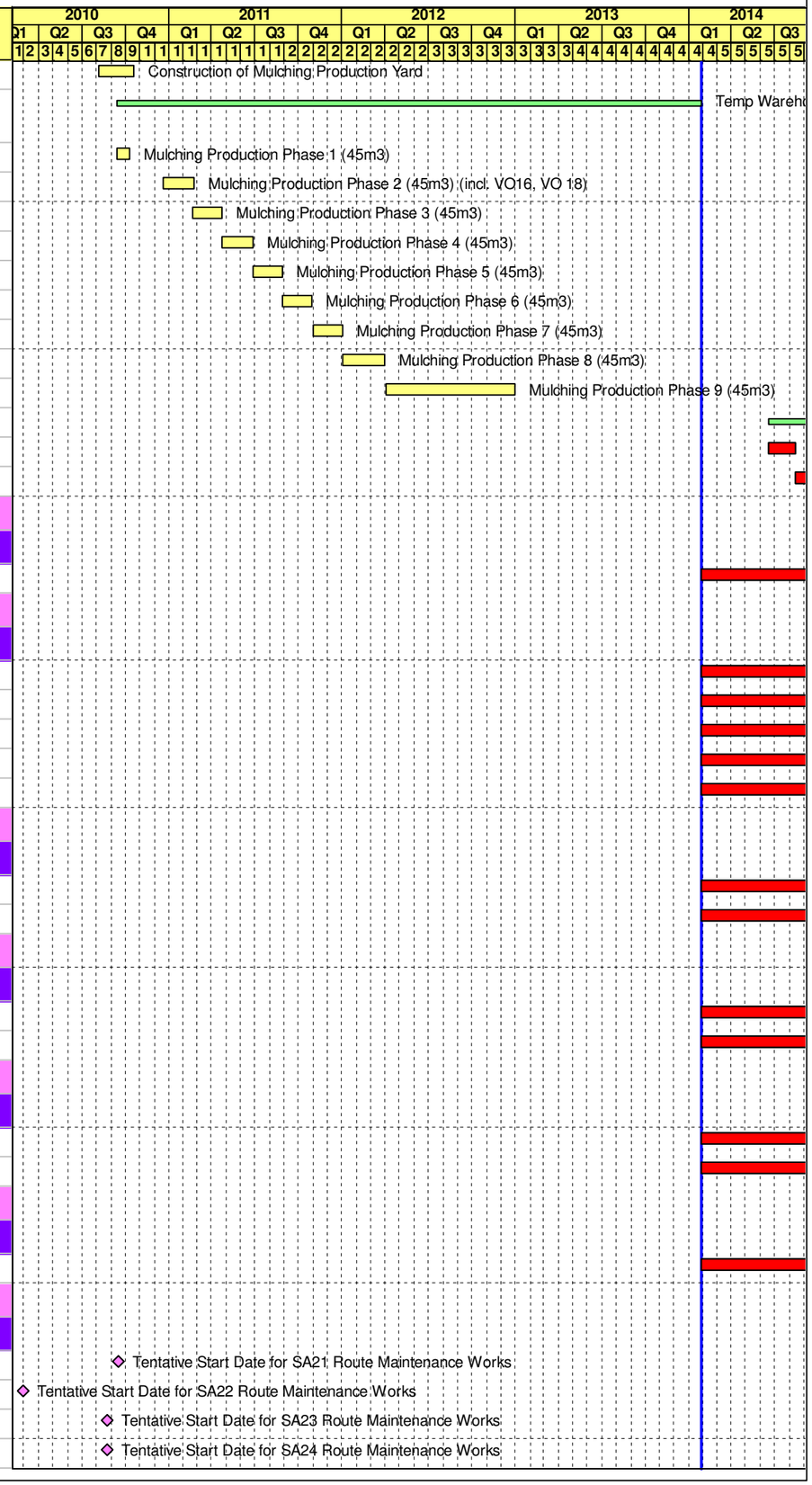
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S28N1570 | Parapet (P3 - P6) | | 100% | 45 | 03-Dec-12 A | 18-Apr-13 A |
| S28N1660 | Parapet (SA - P3 & P6 - NA ) | | 100% | 65 | 28-Feb-13 A | 26-Jun-13 A |
| S28N1680 | 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 | | 100% | 43 | 26-Aug-13 A | 14-Dec-13 A |
| S28N1715 | Road Construction Works (N/B) C2/C3 interface | -22 | 80% | 30 | 26-Aug-13 A | 05-Feb-14 |
| S28N1720 | Diversion for removing central barriers Stage 2 | -22 | 45% | 18 | 17-Sep-13 A | 17-Feb-14 |
| S28N1730 | Diversion for modifying kerb and laying asphalt paving road (S/B) reconstruction of 1 lane Stage 3 | -22 | 0% | 10 | 17-Feb-14 | 28-Feb-14 |
| S28N1735 | Road Construction Works (S/B) C2/C3 interface | -22 | 0% | 10 | 17-Feb-14 | 28-Feb-14 |
| ***Ready For Pre-Handover Retaining Wall of Section 4*** | | | | | | |
| HRW0040 | Ready For Pre-Handover Retaining Wall W72B, W73 and W74 | -6 | 0% | 7 | 19-Feb-14 | 27-Feb-14 |
| **Section 5** | | | | | | |
| **Site Area SA31** | | | | | | |
| PHSA3120 | Possession of SA31 (Day0) | | 100% | 0 | 26-Feb-10 A | |
| SA310000 | Site Area SA31 Works Period (incl. VO42, VO52, VO59 & VO65) | 142 | 98.98% | 884 | 26-Feb-10 A | 04-Feb-14 |
| SA310010 | Site Area SA31 Works Completion | 142 | 0% | 0 | | 04-Feb-14 |
| ***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 | 116 | 0% | 5 | 27-Jan-14 | 04-Feb-14 |
| 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 |



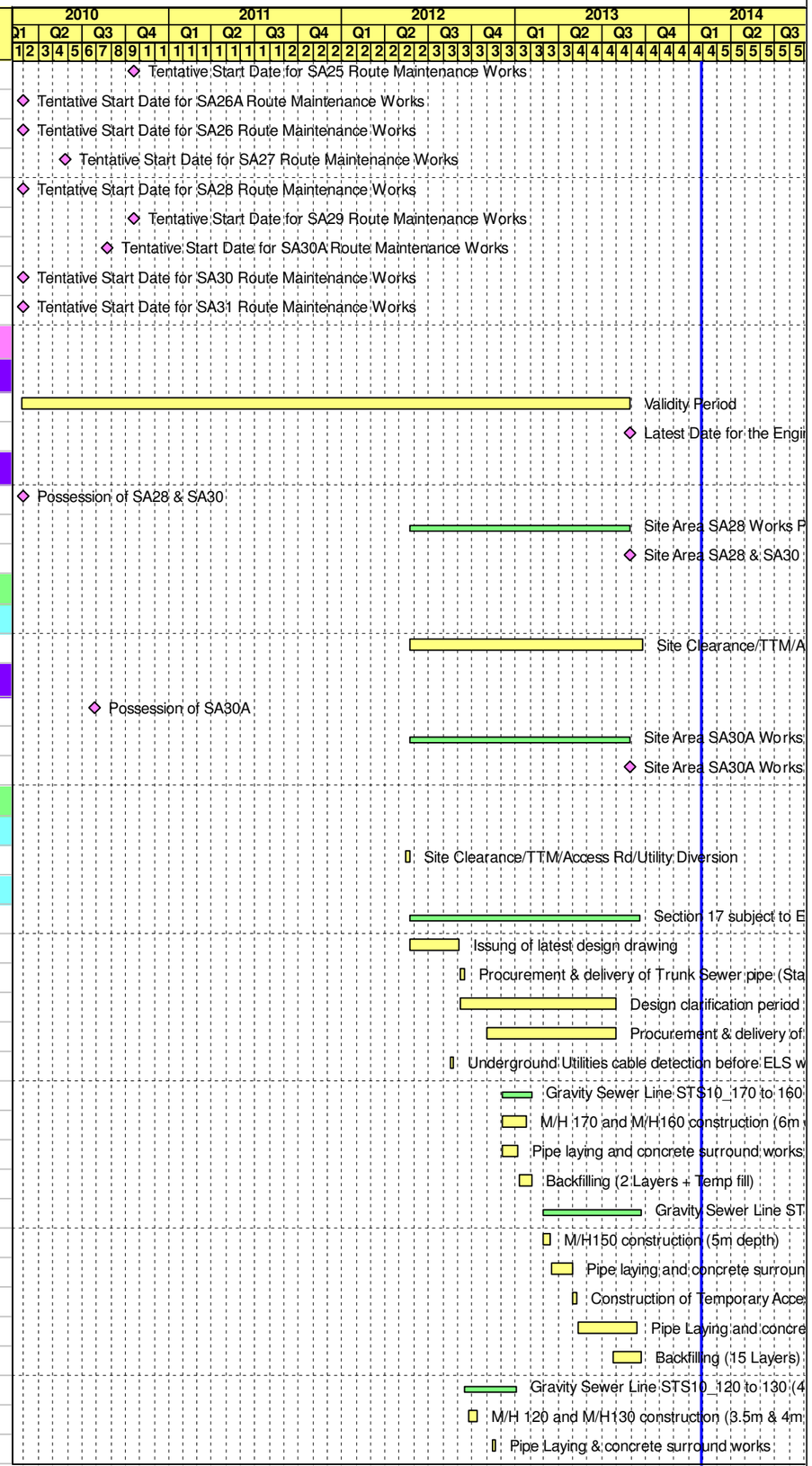
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S31S4670 | Additional Towngas DN400 HP laying works | | 100% | 12 | 28-Apr-12 A | 26-May-12 A |
| S31S4675 | Uncharted CLP 11kV Existing diversion (Ducting & Cabling, 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 |
| 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 | -71 | 85.96% | 1581 | 26-Feb-10 A | 05-Sep-14 |
| SA410010 | Site Area SA41 Works Completion | -71 | 0% | 0 | | 05-Sep-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 | -78 | 90% | 1419 | 13-May-10 A | 17-Jun-14 |
| S41G9120 | Dismantle of ER & Contractor's Office | -60 | 0% | 68 | 17-Jun-14 | 05-Sep-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 | 90.51% | 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 | -72 | 85.13% | 1492 | 04-May-10 A | 05-Sep-14 |
| SA410030 | Site Area SA43 Works Completion | -72 | 0% | 0 | | 05-Sep-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 |



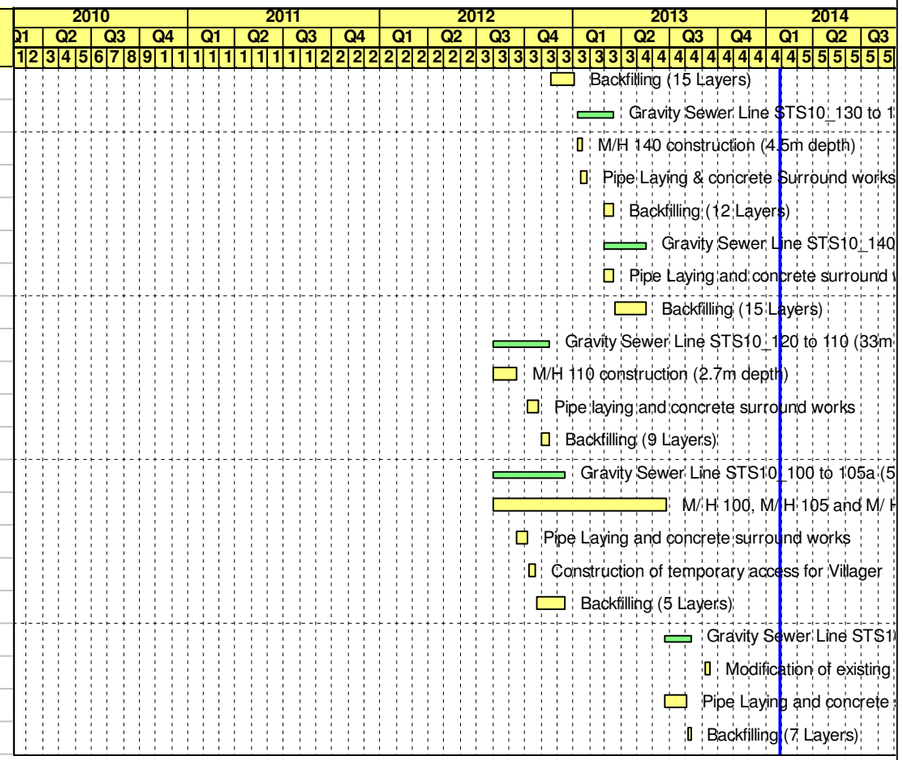
| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| S41G040 | Construction of Mulching Production Yard | | 100% | 60 | 06-Aug-10 A | 18-Oct-10 A |
| S41G050 | Temp Warehouse, Fabrication & Equip Yard (Site allcated for period till 8 May 2012) : Expected production = 900m3 | 151 | 100% | 1260 | 13-Sep-10 A | 27-Jan-14 |
| 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 | -61 | 0% | 68 | 17-Jun-14 | 05-Sep-14 |
| S41G270 | Dismantle of Mulching Production Yard : Removing Mulching Office | -61 | 0% | 48 | 17-Jun-14 | 13-Aug-14 |
| S41G280 | Dismantle of Mulching Production Yard : Removing Security Fence and Security Device | -61 | 0% | 20 | 13-Aug-14 | 05-Sep-14 |
| **Section 8** | | | | | | |
| **Establishment Works** | | | | | | |
| S21G8000 | SA21 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **Section 9** | | | | | | |
| **Establishment Works** | | | | | | |
| S22G8000 | SA22 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S23G8000 | SA23 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S24G8000 | SA24 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S25G8000 | SA25 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S26G8000 | SA26 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **Section 10** | | | | | | |
| **Establishment Works** | | | | | | |
| S26AG800 | SA26A Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S27G8000 | SA27 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **Section 11** | | | | | | |
| **Establishment Works** | | | | | | |
| S28G8000 | SA28 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S29G8000 | SA29 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **Section 12** | | | | | | |
| **Establishment Works** | | | | | | |
| S30AG800 | SA30A Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| S30G8000 | SA30 Establishment Works | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **Section 13** | | | | | | |
| **Establishment Works** | | | | | | |
| S30AG810 | Remainder of Establishment Works (Exclude Section 8 to 12) | -214 | 0% | 365 | 27-Jan-14 | 26-Jan-15 |
| **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 | |



| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| 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 |
| **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 |



| Activity ID | Activity Name | Total Float | Activity % Complete | Original Duration | Start | Finish |
|---|---|---|---|---|---|---|
| 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 |
| 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. | | V |
| | • Effective water sprays shall be used to control potential dust emission sources such as unpaved haul roads and active construction areas. | | V |
| | • 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. | | @ |
| | • Site surface runoff should be settled to remove sand/silt before it is discharged into the existing storm drains. | | @ |
| | 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. | | V |
| | • 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. | | V |
| | • 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. | | V |
| | • 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. | | @ |
| | 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: | 13-May-14 | Next Due Date: | 13-Jul-14 |
| Equipment No.: | A-001-53T | Serial No. | 10216 |

| Ambient Condition | | | |
|---|---|---|---|
| Temperature, Ta (K) | 302 | Pressure, Pa (mmHg) | 754.0 |

| 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 | 8.9 | 2.95 | 1.50 | 44.0 | 43.53 |
| 13 | 6.0 | 2.42 | 1.23 | 36.0 | 35.62 |
| 10 | 4.4 | 2.08 | 1.05 | 32.0 | 31.66 |
| 7 | 3.5 | 1.85 | 0.94 | 28.0 | 27.70 |
| 5 | 2.2 | 1.47 | 0.74 | 22.0 | 21.77 |

