Civil Engineering and Development Department

EP-337/2009 – New Distributor Roads Serving the Planned KTD

Contract No. KL/2012/02
Kai Tak Development – Stage 3A Infrastructure at Former North Apron Area

Final EM&A Review Report

(Version 1.0)

Approved By	(Environmental Team Leader)

REMARKS:

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

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

CINOTECH CONSULTANTS LTD
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2151 2083 Fax: (852) 3107 1388
Email: info@cinotech.com.hk

ANEWR

Ove Arup & Partners Hong Kong Limited
L5 Festival Walk
80 Tat Chee Avenue
Kowloon Tong
Hong Kong

Your reference:

Our reference: HKCEDD04/50/105457

Date: 15 January 2019

Attention: Mr Gary Cheung / Mr Chris Lee

BY POST

Dear Sirs

Contract No.: KLN/2013/01
Independent Environmental Checker for "Contract No. KL/2012/02
Kai Tak Development – Stage 3A Infrastructure at Former North Apron Area"
Verification of Final EM&A Review Report

We refer to emails of 17 November 2018 and 4 January 2019 attaching a Final EM&A Review Report prepared by the ET.

We have no further comment and hereby verify the Report in accordance with Clause 3.3 of the Environmental Permit no. EP-337/2009.

Please do not hesitate to contact the undersigned or our Mr Adi Lee on 2618 2831 should you have any queries.

Yours faithfully
ANEWR CONSULTING LIMITED

James Choi
Independent Environmental Checker

CPSJ/LYMA/FSKA/lhmh

ANewR Consulting Limited
Unit 517, 5/F, Tower A, Regent Centre
63 Wo Yi Hop Road, Kwai Chung, Hong Kong
Tel: (852) 2618 2831 Fax: (852) 3007 8648
Email: info@anewr.com
Web: www.anewr.com

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

Introduction

1. This is the Final Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Ltd. for "Contract No. KL/2012/02 - Kai Tak Development – Stage 3A Infrastructure at Former North Apron Area" (Hereafter referred to as "the Project"). This contract comprises one Schedule 2 designated project (DP), namely the new distributor road D1 serving the planned KTD. The DP is part of the designated project under Environmental Permit (EP) No.: EP-337/2009 ("New distributor roads serving the planned Kai Tak Development") respectively.

2. The cessation of EM&A Works (Construction Phase) for the Project was approved by Environmental Protection Department on 2nd October 2018.

3. With reference to the same principle of EIA report of the Project, air quality monitoring stations within 500m and noise monitoring stations within 300m from the boundary of this Project are considered as relevant monitoring locations. In such regard, the relevant air quality and noise monitoring locations are tabulated in **Table I** (see **Figure 2 and 3** for their locations).

Table I – Air Quality and Noise Monitoring Stations for this Project

Locations	Monitoring Stations In accordance with EM&A Manual	Alternative Monitoring Stations
Air Quality Monitoring Stations		
AM1 - Rhythm Garden	No (1-hour & 24-hour TSP)	AM1(B) – Contractor Site Office (KL/2012/02) AM1(C) – Contractor Site Office (SCL 1107) *
AM2 – Lee Kau Yan Memorial School	Yes (1-hour TSP)	N/A
	No (24-hour TSP)	AM2(A) – Ng Wah Catholic Secondary School^
AM6 – Site 1B4 (Planned)	N/A	
Noise Monitoring Stations		
M3 – Cognitio College	Yes	N/A
M4 – Lee Kau Yan Memorial School	Yes	N/A
M9 – Tak Long Estate	Yes	N/A
M10 – Site 1B4 (Planned)	N/A	

Remark: * The alternative monitoring station - AM1(B) of 1-hour/24-hour TSP monitoring was adopted in July 2017 as AM1(C).
^ The alternative monitoring station – AM2(A) of 24-hour TSP monitoring was adopted in August 2017 as AM2.

Environmental Monitoring Works

4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

5. Summary of the non-compliance during construction period for the Project is tabulated in **Table II**.

Table II Non-compliance Recorded for the Project during Construction Period

Parameter	No. of Project-related Exceedance		Action Taken
	Action Level	Limit Level	
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Noise	0	0	N/A

1-hour & 24-hour TSP Monitoring

6. 1-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded.

7. 24-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

8. All construction noise monitoring was conducted as scheduled during construction period. No project-related Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

9. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, EP-337/2009 issued on 23 April 2009.

10. Registration of Chemical Waste Producer (License: 5213-286-K3022-04).

Environmental Mitigation Implementation Schedule

11. According to the EIA Report Section 3.74, 4.56 and 13.44, air quality, noise and landscape and visual would be the key environmental issues and mitigation measures shall be implemented during the construction phase. Details of the implementation of mitigation measures are provided in the **Appendix J**.

Summary of Complaints and Prosecutions

12. 6 nos. of environmental-related complaints were recorded at any of the site portions since the commencement of this Contract. The Summary of Complaint Log is presented in **Appendix H.**

Key Information during Construction Period

13. The construction program for the Project is provided in **Appendix K**.

14. Summary of key information during construction period is tabulated in **Table III**.

Table III Summary Table for Key Information during Construction Period

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	6	Noise Nuisance / Mud Disposal / Muddy Water Discharge	Details refer to Appendix H	Closed	---
Reporting Changes	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

1. INTRODUCTION

Background

1.1 The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. Stage 3A Infrastructure at Former North Apron Area is one of the construction stages of KTD. It contains one Schedule 2 DP including new distributor roads serving the planned KTD. The general layout of the Project is shown in **Figure 1** Environmental Permit (EP) No.: EP-337/2009**.**

1.2 One Environmental Permit (EP) No. EP-337/2009 was also issued on 23 April 2009 for new distributor roads serving the planned KTD to Civil Engineering and Development Department as the Permit Holder.

1.3 A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. An EIA Report (Register No. AEIAR-130/2009) was approved by the Environmental Protection Department (EPD) on 4 April 2009.

1.4 Cinotech Consultants Limited (Cinotech) was commissioned by Build King Construction Ltd. (the Contractor) to undertake the role of the Environmental Team (ET) for the Contract No. KL/2012/02 – Stage 3A Infrastructure at Former North Apron Area. The construction work under KL/2012/02 comprises the construction of part of the Road D1 under the EP (EP-337/2009).

1.5 Cinotech Consultants Limited was commissioned by Build King Construction Ltd. To undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The construction commencement of this Contract was on 24th October 2013 for Road D1 (part).

1.6 The cessation of EM&A Works (Construction Phase) for this Project was approved by Environmental Protection Department on 2nd October 2018. Therefore, this is the Final EM&A review report summarizing the EM&A works for the Project during construction period.

Project Organizations

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

- Project Proponent – Civil Engineering and Development Department (CEDD).
- The Engineer and the Engineer's Representative (ER) – Ove Arup & Partners (ARUP).
- Environmental Team (ET) – Cinotech Consultants Limited (CCL)
- Independent Environmental Checker (IEC) – ANewR Consulting Limited (ANewR)
- Contractor – Build King Construction Ltd. (Build King)

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

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Position	Phone No.	Fax No.
CEDD	Project Proponent	Mr. Mike Cho	Senior Engineer	3106 2584	3579 4512
ARUP	Engineer's Representative	Mr. Gary Cheung	SRE	2210 6100	2210 6110
		Ms. Edith Fung	RE		
Cinotech	Environmental Team	Dr. Priscilla Choy	Environmental Team Leader	2151 2089	3107 1388
		Ms. Ivy Tam	Project Coordinator and Audit Team Leader	2151 2090	
ANewR	Independent Environmental Checker	Mr. James Choi	Independent Environmental Checker	2618 2836	3007 8648
		Mr. Adi Lee			
Build King	Contractor	Mr. Joe Yip	Project Manager	9209 5920	2639 6208
		Mr. Cheung Wai Por	Construction Manager	9663 9908	

Summary of EM&A Requirements

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

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental requirements and mitigation measures, as recommended in the EM&A Manual under the EP.

1.10 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in **Section 6** of this report.

2. AIR QUALITY

Predication and Evaluation of Environmental Impact

2.1 The maximum cumulative 1-hour and 24-hour average TSP levels for construction of the the Project were predicted and evaluated during EIA period. The **Table 2.1** summarizes the EIA predictions during construction period .

Table 2.1 EIA predictions of 1-hr TSP and 24-hr TSP Average Levels

Station	Predicted Average TSP conc.	
	Scenario 1 (Mid 2009 to Mid 2013), µg/m³	**Scenario 2 (Mid 2013 to Late 2016), µg/m³**
1-hour average TSP levels		
AM1(B) – Contractor Site Office of KL/2008/09	192	298
(1)AM1(C) – Contractor Site Office of SCL 1107	192	298
AM2 – Lee Kau Yan Memorial School	290	312
24-hour average TSP levels		
AM1(B) – Contractor Site Office of KL/2008/09	121	156
(1)AM1(C) – Contractor Site Office of SCL 1107	121	156
AM2 – Lee Kau Yan Memorial School	145	169
(2)AM2(A) – Ng Wah Catholic Secondary School	145	169

Remarks: (1) The alternative station of 1-hour/24-hour TSP monitoring for AM1(B) was adopted in July 2017 as AM1(C).
(2) The alternative station of 24-hour TSP monitoring for AM2 was adopted in August 2017 as AM2(A).

Baseline Condition

2.2 Baseline air quality monitoring was conducted at the designated monitoring stations. The baseline data was used for the Project to derive the Action and Limit Level. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

2.3 The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 2.2**.

Table 2.2 Baseline Average TSP levels and Limit Level for Monitoring Stations

Station	Average TSP conc.		
	Average TSP Concentration, µg/m³ (Range)	**Action Level, µg/m³**	**Limit Level, µg/m³**
1-hour average TSP levels			
AM1(B) – Contractor Site Office of KL/2008/09	142.1 (57.9 – 235.7)	342	500
(1)AM1(C) – Contractor Site Office of SCL 1107	142.1 (57.9 – 235.7)	342	
AM2 – Lee Kau Yan Memorial School	147.9 (64.4 – 216.8)	346	
24-hour average TSP levels			
AM1(B) – Contractor Site Office of KL/2008/09	44.4 (22.9 – 61.3)	159	260
(1)AM1(C) – Contractor Site Office of SCL 1107	44.4 (22.9 – 61.3)	159	
AM2 – Lee Kau Yan Memorial School	42.0 (26.7 – 57.1)	157	
(2)AM2(A) – Ng Wah Catholic Secondary School	42.0 (26.7 – 57.1)	157	

Remarks: (1) The alternative station of 1-hour/24-hour TSP monitoring for AM1(B) was adopted in July 2017 as AM1(C).
(2) The alternative station of 24-hour TSP monitoring for AM2 was adopted in August 2017 as AM2(A).

Monitoring Requirements

2.4 According to EM&A Manual under the EP, 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days shall be undertaken when the highest dust impact occurs. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.5 Impact dust monitoring was conducted at the air quality monitoring stations, AM1(C) – Contractor Site Office (SCL 1107), AM2 - Lee Kau Yan Memorial School and AM2(A) – Ng Wah Catholic Secondary School.

2.6 The 24-hour TSP monitoring at AM1(B) was unavailable due to relocation and failure of electricity supply from relocated contractor site office (KL/2012/02), therefore an alternative monitoring station AM1(C) was proposed and adopted for subsequent impact monitoring starting in July 2017.

2.7 The 24-hour TSP monitoring at AM2 was unavailable due to rejection by the premises owner and therefore an alternative monitoring station AM2(A) was proposed and adopted for subsequent impact monitoring starting in August 2017.

2.8 **Table 2.3** describes the air quality monitoring locations, which are also depicted in **Figure 2**.

Table 2.3 Locations for Air Quality Monitoring

Monitoring Stations	Locations	Monitoring Parameter	Location of Measurement
AM1(B)	Contractor Site Office (KL/2012/02)	1-hour & 24-hour TSP	Ground Floor Area
(1)AM1(C)	Contractor Site Office (SCL 1107)	1-hour & 24-hour TSP	Ground Floor Area
AM2	Lee Kau Yan Memorial School	1-hour TSP & 24-hour TSP	Rooftop (about 8/F) Area
(2)AM2(A)	Ng Wah Catholic Secondary School	24-hour TSP	Rooftop (about 8/F) Area
#AM6	PA 15	1-hour & 24-hour TSP	Site 1B4 (Planned)

Remarks: (1) The alternative station of 1-hour/24-hour TSP monitoring for AM1(B) was adopted in July 2017 as AM1(C).
(2) The alternative station of 24-hour TSP monitoring for AM2 was adopted in August 2017 as AM2(A).
The impact monitoring at these locations will only be carried out until existence of the sensitive receiver at the building.

Monitoring Parameters, Frequency and Duration

2.9 **Table 2.4** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period.

Table 2.4 Impact Dust Monitoring Parameters, Frequency and Duration

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

Results and Observations

2.7 1-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix F**

2.8 24-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix F**

2.9 The weather information during construction period is summarized in **Appendix B.**

2.10 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices C and D** respectively.

2.11 The summary of exceedance record during construction period is shown in **Appendix F**. No exceedance was recorded for the air quality monitoring.

2.12 According to our field observations, the major dust source identified at the designated air quality monitoring stations are as follows:

Table 2.5 Major Dust Source Identified at Air Sensitive Receivers

Station	Major Dust Source
AM1(B) – Contractor Site Office (KL/2012/02)	Road Traffic Dust Exposed site area and open stockpiles Site vehicle movement
AM1(C) – Contractor Site Office (SCL 1107)	Road Traffic Dust Exposed site area and open stockpiles Site vehicle movement
AM2 – Lee Kau Yan Memorial School	Road Traffic Dust Exposed site area and open stockpiles Excavation works Site vehicle movement
AM2(A) – Ng Wah Catholic Secondary School	

2.13 The summary of 1-hour and 24-hour TSP air quality monitoring results during construction period are shown in **Appendix C** and **Appendix D** respectively.

3. NOISE

Predication and Evaluation of Environmental Impact

3.1 The cumulative noise levels for construction of the Project were predicted and evaluated in the absence of mitigation measures during EIA period. The **Table 3.1** summarizes the EIA predictions during construction period

Table 3.1 EIA predictions of Noise Levels

Stations	Predicted Mitigated Construction Noise Levels during Normal Working Hour ($L_{eq\ (30min)}$ dB(A))
M3 – Cognitio College	47 – 75
M4 – Lee Kau Yan Memorial School	47 – 74
M9 – Tak Long Estate	Not Predicted in EIA Report

Baseline Condition

3.2 Baseline noise monitoring was conducted at the designated monitoring stations. The baseline data was used for the Project to derive the Action and Limit Level. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

3.3 The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 3.2**.

Table 3.2 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Station	Baseline Noise Level, dB (A)	Noise Limit Level, dB (A)
M3	76.3/78.6(1) (at 0700 – 1900 hrs on normal weekdays) /	70(2)(4) (at 0700 – 1900 hrs on normal weekdays)
M4	76.7 (at 0700 – 1900 hrs on normal weekdays)	70(4) (at 0700 – 1900 hrs on normal weekdays)
M9	59.9 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)

Note:
(1) The baseline noise review report submitted under KLN/2013/16 for M3 was approved by EPD on 23rd August 2013. (Baseline Level was found to be 78.6 dB(A)at Rooftop of Cognitio College)
(2) The background Noise Level was recorded during the Lunch Hour of Construction Site (i.e. 12:00-13:00) and to be used as the referencing value for compliance checking for Noise Action and Limit Level.
(3) The noise level due to the construction work (CNL) was calculated by the following formula:

$$CNL = 10 \log (10^{MNL/10} – 10^{BNL/10})$$

MNL = Measured Noise Level, BNL = Baseline Noise Level

(4) Noise Limit Level is 65 dB(A) during school examination periods.

Monitoring Requirements

3.4 According to EM&A Manuals under the EP, construction noise monitoring was conducted to monitor the construction noise arising from the construction activities within KTD. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.5 Four designated monitoring stations were selected for noise monitoring programme. Noise monitoring was conducted at three designated monitoring stations (M3, M4, M9). **Figure 3** shows the locations of these stations.

Table 3.3 Noise Monitoring Stations

Monitoring Stations	Locations	Location of Measurement
M3	Cognitio College	Rooftop (about 6/F) Area
M4	Lee Kau Yan Memorial School	Rooftop (about 7/F) Area
M9	Tak Long Estate	Car Park Building (about 2/F)
#M10	Site 1B4 (Planned)	-

Remarks:
The impact monitoring at these locations will only be carried out until existence of the sensitive receiver at the building.

Monitoring Parameters, Frequency and Duration

Table 3.4 summarizes the monitoring parameters, frequency and total duration of monitoring.

Table 3.4 Noise Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter	Period	Frequency	Measurement
M3 M4 M9	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	0700-1900 hrs on normal weekdays	Once per week	Façade

Results and Observations

3.6 All construction noise monitoring was conducted as scheduled during construction period. No project-related Action/Limit Level exceedance was recorded.

3.7 Noise monitoring results and graphical presentations are shown in **Appendix E**.

3.8 The major noise source identified at the designated noise monitoring stations are as follows:

Table 3.5 Major Noise Source Identified at Noise Sensitive Receivers

Monitoring Stations	Locations	Major Noise Source
M3	Cognitio College	Traffic Noise Daily school activities
M4	Lee Kau Yan Memorial School	Traffic Noise Site vehicle movement Excavation works Piling works Daily school activities
M9	Tak Long Estate	Traffic Noise Construction works

4. COMPARISON OF THE EM&A DATA WITH THE EIA

Air Quality

4.1 The maximum predicted cumulative 1-hour and 24-hour average TSP levels for construction of the Project were predicted by EIA Report as shown in **Table 2.1**. Based on the results of prediction, no exceedance of 1-hour average and 24-hour average TSP is predicted at the ASRs at 1.5m above ground. The photographic presentation of 1-hour average and 24-hour average TSP impact monitoring data during construction period were shown in **Appendix C and D** respectively. 2 nos. of air quality complaints from EPD were received by the Project during the construction period and the complaint details show in **Appendix H**.

Noise

4.2 The cumulative mitigated construction noise levels at NSRs during normal daytime working hours for the project has been predicted by EIA Report as shown in **Table 3.1**. Noise reduction from the use of mitigation measures are included quiet plant, noise barrier and enclosure for construction plants. No exceedance over daytime construction noise criteria are predicted at the NSRs. The photographic presentation of noise impact monitoring data during construction period were shown in **Appendix E.** No noise complaint from EPD was received by the Project during the construction period.

4.3 No Project related exceedance at the monitoring stations (Air Quality and Noise) was recorded during the construction period. Detail of the non-projected related exceedances is provided in **Appendix F**.

5. LANDSCAPE AND VISUAL

Monitoring Requirements

5.1 According to EM&A Manual of the Kai Tak Development EIA Study, ET shall monitor and audit the contractor's operation during the construction period on a weekly basis, and to report on the contractor's compliance.

5.2 The audit on landscape and visual mitigation measures as recommended in the approved EIA report for the Kai Tak Development (KTD) (AEIAR-130/2009) will remain on-going after the cessation of EM&A Programme (Construction Phase). The site inspection and audit for landscape and visual impact and landscape and visual mitigation measures will be continued until the end of the 12-month establish period.

Results and Observations

5.3 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in Monthly EM&A Report.

5.4 No non-compliance of the landscape and visual impact was recorded during construction period.

6. ENVIRONMENTAL AUDIT

Site Audits

6.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. No non-compliance was observed during the site audits.

Review of Environmental Monitoring Procedures

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

Air Quality Monitoring

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

Noise Monitoring

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

Implementation Status of Environmental Mitigation Measures

6.3 During site inspections during construction period, no non-conformance was identified. Observations and recommendations recorded during the site inspections were summarized in each of the Monthly EM&A Reports.

Status of Waste Management

6.4 The amount of wastes generated by the major site activities of this Project during construction period is shown in **Appendix I**.

6.5 The Contractor is advised to take photo and inspection records to ensure that all dump trucks have the skip fully covered before leaving the site.

Implementation Status of Event Action Plans

6.6 The Event Action Plans for air quality, noise and landscape and visual are presented in **Appendix G**.

<u>1-hr TSP Monitoring</u>

6.7 No Action/Limit Level exceedance was recorded during construction period.

24-hr TSP Monitoring

6.8 No Action/Limit Level exceedance was recorded during construction period.

Construction Noise

6.9 No project-related Action/Limit Level exceedance was recorded during construction period.

Landscape and visual

6.10 No non-compliance was recorded during construction period.

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

6.11 6 nos. of environmental-related complaints, prosecution or summons were recorded at any of the site portions. The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix H**.

7. COMMENT, CONCLUSIONS AND RECOMMENDATION

Comment on Overall EM&A Programme

7.1 The EM&A Programme requires construction phase monitoring for air quality, air-bone construction noise and environmental site audit. Timely implementation of mitigation measures were carried out according to the environmental data obtained during construction phase. According to the information from RE and Contractor, the major construction activities were completed in 31st May 2018 and the cessation of EM&A Programme was approved by EPD on 2nd October 2018.

7.2 Therefore, there was no major construction activities after 31st May 2018 and the future environmental concerns under Contract No. KL/2012/02. The weekly site inspections were effective to ensure the implementation and efficiency of the mitigation measures. As a result, environmental nuisance to the public could be reduced to a minimal.

7.3 Therefore, the overall performance of the monitoring methodology adopted and environmental management system in this Project was effective.

Overall EM&A Data

7.4 Environmental monitoring works were performed during construction period and all monitoring results were checked and reviewed.

1-hr TSP Monitoring

7.5 1-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded.

24-hr TSP Monitoring

7.6 24-hour TSP monitoring was conducted as scheduled during construction period. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

7.7 All construction noise monitoring was conducted as scheduled during construction period. No project-related Action/Limit Level exceedance was recorded.