**By Linear Regression of Y on X**

**Slope , mw =** **28.2284** **Intercept, bw =** **1.1720**

**Correlation Coefficient* =** **0.9970**

*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 )]$^{1/2}$= **38.27**

Remarks:

QC Reviewer: Y-C Signature: Y Date: 14 May 14

D:\HVS Calibration Certificate (Existing)\6

# AECOM Asia Company Limited
# TSP High Volume Sampler
# Field Calibration Report

| | | | |
|---|---|---|---|
| Station | Shan Tong New Village (AM2) | Operator: | Gary Choi |
| Cal. Date: | 13-May-14 | Next Due Date: | 13-Jul-14 |
| Equipment No.: | A-001-29T | Serial No. | 10202 |

| Ambient Condition | | | |
|---|---|---|---|
| Temperature, Ta (K) | 302 | Pressure, Pa (mmHg) | 754.0 |

| 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 | 9.8 | 3.10 | 1.58 | 48.0 | 47.49 |
| 13 | 7.4 | 2.69 | 1.37 | 40.0 | 39.58 |
| 10 | 5.5 | 2.32 | 1.18 | 34.0 | 33.64 |
| 7 | 3.6 | 1.88 | 0.95 | 28.0 | 27.70 |
| 5 | 2.5 | 1.56 | 0.79 | 22.0 | 21.77 |

**By Linear Regression of Y on X**

**Slope , mw =** 31.7399 **Intercept, bw =** -3.2393

**Correlation Coefficient* =** 0.9958

*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

From the TSP Field Calibration Curve, take Qstd = 1.30$m^3$/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; $IC = ( mw \times Qstd + bw ) \times [( 760 / Pa ) \times ( Ta / 298 )]^{1/2} =$ **38.43**

Remarks: _____

QC Reviewer: _____ Signature: _____ Date: 14-May-14

# AECOM Asia Company Limited
# TSP High Volume Sampler
# Field Calibration Report

| | | | |
|---|---|---|---|
| Station | Riverain Bayside (AM3) | Operator: | Choi Wing Ho |
| Cal. Date: | 17-Apr-14 | Next Due Date: | 17-Jun-14 |
| Equipment No.: | A-001-69T | Serial No. | 716 |

| Ambient Condition | | | |
|---|---|---|---|
| Temperature, Ta (K) | 300 | Pressure, Pa (mmHg) | 757.8 |

| 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 | 8.6 | 2.92 | 1.49 | 46.0 | 45.78 |
| 13 | 7.3 | 2.69 | 1.37 | 42.0 | 41.80 |
| 10 | 5.4 | 2.31 | 1.18 | 34.0 | 33.84 |
| 7 | 3.9 | 1.97 | 1.00 | 26.0 | 25.88 |
| 5 | 2.8 | 1.67 | 0.84 | 21.0 | 20.90 |

**By Linear Regression of Y on X**

**Slope , mw =** 39.6946 **Intercept, bw =** -12.9786

**Correlation Coefficient* =** 0.9977

*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 )]$^{1/2}$= **38.81**

Remarks:

QC Reviewer: Signature: Date: 22 Apr 14

D:\HVS Calibration Certificate (Existing)\6

# AECOM Asia Company Limited
# TSP High Volume Sampler
# Field Calibration Report

| | | | |
|---|---|---|---|
| Station | Riverain Bayside (AM3) | Operator: | Choi Wing Ho |
| Cal. Date: | 16-Jun-14 | Next Due Date: | 16-Aug-14 |
| Equipment No.: | A-001-69T | Serial No. | 716 |

| Ambient Condition | | | |
|---|---|---|---|
| Temperature, Ta (K) | 305 | Pressure, Pa (mmHg) | 751.9 |

| Orifice Transfer Standard Information | | | | | |
|---|---|---|---|---|---|
| Serial No: | 843 | Slope, mc | 1.99102 | Intercept, bc | -0.00616 |
| Last Calibration Date: | 9-Dec-13 | **mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$** | | | |
| Next Calibration Date: | 9-Dec-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 | 8.6 | 2.88 | 1.45 | 47.0 | 46.21 |
| 13 | 7.4 | 2.67 | 1.35 | 43.0 | 42.28 |
| 10 | 5.4 | 2.28 | 1.15 | 33.0 | 32.44 |
| 7 | 4.0 | 1.97 | 0.99 | 26.0 | 25.56 |
| 5 | 2.9 | 1.67 | 0.84 | 20.0 | 19.66 |

**By Linear Regression of Y on X**

**Slope , mw =** **44.5743** **Intercept, bw =** **-18.3225**

**Correlation Coefficient* =** **0.9983**

*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

From the TSP Field Calibration Curve, take Qstd = 1.30$m^3$/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 )]$^{1/2}$= **40.30**

Remarks: _____

QC Reviewer: WS CHAN Signature: _____ Date: 17/6/14

D:\Users\chanwsr\I

# AECOM Asia Company Limited
# TSP High Volume Sampler
# Field Calibration Report

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

| Ambient Condition | | | |
|---|---|---|---|
| Temperature, Ta (K) | 302 | Pressure, Pa (mmHg) | 754.0 |

| 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 | 8.5 | 2.88 | 1.47 | 48.0 | 47.49 |
| 13 | 6.5 | 2.52 | 1.28 | 40.0 | 39.58 |
| 10 | 4.9 | 2.19 | 1.11 | 34.0 | 33.64 |
| 7 | 3.2 | 1.77 | 0.90 | 28.0 | 27.70 |
| 5 | 2.5 | 1.56 | 0.79 | 22.0 | 21.77 |

**By Linear Regression of Y on X**

**Slope , mw =** **36.1068** **Intercept, bw =** **-6.0712**

**Correlation Coefficient* =** **0.9915**

*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

From the TSP Field Calibration Curve, take Qstd = 1.30$m^3$/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; $IC = ( mw \times Qstd + bw ) \times [( 760 / Pa ) \times ( Ta / 298 )]^{1/2}$ = **41.30**

Remarks: _____

QC Reviewer: _____ Signature: _____ Date: 14 May 14

TISCH Environmental

TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE
VILLAGE OF CLEVES, OH
45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX

# ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - May 28, 2014 Rootsmeter S/N 0438320 Ta (K) - 296
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 | 1.3790 | 3.2 | 2.00 |
| 2 | NA | NA | 1.00 | 0.9720 | 6.4 | 4.00 |
| 3 | NA | NA | 1.00 | 0.8690 | 7.9 | 5.00 |
| 4 | NA | NA | 1.00 | 0.8260 | 8.8 | 5.50 |
| 5 | NA | NA | 1.00 | 0.6830 | 12.8 | 8.00 |

## DATA TABULATION

| Vstd | (x axis) Qstd | (y axis) | | Va | (x axis) Qa | (y axis) |
|---|---|---|---|---|---|---|
| 0.9917 | 0.7191 | 1.4113 | | 0.9957 | 0.7221 | 0.8874 |
| 0.9875 | 1.0159 | 1.9959 | | 0.9915 | 1.0201 | 1.2549 |
| 0.9854 | 1.1339 | 2.2315 | | 0.9894 | 1.1385 | 1.4030 |
| 0.9843 | 1.1916 | 2.3405 | | 0.9883 | 1.1965 | 1.4715 |
| 0.9790 | 1.4333 | 2.8227 | | 0.9829 | 1.4392 | 1.7747 |
| Qstd slope (m) = | | 1.97518 | | Qa slope (m) = | | 1.23683 |
| intercept (b) = | | -0.01001 | | intercept (b) = | | -0.00630 |
| 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*: *10 May 2014*

*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 | *11-05-14* | *09:30 - 10:30* | *26.7* | *75* | *0.04434* | *1775* | *29.58* |
| 2 | *11-05-14* | *10:30 - 11:30* | *26.7* | *75* | *0.04716* | *1880* | *31.33* |
| 3 | *11-05-14* | *11:30 - 12:30* | *26.8* | *76* | *0.04927* | *1964* | *32.73* |
| 4 | *11-05-14* | *12:30 - 13:30* | *26.8* | *75* | *0.05035* | *2015* | *33.58* |

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: *0.9982*

Validity of Calibration Record: *11 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 12 May 2014

# 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*: | *10 May 2014* | | |

*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 | *11-05-14* | *09:45 - 10:45* | *26.7* | *75* | *0.04568* | *1713* | *28.50* |
| 2 | *11-05-14* | *10:45 - 11:45* | *26.7* | *75* | *0.04857* | *1819* | *30.32* |
| 3 | *11-05-14* | *11:45 - 12:45* | *26.8* | *76* | *0.05063* | *1903* | *31.72* |
| 4 | *11-05-14* | *12:45 - 13:45* | *26.8* | *75* | *0.05116* | *1922* | *32.03* |

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: *0.9984*

Validity of Calibration Record: *11 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 12 May 2014

# 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*: *10 May 2014*

*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 | 11-05-14 | 13:30 - 14:30 | 26.8 | 75 | 0.05034 | 2017 | 33.62 |
| 2 | 11-05-14 | 14:30 - 15:30 | 26.9 | 76 | 0.05211 | 2084 | 34.73 |
| 3 | 11-05-14 | 15:30 - 16:30 | 26.9 | 76 | 0.05163 | 2066 | 34.43 |
| 4 | 11-05-14 | 16:30 - 17:30 | 26.9 | 76 | 0.05272 | 2113 | 35.22 |

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: *0.9965*

Validity of Calibration Record: *11 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 12 May 2014

# 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* | $K_0$: | *12500* |
| Last Calibration Date*: | *10 May 2014* | | |

*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 | *11-05-14* | *13:45 - 14:45* | *26.8* | *75* | *0.04984* | *1996* | *33.27* |
| 2 | *11-05-14* | *14:45 - 15:45* | *26.9* | *76* | *0.05196* | *2077* | *34.62* |
| 3 | *11-05-14* | *15:45 - 16:45* | *26.9* | *76* | *0.05141* | *2055* | *34.25* |
| 4 | *11-05-14* | *16:45 - 17:45* | *26.9* | *76* | *0.05263* | *2109* | *35.15* |

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: *0.9969*

Validity of Calibration Record: *11 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 12 May 2014

# 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*: | *10 May 2014* | | |

*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 | *18-05-14* | *09:00 - 10:00* | *28.3* | *77* | *0.04527* | *1815* | *30.25* |
| 2 | *18-05-14* | *10:00 - 11:00* | *28.3* | *77* | *0.04811* | *1923* | *32.05* |
| 3 | *18-05-14* | *11:00 - 12:00* | *28.3* | *77* | *0.05103* | *2041* | *34.02* |
| 4 | *18-05-14* | *12:00 - 13:00* | *28.4* | *77* | *0.05366* | *2157* | *35.95* |

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: *0.9987*

Validity of Calibration Record: *18 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 19 May 2014

# 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*: | *10 May 2014* | | |

*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 | *18-05-14* | *09:30 - 10:30* | *28.3* | *77* | *0.04614* | *1846* | *30.77* |
| 2 | *18-05-14* | *10:30 - 11:30* | *28.3* | *77* | *0.04823* | *1934* | *32.23* |
| 3 | *18-05-14* | *11:30 - 12:30* | *28.3* | *77* | *0.05152* | *2053* | *34.22* |
| 4 | *18-05-14* | *12:30 - 13:30* | *28.4* | *77* | *0.05391* | *2162* | *36.03* |

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: *0.9981*

Validity of Calibration Record: *18 May 2015*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 19 May 2014

# 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

# CERTIFICATE OF CALIBRATION

**Certificate No.:** 14CA0305 06-01 

## Item tested

| | | | |
|---|---|---|---|
| Description: | Sound Level Meter (Type 1) | , | Microphone |
| Manufacturer: | B & K | , | B & K |
| Type/Model No.: | 2238 | , | 4188 |
| Serial/Equipment No.: | 2285692 N.009.04 | , | 2250420 |
| Adaptors used: | - | , | - |

## Item submitted by

| | |
|---|---|
| Customer Name: | AECOM ASIA CO. LTD. |
| Address of Customer: | - |
| Request No.: | - |
| Date of receipt: | 05-Mar-2014 |

## Date of test: 07-Mar-2014

## 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:** 12-Mar-2014 **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. 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.

# APPENDIX F
# EM&A MONITORING SCHEDULES

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

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

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

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

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$^3$) |
|---|---|---|---|---|
| 5-Jun-14 | 10:18 | 78.0 | 75.3 | 76.6 |
| 11-Jun-14 | 10:00 | 75.0 | 73.2 | 74.6 |
| 17-Jun-14 | 10:43 | 75.1 | 76.4 | 74.9 |
| 23-Jun-14 | 10:36 | 75.6 | 76.3 | 74.8 |
| 28-Jun-14 | 10:30 | 72.6 | 70.0 | 68.9 |
| | | | Average | 74.5 |
| | | | Min | 68.9 |
| | | | Max | 78.0 |

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

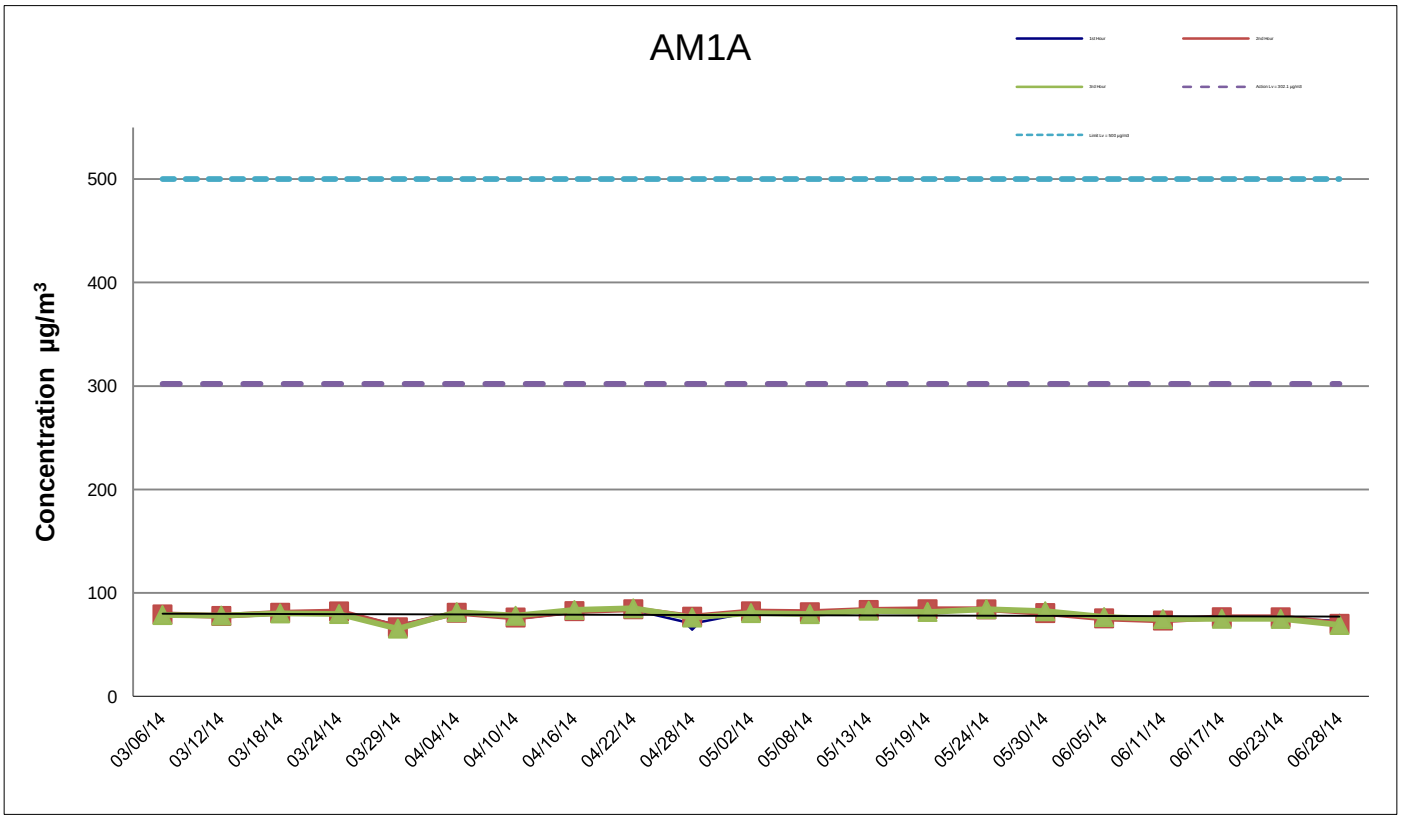
| Date | Start Time (hh:mm) | 1st Hour Conc. (µg/m$^3$) | 2nd Hour Conc. (µg/m$^3$) | 3rd Hour Conc. (µg/m$^3$) |
|---|---|---|---|---|
| 5-Jun-14 | 10:06 | 74.9 | 75.5 | 77.2 |
| 11-Jun-14 | 10:10 | 72.9 | 76.5 | 70.7 |
| 17-Jun-14 | 10:35 | 78.3 | 76.5 | 75.9 |
| 23-Jun-14 | 10:25 | 73.3 | 72.1 | 73.8 |
| 28-Jun-14 | 10:45 | 68.1 | 69.4 | 67.1 |
| | | | Average | 73.5 |
| | | | Min | 67.1 |
| | | | Max | 78.3 |

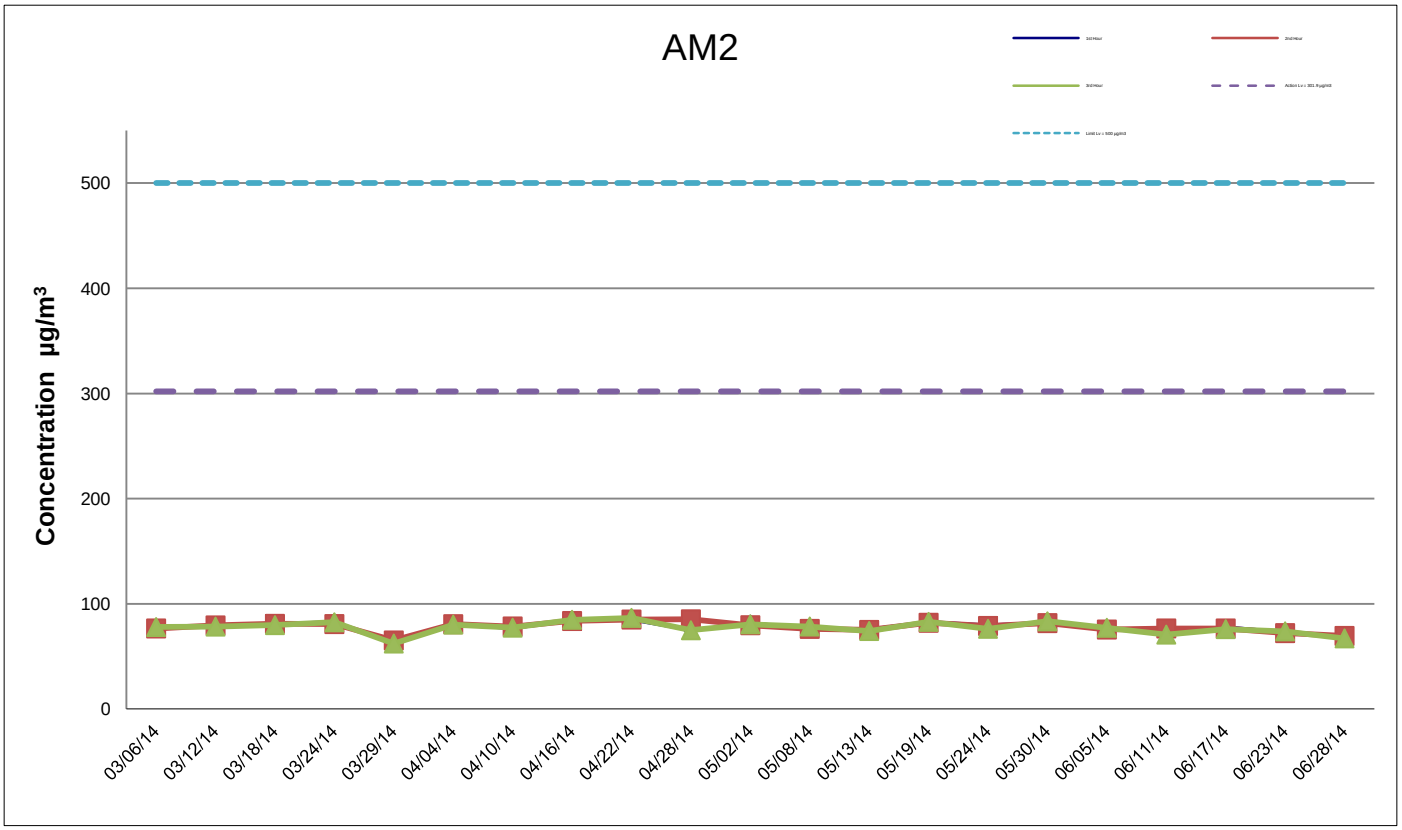
**1-hour TSP Monitoring Results at Station AM3**
**(Roof of Switch Room at Riverain Bayside)**

| Date | Start Time (hh:mm) | 1st Hour Conc. (µg/m$^3$) | 2nd Hour Conc. (µg/m$^3$) | 3rd Hour Conc. (µg/m$^3$) |
|---|---|---|---|---|
| 5-Jun-14 | 9:55 | 73.8 | 77.6 | 74.4 |
| 11-Jun-14 | 9:40 | 71.1 | 74.4 | 76.5 |
| 17-Jun-14 | 10:25 | 74.8 | 76.1 | 77.4 |
| 23-Jun-14 | 10:12 | 74.6 | 72.9 | 73.5 |
| 28-Jun-14 | 11:00 | 66.9 | 68.0 | 68.4 |
| | | | Average | 73.4 |
| | | | Min | 66.9 |
| | | | Max | 77.6 |

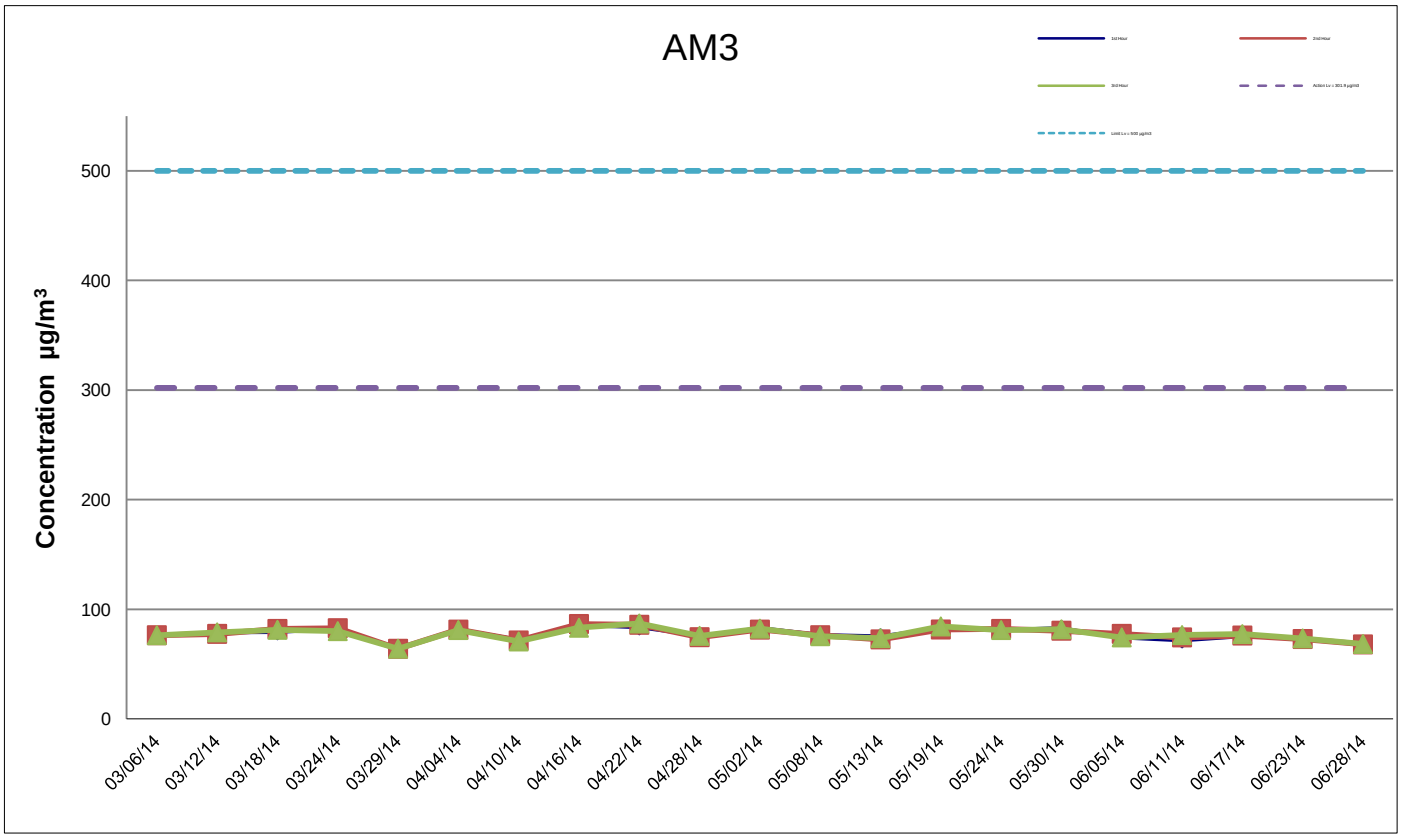
**1-hour TSP Monitoring Results at Station AM4A**
**(Roof of Switch Room at 168 Shek Kwu Lung Village)**

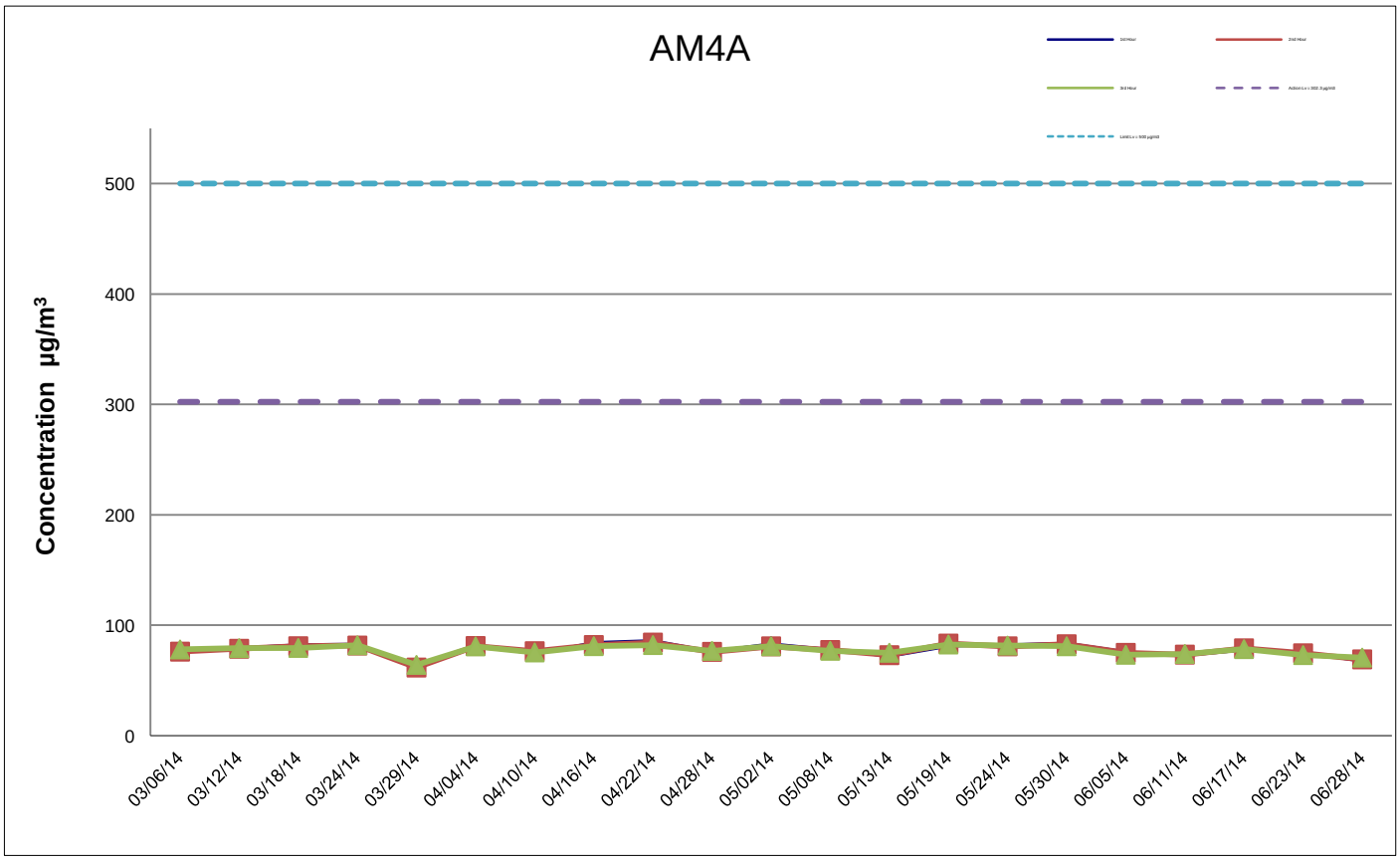
| Date | Start Time (hh:mm) | 1st Hour Conc. (µg/m$^3$) | 2nd Hour Conc. (µg/m$^3$) | 3rd Hour Conc. (µg/m$^3$) |
|---|---|---|---|---|
| 5-Jun-14 | 10:32 | 76.1 | 75.0 | 73.3 |
| 11-Jun-14 | 10:30 | 72.4 | 73.4 | 74.0 |
| 17-Jun-14 | 10:57 | 77.3 | 79.1 | 78.4 |
| 23-Jun-14 | 10:50 | 75.0 | 74.6 | 73.0 |
| 28-Jun-14 | 11:30 | 67.1 | 69.1 | 70.7 |
| | | | Average | 73.9 |
| | | | Min | 67.1 |
| | | | Max | 79.1 |