Landscape and visual

7.8 No non-compliance was recorded during construction period.

Complaint and Prosecution

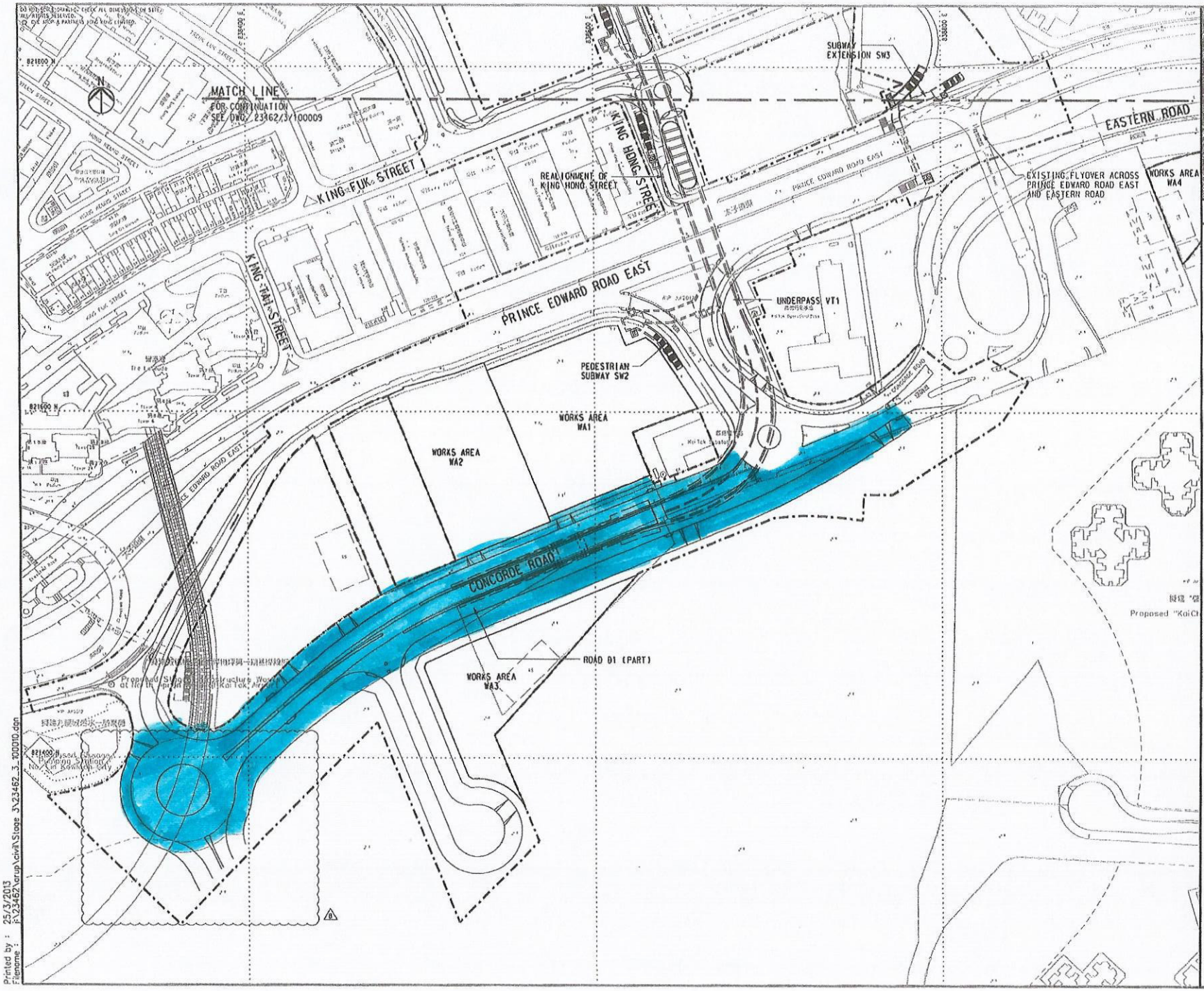
7.9 6 nos. of environmental complaints were received during construction period.

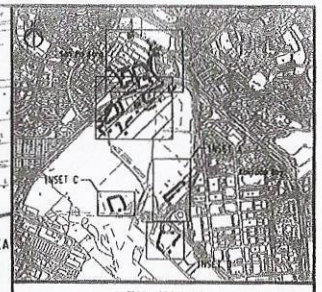
Recommendations and Conclusions

7.10 The EM&A programme was found to be effective in monitoring impacts arising from the Project. The findings of the environmental monitoring program suggest that no adverse impacts on sensitive receivers were brought about by the Project. In conclusion the Project was environmentally acceptable in terms of air quality, noise levels since no exceedance of Action and Limit Levels were recorded throughout the Project with the proper implementation of mitigation measures, which is as predicted in the EIA.

7.11 With the success of the overall EM&A programme, the deterioration of the environment caused by the Project was cost-effectively identified and necessary prompt effective mitigation measures were implemented to avoid any unacceptable impacts.

FIGURES





KEY PLAN

LEGEND:

SITE BOUNDARY

Rev	Description	By	Date
B	TENDER ADDENDUM NO. 2	TL	03/13
A	TENDER ADDENDUM NO. 1	TL	02/13
-	TENDER ISSUE	TL	02/13

Consultant
ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

Project title
Contract No. KL/2012/02
Kai Tak Development -
Stage 3A infrastructure at former north apron area

Drawing title
GENERAL LAYOUT PLAN
(SHEET 2 OF 3)

Drawing no.	Rev.
23462/3/100010	B

Drawn	Date	Checked	Approved
YM	04/12	JC	TL

Scale: 1:1000 @A1
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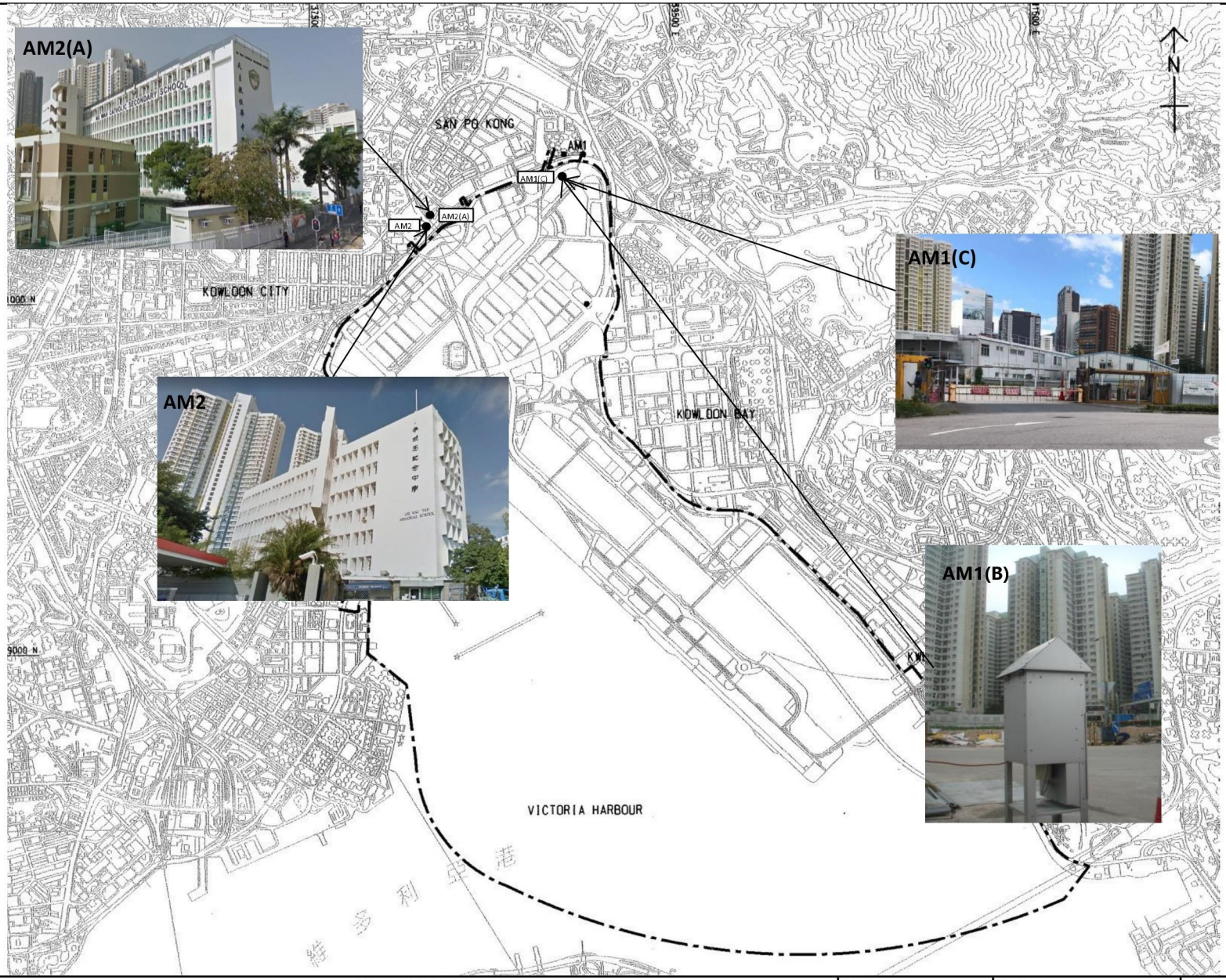
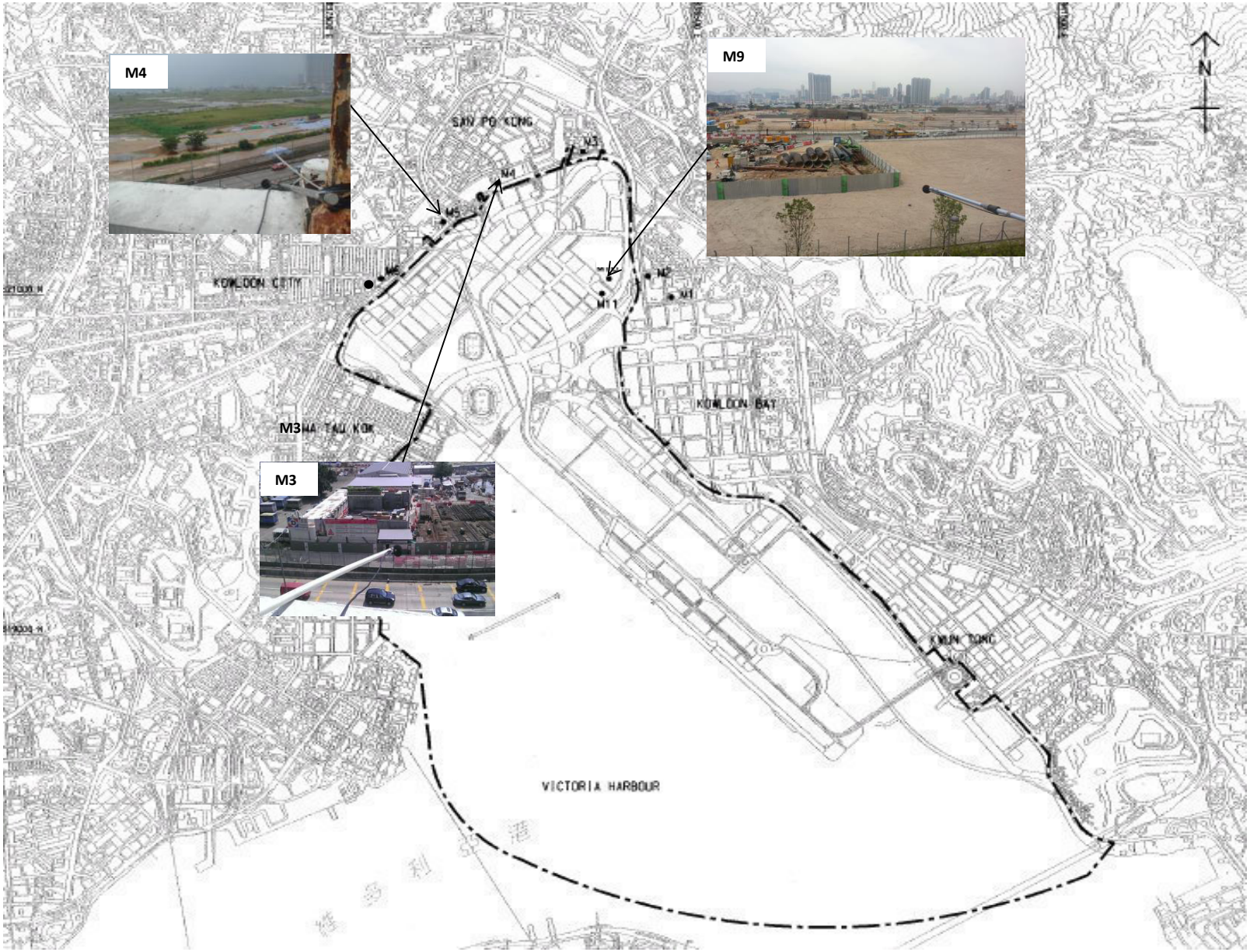
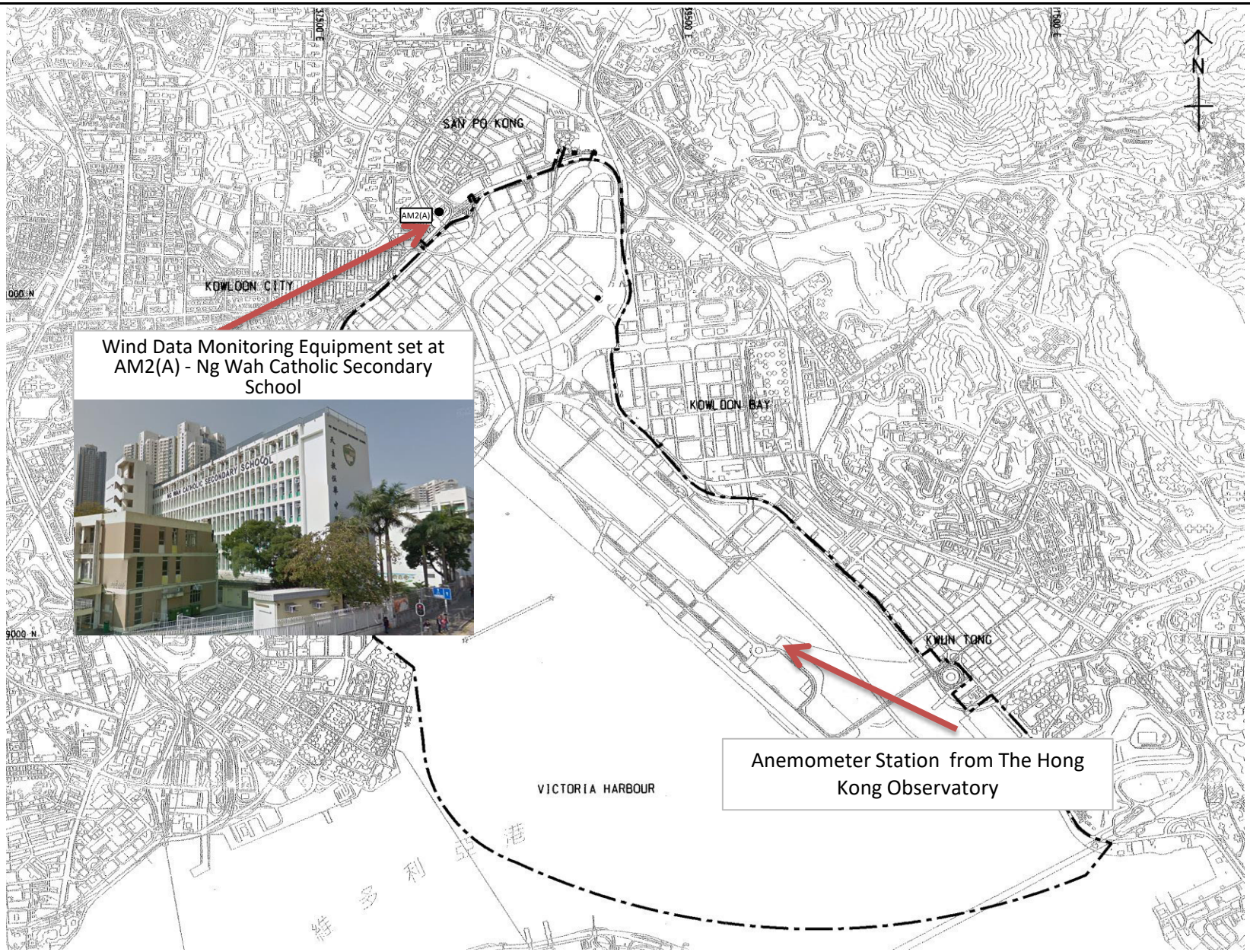


Title	Contract No. KL/2012/02	Scale N.T.S	Project No. MA13043
	Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area	Date Aug-17	Figure 2
	Location of Air Quality Mointoring Location		CINOTECH



Title	Contract No. KL/2012/02	Scale N.T.S	Project No. MA13043
	Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area	Date Apr-17	Figure 3
	Location of Noise Monitoring Stations under this Project		CINOTECH



Title	Contract No. KL/2012/02 Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area Location of Wind Monitoring Station	Scale: N.T.S Date: Aug-17	Project No.: MA13043 Figure: 4

CINOTECH

APPENDIX A
ACTION AND LIMIT LEVELS FOR AIR QUALITY AND NOISE

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for 1-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1(B)	342	500
AM1(C)	342	
AM2	346	

Table A-2 Action and Limit Levels for 24-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1(B)	159	260
AM1(C)	159	
AM2	157	
AM2(A)	157	

Table A-3 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

Remarks: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed. *70dB(A) and 65dB(A) for schools during normal teaching periods and school examination periods, respectively.

APPENDIX B
WEATHER INOFRMATION

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
October 2013	25.7	66	2.9	90	23.6
November 2013	21.7	72.0	83.1	80	30.5
December 2013	16.1	63.0	88.3	30	24.9
January 2014	16.3	67.0	Trace	40	22.9
February 2014	15.5	82.0	39.5	50	26.6
March 2014	18.7	83.0	207.6	60	24.1
April 2014	22.6	86.0	132.4	80	20.6
May 2014	26.4	86.0	687.3	240	23.7
June 2014	29.0	80.0	436.6	230	18.8
July 2014	29.8	80.0	260.5	220	18.2
August 2014	29.0	81.0	548.2	240	17.7

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
September 2014	29.0	77.0	140.6	80	17.4
October 2014	26.2	71.0	109.8	100	24.3
November 2014	22.6	78.0	31.1	90	25.0
December 2014	16.3	67.0	44.7	20	30.5
January 2015	16.4	72.0	41.7	50	24.3
February 2015	17.5	78.0	32.0	40	22.2
March 2015	19.9	85.0	28.4	50	22.6
April 2015	23.6	77.0	64.5	20	18.2
May 2015	27.5	85.0	513.0	10	20.1
June 2015	29.7	80.0	302.1	220	20.3
July 2015	29.1	79.0	406.2	210	20.4

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
August 2015	29.3	78.0	143.3	220	12.8
September 2015	28.4	78.0	87.9	60	20.0
October 2015	26.0	77.0	168.3	80	23.0
November 2015	24.0	79.0	22.8	80	27.7
December 2015	18.6	76.0	64.3	20	26.2
January 2016	16.0	83.0	266.9	60	29.4
February 2016	15.5	74.0	24.8	20	21.3
March 2016	17.5	84.0	148.7	50	22.8
April 2016	23.6	89.0	211.4	40	17.1
May 2016	26.7	83.0	233.6	70	20.2
June 2016	29.4	82.0	347.4	220	18.0

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
July 2016	29.8	79.0	175.9	230	19.2
August 2016	28.4	84.0	532.7	60	17.1
September 2016	27.9	79.0	323.1	80	18.9
October 2016	26.8	80.0	624.4	70	26.3
November 2016	22.3	79.0	131.3	70	27.0
December 2016	19.6	70.0	6.6	70	26.7
January 2017	18.5	66.0	7.8	70	26.4
February 2017	17.0	65.0	19.9	60	26.7
March 2017	19.3	80.0	48.0	60	26.5
April 2017	23.3	69.0	58.8	70	20.1
May 2017	26.0	77.0	399.3	80	18.6

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
June 2017	28.8	78.0	656.0	240	23.0
July 2017	28.7	79.0	570.7	90	22.1
August 2017	29.3	70.0	489.1	230	20.7
September 2017	29.0	65.0	192.4	80	17.5
October 2017	26.3	57.0	99.6	70	32.8
November 2017	22.2	74.0	31.2	60	28.8
December 2017	17.8	54.0	Trace	70	29.6
January 2018	16.1	77.0	62.2	60	29.6
February 2018	16.8	70.0	4.5	50	23.7
March 2018	19.1	82.0	22.7	60	23.0
April 2018	22.6	83.0	28.1	70	16.1

APPENDIX B –
WEATHER CONDITIONS DURING THE CONSTRUCTION PERIOD

I. General Information

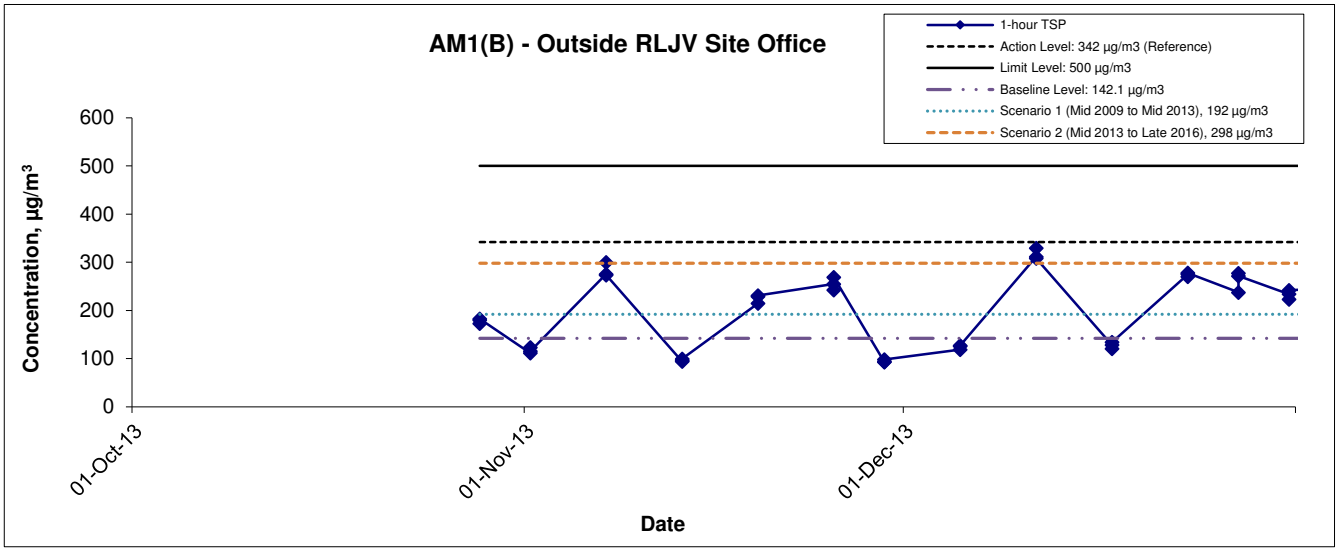
Month	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Total Precipitation (mm)	Prevailing Wind Direction (Degrees)	Mean Wind Speed (km/h)
May 2018	25.9	77.0	57.5	80	19.7
June 2018	28.6	80.0	458.8	230	24.8
July 2018	28.8	81.0	341.1	90	24.2
August 2018	28.6	81.0	6151.0	230	20.0
September 2018	28.0	78.0	383.3	90	19.5

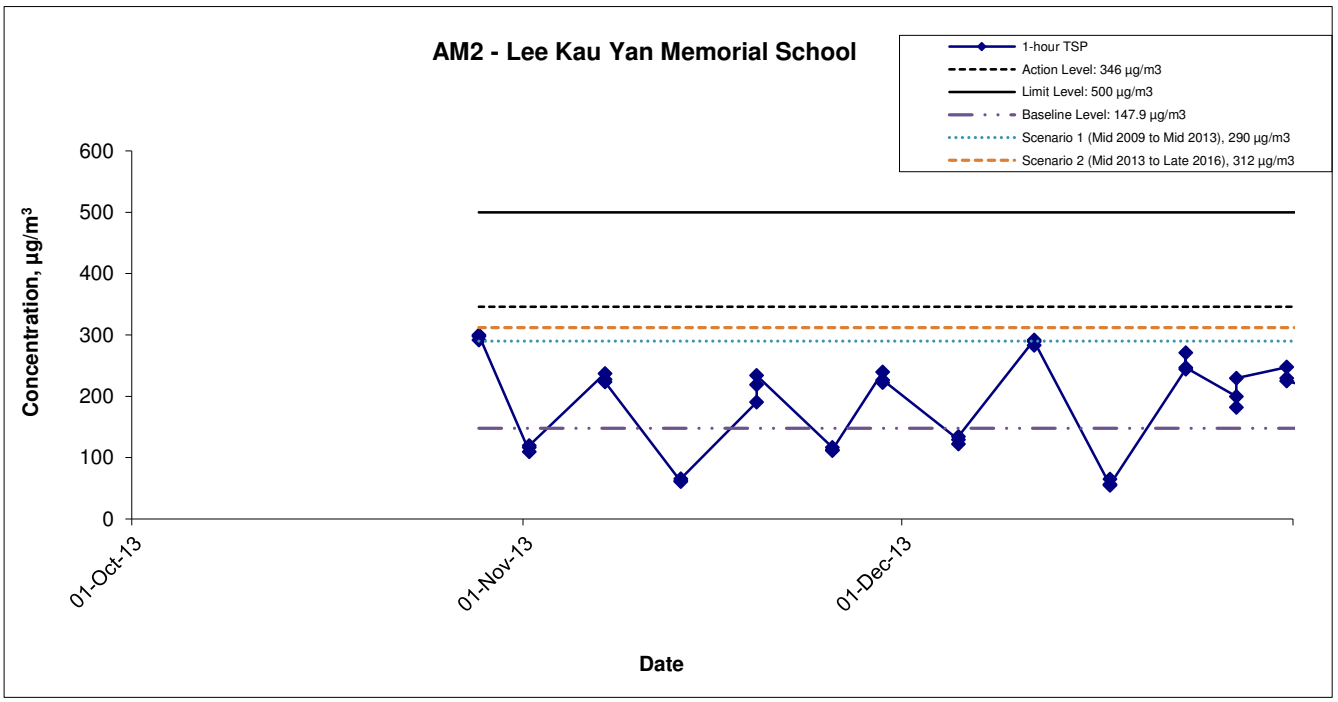
* The above information was extracted from the daily weather summary by Hong Kong Observatory.