| | | | | | |
|---|---|---|---|---|---|
| AECOM | **Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation** | SCALE | N.T.S. | DATE | Jul-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 | Jul-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. ($^{o}$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. ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Jun-14 | Fine | 29.9 | 1003.6 | 1.33 | 1.33 | 1.33 | 1913.8 | 2.6879 | 2.7163 | 0.0284 | 21027.46 | 21051.46 | 24.00 | 14.8 |
| 11-Jun-14 | Fine | 28.1 | 1001.9 | 1.33 | 1.33 | 1.33 | 1913.8 | 2.7431 | 2.7926 | 0.0495 | 21051.46 | 21075.46 | 24.00 | 25.9 |
| 17-Jun-14 | Fine | 30.2 | 1001.9 | 1.33 | 1.33 | 1.33 | 1913.8 | 2.6566 | 2.6943 | 0.0377 | 21075.46 | 21099.46 | 24.00 | 19.7 |
| 23-Jun-14 | Rainy | 27.8 | 1004.1 | 1.33 | 1.33 | 1.33 | 1913.8 | 2.6466 | 2.7215 | 0.0749 | 21099.46 | 21123.46 | 24.00 | 39.1 |
| 28-Jun-14 | Sunny | 30.3 | 1004.3 | 1.33 | 1.33 | 1.33 | 1913.8 | 2.6633 | 2.7025 | 0.0392 | 21123.46 | 21147.46 | 24.00 | 20.5 |
| | | | | | | | | | | | | | Average | 24.0 |
| | | | | | | | | | | | | | Min | 14.8 |
| | | | | | | | | | | | | | Max | 39.1 |

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

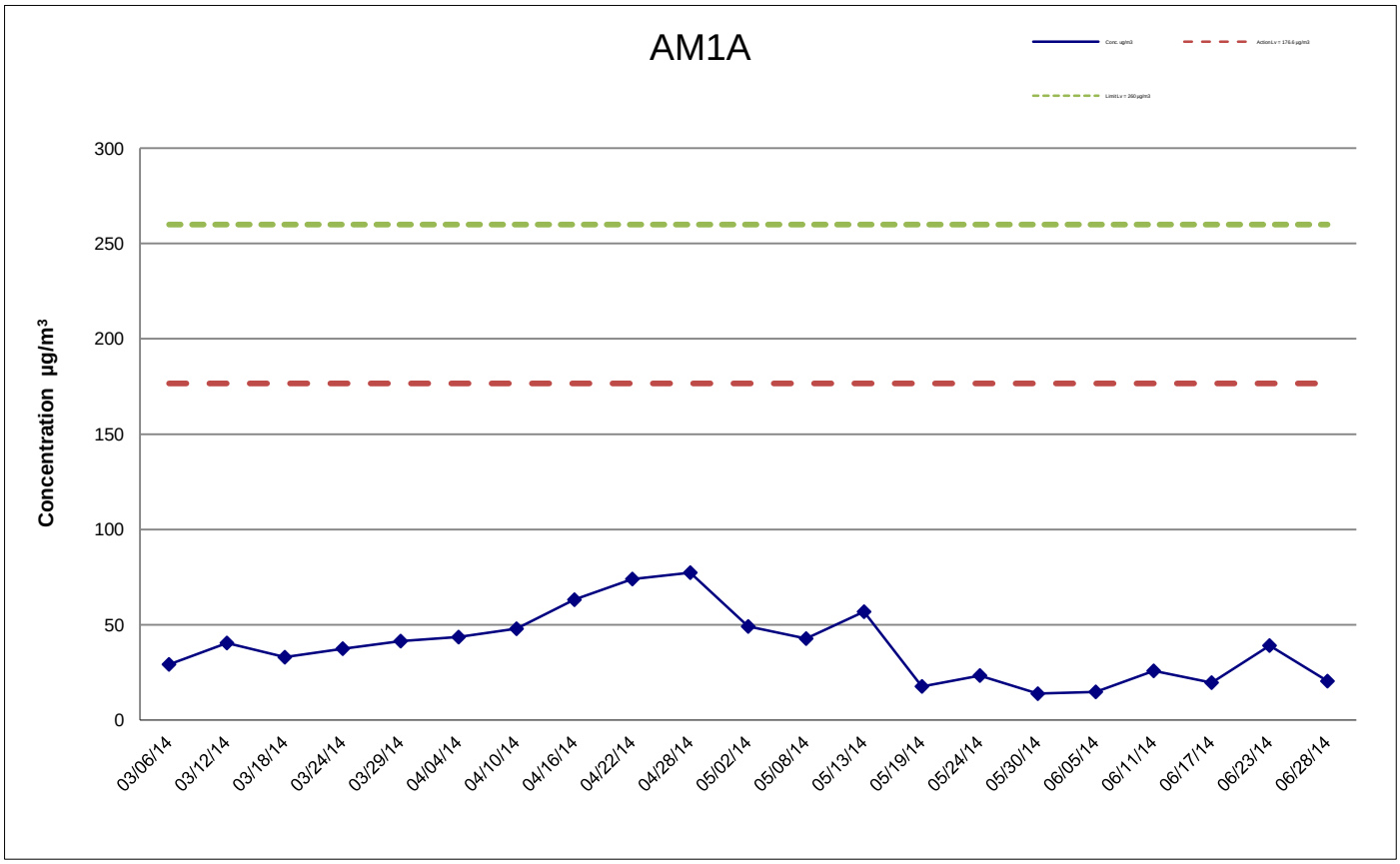
| Date | Weather Condition | Air Temp. ($^{o}$C) | Atmospheric Pressure(hPa) | Flow Rate ($m^3$/min.) Initial | Flow Rate ($m^3$/min.) Final | Av. flow ($m^3$/min) | Total vol. ($m^3$) | Filter Weight (g) Initial | Filter Weight (g) Final | Particulate weight(g) | Elapse Time Initial | Elapse Time Final | Sampling Time(hrs.) | Conc. ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Jun-14 | Fine | 29.9 | 1003.6 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.6692 | 2.7046 | 0.0354 | 17599.12 | 17623.12 | 24.00 | 18.5 |
| 11-Jun-14 | Fine | 28.1 | 1001.9 | 1.32 | 1.32 | 1.32 | 1905.1 | 2.7846 | 2.8276 | 0.0430 | 17623.12 | 17647.12 | 24.00 | 22.6 |
| 17-Jun-14 | Fine | 30.2 | 1001.9 | 1.32 | 1.32 | 1.32 | 1905.1 | 2.6643 | 2.7067 | 0.0424 | 17647.12 | 17671.12 | 24.00 | 22.3 |
| 23-Jun-14 | Rainy | 27.8 | 1004.1 | 1.31 | 1.31 | 1.31 | 1890.7 | 2.6757 | 2.7000 | 0.0243 | 17671.12 | 17695.12 | 24.00 | 12.9 |
| 28-Jun-14 | Sunny | 30.3 | 1004.3 | 1.32 | 1.32 | 1.32 | 1905.1 | 2.7489 | 2.7916 | 0.0427 | 17695.12 | 17719.12 | 24.00 | 22.4 |
| | | | | | | | | | | | | | Average | 19.7 |
| | | | | | | | | | | | | | Min | 12.9 |
| | | | | | | | | | | | | | Max | 22.6 |

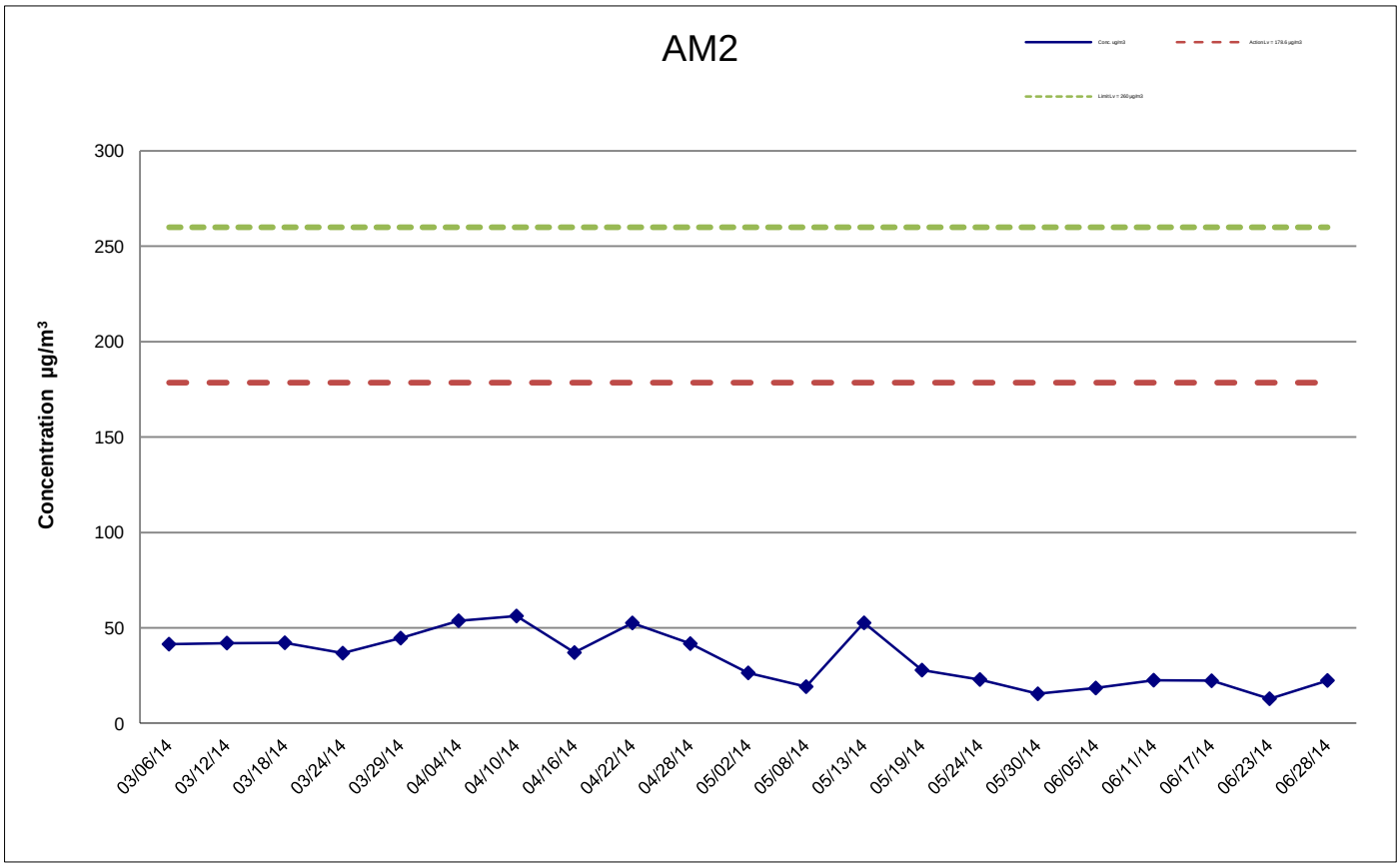
**24-hour TSP Monitoring Results at Station AM3 (Roof of Switch Room at Riverain Bayside)**

| Date | Weather Condition | Air Temp. ($^{o}$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. ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Jun-14 | Fine | 29.9 | 1003.6 | 1.33 | 1.33 | 1.33 | 1921.0 | 2.6817 | 2.7151 | 0.0334 | 21428.59 | 21452.59 | 24.00 | 17.4 |
| 11-Jun-14 | Fine | 28.1 | 1001.9 | 1.33 | 1.33 | 1.33 | 1921.0 | 2.7382 | 2.7924 | 0.0542 | 21452.59 | 21476.59 | 24.00 | 28.2 |
| 17-Jun-14 | Fine | 30.2 | 1001.9 | 1.33 | 1.33 | 1.33 | 1921.0 | 2.6675 | 2.7083 | 0.0408 | 21476.59 | 21500.59 | 24.00 | 21.2 |
| 23-Jun-14 | Rainy | 27.8 | 1004.1 | 1.33 | 1.33 | 1.33 | 1921.0 | 2.6835 | 2.7237 | 0.0402 | 21500.59 | 21524.59 | 24.00 | 20.9 |
| 28-Jun-14 | Sunny | 30.3 | 1004.3 | 1.33 | 1.33 | 1.33 | 1921.0 | 2.7189 | 2.7614 | 0.0425 | 21524.59 | 21548.59 | 24.00 | 22.1 |
| | | | | | | | | | | | | | Average | 22.0 |
| | | | | | | | | | | | | | Min | 17.4 |
| | | | | | | | | | | | | | Max | 28.2 |

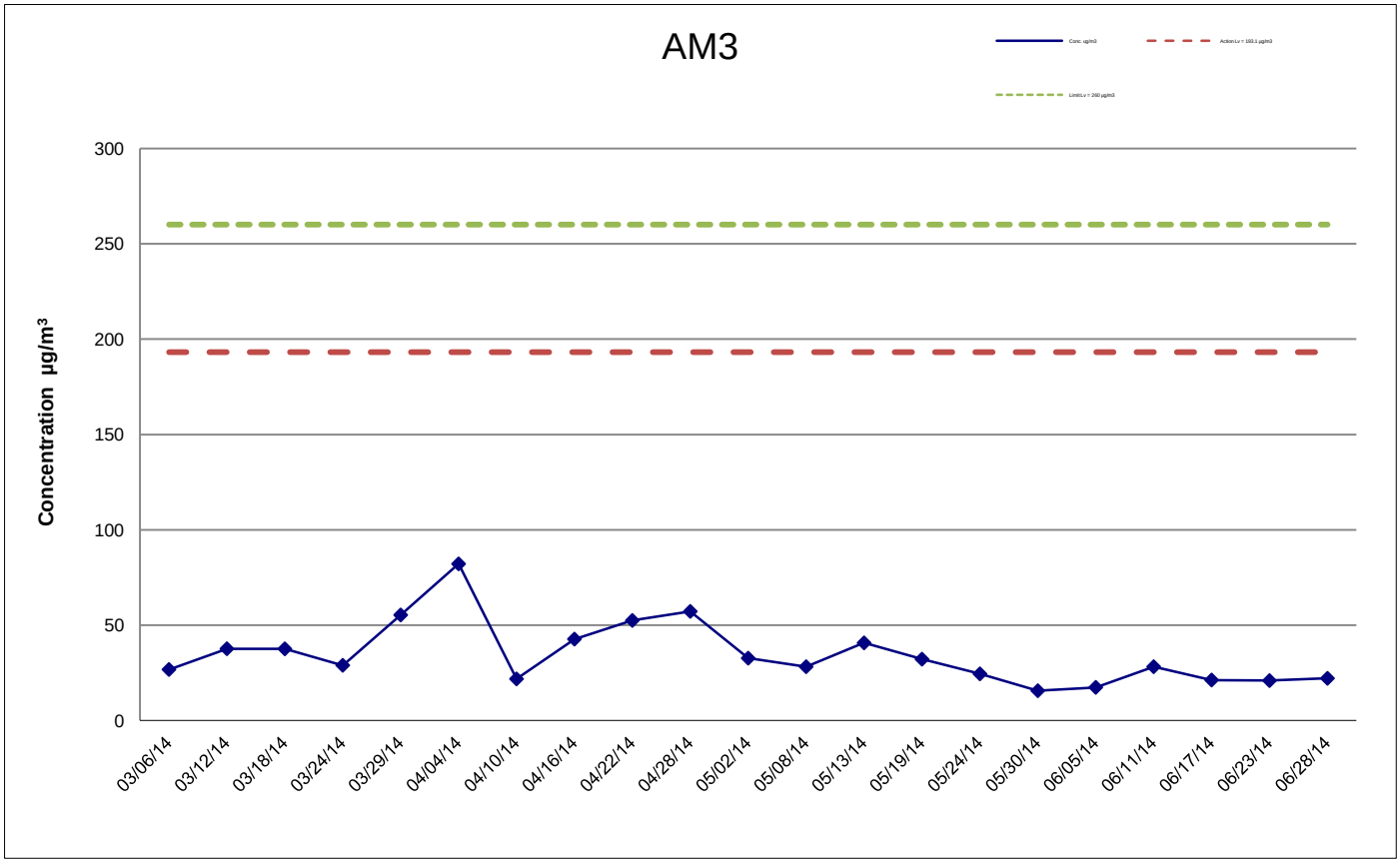
**24-hour TSP Monitoring Results at Station AM4A (Roof of Switch Room at 168 Shek Kwu Lung Village)**

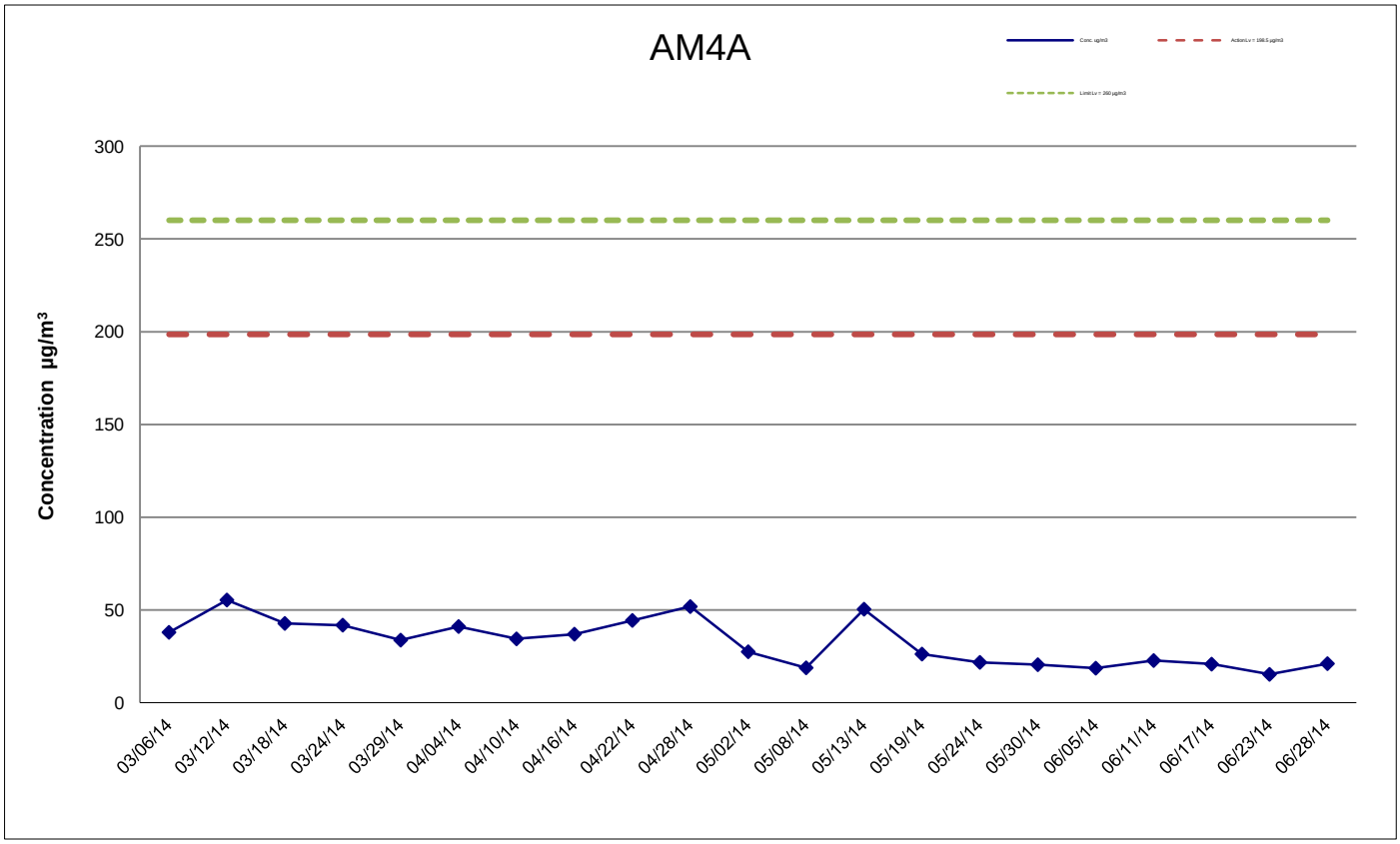
| Date | Weather Condition | Air Temp. ($^{o}$C) | Atmospheric Pressure(hPa) | Flow Rate ($m^3$/min.) Initial | Flow Rate ($m^3$/min.) Final | Av. flow ($m^3$/min) | Total vol. ($m^3$) | Filter Weight (g) Initial | Filter Weight (g) Final | Particulate weight(g) | Elapse Time Initial | Elapse Time Final | Sampling Time(hrs.) | Conc. ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Jun-14 | Fine | 29.9 | 1003.6 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.6843 | 2.7199 | 0.0356 | 17458.36 | 17482.36 | 24.00 | 18.6 |
| 11-Jun-14 | Fine | 28.1 | 1001.9 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.6690 | 2.7125 | 0.0435 | 17482.36 | 17506.36 | 24.00 | 22.7 |
| 17-Jun-14 | Fine | 30.2 | 1001.9 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.6653 | 2.7051 | 0.0398 | 17506.36 | 17530.36 | 24.00 | 20.7 |
| 23-Jun-14 | Rainy | 27.8 | 1004.1 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.6728 | 2.7020 | 0.0292 | 17530.36 | 17554.36 | 24.00 | 15.2 |
| 28-Jun-14 | Sunny | 30.3 | 1004.3 | 1.33 | 1.33 | 1.33 | 1918.1 | 2.7361 | 2.7764 | 0.0403 | 17554.36 | 17578.36 | 24.00 | 21.0 |
| | | | | | | | | | | | | | Average | 19.6 |
| | | | | | | | | | | | | | Min | 15.2 |
| | | | | | | | | | | | | | Max | 22.7 |




| | | | | | |
|---|---|---|---|---|---|
| AECOM | **Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation** | SCALE | N.T.S. | DATE | Jul-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 | Jul-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, June 2014

| 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-Jun | ****** | 34.3 | 30.3 | 28 | **** | *** | *** | *** |
| 2-Jun | ****** | 33.8 | 30.2 | 28 | **** | *** | *** | *** |
| 3-Jun | ****** | 32.2 | 29.1 | 27 | **** | *** | *** | *** |
| 4-Jun | ****** | 34.4 | 30 | 26.4 | **** | *** | *** | *** |
| 5-Jun | ****** | 34.1 | 29.7 | 27 | **** | *** | *** | *** |
| 6-Jun | ****** | 33.9 | 27.5 | 25.1 | **** | *** | *** | *** |
| 7-Jun | ****** | 29.3 | 26.6 | 25.2 | **** | *** | *** | *** |
| 8-Jun | ****** | 33.2 | 29.1 | 26.2 | **** | *** | *** | *** |
| 9-Jun | ****** | 31.8 | 28 | 26.1 | **** | *** | *** | *** |
| 10-Jun | ****** | 30.9 | 28 | 26.1 | **** | *** | *** | *** |
| 11-Jun | ****** | 29.4 | 27.7 | 25.8 | **** | *** | *** | *** |
| 12-Jun | ****** | 31 | 28.2 | 26.1 | **** | *** | *** | *** |
| 13-Jun | ****** | 34.2 | 28.5 | 24.8 | **** | *** | *** | *** |
| 14-Jun | ****** | 35.2 | 30.4 | 26.8 | **** | *** | *** | *** |
| 15-Jun | ****** | 31.3 | 28.3 | 25.1 | **** | *** | *** | *** |
| 16-Jun | ****** | 32.5 | 29.6 | 26.6 | **** | *** | *** | *** |
| 17-Jun | ****** | 32.2 | 29.5 | 26.6 | **** | *** | *** | *** |
| 18-Jun | ****** | 32.2 | 29 | 26.5 | **** | *** | *** | *** |
| 19-Jun | ****** | 33.4 | 29.9 | 26.3 | **** | *** | *** | *** |
| 20-Jun | ****** | 30.9 | 28.8 | 26.1 | **** | *** | *** | *** |
| 21-Jun | ****** | 30.4 | 28.2 | 25.4 | **** | *** | *** | *** |
| 22-Jun | ****** | 28.7 | 26.8 | 25.4 | **** | *** | *** | *** |
| 23-Jun | ****** | 29.5 | 27.4 | 25.6 | **** | *** | *** | *** |
| 24-Jun | ****** | 31.2 | 27.5 | 25.5 | **** | *** | *** | *** |
| 25-Jun | ****** | 28.7 | 27.6 | 25.6 | **** | *** | *** | *** |
| 26-Jun | ****** | 34.2 | 29.9 | 27.2 | **** | *** | *** | *** |
| 27-Jun | ****** | 35.2 | 30.5 | 27.8 | **** | *** | *** | *** |
| 28-Jun | ****** | 34.9 | 30.5 | 28 | **** | *** | *** | *** |
| 29-Jun | ****** | 33.6 | 29.6 | 26.3 | **** | *** | *** | *** |
| 30-Jun | ****** | 31.9 | 28.5 | 26.5 | **** | *** | *** | *** |
| **Mean** | ****** | 32.3 | 28.8 | 26.3 | **** | *** | *** | *** |
| **Maximum** | ****** | 35.2 | 30.5 | 28 | **** | *** | *** | *** |
| **Minimum** | ****** | 28.7 | 26.6 | 24.8 | **** | *** | *** | *** |

## Extract of Meteorological Observations for Tai Mei Tuk Automatic Weather Station, June 2014

| Date | Total Rainfall (mm) | Prevailing Wind Direction (degrees) | Mean Wind (km/h) |
|---|---|---|---|
| 1-Jun | 0.0 | 220 | 9.2 |
| 2-Jun | 0.0 | 270 | 15.2 |
| 3-Jun | 0.0 | 270 | 9.5 |
| 4-Jun | 0.0 | 230 | 8.4 |
| 5-Jun | 3.5 | 270 | 9.0 |
| 6-Jun | 27.5 | 60 | 5.7 |
| 7-Jun | 5.0 | 260 | 5.3 |
| 8-Jun | 0.0 | 90 | 8.6 |
| 9-Jun | 0.0 | 90 | 16.7 |
| 10-Jun | 0.0 | 60 | 13.8 |
| 11-Jun | 1.0 | 80 | 14.5 |
| 12-Jun | 0.0 | 90 | 12.5 |
| 13-Jun | 0.0 | 60 | 10.0 |
| 14-Jun | 0.0 | 40 | 10.0 |
| 15-Jun | 6.5 | 270 | 10.5 |
| 16-Jun | 2.0 | 240 | 16.3 |
| 17-Jun | 28.5 | 240 | 12.7 |
| 18-Jun | 50.5 | 240 | 12.4 |
| 19-Jun | 7.5 | 150 | 6.1 |
| 20-Jun | 5.0 | 270 | 6.8 |
| 21-Jun | 41.5 | 70 | 7.8 |
| 22-Jun | 74.5 | 60 | 6.7 |
| 23-Jun | 42.5 | 40 | 6.1 |
| 24-Jun | 16.0 | 50 | 6.1 |
| 25-Jun | 32.5 | 50 | 6.4 |
| 26-Jun | 0.0 | 150 | 6.5 |
| 27-Jun | 0.0 | 140 | 6.5 |
| 28-Jun | 0.0 | 150 | 6.1 |
| 29-Jun | 14.0 | 70 | 13.8 |
| 30-Jun | 20.0 | 140 | 9.6 |
| **Mean** | ----- | 270 | 9.6 |
| **Total** | 378 | --- | ----- |
| **Maximum** | 74.5 | --- | 16.7 |
| **Minimum** | 0.0 | --- | 5.3 |