** Trace means rainfall less than 0.05mm.

APPENDIX C
GRAPHICAL PRFESENTATION FOR 1-HOUR TSP MONITORING

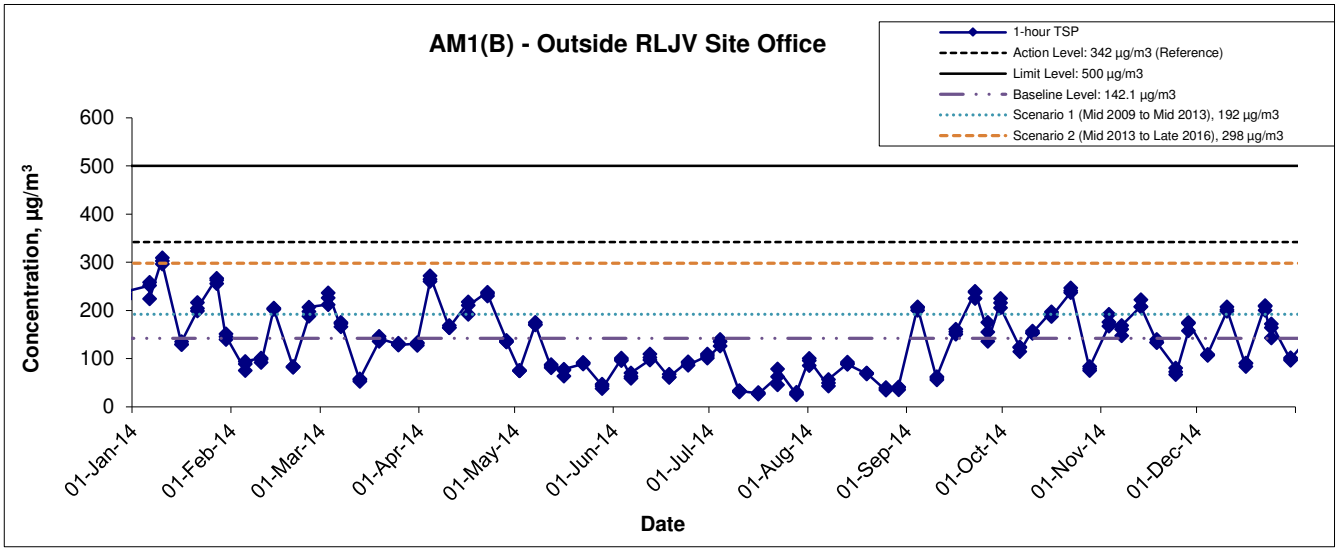
1-hr TSP Concentration Levels

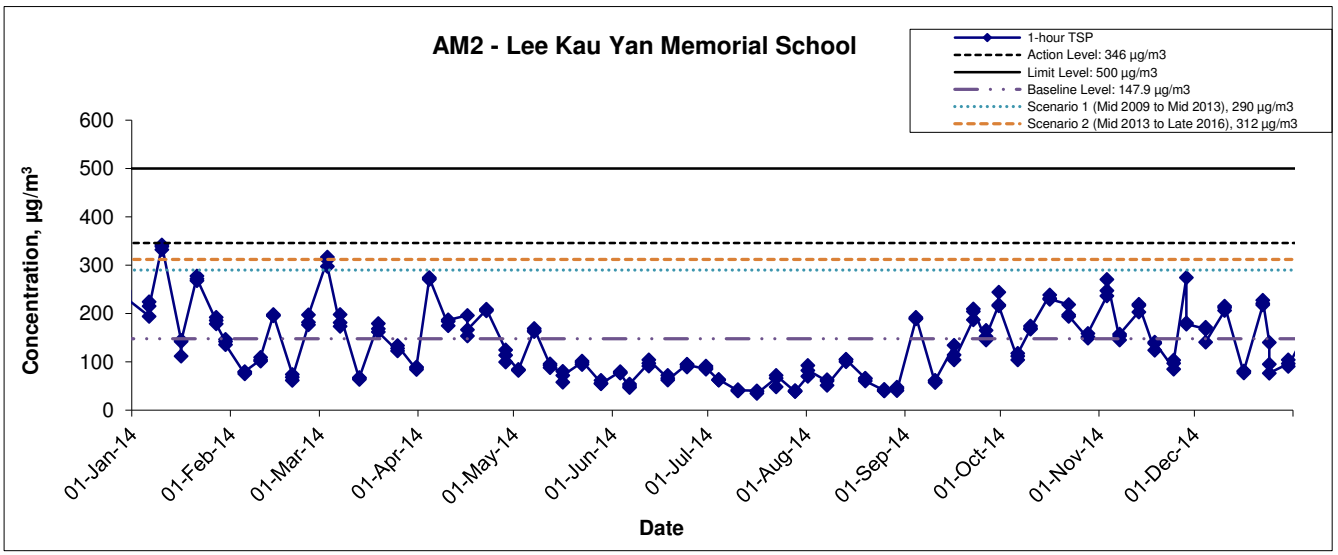




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2013	Project No.: MA13043 Appendix: C	CINOTECH

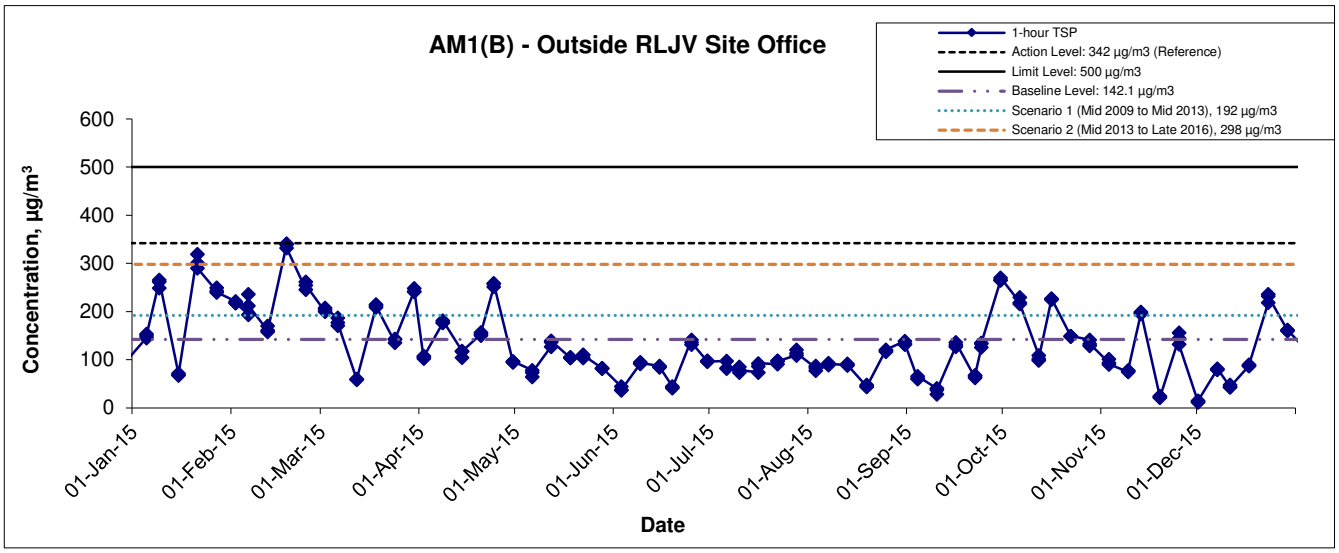
1-hr TSP Concentration Levels

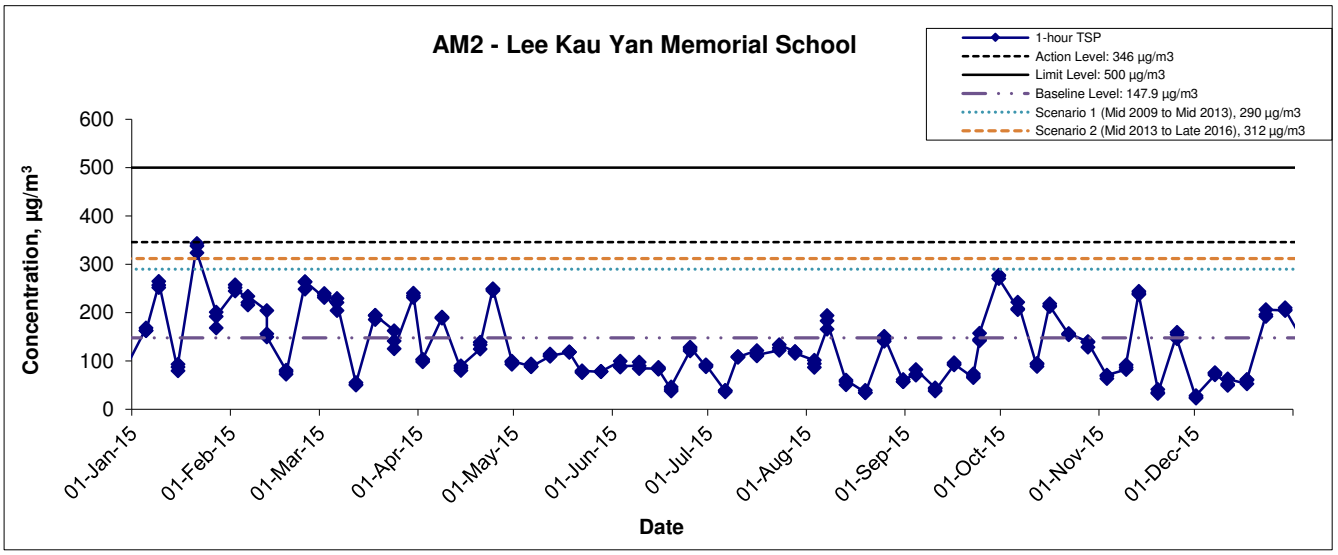




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2014	Project No.: MA13043 Appendix: C	CINOTECH

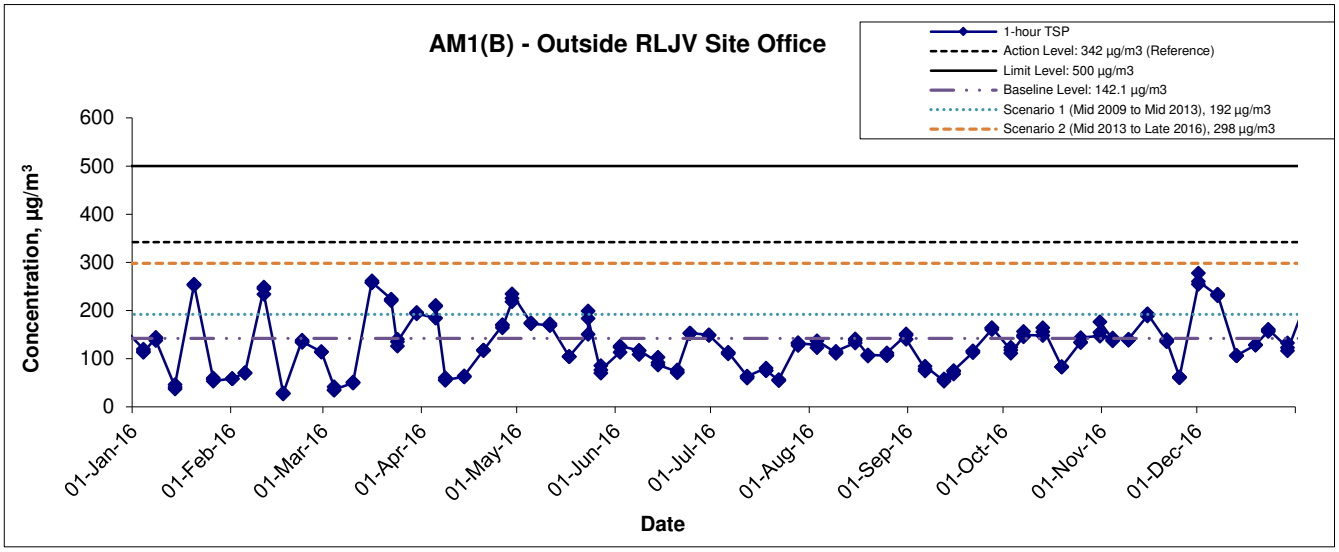
1-hr TSP Concentration Levels

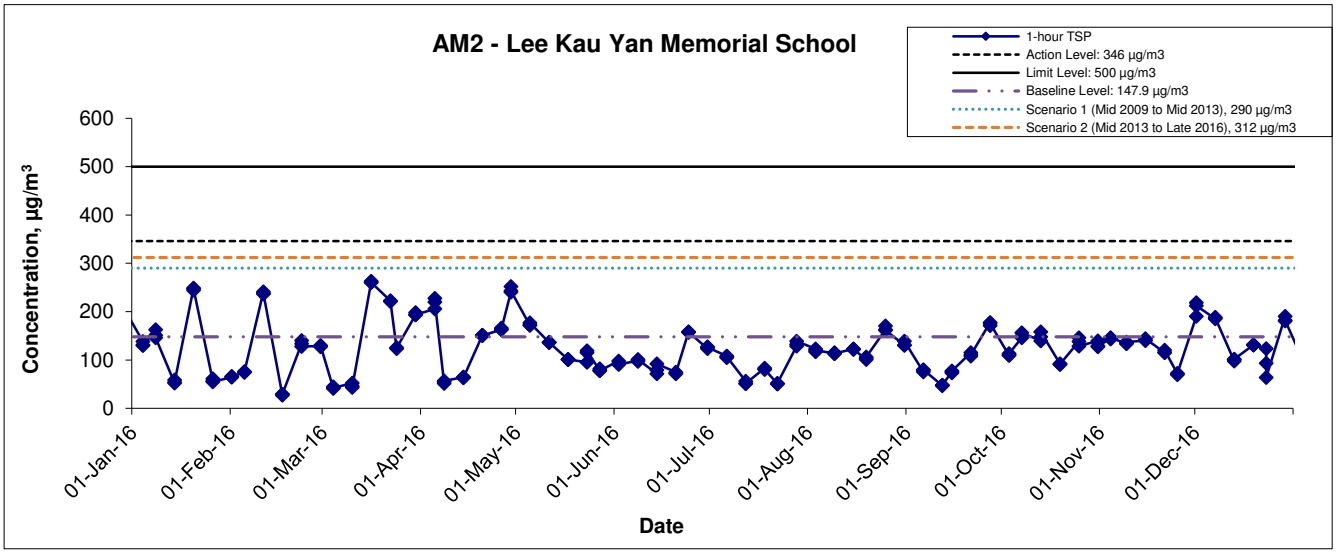




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2015	Project No.: MA13043 Appendix: C	CINOTECH

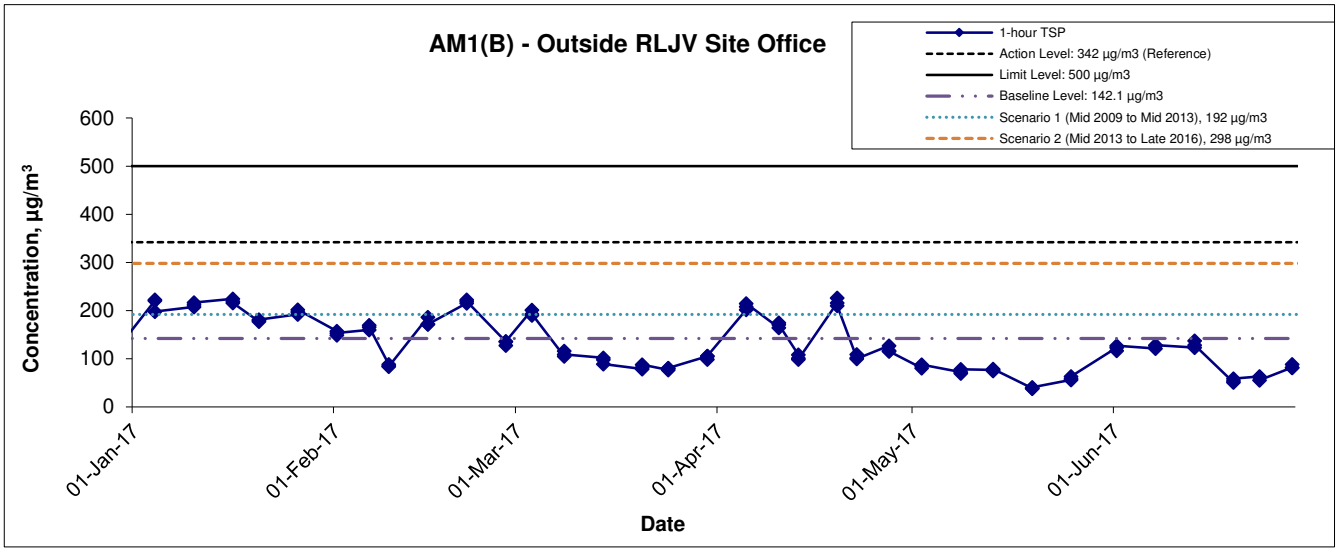
1-hr TSP Concentration Levels

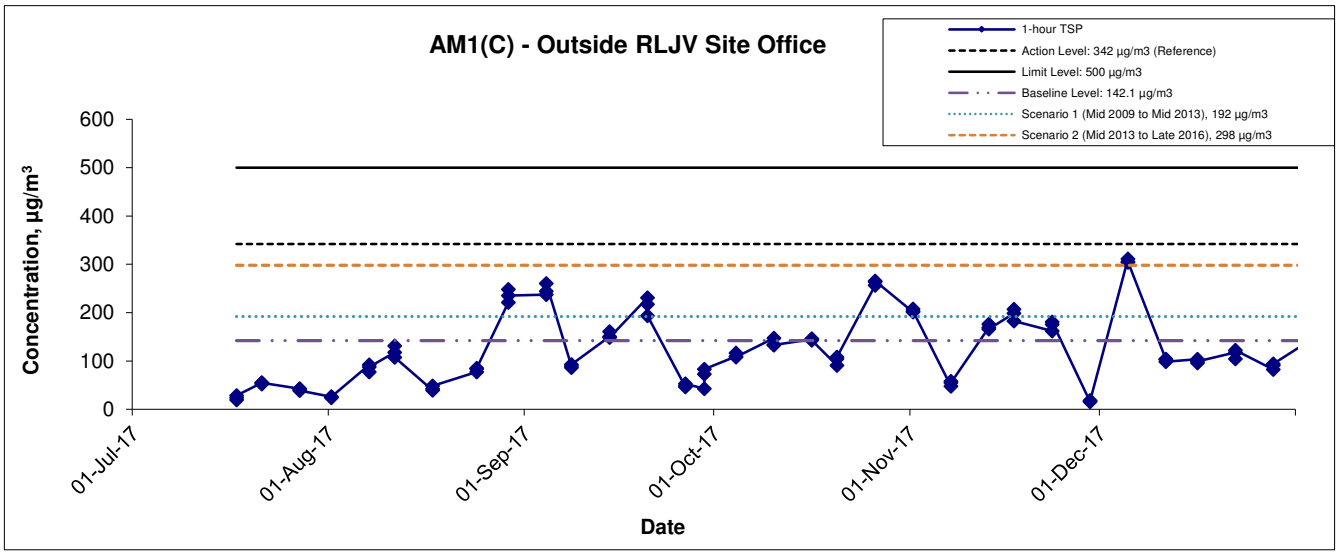


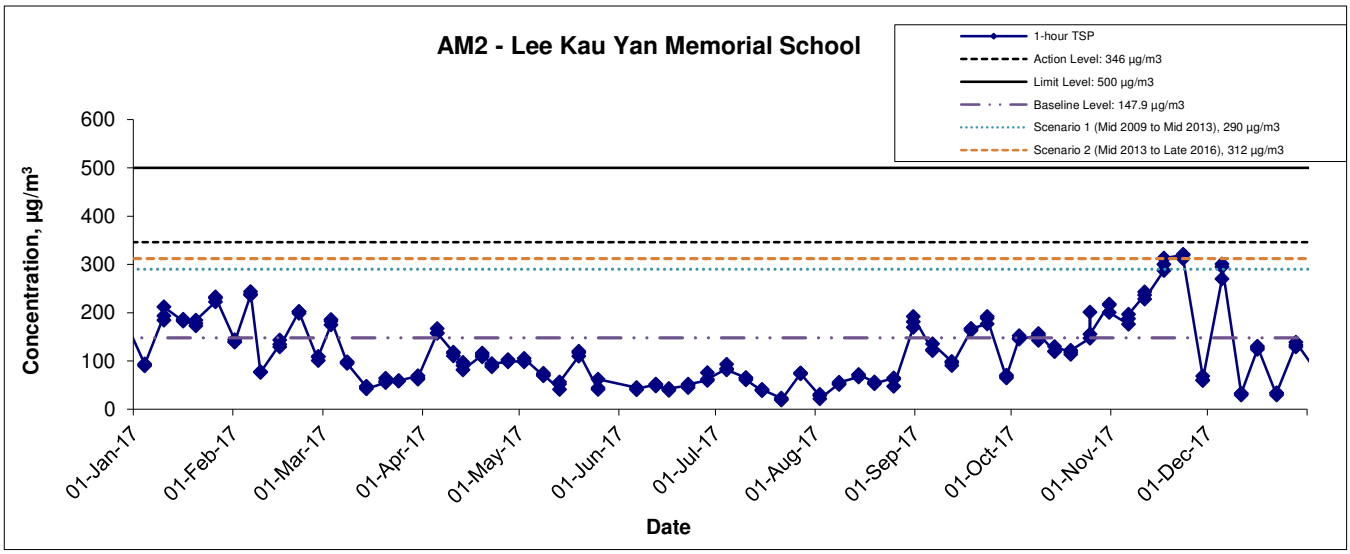


Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2016	Project No.: MA13043 Appendix: C	CINOTECH

1-hr TSP Concentration Levels

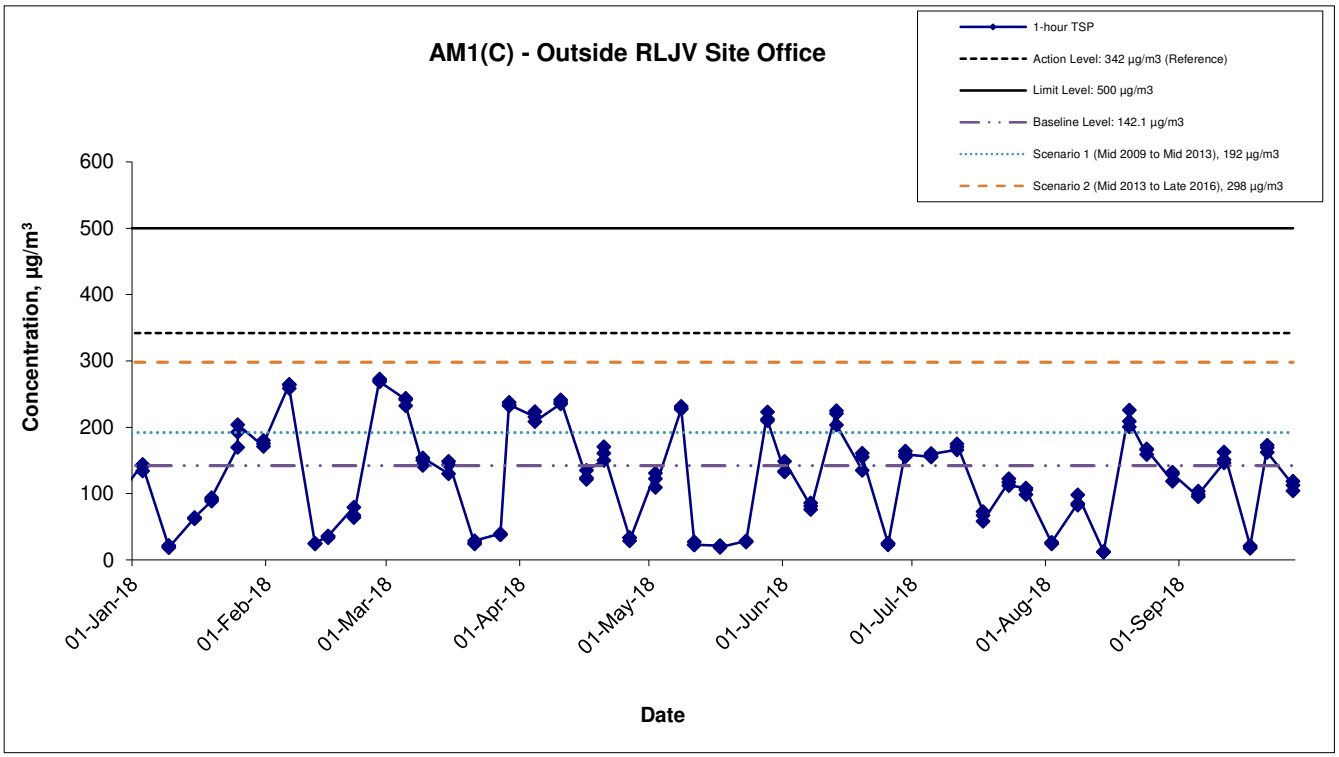


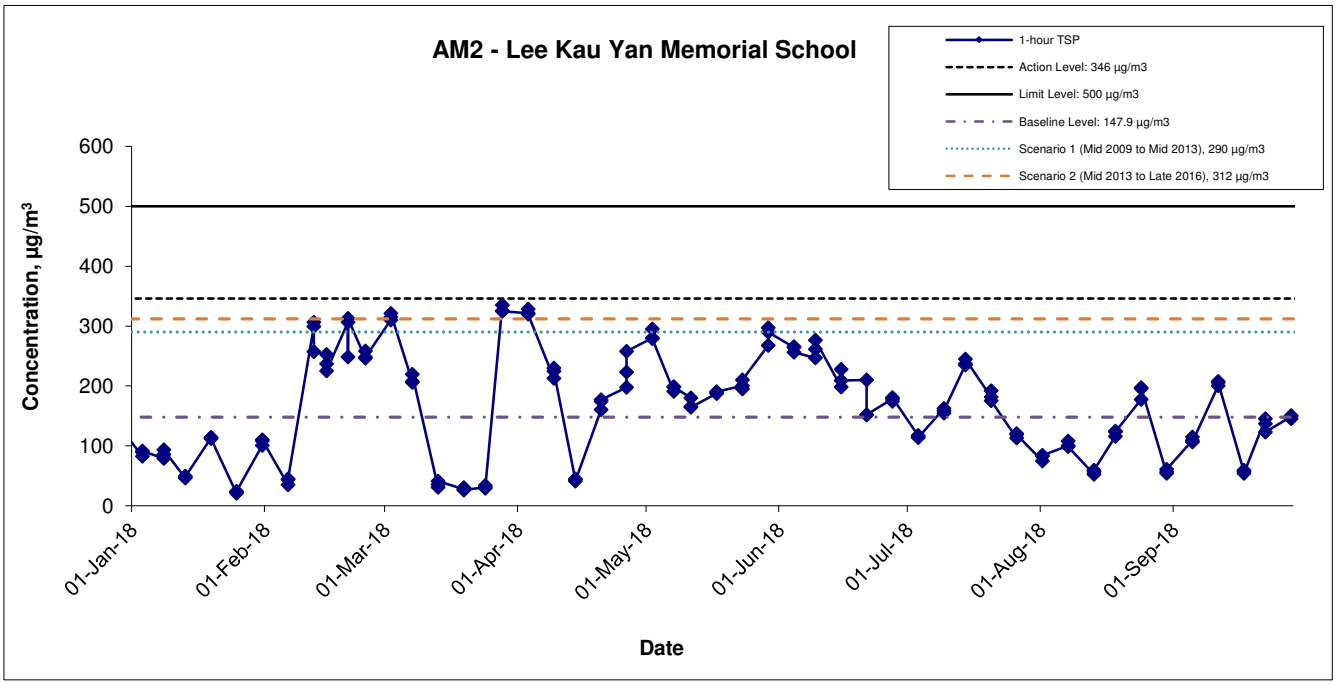




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2017	Project No.: MA13043 Appendix: C	CINOTECH

1-hr TSP Concentration Levels

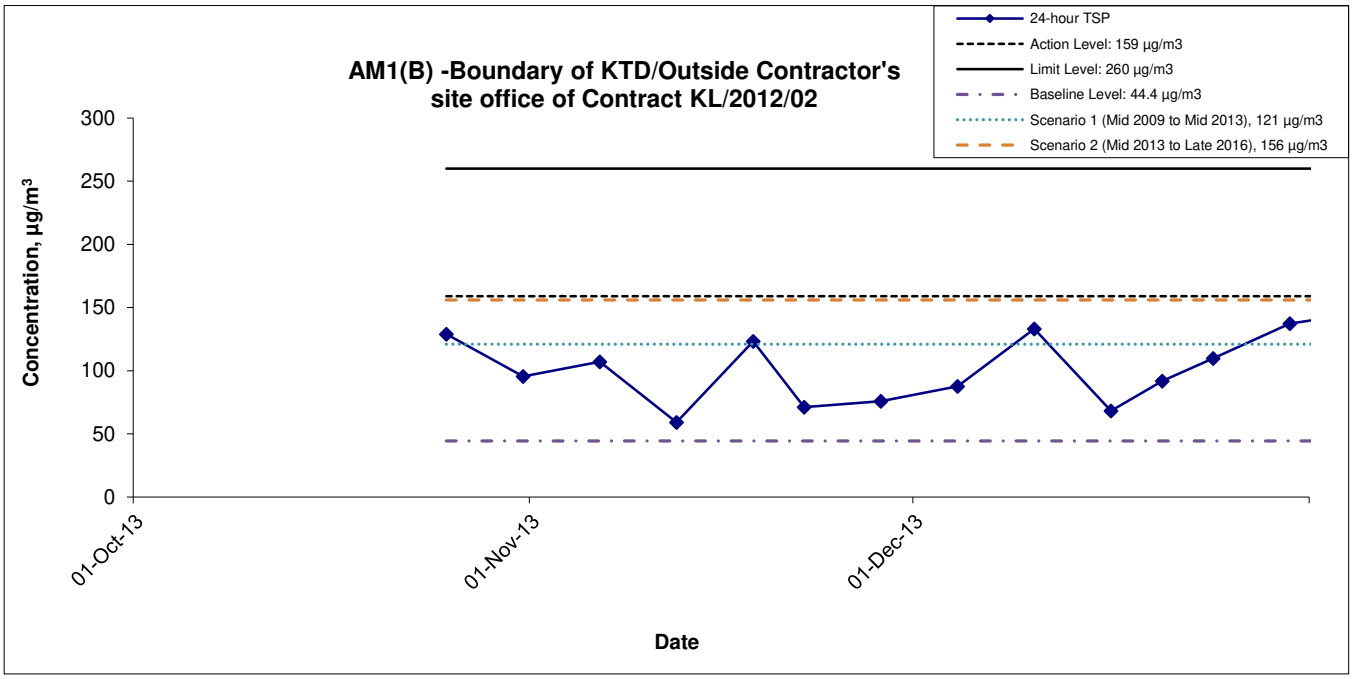


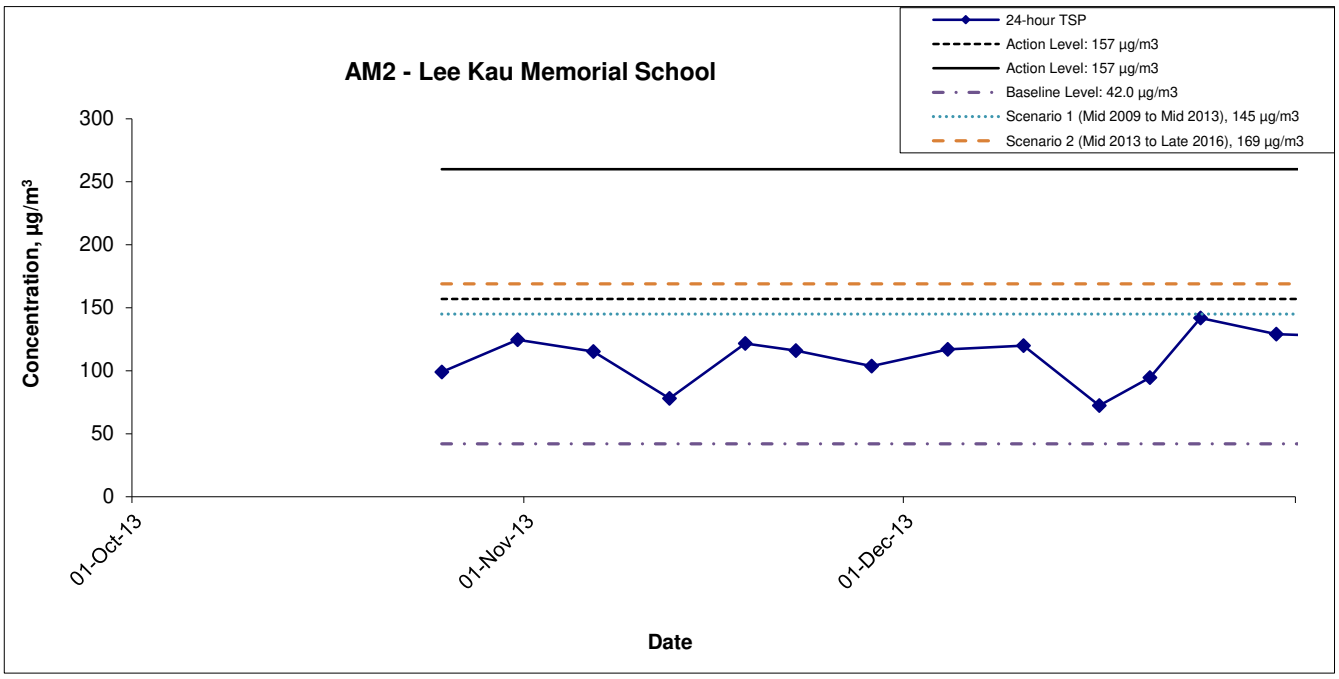


Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Year: 2018	Project No.: MA13043 Appendix: C	CINOTECH

APPENDIX D
GRAPHICAL PRFESENTATION FOR 24-HOUR TSP MONITORING

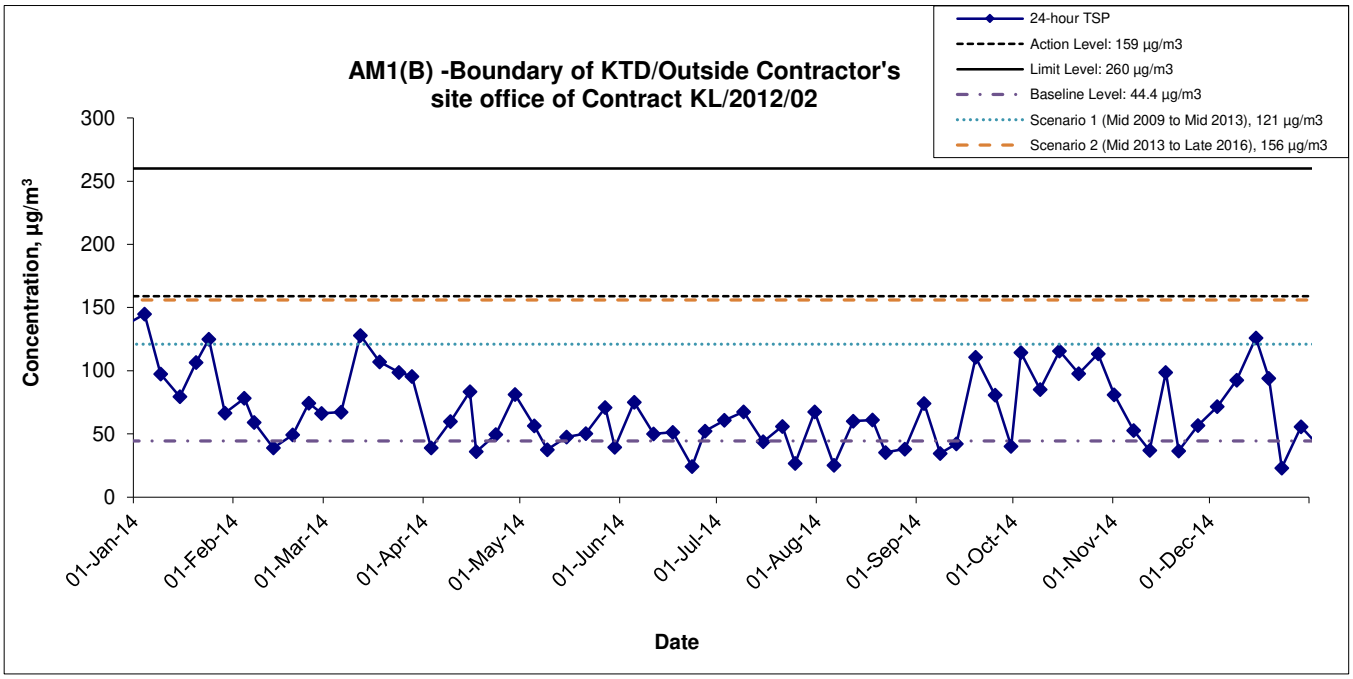
24-hr TSP Concentration Levels

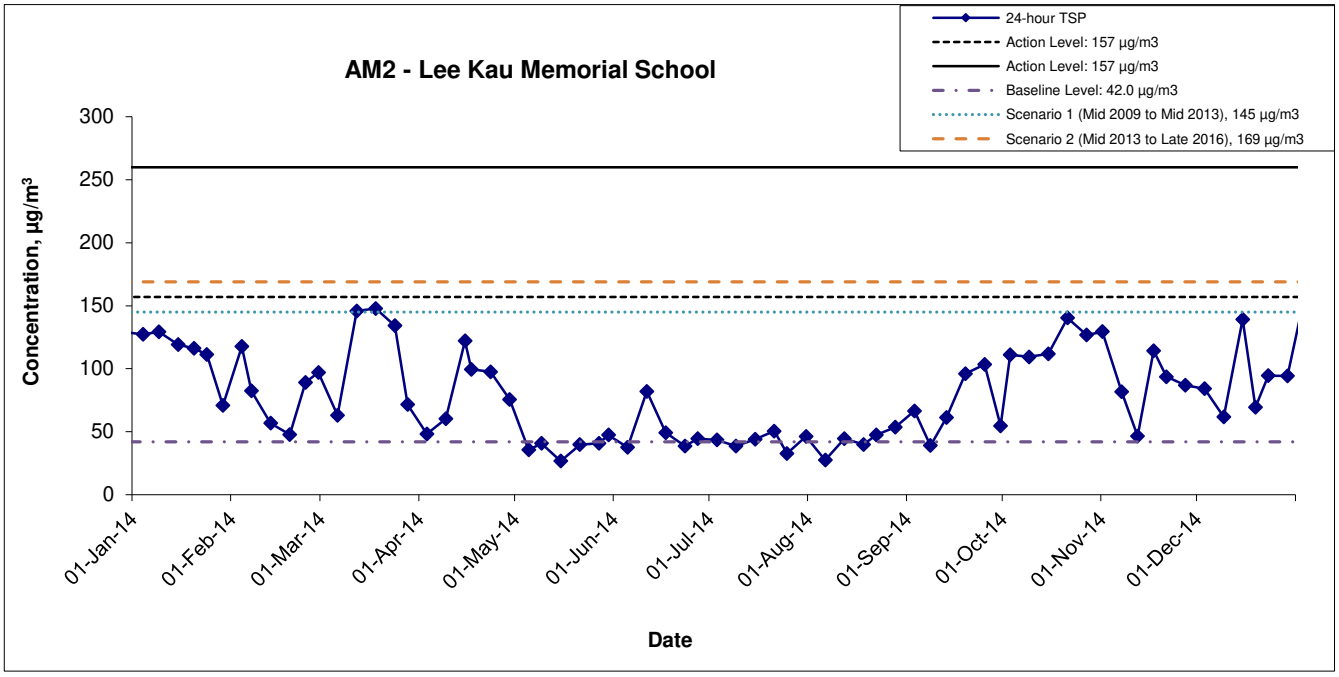




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2013	Project No.: MA13043 Appendix: D	CINOTECH