*** 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, June 2014

| 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-Jun | 1006.7 | 33.2 | 29.7 | 27.3 | 25.2 | 94 | 77 | 61 |
| 2-Jun | 1004.6 | 33.4 | 30 | 27.8 | 24.5 | 85 | 73 | 57 |
| 3-Jun | 1003.5 | 32.1 | 28.8 | 26.6 | 24.6 | 90 | 79 | 64 |
| 4-Jun | 1003.5 | 33.1 | 29.2 | 25.6 | 24.8 | 94 | 78 | 57 |
| 5-Jun | 1002.9 | 33 | 28.7 | 26.8 | 25.9 | 95 | 85 | 62 |
| 6-Jun | 1002.6 | 29.7 | 26.7 | 24.6 | 24.6 | 98 | 89 | 79 |
| 7-Jun | 1001.7 | 27.8 | 26.1 | 24.8 | 24.6 | 97 | 91 | 85 |
| 8-Jun | 1000.6 | 30.8 | 28 | 26.5 | 25.4 | 97 | 86 | 66 |
| 9-Jun | 1001.3 | 29.6 | 27.5 | 25.7 | 23.8 | 91 | 81 | 70 |
| 10-Jun | 1001.1 | 30.5 | 27.6 | 26.5 | 24 | 90 | 81 | 69 |
| 11-Jun | 1001.4 | 28.3 | 27.4 | 25.4 | 24 | 97 | 82 | 73 |
| 12-Jun | 1001.7 | 30.7 | 27.7 | 26.1 | 22.2 | 87 | 73 | 48 |
| 13-Jun | 1002.2 | 31.3 | 27.7 | 23.8 | 20 | 84 | 64 | 43 |
| 14-Jun | 1002.6 | 32.1 | 29.1 | 26.2 | 21.4 | 84 | 64 | 47 |
| 15-Jun | 1001.1 | 30.7 | 27.9 | 24.9 | 24.2 | 97 | 81 | 61 |
| 16-Jun | 1001.5 | 32.7 | 29.5 | 26.8 | 25.5 | 94 | 80 | 66 |
| 17-Jun | 1004 | 31.3 | 28.9 | 26.2 | 26.2 | 98 | 86 | 73 |
| 18-Jun | 1003.9 | 32.1 | 28.4 | 26.1 | 26.1 | 99 | 88 | 66 |
| 19-Jun | 1002.6 | 32.8 | 29 | 25.5 | 26 | 98 | 85 | 62 |
| 20-Jun | 1002 | 29.7 | 28.4 | 26.2 | 26.2 | 98 | 88 | 76 |
| 21-Jun | 1002.5 | 30 | 27.8 | 25.3 | 26 | 98 | 91 | 81 |
| 22-Jun | 1003.4 | 27.6 | 26.1 | 25 | 25.5 | 99 | 97 | 89 |
| 23-Jun | 1003.6 | 28.3 | 26.5 | 25.5 | 25.7 | 99 | 95 | 86 |
| 24-Jun | 1003.8 | 28.8 | 26.6 | 25.2 | 25.7 | 99 | 94 | 83 |
| 25-Jun | 1005.2 | 28.5 | 26.8 | 25.1 | 25.7 | 99 | 94 | 83 |
| 26-Jun | 1005.7 | 34 | 29.6 | 26.4 | 25.4 | 97 | 79 | 59 |
| 27-Jun | 1004.9 | 33.4 | 29.9 | 26.9 | 25.9 | 93 | 80 | 54 |
| 28-Jun | 1003.6 | 33.1 | 29.6 | 27 | 25.4 | 91 | 79 | 62 |
| 29-Jun | 1004.3 | 31 | 28.8 | 26.5 | 25.5 | 97 | 83 | 64 |
| 30-Jun | 1006.9 | 29.9 | 27.9 | 26.4 | 26 | 97 | 89 | 76 |
| **Mean** | 1003.2 | 31 | 28.2 | 26 | 24.9 | 95 | 83 | 67 |
| **Maximum** | 1006.9 | 34 | 30 | 27.8 | 26.2 | 99 | 97 | 89 |
| **Minimum** | 1000.6 | 27.6 | 26.1 | 23.8 | 20 | 84 | 64 | 43 |

## Extract of Meteorological Observations for Tai Po Automatic Weather Station, June 2014

| Date | Total Rainfall (mm) | Prevailing Wind Direction (degrees) | Mean Wind (km/h) |
|---|---|---|---|
| 1-Jun | ***** | *** | ***** |
| 2-Jun | ***** | *** | ***** |
| 3-Jun | ***** | *** | ***** |
| 4-Jun | ***** | *** | ***** |
| 5-Jun | ***** | *** | ***** |
| 6-Jun | ***** | *** | ***** |
| 7-Jun | ***** | *** | ***** |
| 8-Jun | ***** | *** | ***** |
| 9-Jun | ***** | *** | ***** |
| 10-Jun | ***** | *** | ***** |
| 11-Jun | ***** | *** | ***** |
| 12-Jun | ***** | *** | ***** |
| 13-Jun | ***** | *** | ***** |
| 14-Jun | ***** | *** | ***** |
| 15-Jun | ***** | *** | ***** |
| 16-Jun | ***** | *** | ***** |
| 17-Jun | ***** | *** | ***** |
| 18-Jun | ***** | *** | ***** |
| 19-Jun | ***** | *** | ***** |
| 20-Jun | ***** | *** | ***** |
| 21-Jun | ***** | *** | ***** |
| 22-Jun | ***** | *** | ***** |
| 23-Jun | ***** | *** | ***** |
| 24-Jun | ***** | *** | ***** |
| 25-Jun | ***** | *** | ***** |
| 26-Jun | ***** | *** | ***** |
| 27-Jun | ***** | *** | ***** |
| 28-Jun | ***** | *** | ***** |
| 29-Jun | ***** | *** | ***** |
| 30-Jun | ***** | *** | ***** |
| **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, June 2014

| 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-Jun | 1007.1 | 33.2 | 30 | 27.6 | 25.2 | 92 | 77 | 58 |
| 2-Jun | 1005.1 | 32.9 | 30 | 28.2 | 24.8 | 85 | 74 | 61 |
| 3-Jun | 1003.9 | 31.7 | 29 | 26.7 | 24.8 | 88 | 78 | 67 |
| 4-Jun | 1004 | 33.3 | 29.6 | 25.7 | 24.6 | 94 | 76 | 57 |
| 5-Jun | 1003.3 | 33.6 | 29.5 | 27.2 | 25.7 | 92 | 80 | 60 |
| 6-Jun | 1002.9 | 30.9 | 27.2 | 24.9 | 24.4 | 95 | 85 | 72 |
| 7-Jun | 1002.1 | 29.2 | 26.5 | 24.6 | 24.1 | 96 | 87 | 75 |
| 8-Jun | 1001 | 32.7 | 28.7 | 25.7 | 24.9 | 96 | 81 | 59 |
| 9-Jun | 1001.7 | 29.4 | 27.6 | 26 | 23.2 | 87 | 77 | 68 |
| 10-Jun | 1001.6 | 30.5 | 27.8 | 26.2 | 23.6 | 89 | 78 | 64 |
| 11-Jun | 1001.8 | 29.4 | 27.6 | 25.7 | 23.4 | 94 | 78 | 68 |
| 12-Jun | 1002.1 | 31.7 | 28.1 | 25.7 | 21.1 | 90 | 67 | 40 |
| 13-Jun | 1002.5 | 33.1 | 28.2 | 24 | 18.6 | 85 | 59 | 30 |
| 14-Jun | 1003.1 | 33.9 | 29.6 | 26.7 | 20.3 | 84 | 59 | 41 |
| 15-Jun | 1001.7 | 32 | 28.4 | 24.9 | 23.7 | 95 | 77 | 57 |
| 16-Jun | 1002.1 | 32.4 | 29.3 | 25.9 | 25.7 | 94 | 81 | 70 |
| 17-Jun | 1004.5 | 32.2 | 29.6 | 26.5 | 26 | 97 | 81 | 70 |
| 18-Jun | 1004.4 | 32.3 | 29.5 | 26.7 | 25.8 | 98 | 81 | 63 |
| 19-Jun | 1003.1 | 33.2 | 29.7 | 26.3 | 25.7 | 96 | 79 | 63 |
| 20-Jun | 1002.5 | 31 | 28.8 | 25.7 | 25.9 | 94 | 85 | 73 |
| 21-Jun | 1003 | 31.2 | 28.3 | 25.3 | 25.7 | 97 | 86 | 74 |
| 22-Jun | 1003.9 | 28.7 | 26.4 | 24.8 | 25.2 | 99 | 93 | 81 |
| 23-Jun | 1004.1 | 29.7 | 26.8 | 24.9 | 25.2 | 99 | 91 | 76 |
| 24-Jun | 1004.2 | 31.3 | 27.4 | 24.8 | 25.3 | 99 | 89 | 71 |
| 25-Jun | 1005.6 | 29.7 | 27.3 | 25.5 | 25.2 | 97 | 89 | 78 |
| 26-Jun | 1006.3 | 33.1 | 29.7 | 26.1 | 25.2 | 97 | 78 | 55 |
| 27-Jun | 1005.3 | 33.4 | 30.1 | 26.3 | 25.3 | 93 | 77 | 57 |
| 28-Jun | 1004.1 | 33.4 | 29.9 | 27 | 25 | 91 | 76 | 57 |
| 29-Jun | 1004.9 | 32.7 | 29.1 | 26.5 | 25 | 93 | 79 | 57 |
| 30-Jun | 1007.4 | 31.2 | 28.9 | 26.9 | 25.4 | 94 | 82 | 68 |
| **Mean** | 1003.6 | 31.8 | 28.6 | 26 | 24.5 | 93 | 79 | 63 |
| **Maximum** | 1007.4 | 33.9 | 30.1 | 28.2 | 26 | 99 | 93 | 81 |
| **Minimum** | 1001 | 28.7 | 26.4 | 24 | 18.6 | 84 | 59 | 30 |

## Extract of Meteorological Observations for Sha Tin Automatic Weather Station, June 2014

| Date | Total Rainfall (mm) | Prevailing Wind Direction (degrees) | Mean Wind (km/h) |
|---|---|---|---|
| 1-Jun | 0.5 | 210 | 11.0 |
| 2-Jun | 0.0 | 220 | 14.6 |
| 3-Jun | 0.0 | 210 | 9.2 |
| 4-Jun | 0.0 | 210 | 9.2 |
| 5-Jun | 2.0 | 220 | 9.6 |
| 6-Jun | 16.5 | 220 | 4.6 |
| 7-Jun | 2.5 | 210 | 4.2 |
| 8-Jun | 0.0# | 100 | 4.8 |
| 9-Jun | 0.0# | 100 | 8.5 |
| 10-Jun | 0.0 | 80 | 5.1 |
| 11-Jun | 1.5 | 80 | 5.6 |
| 12-Jun | 0.5 | 360 | 6.2 |
| 13-Jun | 0.0 | 30 | 7.2 |
| 14-Jun | 0.0 | 360 | 6.1 |
| 15-Jun | 6.0 | 350 | 6.0 |
| 16-Jun | 2.0 | 220 | 13.6 |
| 17-Jun | 14.5 | 220 | 13.0 |
| 18-Jun | 17.5 | 210 | 10.5 |
| 19-Jun | 10.5 | 210 | 7.4 |
| 20-Jun | 8.5 | 210 | 5.8 |
| 21-Jun | 33.0 | 200 | 5.4 |
| 22-Jun | 119.5 | 190 | 4.3 |
| 23-Jun | 38.0 | 40 | 3.6 |
| 24-Jun | 17.5 | 30 | 3.7 |
| 25-Jun | 25.5 | 200 | 5.3 |
| 26-Jun | 0.5 | 220 | 7.6 |
| 27-Jun | 0.0 | 210 | 6.6 |
| 28-Jun | 0.0 | 150 | 4.5 |
| 29-Jun | 3.5 | 90 | 5.4 |
| 30-Jun | 15.5 | 140 | 7.0 |
| **Mean** | ----- | 210 | 7.2 |
| **Total** | 335.5# | --- | ----- |
| **Maximum** | 119.5# | --- | 14.6 |
| **Minimum** | 0.0# | --- | 3.6 |

*** 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 | | | | |
| 5-Jun-14 | 10:34 | 62.2 | 63.8 | 60.2 | 64.2 | 62.2 | 75 | N |
| 11-Jun-14 | 10:30 | 59.0 | 60.5 | 56.5 | 64.2 | 59.0 | 75 | N |
| 17-Jun-14 | 14:08 | 63.3 | 65.0 | 60.0 | 64.2 | 63.3 | 75 | N |
| 23-Jun-14 | 14:00 | 62.8 | 65.0 | 60.2 | 64.2 | 62.8 | 75 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 62.1 |
| **Max** | 63.3 |
| **Min** | 59.0 |

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* | | | | |
| 5-Jun-14 | 14:32 | 68.2 | 69.7 | 65.7 | 68.1 | 51.8 | 75 | N |
| 11-Jun-14 | 15:35 | 62.4 | 64.0 | 57.5 | 68.1 | 62.4 | 75 | N |
| 17-Jun-14 | 13:25 | 68.7 | 70.3 | 66.0 | 68.1 | 59.8 | 75 | N |
| 23-Jun-14 | 13:08 | 67.5 | 69.0 | 65.0 | 68.1 | 67.5 | 75 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 63.3 |
| **Max** | 67.5 |
| **Min** | 51.8 |

* +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 | | | | |
| 5-Jun-14 | 13:04 | 66.3 | 67.9 | 63.8 | 64.8 | 61.0 | 70 | N |
| 11-Jun-14 | 11:15 | 60.4 | 62.0 | 59.5 | 64.8 | 60.4 | 65 | N |
| 17-Jun-14 | 11:24 | 65.7 | 67.4 | 63.8 | 64.8 | 58.4 | 65 | N |
| 23-Jun-14 | 11:10 | 63.9 | 65.3 | 62.0 | 64.8 | 63.9 | 65 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 61.4 |
| **Max** | 63.9 |
| **Min** | 58.4 |

exam: 11-23/6

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 | | | | |
| 5-Jun-14 | 13:51 | 67.2 | 68.8 | 65.0 | 67.4 | 67.2 | 75 | N |
| 11-Jun-14 | 13:00 | 62.1 | 64.0 | 60.0 | 67.4 | 62.1 | 75 | N |
| 17-Jun-14 | 10:36 | 66.3 | 67.9 | 64.0 | 67.4 | 66.3 | 75 | N |
| 23-Jun-14 | 10:22 | 62.2 | 66.8 | 63.5 | 67.4 | 62.2 | 75 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 65.0 |
| **Max** | 67.2 |
| **Min** | 62.1 |

# - 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 | | | | |
| 5-Jun-14 | 11:16 | 67.7 | 69.3 | 65.0 | 65.2 | 64.1 | 75 | N |
| 11-Jun-14 | 13:50 | 63.4 | 64.5 | 61.5 | 65.2 | 63.4 | 75 | N |
| 17-Jun-14 | 11:16 | 65.7 | 67.0 | 63.0 | 65.2 | 56.1 | 75 | N |
| 23-Jun-14 | 11:05 | 66.5 | 68.0 | 64.0 | 65.2 | 60.6 | 75 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 62.0 |
| **Max** | 64.1 |
| **Min** | 56.1 |

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* | | | | |
| 5-Jun-14 | 14:37 | 61.2 | 63.0 | 58.5 | 64.5 | 61.2 | 70 | N |
| 11-Jun-14 | 14:40 | 64.5 | 65.5 | 63.0 | 64.5 | 64.5 | 70 | N |
| 17-Jun-14 | 13:18 | 61.1 | 62.5 | 58.0 | 64.5 | 61.1 | 70 | N |
| 23-Jun-14 | 13:13 | 61.0 | 62.5 | 58.5 | 64.5 | 61.0 | 70 | N |

| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 62.2 |
| **Max** | 64.5 |
| **Min** | 61.0 |

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)

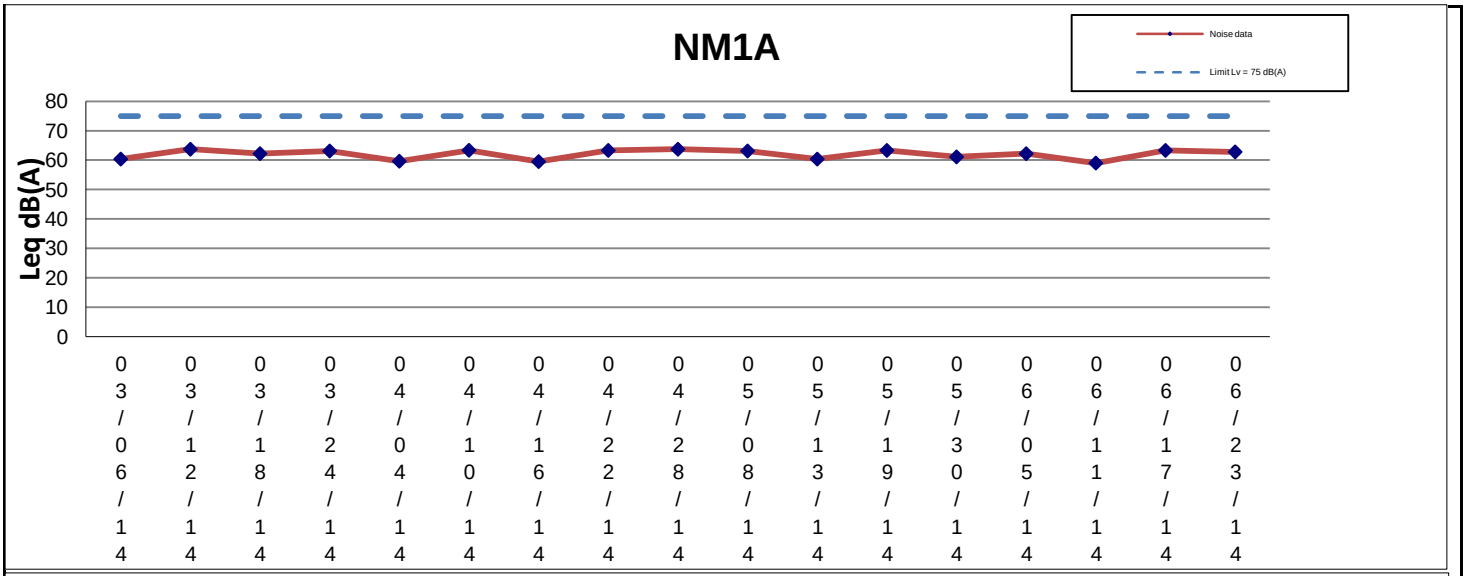
Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

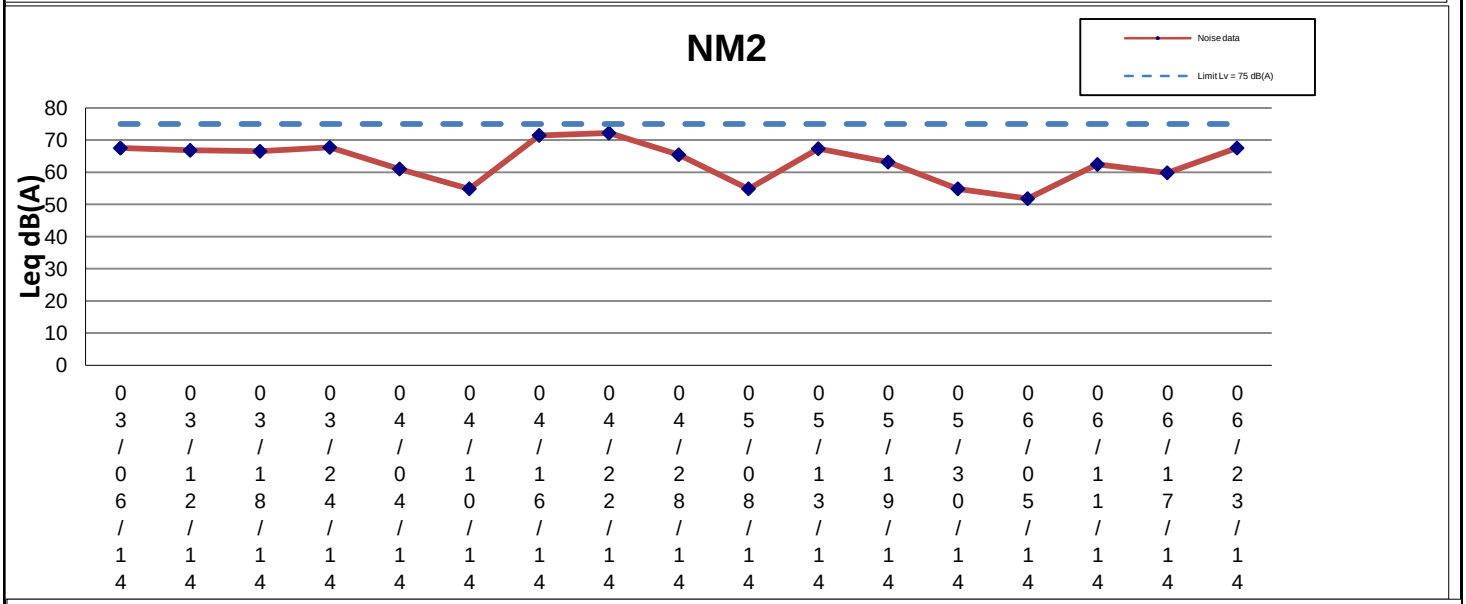
| Date | Measured Noise Level for 30-min, dB(A) | | | | Baseline Noise Level, dB(A) | Corrected Construction Noise Level, dB(A) ** | Limit Level, dB(A) | Exceedance (Y/N) |
|---|---|---|---|---|---|---|---|---|
| | Start Time | Leq | L10 | L90 | | | | |
| 5-Jun-14 | 15:28 | 60.7 | 62.5 | 57.8 | 61.5 | 60.7 | 75 | N |
| 11-Jun-14 | 9:40 | 58.4 | 59.5 | 56.5 | 61.5 | 58.4 | 75 | N |
| 17-Jun-14 | 10:24 | 62.2 | 64.0 | 60.0 | 61.5 | 53.9 | 75 | N |
| 23-Jun-14 | 10:10 | 61.2 | 63.0 | 58.5 | 61.5 | 61.2 | 75 | N |

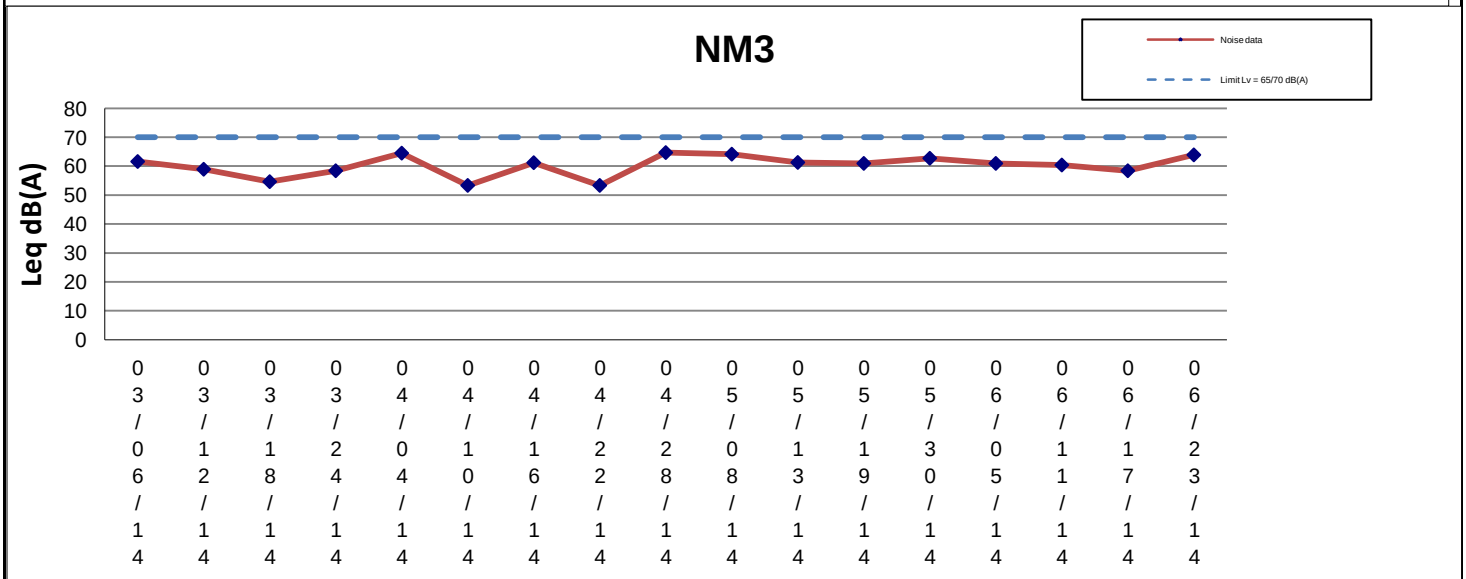
| | **Corrected Noise Level dB(A)** |
|---|---|
| **Average** | 59.3 |
| **Max** | 61.2 |
| **Min** | 53.9 |