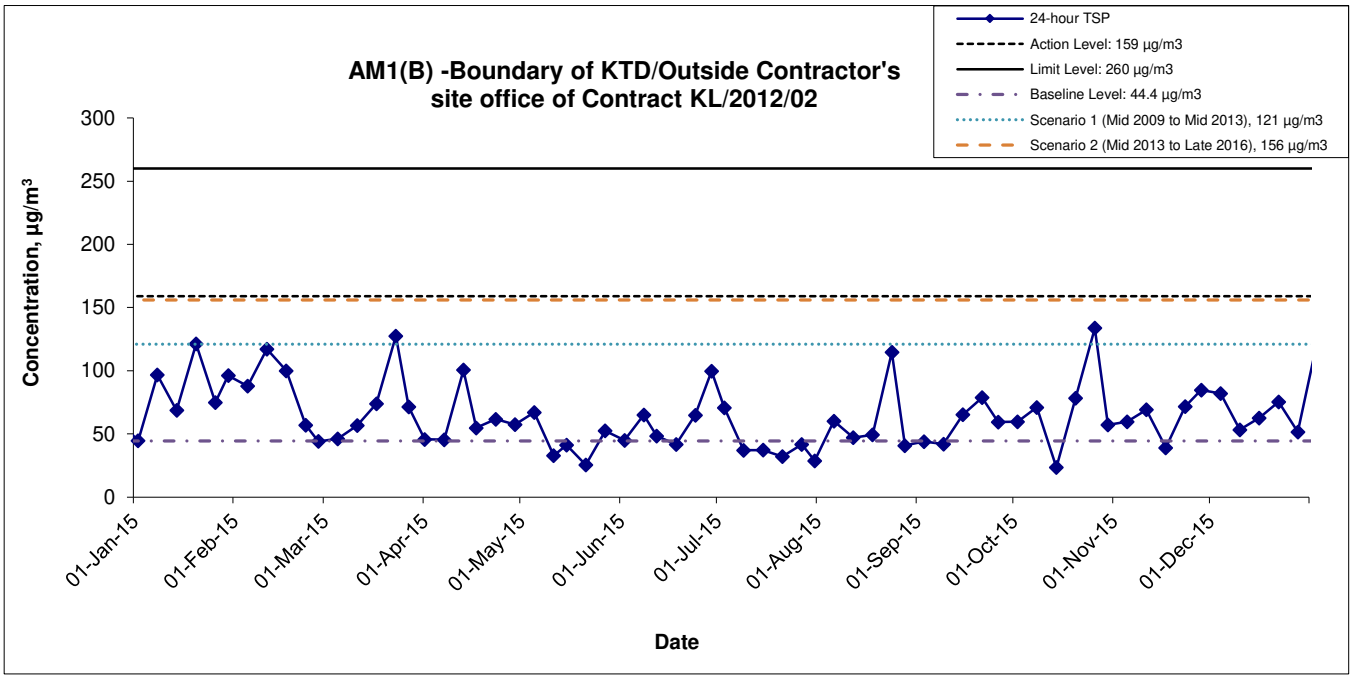
24-hr TSP Concentration Levels

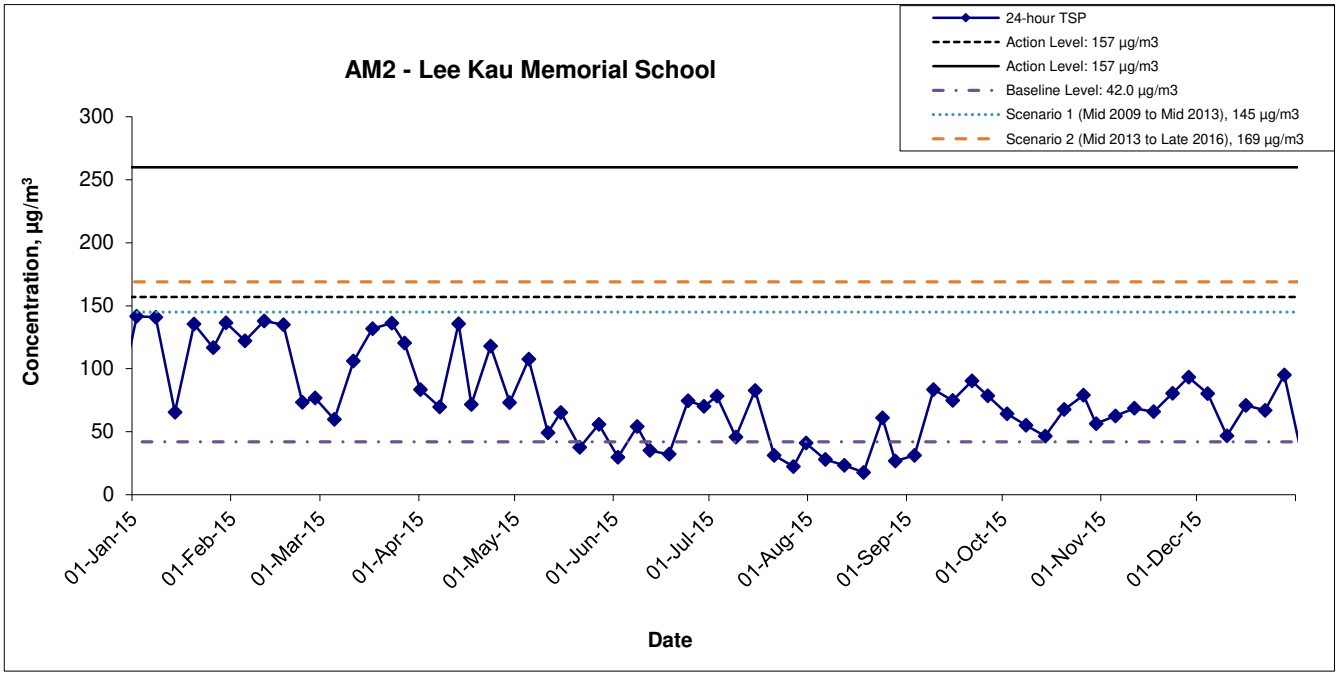




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2014	Project No.: MA13043 Appendix: D	CINOTECH

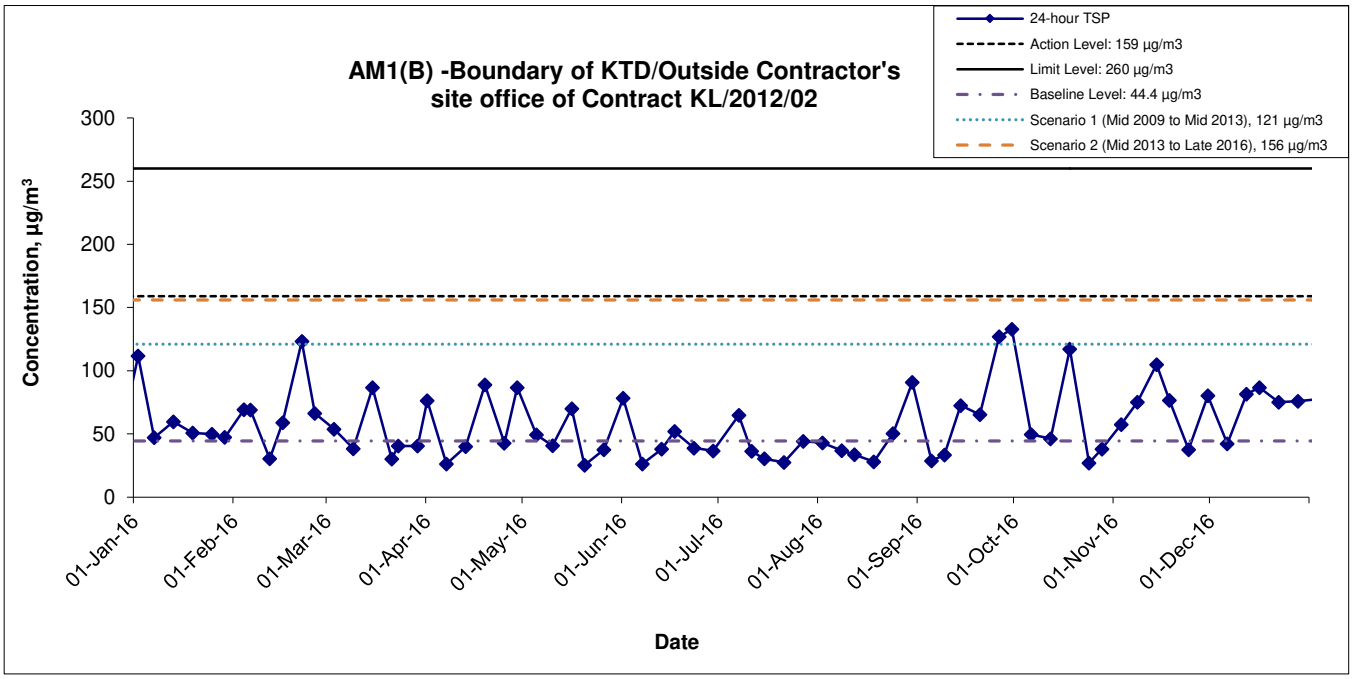
24-hr TSP Concentration Levels

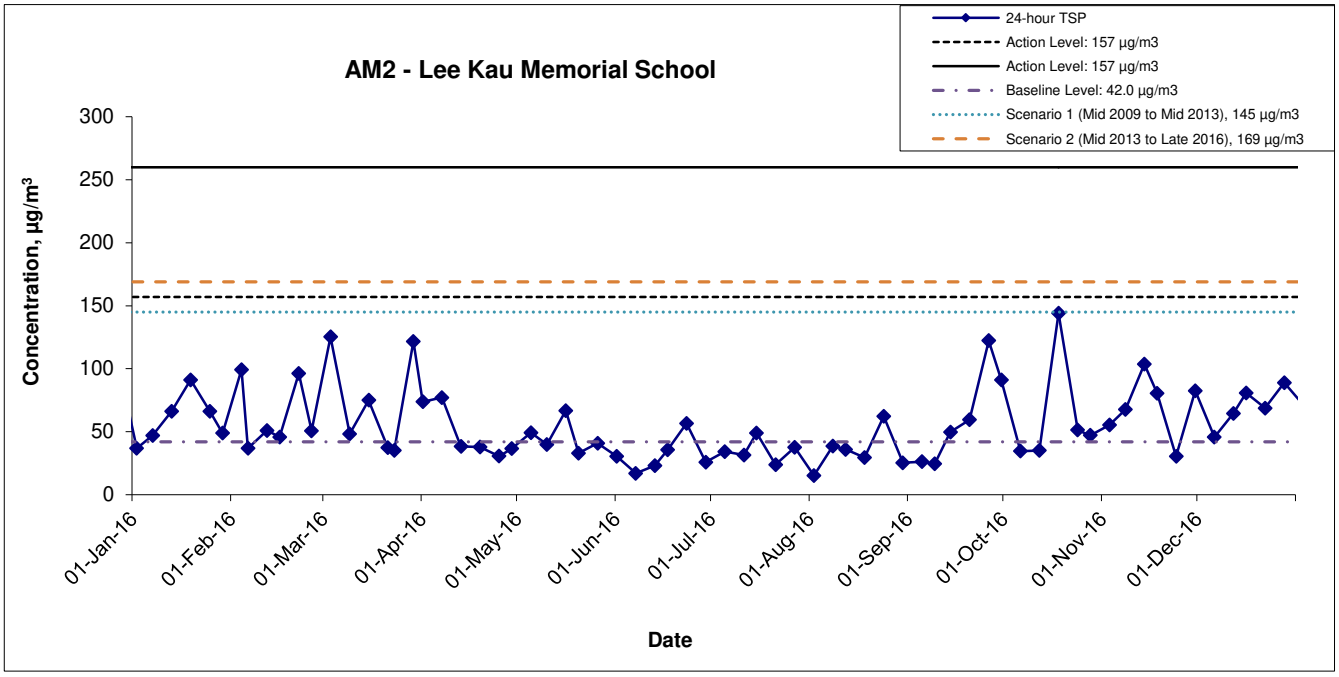




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2015	Project No.: MA13043 Appendix: D	CINOTECH

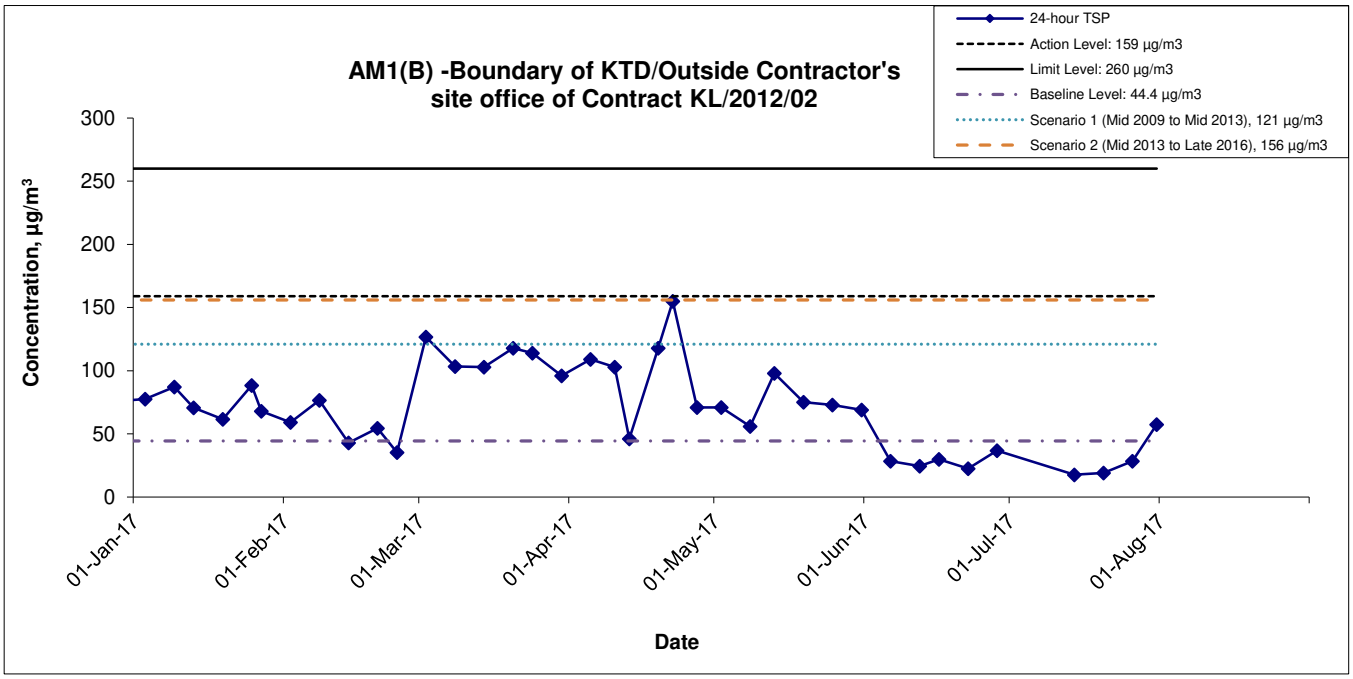
24-hr TSP Concentration Levels

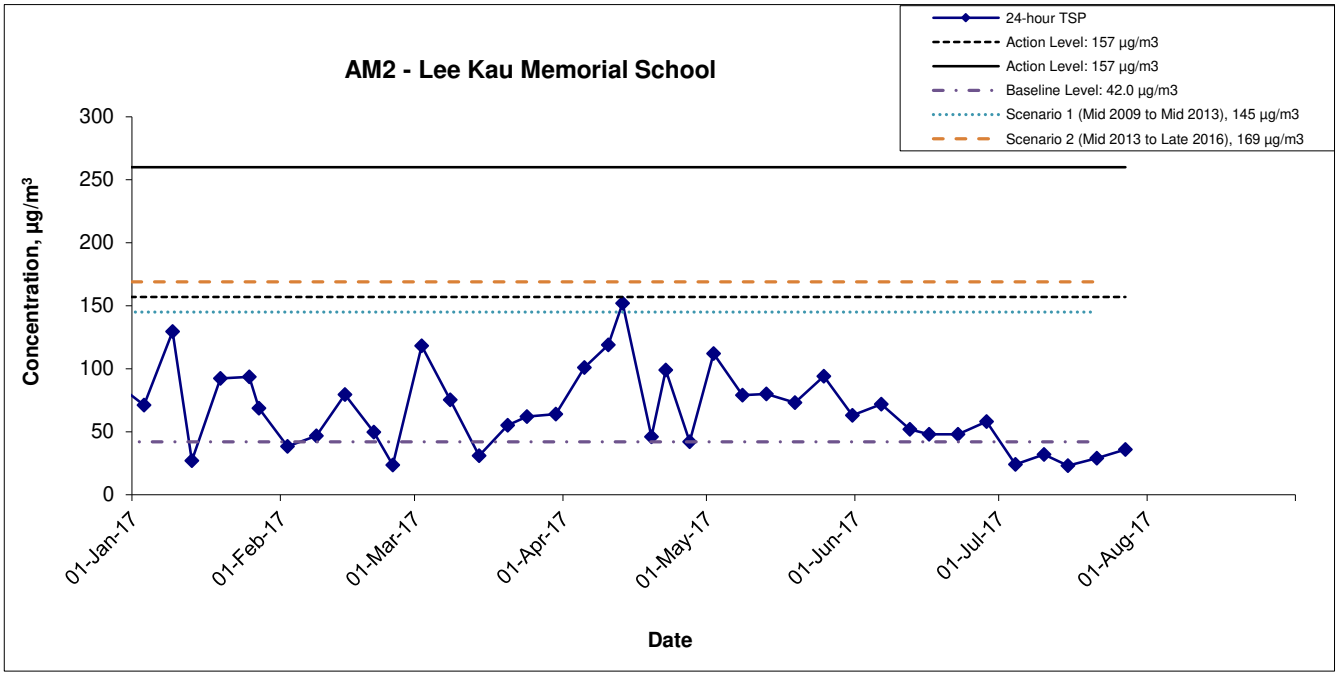




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2016	Project No.: MA13043 Appendix: D	CINOTECH

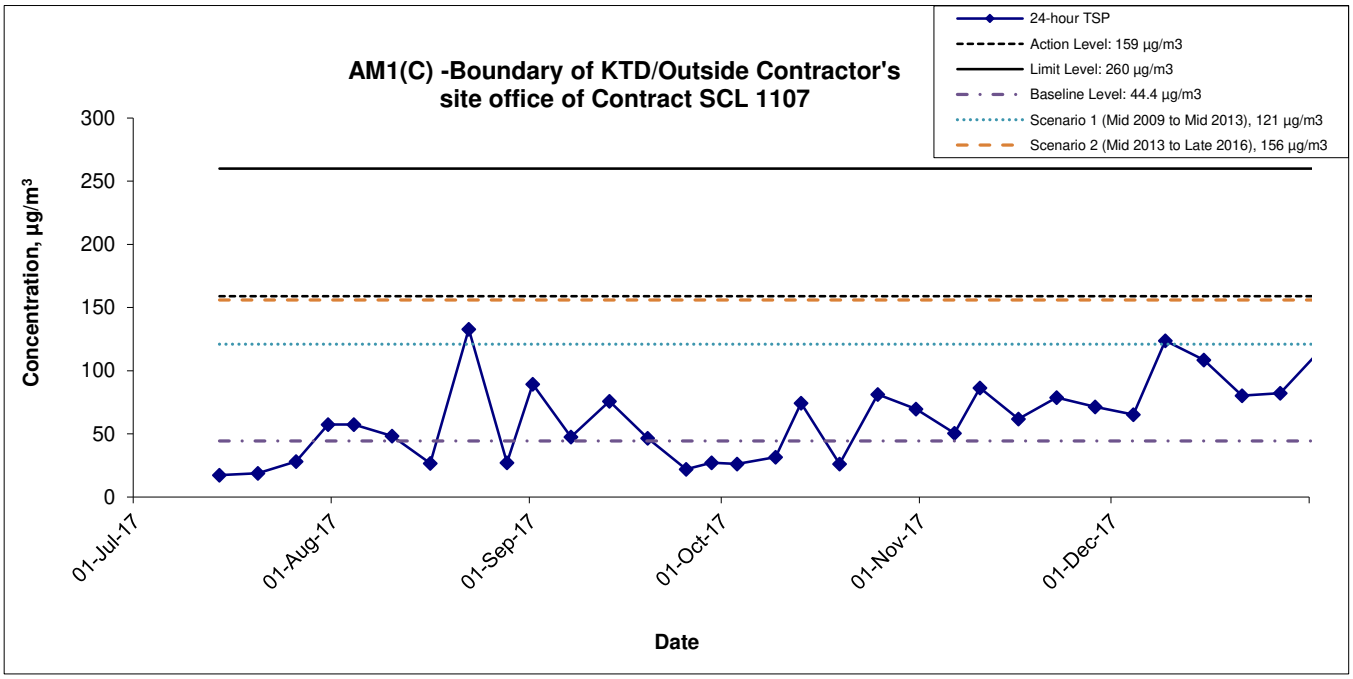
24-hr TSP Concentration Levels

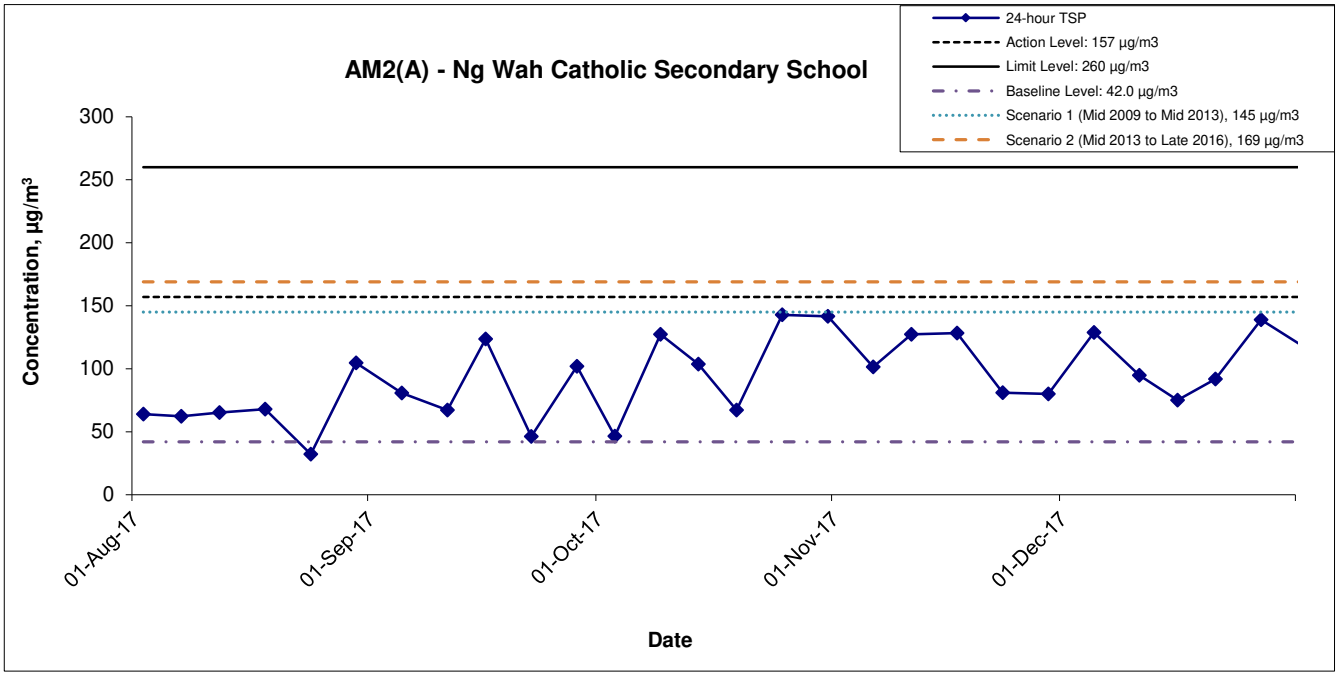




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2017	Project No.: MA13043 Appendix: D	CINOTECH

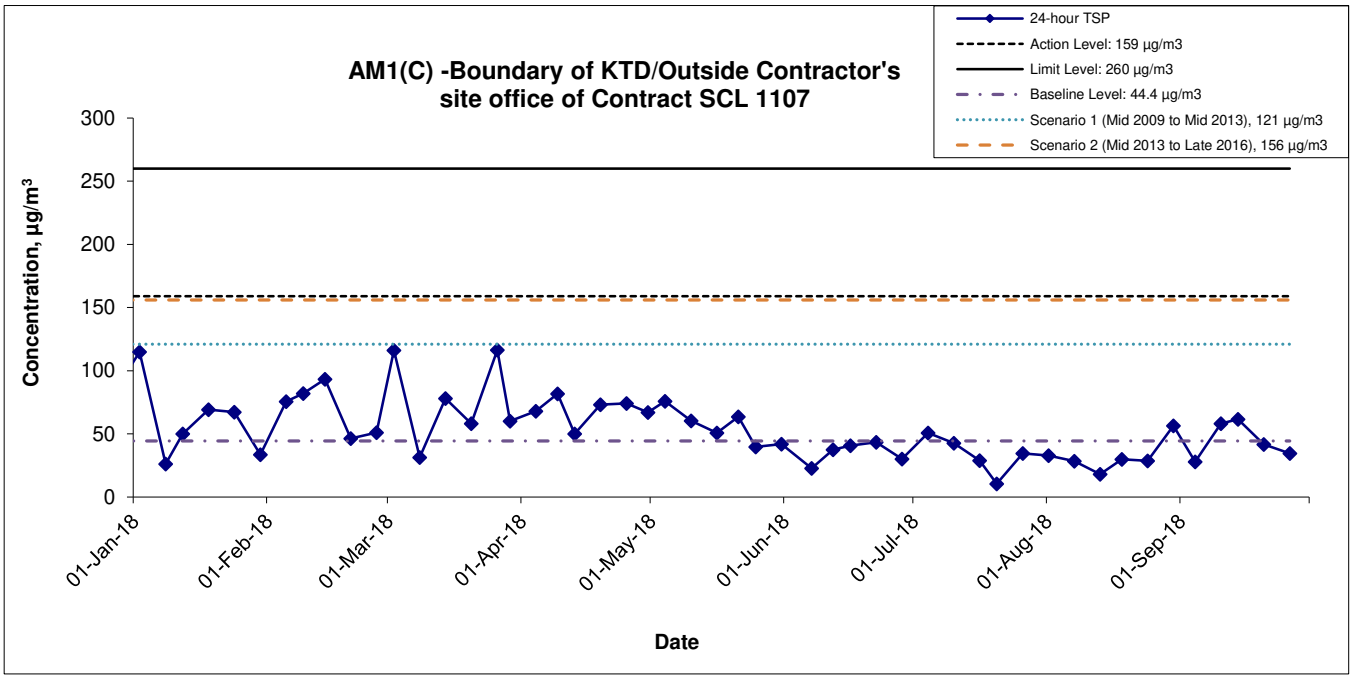
24-hr TSP Concentration Levels

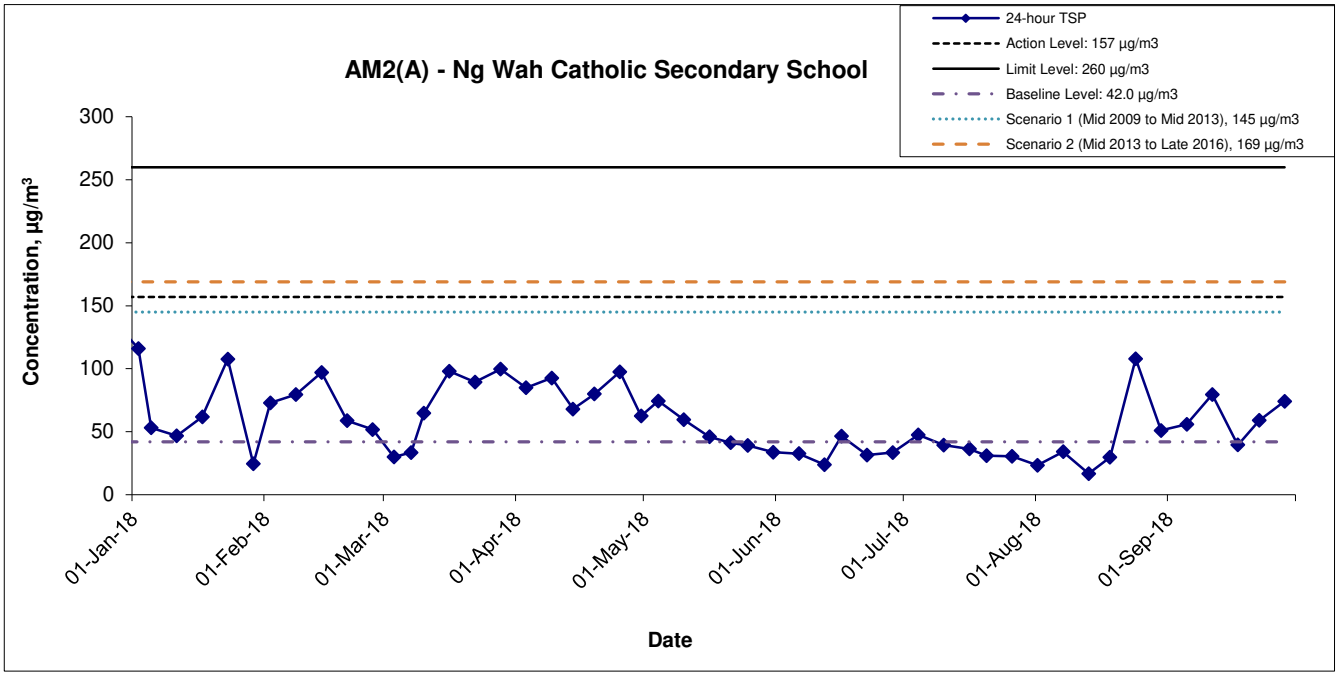




Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2017	Project No.: MA13043 Appendix: D	CINOTECH

24-hr TSP Concentration Levels

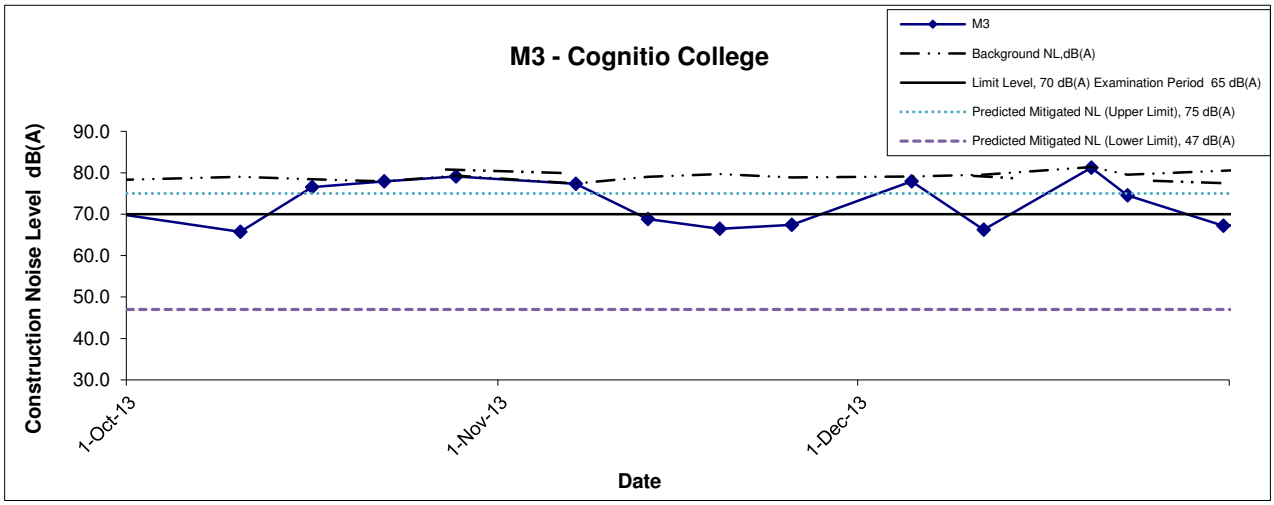


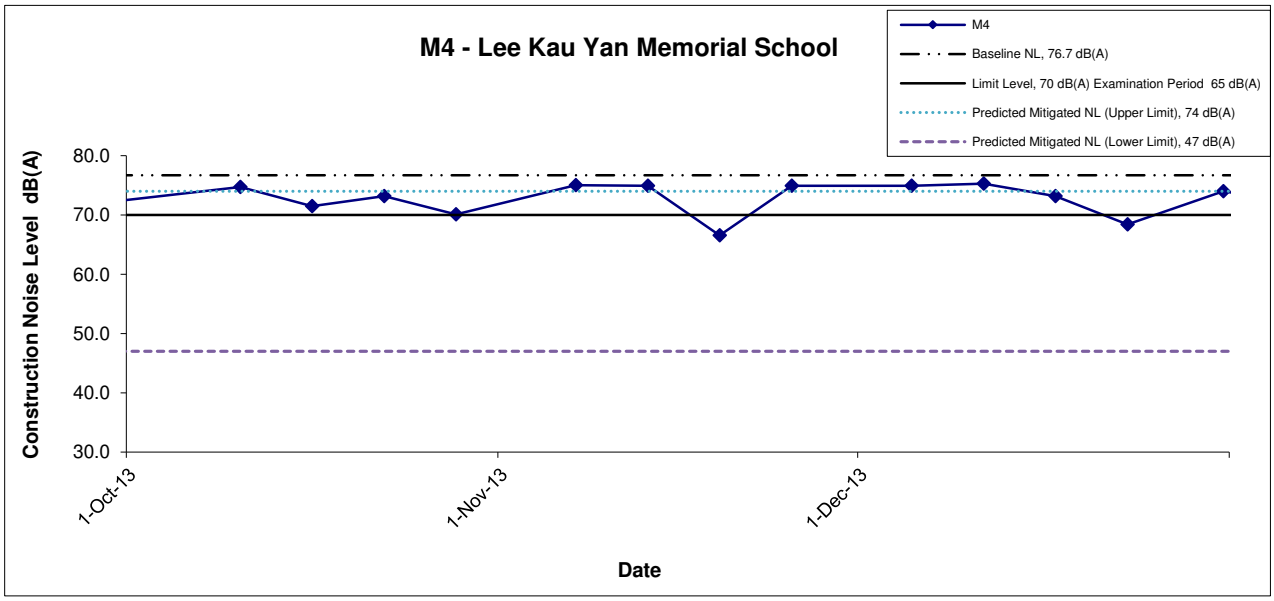


Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Year: 2017	Project No.: MA13043 Appendix: D	CINOTECH

APPENDIX E
GRAPHICAL PRFESENTATION FOR NOISE MONITORING

Noise Levels

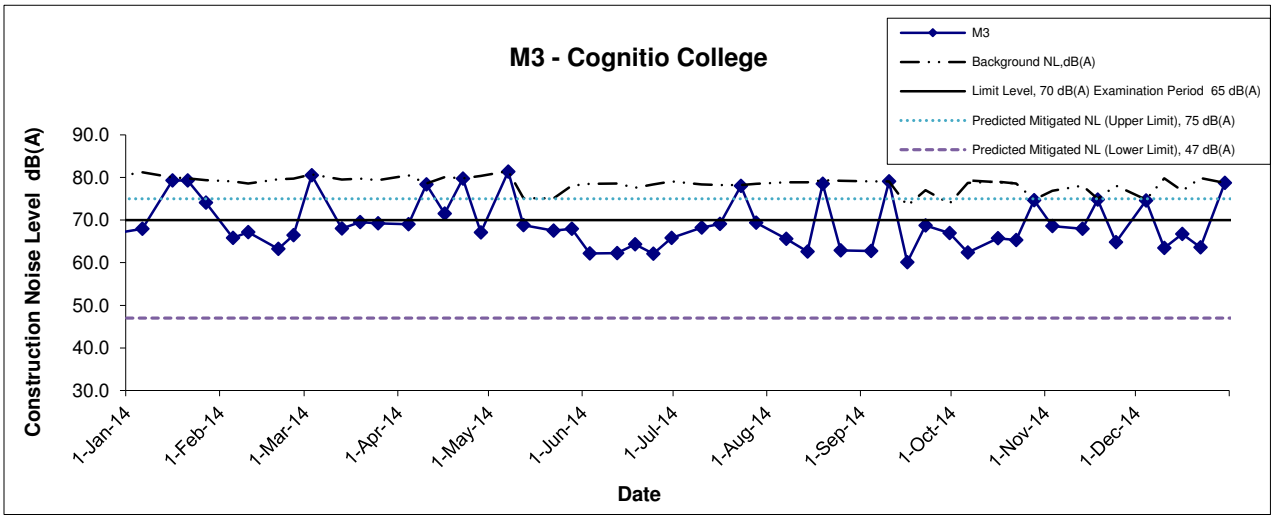


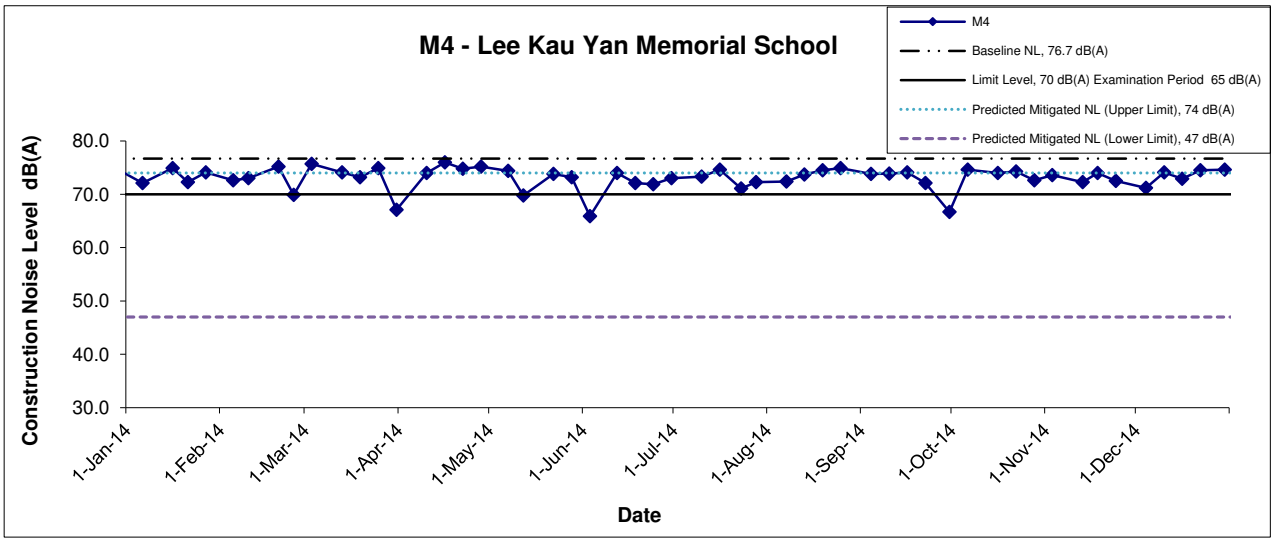


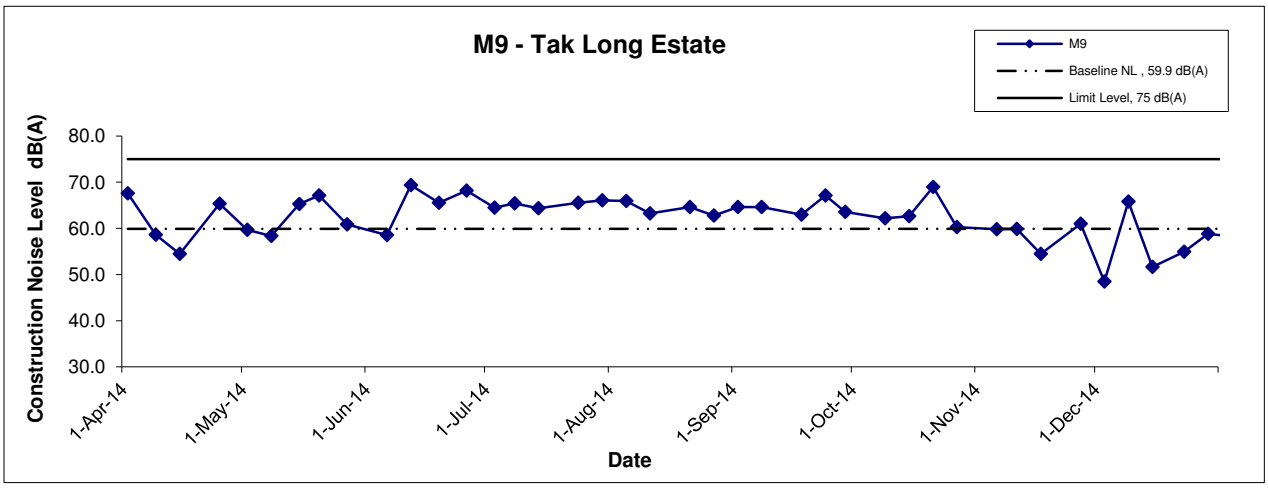
Remark: M3 - Background Noise Level is measured before Impact Noise Level Monitoring.
M3/M9 - Limit Noise Level, 65dB(A) is adopted during examination period.

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Year: 2013	Project No.: MA13043 Appendix: E	CINOTECH

Noise Levels



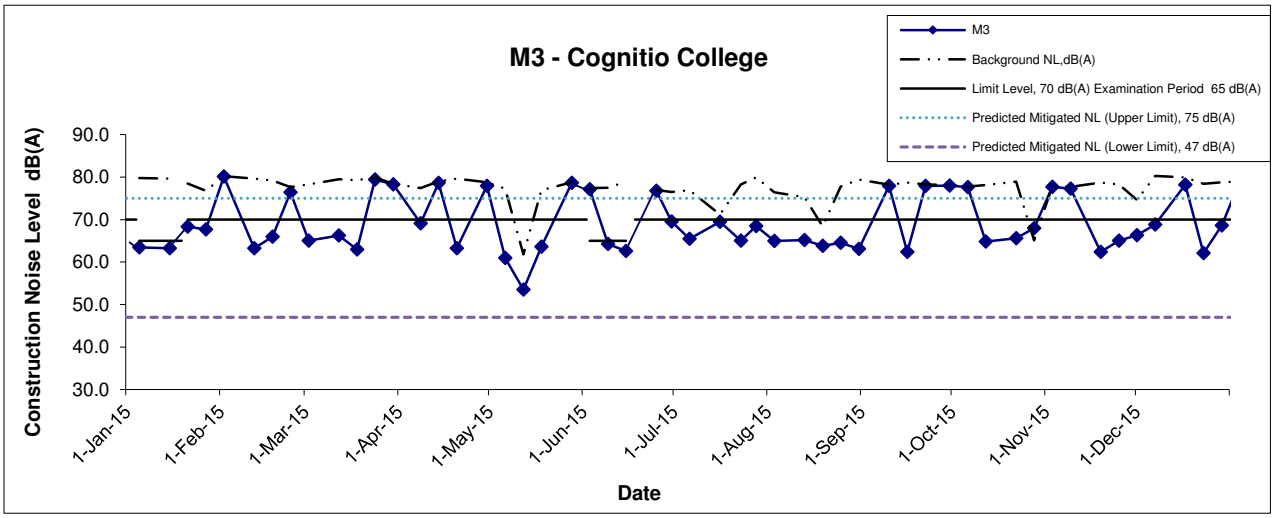


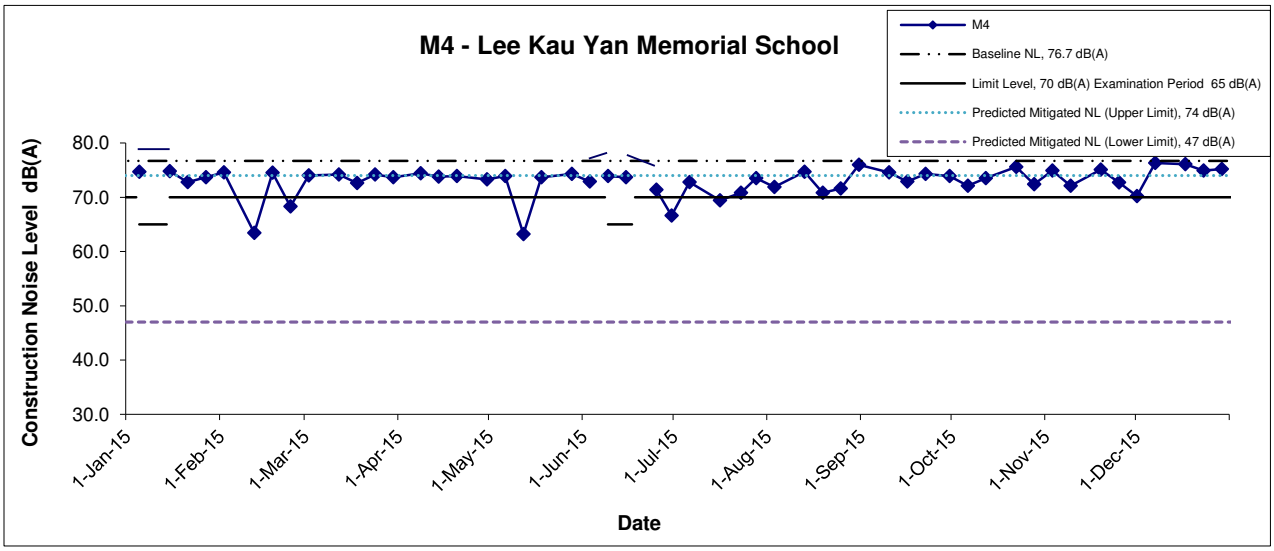


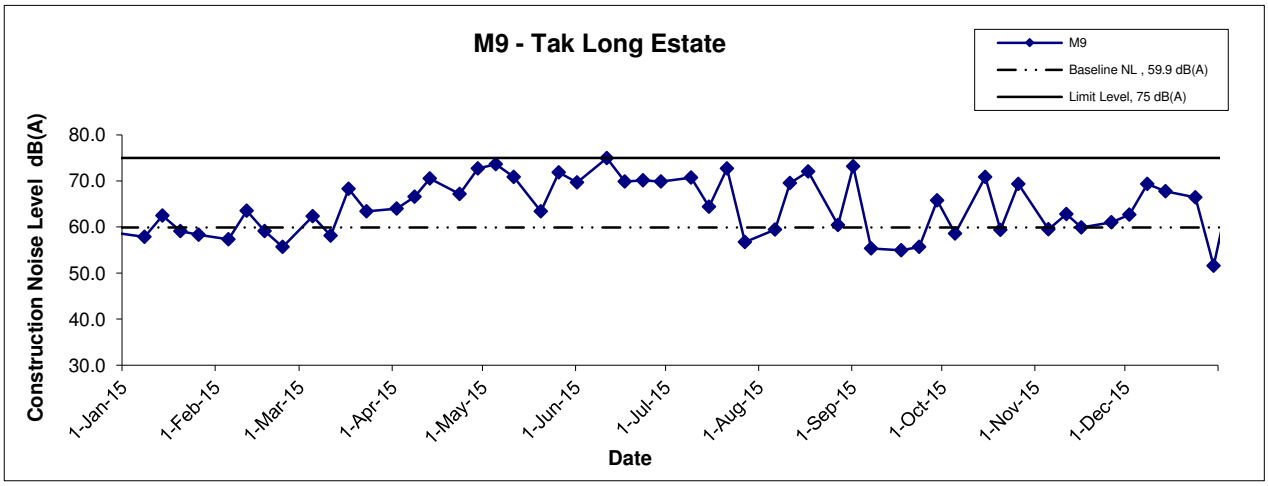
Remark: M3 - Background Noise Level is measured before Impact Noise Level Monitoring.
M3/M9 - Limit Noise Level, 65dB(A) is adopted during examination period.