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

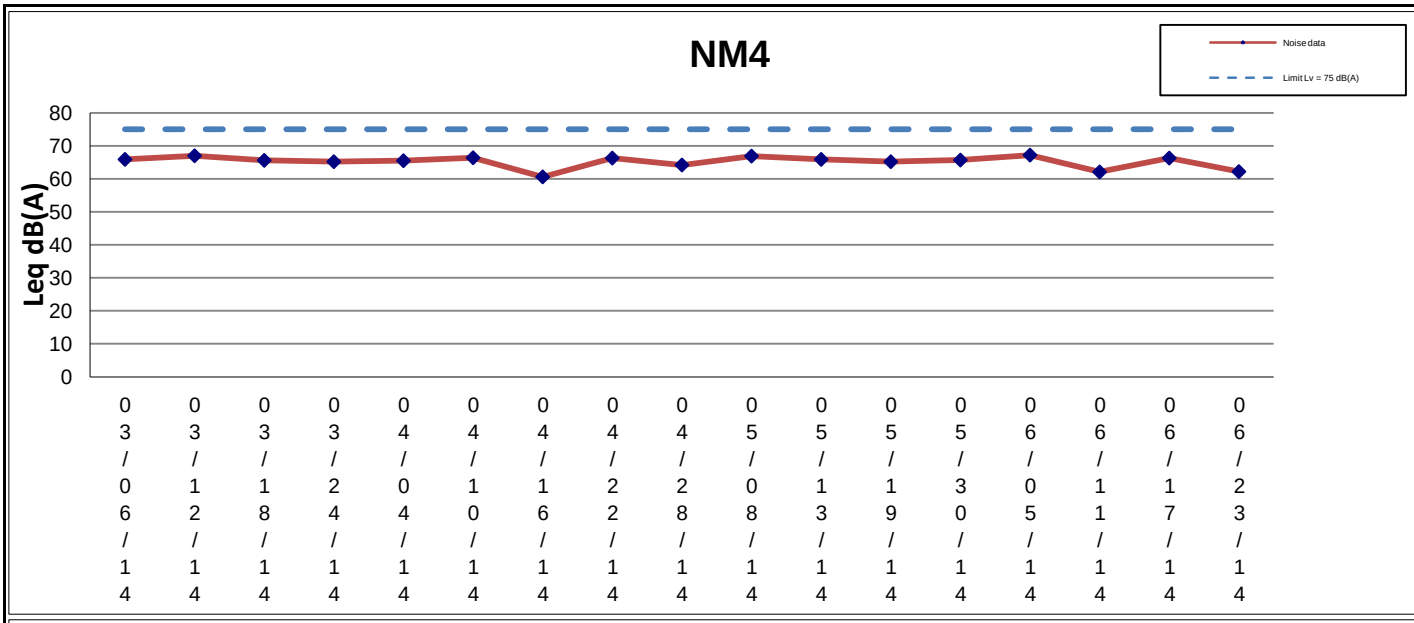


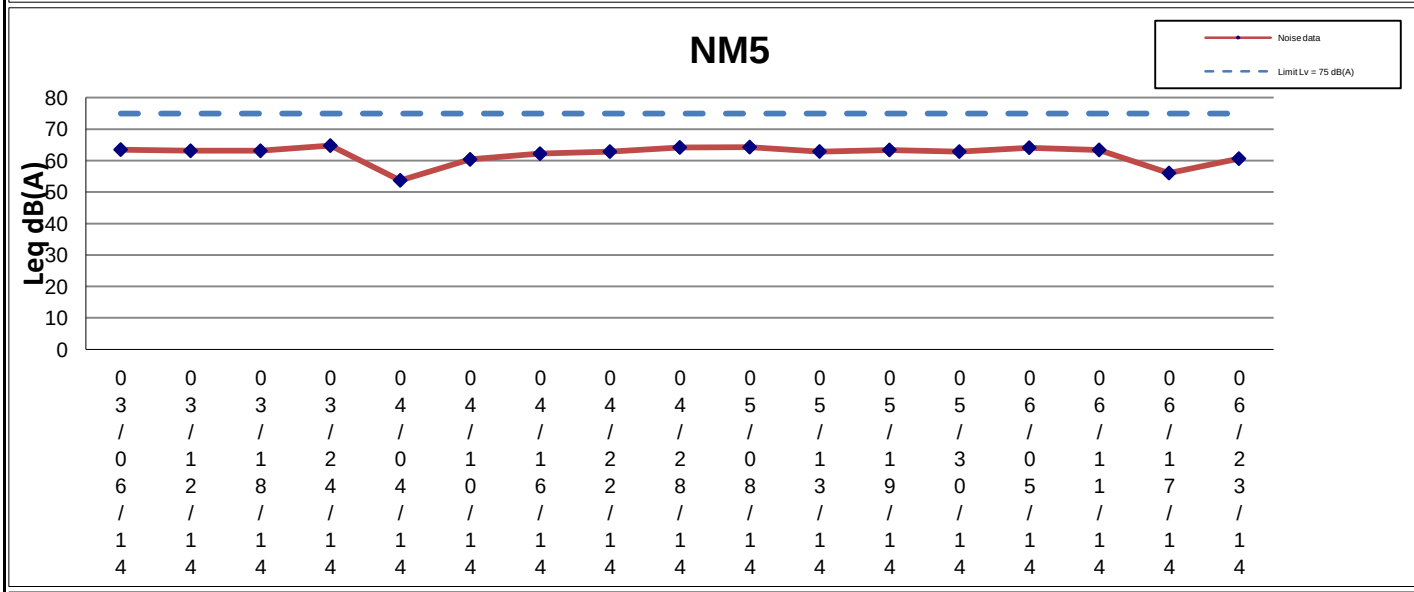



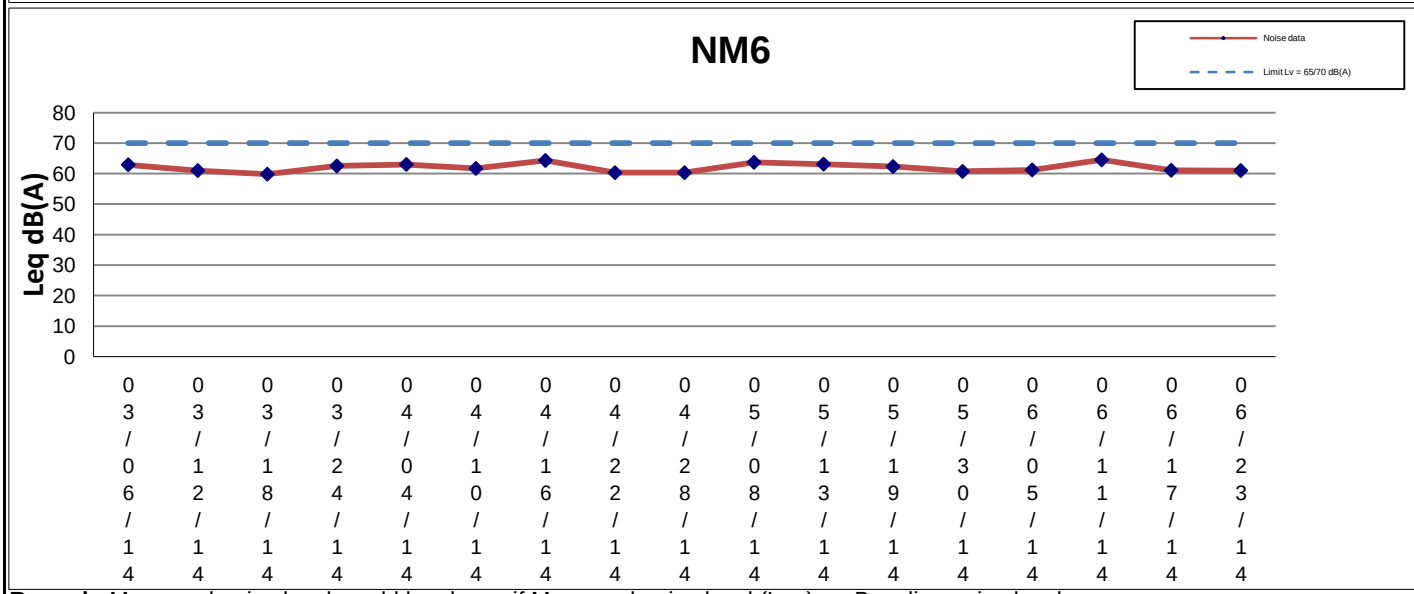




**Remarks:** (1) The monitoring station at Tai Kwong Secondary School (NM1) was relocated to 168 Shek Kwu Lung Village (NM1A) starting from 1 September 2011 due to the mentioned school was closed down;
(2) Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

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

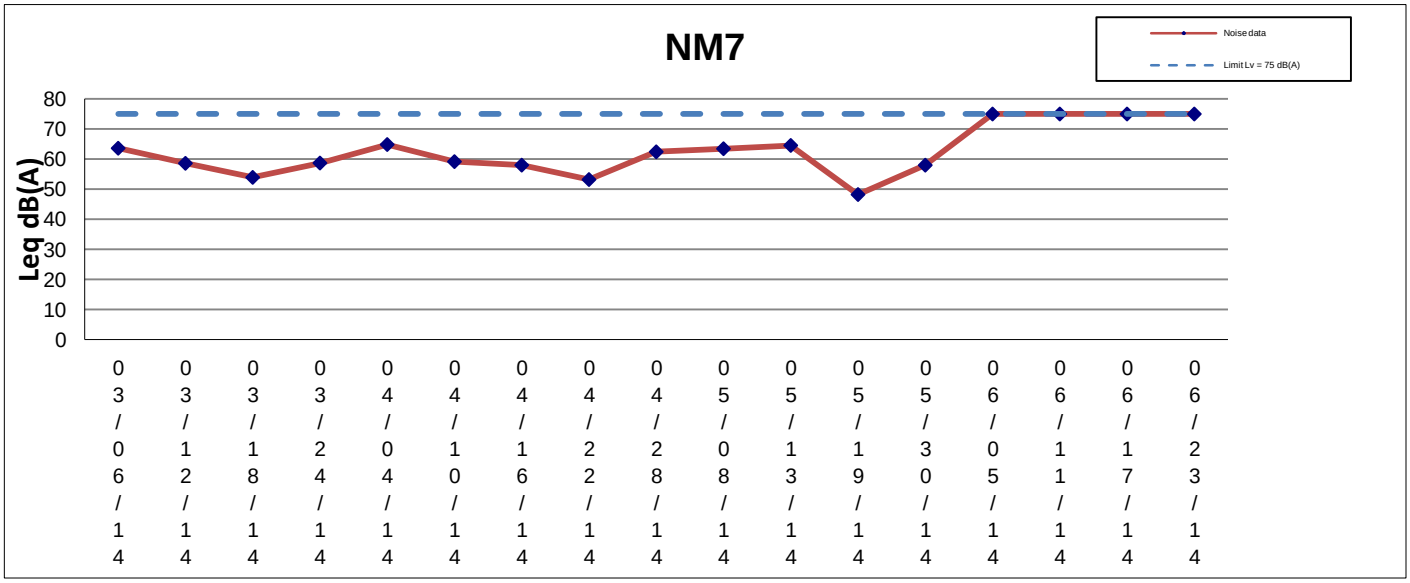



**Remark:** Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

| | | | | | |
|---|---|---|---|---|---|
| AECOM | **Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation** | SCALE | N.T.S. | DATE | Jul-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 | Jul-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;<br>2. Inform IEC and ER;<br>3. Repeat measurement to confirm finding;<br>4. Increase monitoring frequency to dailv. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method. | 1. Notify Contractor. | 1. Rectify any unacceptable practice;<br>2. Amend working methods if appropriate. |
| Exceedance for two or more consecutive samples | 1. Identify source;<br>2. Inform IEC and ER;<br>3. Repeat measurements to confirm findings;<br>4. Increase monitoring frequency to daily;<br>5. Discuss with IEC and Contractor on remedial actions required;<br>6. If exceedance continues, arrange meeting with IEC and ER;<br>7. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method;<br>3. Discuss with ET and Contractor on possible remedial measures;<br>4. Advise the ER on the effectiveness of the proposed remedial measures;<br>5. Supervise Implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented. | 1. Submit proposals for remedial actions to IEC within 3 working days of notification;<br>2. Implement the agreed proposals;<br>3. Amend proposal if appropriate. |

Event / Action Plan for Air Quality

| Event<br>Action Level | Action | | | |
|---|---|---|---|---|
| | **ET Leader** | **IEC** | **ER** | **Contractor** |
| **Limit Level** | | | | |
| Exceedance for one sample | 1. Identify source;<br>2. Inform IEC, ER, Contractor and EPD;<br>3. Repeat measurement to confirm finding;<br>4. Increase monitoring frequency to daily;<br>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;<br>2. Check Contractor's working method;<br>3. Discuss with ET and Contractor on possible remedial measures;<br>4. Advise ER on the effectiveness of the proposed remedial measures;<br>5. Supervise implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented. | 1. Take immediate action to avoid further exceedance;<br>2. Submit proposals for remedial actions to IEC within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Amend proposal if appropriate. |
| Exceedance for two or more consecutive samples | 1. Notify IEC, ER, Contractor and EPD;<br>2. Identify source;<br>3. Repeat measurement to confirm findings;<br>4. Increase frequency to daily;<br>5. Analyse Contractor's working procedures to determine possible mitigation to be;<br>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly;<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;<br>4. Ensure remedial measures properly implemented;<br>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;<br>2. Submit proposals for remedial actions to IEC within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Resubmit proposals if problem still not under control;<br>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.<br>2. Carry out investigation.<br>3. Report the results of investigation to IEC and the Contractor.<br>4. Discuss with the Contractor and formulate remedial measures.<br>5. Increase monitoring frequency to check mitigation effectiveness. | 1. Review with analysed results submitted by ET.<br>2. Review the proposed remedial measures by the Contractor and advise ER accordingly.<br>3. Supervise the implement of remedial measures. | 1. Confirm receipt of notification of failure in writing.<br>2. Notify the Contractor.<br>3. Require the Contractor to propose remedial measures for the analysed noise problem.<br>4. Ensure remedial measures are properly implemented. | 1. Submit noise mitigation proposals to IEC.<br>2. Implement noise mitigation proposals. |
| Limit Level | 1. Notify, IEC, ER, EPD and the Contractor.<br>2. Identify the source.<br>3. Repeat measurement to confirm findings.<br>4. Increase monitoring frequency.<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented.<br>6. Inform IEC, ER, and EPD the causes & actions taken for the exceedances.<br>7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results.<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions.<br>2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly.<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing.<br>2. Notify the Contractor.<br>3. Require the Contractor to propose remedial measures for the analysed noise problem.<br>4. Ensure remedial measures are properly implemented.<br>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.<br>2. Submit proposals for remedial actions to IEC within 3 working days of notification.<br>3. Implement the agreed proposals.<br>4. Resubmit proposals if problem still not under control.<br>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 June 2014 |
| Time: | 14:00 |
| Inspection No.: | 447 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

Nil.

New Observations

1. Waste batteries were observed on the ground. The Contractor should collect and dispose of the unwanted batteries properly.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2009/08 (Between Ma Wo and Tai Hang) |
| Date: | 5 June 2014 |
| Time: | 14:00 |
| Inspection No.: | 448 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

1. General refuse was removed (Closed).

2. Muddy water and sand were cleared, and the drainage system was protected after reinstatement (Closed).

3. Chemicals on the ground were removed (Closed).

New Observations

4. Silt and grit were observed in the drains and the U-channel was observed to be obstructed. The Contractor should remove the deposited materials in the U-channel regularly.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2008/09 (Between Island House Interchange and Ma Wo) |
| Date: | 11 June 2014 |
| Time: | 09:00 |
| Inspection No.: | 449 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

1. Waste batteries were cleared (Closed).

New Observations

Nil.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2009/08 (Between Ma Wo and Tai Hang) |
| Date: | 12 June 2014 |
| Time: | 14:00 |
| Inspection No.: | 450 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

1. Silt was removed from the U-channel (Closed).

New Observations

Nil.

Reminders

Exposed working area was observed. The Contractor was reminded to enhance preventive measures for rainstorm protection to prevent silt from depositing in the river nearby.

Moreover, mud trails were observed on the access road. The Contractor was reminded to clear the mud trails on the access road.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2008/09 (Between Island House Interchange and Ma Wo) |
| Date: | 18 June 2014 |
| Time: | 09:00 |
| Inspection No.: | 451 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

Nil.

New Observations

Nil.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2009/08 (Between Ma Wo and Tai Hang) |
| Date: | 19 June 2014 |
| Time: | 14:00 |
| Inspection No.: | 452 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

Nil.

New Observations

1. Mud was observed on the public road outside Gate 30. The Contractor should clear the mud regularly and ensure vehicles have their wheels washed before they leave the site.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2008/09 (Between Island House Interchange and Ma Wo) |
| Date: | 25 June 2014 |
| Time: | 09:00 |
| Inspection No.: | 453 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

Nil.

New Observations

Nil.

*Remarks*

Nil

*Inspection Information*

| | |
|---|---|
| Contract No. | HY/2009/08 (Between Ma Wo and Tai Hang) |
| Date: | 26 June 2014 |
| Time: | 14:00 |
| Inspection No.: | 454 |

*Non-compliance*

Nil

*Observations*

Follow Up Observations

1. Mud was cleared on the public road outside Gate 30 (Closed).

New Observations

2. Water was observed in plastic containers. The Contractor should clear the water to prevent mosquito breeding.

3. Mud was observed on the footpath. The Contractor should clear the mud regularly.

4. A water hose was disconnected and water spilled on the footpath. The Contractor should clear the mud washed onto the footpath.

*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** | 23 June 2014 | EPD referred a complaint concerning a construction site of the Widening of Tolo Highway Project (Stage 1) near Wan Tau Tong Estate, opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School, on 23 June 2014. | Closed | 1 | 39 |
| **Notification of summons** | - | - | - | 0 | 0 |
| **Successful Prosecutions** | - | - | - | 0 | 0 |