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Year: 2014	Project No.: MA13043 Appendix: E	CINOTECH

Noise Levels



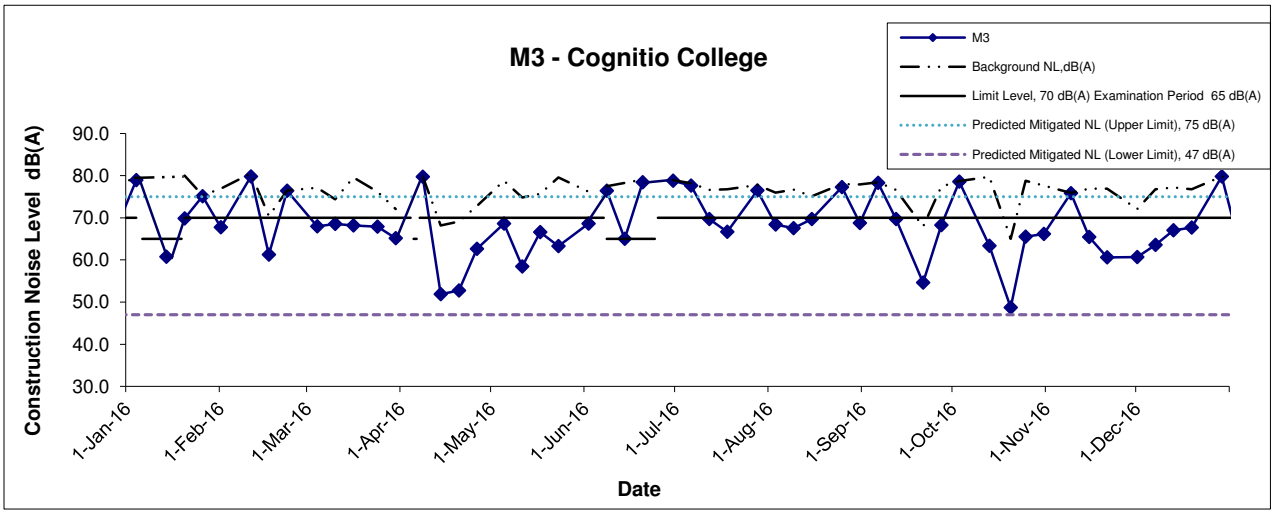


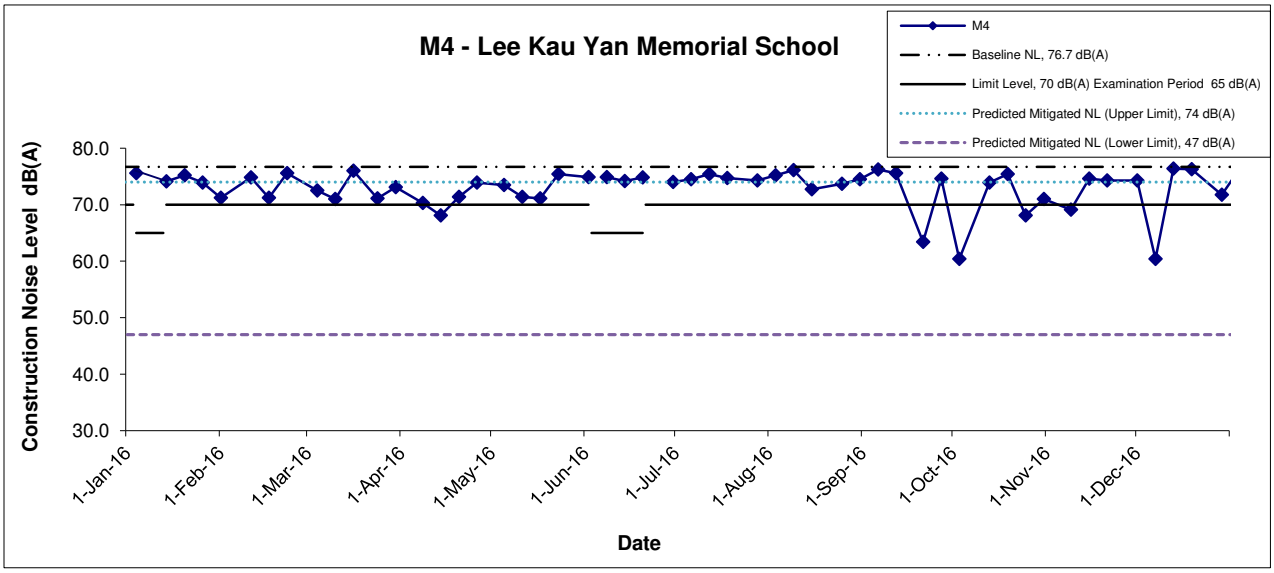


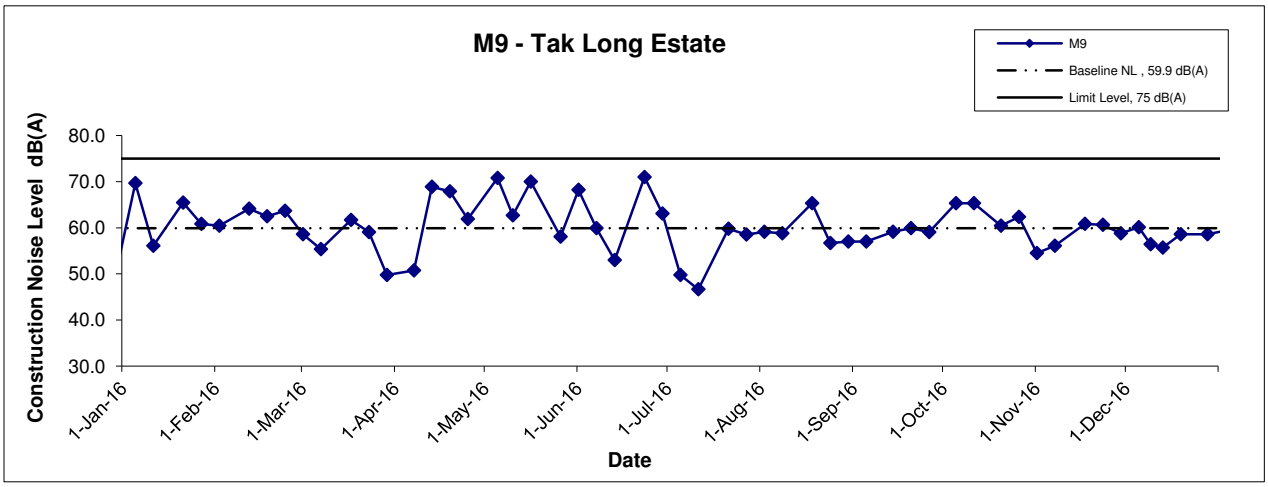
Remark: M3 - Background Noise Level is measured before Impact Noise Level Monitoring.
M3/M9 - Limit Noise Level, 65dB(A) is adopted during examination period.

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Year: 2015	Project No.: MA13043 Appendix: E	CINOTECH

Noise Levels



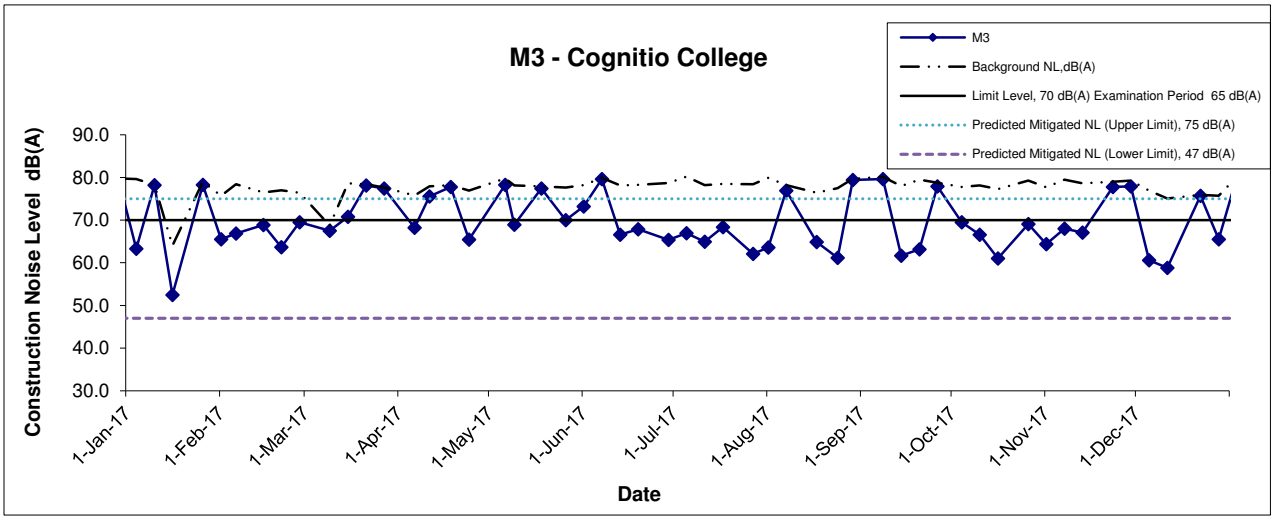


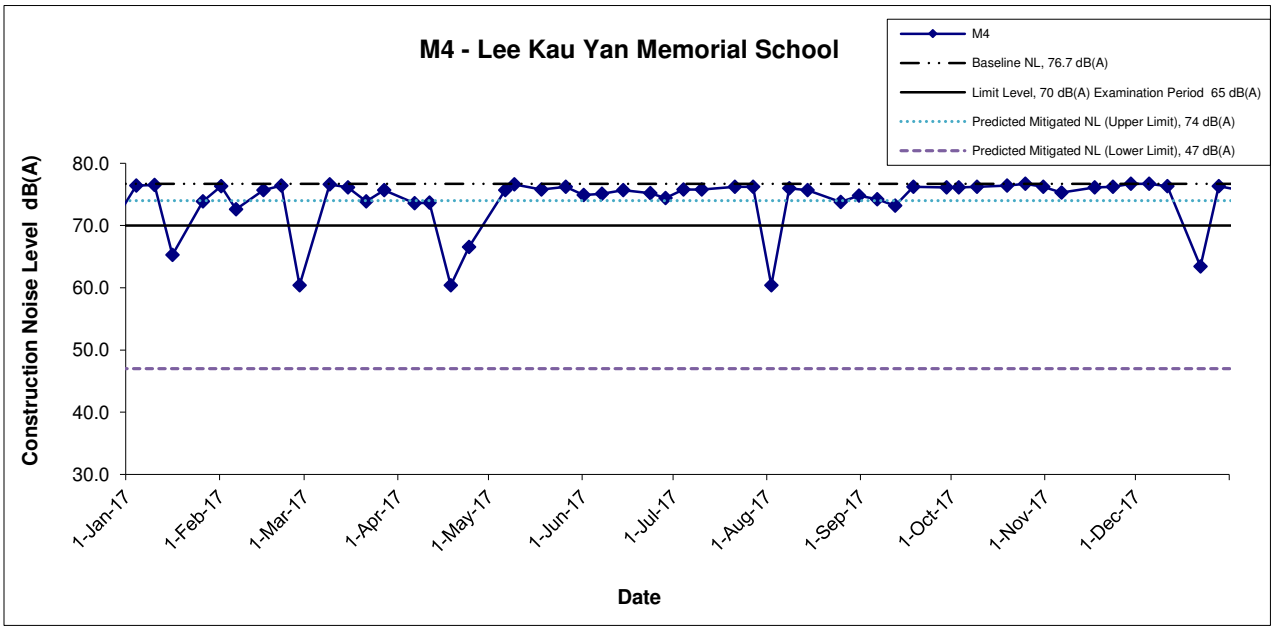


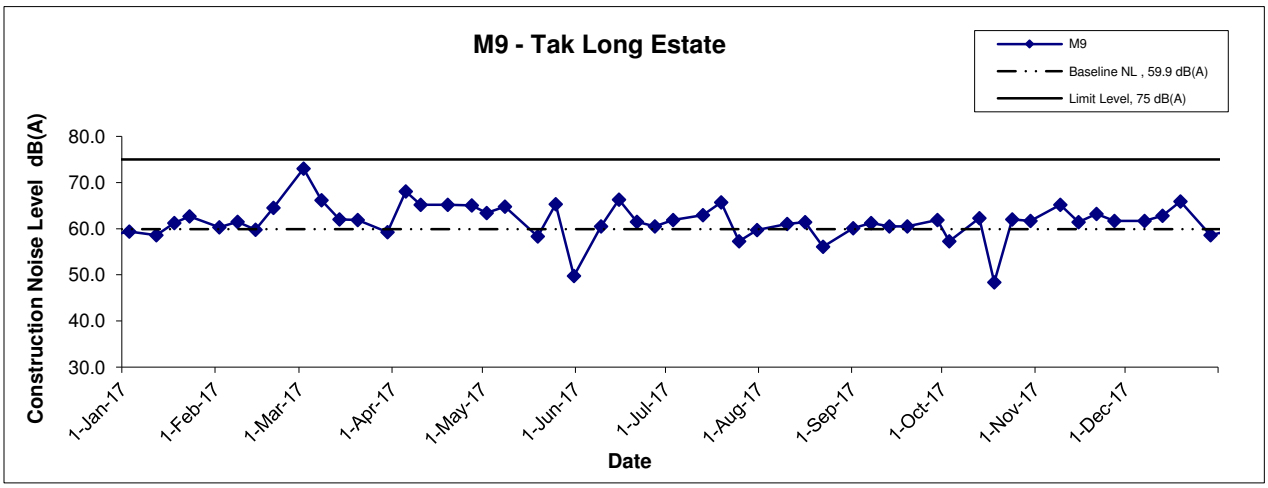
Remark: M3 - Background Noise Level is measured before Impact Noise Level Monitoring.
M3/M9 - Limit Noise Level, 65dB(A) is adopted during examination period.

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Year: 2016	Project No.: MA13043 Appendix: E	CINOTECH

Noise Levels



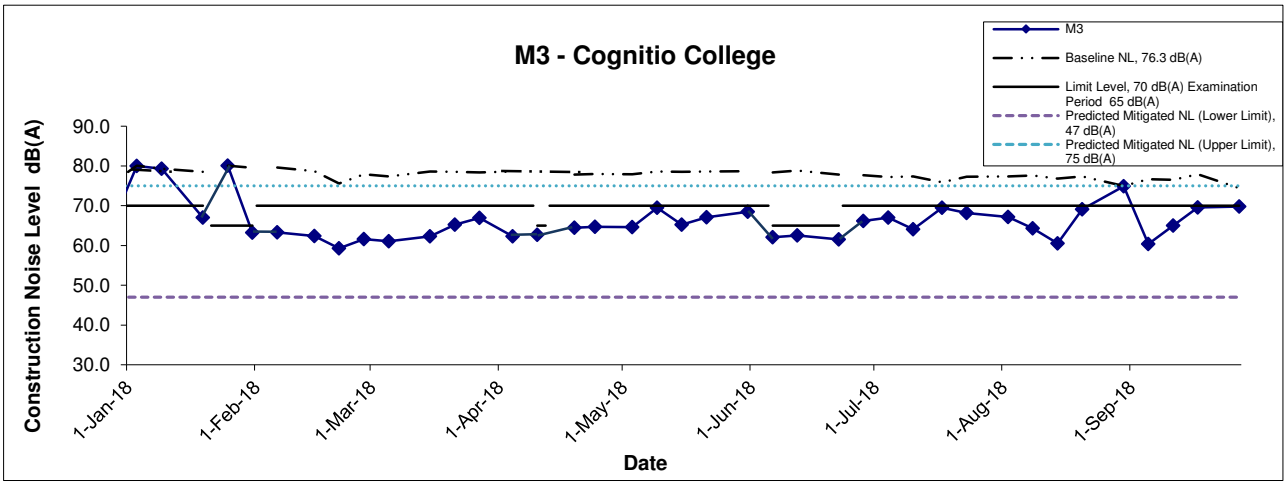


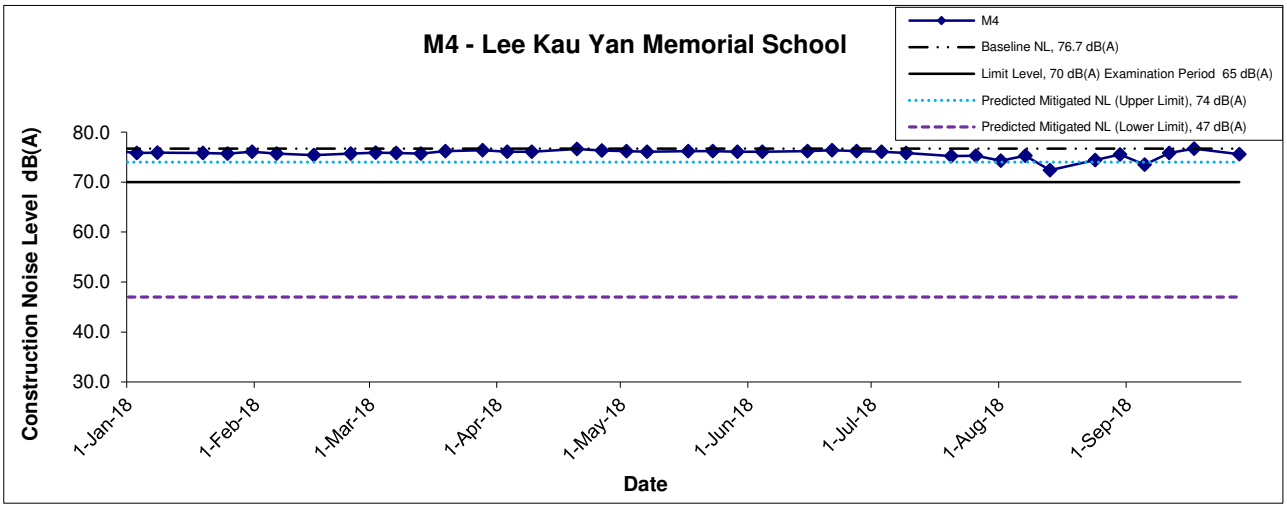


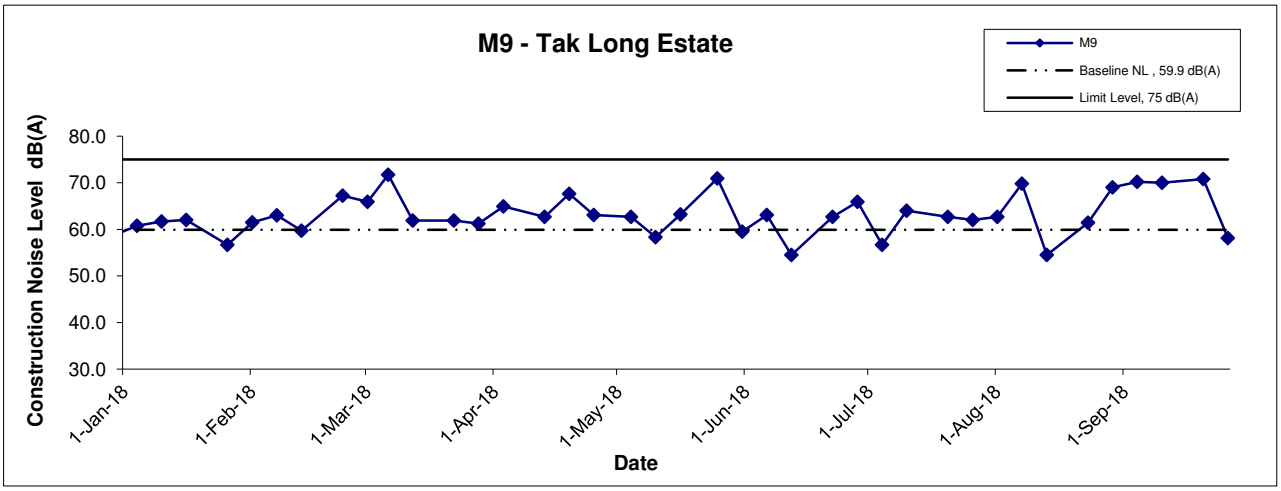
Remark: M3 - Background Noise Level is measured before Impact Noise Level Monitoring.
M3/M9 - Limit Noise Level, 65dB(A) is adopted during examination period.

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Year: 2017	Project No.: MA13043 Appendix: E	CINOTECH

Noise Levels







Remarks: The construction noise levels in the Tables in Appendix G were adopted for plotting the graphs

Title: Contract No. KL/2012/02 Kai Tak Development - Stage 3A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: MA13043	CINOTECH
	Year: 2018	Appendix: E	

APPENDIX F
SUMMARY OF EXCEEDANCE

Contract No. KL/2012/02
Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area

Appendix F – Summary of Exceedance

Exceedance Report for Contract No. KL/2012/02

(A) Exceedance Report for Air Quality
(NIL in the reporting month)

(B) Exceedance Report for Construction Noise

(a) Statement of exceedance(s)

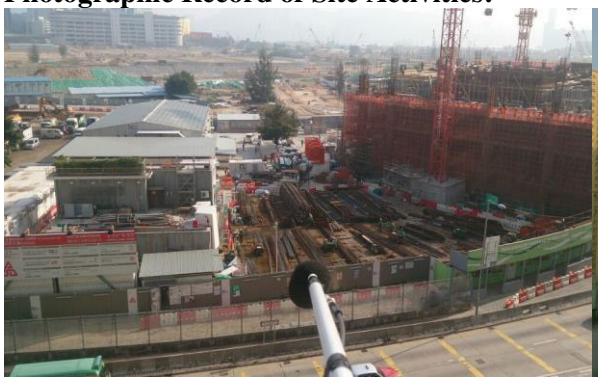
Construction noise measured at M3 – Cognitio College exceeded the construction noise limit on 23rd December 2013.

(b) Cause of exceedance(s)

The exceedance was considered non-related to the Project works:

- During the 1st and repeated noise monitoring conducted at 15:00 and 15:30, bar bending machines and tower crane were found operating in the nearby Kai Tak Development project site (Contract No. SS W304). By which no major noise was generated from it and the photograph record is shown in Photo 1.
- According to the field staff observation, the major noise source came from percussive piling which operating in the building construction site located at the junction between Prince Edward Road East and King Kong Street. (Shown in Photo 2.)
- As the construction site with the major noise source located outside the project area of Kai Tak Development Area, the exceedance recorded at Station M3 - Cognitio College was considered to be non-Project related.

Photographic Record of Site Activities:



(Photo 1: Contract No. SS W304)

(Photo 2: Building construction site at the junction between Prince Edward Road East and King Kong Street)

(c) ET's conclusions/recommendations for mitigation

- The exceedance was considered non-related to the Project works.
- No further mitigation measures would be required.

(C) Exceedance Report for Landscape and Visual
(NIL in the reporting month)

Contract No. KL/2012/02
Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area

Report No. 131223_noise_M3

Date of Measurement: 23rd December 2013
Time of Measurement (1st): 15:00
Time of Measurement (2nd): 15:30

Location	Parameter	Measured Level (Leq dB(A))	Background Noise Level (Leq dB(A))	Actual Construction Noise Level (Leq dB(A))	Action Level ($\mu g/m^3$)	Limit Level (Leq dB(A))	Level exceeded
M3	Construction Noise	80.7	79.5(2)	**74.5**	When one documented complaint is received	70.0	Limit
M3(1)		80.5		**73.6**			Limit

Remark:

(1) Repeated measurement was carried out on the same day to confirm result.

(2) Background Noise level was measured on the same day during lunch hour from 12:00 pm for compliance checking.

Remarks

(a) Statement of exceedance(s)

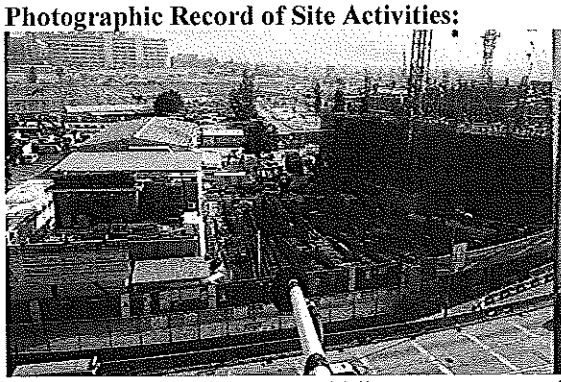
Construction noise measured at M3 – Cognitio College exceeded the construction noise limit.

(b) Cause of exceedance(s)

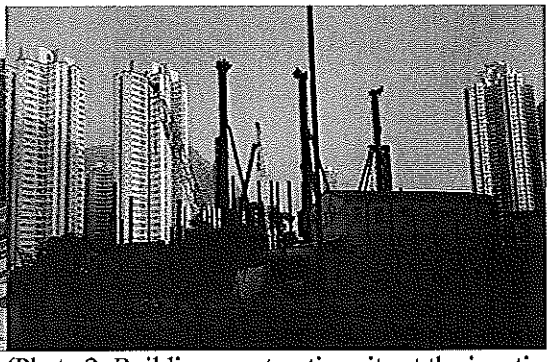
The exceedance was considered non-related to the Project works:

- During the 1st and repeated noise monitoring conducted at 15:00 and 15:30, bar bending machines and tower crane were found operating in the nearby Kai Tak Development project site (Contract No. SS W304). By which no major noise was generated from it and the photograph record is shown in Photo 1.
- According to the field staff observation, the major noise source came from percussive piling which operating in the building construction site located at the junction between Prince Edward Road East and King Kong Street. (Shown in Photo 2.)
- As the construction site with the major noise source located outside the project area of Kai Tak Development Area, the exceedance recorded at Station M3 - Cognitio College was considered to be non-Project related.

Photographic Record of Site Activities:



(Photo 1: Contract No. SS W304)



(Photo 2: Building construction site at the junction between Prince Edward Road East and King Kong Street)

(c) ET's conclusions/recommendations for mitigation

- The exceedance was considered non-related to the Project works.
- No further mitigation measures would be required.

ETL Signature: _____ Date: 23rd December 2013

APPENDIX G
EVENT/ACTION PLAN

Appendix G - Event Action Plans

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action Level being exceeded by one sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contactor, IEC and ER; 3. Repeat measurement to confirm finding.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action Level being exceeded by two or more consecutive sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC and ER; 3. Increase monitoring frequency to daily; 4. Discuss with IEC and Contractor on remedial actions required; 5. Assess the effectiveness of Contractor's remedial actions; 6. If exceedance continues, arrange meeting with IEC and ER; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues.	1. Discuss with ET and IEC on proper remedial actions; 2. Submit proposals for remedial actions to ER and IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit Level being exceeded by one sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Assess effectiveness of Contractor's remedial actions and keep EPD,	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on proper remedial actions; 3. Submit proposals for remedial actions to ER and IEC within three working days

	IEC and ER informed of the results.	effectiveness of the proposed remedial measures.	implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues.	of notification; 4. Implement the agreed proposals.
Limit Level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Repeat measurement to confirm findings; 3. Carry out analysis of Contractor's working procedures to identify source and investigate the causes of exceedance; 4. Increase monitoring frequency to daily; 5. Arrange meeting with IEC, ER and Contractor to discuss the remedial actions to be taken; 6. Assess effectiveness of Contractor's remedial actions and keep EPD, IEC and ER informed of the results; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET, ER and IEC on proper remedial actions; 3. Submit proposals for remedial actions to IEC within three working days of notification; 4. Implement the agreed proposals; 5. Submit further remedial actions if problem still not under control; 6. Stop the relevant portion of works as instructed by the ER until the exceedance is abated.

Appendix G - Event Action Plans

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues,	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the

	and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)		consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Appendix G - Event Action Plans

Event/Action Plan for Landscape and Visual

EVENT ACTION LEVEL	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Design Check	1. Check final design conforms to the requirements of EP and prepare report.	1. Check report. 2. Recommend remedial design if necessary	1. Undertake remedial design if necessary	
Non-conformity on one occasion	1. Identify Source 2. Inform IEC and ER 3. Discuss remedial actions with IEC, ER and Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures.	1. Notify Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake any necessary replacement
Repeated Non-conformity	1. Identify Source Inform IEC and ER 2. Increase monitoring frequency 3. Discuss remedial	1. Check monitoring report 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible	1. Notify Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake any necessary replacement

	actions with IEC, ER and Contractor 4. Monitor remedial actions until rectification has been completed 5. If non-conformity stops, cease additional monitoring	remedial measures 4. Advise ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures.		

APPENDIX H
SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFICATION OF SUCCESSFUL PROSECUTION

Contract No. KL/2012/02

Kai Tak Development –Stage 3A Infrastructure at Former North Apron Area

Appendix H – Summary of environmental complaint, warning, summon and notification of successful prosecution

Contract No. KL/2012/02

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
15-04622	No detail	12 March 2015	The complainant complained about noise and dust emission from the construction site	According to the information gathered in the investigation, Construction works were conducted with proper mitigation measures to minimize air quality and noise impact to the vicinity of the Project. The regular impact monitoring result in February 2015 were in full compliance with the Action and Limit Levels. The Contractor had conducted construction noise measurement and increased the water spraying along Concorde Road to hourly basis to monitor dust and noise impact. The Contractor has taken initiative to implement appropriate air quality and noise mitigation measures including regular water spraying, coverage for stockpile and unpaved area, enclosure for dust-generating works, dampening excavated material, and usage of silenced equipment and machine.	Closed

Appendix H – Summary of environmental complaint, warning, summon and notification of successful prosecution

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
15-28981	The Concorde Road	13 November 2015	Complainant alleged that mud left on the Concorde Road affecting his driving activities and dirtying his vehicle.	Investigation was conducted. After complaint received, the Contractor has taken immediate follow-up actions including required street washing vehicle to wash the Concorde Road; Clear the silty water and mud regularly in the construction site areas; Regular water spraying was provided to the Concorde Road and haul road to minimize dust generation from vehicle movement; ensure vehicles and plant were cleaned of mud and debris before leaving the construction site area, especially near the Concorde Road; and use of treated effluent from the wastewater treatment facility and the water in the wheel washing bay would be pumped back to wastewater treatment facility to increase the efficiency of wheel washing. The Contractor had also enhanced the existing mitigation measures for mud accumulation and air quality impact such as increased the water spraying along Concorde Road to hourly basis and increased the frequency of operating street sweeper in order to minimize the accumulation of muddy materials from construction site area to the Concorde Road.	Closed
16-04292	The Concorde Road	3 March 2016	Complainant alleged that the mud disposed from the vehicles leaving construction site to the Concorde Road which affecting the road condition and made the road muddy.	Investigation was conducted. After complaint received, the Contractor has taken immediate follow-up actions including cleared up the disposed mud at the Concorde Road by the Contractor including sweeping and cleaning the disposed mud immediately along the Concorde Road; Clear the silty water and mud regularly near the entrance of construction site areas that the silty water and mud runoff would be backflow into the site area and treated through the wastewater treatment facility in the site before discharging out; Ensure vehicles and plant were cleaned of mud and debris before leaving the construction site area, especially near the Concorde Road; ensure vehicles and plant were cleaned of mud and debris before leaving the construction site area, especially near the Concorde Road;	Closed

Appendix H – Summary of environmental complaint, warning, summon and notification of successful prosecution

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
				and use of treated effluent from the wastewater treatment facility and the water in the wheel washing bay would be pumped back to wastewater treatment facility to increase the efficiency of wheel washing. The Contractor had also increased the frequency of clearing sediment and silt in the wheel washing facility in order to minimize the mud disposed from the vehicles leaving the construction site to the Concorde Road.	
16-07415	The roundabout of Concorde Road (near Trade & Industrial Tower)	13 April 2016	Complainant alleged that the mud disposed from the vehicles leaving construction site and the vehicle was not cleaning before leaving the site at the entrance next to roundabout of the Concorde Road (near Trade & Industrial Tower).	Investigation was conducted. After complaint received, the Contractor has taken immediate follow-up actions including cleared up the disposed mud at the Concorde Road by the Contractor including sweeping and cleaning the disposed mud immediately along the Concorde Road; Clear the silty water and mud regularly near the entrance of construction site areas that the silty; Ensure vehicles and plant were cleaned of mud and debris before leaving the construction site area, especially near the Concorde Road; and use of treated effluent from the wastewater treatment facility and the water in the wheel washing bay would be pumped back to wastewater treatment facility to increase the efficiency of wheel washing. The Contractor had also increased the frequency of clearing sediment and silt in the wheel washing facility in order to minimize the mud disposed from the vehicles leaving the construction site to the Concorde Road.	Closed

Appendix H – Summary of environmental complaint, warning, summon and notification of successful prosecution

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
17-05215	Concorde Road	9 March 2017	Complainant complained that the vehicle leaving the construction area beside Concorde Road without washing and the dusty road affecting the driving activity on Concorde Road.	The Contractor had ensured vehicles and plants were wheel washed to be cleaned of mud and debris before leaving the construction site area besides Concorde Road to minimize the dust impart arise from the vehicles leaving the construction site. Regular spraying was also provided to the Concorde Road to reduce the dust impact arise from the construction site to the vicinity of this Project. The Contractor has also taken follow-up actions to minimize dust impact to Concorde Road arise from this Project including: ● Proper clear up the accumulated dust at the Concorde Road such as sweeping the accumulated dust along the Concorde Road; ● Providing regular water spraying to the Concorde Road and haul road; and ● Ensure the vehicles and plants were wheel washed before leaving the site to avoid the formation of dusty trail on the Concorde Road.	Closed
17-23526	Kai Tak River	2 August 2017	Complainant complained about the muddy water discharged in Kai Tak River.	In accordance with the information gathered in the investigation, no major construction activities were conducted at Portion K2 at the date of complaint. The site was used for storing a small amount of C&D material. The Contractor had implemented proper mitigation measures to avoid discharge of muddy water to the Kai Tak River from the construction site. In addition, referring to the results of dye test, muddy discharge from the site to Kai Tak River under this Project is considered to be not anticipated.	Closed

APPENDIX I
SUMMARY OF WASTE GENERATION AND DISPOSAL RECORDS

Name of Department : Civil Engineering and Development Department / Kowloon Development Office **Contract No. : KL/2012/02**

Appendix M: MONTHLY SUMMARY WASTE FLOW TABLE FOR 2018 (YEAR)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Borken Concrete (4)	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Import Fill	Metals	Paper / Cardboard Packaging	Plastics (3)	Chemical Waste	Other, e.g. general refuse
	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m^3]
JAN	0.13459	0	0	0	0.08129	0	0	0	0	0	0.0533
FEB	0.14402	0	0	0	0.08117	0	0	0	0	0	0.06285
MAR	0.34721	0	0	0	0.09636	0	0	0	0	0	0.25085
APR	0.03363	0	0	0	0.03363	0	0	0	0	0	0
MAY	0.09975	0	0	0	0.02930	0	0	0	0	0	0.07045
JUNE	0.00395	0	0	0	0.00395	0	0	0	0	0	0
SUB-TOTAL	0.76315	0	0	0.00000	0.32570	0	0	0	0	0	0.43745
JULY	0.01792	0	0	0	0.01157						0.00635
AUG	0.07935	0	0	0	0.01140						0.06795
SEPT	0.04765	0	0	0	0.00295						0.0447
OCT											
NOV											
DEC											
Jan-19											
TOTAL	0.90807	0	0	0.00000	0.35162	0	0	0	0	0	0.55645

Forecast of Total Quantities of C&D materials to be Generated from the Contracts *										
Total Quantity	Borken Concrete	Reused in the Contract	Reused in other	Disposal as Public Fill	Import Fill	Metals (3)	Paper / Cardboard	Plastics (2)(3)	Chemical Waste (3)	Other, e.g. general
[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m^3]
2	1	0	0	0	0	0	0.2	0	0.2	1

Notes :
(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the site.
(2) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material.
(3) Quantities of Metals, Paper/Cardboard, Plastics and Chemical Waste are excluded from total quantiteis of C&D materials to be generated from the contracts

APPENDIX J
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

EIA Ref.	Recommended Mitigation Measures	Implementation Status
Construction Air Quality		
S6.5	8 times daily watering of the work site with active dust emitting activities.	*
S6.8	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts.	
	• Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	*
	• Misting for the dusty material should be carried out before being loaded into the vehicle. Any vehicle with an open load carrying area should have properly fitted side and tail boards.	^
	• Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin.	*
	• The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before transportation.	^
	• The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	^
	• Vehicle washing facilities should be provided at every vehicle exit point.	*
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
	• Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	*
	• Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides.	*
	• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	^

S6.8	• DWFI compound for JVBC: A DWFI compound is proposed at the downstream of JVC to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of JVBC and hence fully mitigate the potential odour emissions from the headspace of JVBC near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere.	N/A
	• Desilting compound for KTN: Two desilting compounds are proposed for KTN (at Site 1D6 and Site 1P1) to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of KTN and hence fully mitigate the potential odour emissions from the headspace of KTN near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere.	N/A
	• Decking or reconstruction of KTN within apron area: It is proposed to deck the KTN or reconstruct the KTN within the former Apron area into Kai Tak River from the south of Road D1 to the north of Road D2 along the existing alignment of KTN. The Kai Tak River will compose of a number of channels flowing with nonodorous fresh water and THEES effluent. The channel flowing with THEES effluent will be designed with the width of water surface of not more than 16m.	N/A
	• Localised maintenance dredging: Localised maintenance dredging should be conducted to provide water depth of not less than 3.5m over the whole of KTAC and KTTS. With reference to the water depth data recorded during the odour survey, only some of the areas in the northern part of KTAC (i.e. to the north of taxiway bridge) including the area near the northern edge of KTAC, the area near western bank of KTAC, and the area near the JVC discharge have water depths shallower than 3.5m. The area involved would be about 40% of the northern KTAC and the dredging depth required would be from about 2.7m to less than 1m. The maintenance dredging to be carried out prior to the occupation of any new development in the immediate vicinity of KTAC to avoid potential localized odour	N/A

	impacts at the future ASRs during the maintenance dredging operation. • Improvement of water circulation in KTAC and KTTS: 600m gap opening at the northern part of the former Kai Tak runway, the water circulation in KTAC and KTTS would be substantially improved. Together with the improvement in water circulation, the DO level in KTAC and KTTS would also be increased. • In-situ sediment treatment by bioremediation: Bioremediation would be applied to the entire KTAC and KTTS.	N/A N/A
Construction Noise		
S7.8	Use of quiet PME, movable barriers barrier for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar Bender, Concrete Pump, Generator and Water Pump.	*
S7.9	Good Site Practice: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. • Mobile plant, if any, should be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	 ^ ^ ^ ^ ^ ^
S7.9	Scheduling of Construction Works during School Examination Period	^
S7.8	(i) Provision of low noise surfacing in a section of Road L2; and (ii) Provision of structural fins	N/A N/A
S7.8	(i) Avoid the sensitive façade of class room facing Road L2 and L4; and (ii) Provision of low noise surfacing in a section of Road L2 & L4	N/A N/A

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S7.8	(i) Provision of low noise surfacing in a section of Road L4 before occupation of Site 1I1; and (ii) Setback of building about 5m from site boundary.	N/A N/A
S7.8	Setback of building about 35m to the northwest direction at 1L3 and 5m at Site 1L2.	N/A
S7.8	(i) avoid any sensitive façades with openable window facing the existing Kowloon City Road network; and Avoid the sensitive façade of class room facing Road L2 and L4; and (ii) for the sensitive facades facing the To Kwa Wan direction, either setback the facades by about 5m to the northeast direction or do not provide the facades with openable window.	N/A N/A
S7.8	(i) avoid any sensitive facades with openable window facing the existing To Kwa Wan Road or (ii) provision of 17.5m high noise tolerant building fronting To Kwa Wan Road and restrict the height of the residential block(s) located at less than 55m away from To Kwa Wan Road to no more than 25m above ground	N/A N/A
S7.8	(i) avoid any sensitive facades with openable window facing the slip road connecting Prince Edward Road East and San Po Kong or other alternative mitigation measures and at-source mitigation measures for the surrounding new local roads to minimise the potential traffic noise impacts from the slip road	^
S7.8	All the ventilation fans installed in the below will be provided with silencers or acoustics treatment. (i) SPS (ii) ESS (iii) Tunnel Ventilation Shaft (iv) EFTS depot	 N/A N/A N/A N/A
S7.8	Installation of retractable roof or other equivalent measures	N/A
Construction Water Quality		
S8.8	The following mitigation measures are proposed to be incorporated in the design of the SPS at KTD, including: • Dual power supply or emergency generator should be provided at all the SPSs to secure electrical power supply; • Standby pumps should be provided at all SPSs to ensure smooth operation of the SPS during maintenance of the duty pumps; • An alarm should be installed to signal emergency high water level in the wet well at all SPSs; and	 N/A N/A N/A

	• For all unmanned SPSs, a remote monitor system connecting SPSs with the control station through telemetry system should be provided so that swift actions could be taken in case of malfunction of unmanned facilities	N/A
S8.8	**Construction Phase** Marine-based Construction *Capital and Maintenance Dredging for Cruise Terminal* Mitigation measures for construction of the proposed cruise terminal should follow those recommended in the approved EIA for CT Dredging.	N/A
S8.8	*Fireboat Berth, Runway Opening and Road T2* Silt curtains should be deployed around the close grab dredger to minimize release of sediment and other contaminants for any dredging and filling activities in open water.	N/A
S8.8	Dredging at and near the seawall area for construction of the public landing steps cum fireboat berth should be carried out at a maximum production rate of 1,000m^3 per day using one grab dredger.	N/A
S8.8	The proposed construction method for runway opening should adopt an approach where the existing seawall at the runway will not be removed until completion of all excavation and dredging works for demolition of the runway. Thus, excavation of bulk fill and majority of the dredging works will be carried out behind the existing seawall, and the sediment plume can be effectively contained within the works area. As there is likely some accumulation of sediments alongside the runway, there will be a need to dredge the existing seabed after completion of all the demolition works. Dredging alongside the 600m opening should be carried out at a maximum production rate of 2,000m^3 per day using one grab dredger.	N/A
8.8	Dredging for Road T2 should be conducted at a maximum rate of 8,000m^3 per day (using four grab dredgers) whereas the sand filling should be conducted at a maximum rate of 2,000m3 per day (using two grab dredgers).	N/A
8.8	Silt screens shall be applied to seawater intakes at WSD seawater intake.	N/A

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S8.8	Land-based Construction *Construction Runoff* Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: • use of sediment traps • adequate maintenance of drainage systems to prevent flooding and overflow	^ *
S8.8	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	^
S8.8	Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	*
S8.8	Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	*
S8.8	Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m^3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	^
S8.8	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	*
S8.8	Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid	*

	to the control of silty surface runoff during storm events.	
S8.8	Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	N/A(1)
S8.8	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	*
S8.8	*Drainage* It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea	*
S8.8	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	*
S8.8	All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ.	*
S8.8	*Sewage Effluent* Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.	^

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S8.8	*Stormwater Discharges* Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes	^
S8.8	*Debris and Litter* In order to maintain water quality in acceptable conditions with regard to aesthetic quality, contractors should be required, under conditions of contract, to ensure that site management is optimised and that disposal of any solid materials, litter or wastes to marine waters does not occur	^
S8.8	*Construction Works at or in Close Proximity of Storm Culvert or Seafront* The proposed works should preferably be carried out within the dry season where the flow in the drainage channel /storm culvert/ nullah is low.	^
S8.8	The use of less or smaller construction plants may be specified to reduce the disturbance to the bottom sediment at the drainage channel /storm culvert / nullah.	^
S8.8	Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works	^
S8.8	Stockpiling of construction materials and dusty materials should be covered and located away from any water courses.	^
S8.8	Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers.	*
S8.8	Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.	^
S8.8	Mitigation measures to control site runoff from entering the nearby water environment should be implemented to minimize water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the runoff.	*
S8.8	Construction effluent, site run-off and sewage should be properly collected and/or treated.	*
S8.8	Any works site inside the storm water courses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead	N/A

	edge at bottom and properly supported props to prevent adverse impact on the storm water quality.	
S8.8	Silt curtain may be installed around the construction activities at the seafront to minimize the potential impacts due to accidental spillage of construction materials.	N/A
S8.8	Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert/drainage channel/sea.	N/A
S8.8	Supervisory staff should be assigned to station on site to closely supervise and monitor the works	^
S8.8	Marine water quality monitoring and audit programme shall be implemented for the proposed sediment treatment operation.	N/A
Construction Waste Management		
S9.5	Good Site Practices It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during the dredging activities include: • Nomination of an approved person, such as a site manager, be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. • Training of site personnel in proper waste management and chemical waste handling procedures. • Provision of sufficient waste disposal points and regular collection for disposal. • Appropriate measure to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. • A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	^ ^ * ^ ^
S9.5	Waste Reduction Measures Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal • Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force	* * ^

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

	• Any unused chemicals or those with remaining functional capacity should be recycled • Proper storage and site practices to minimise the potential for damage or contamination of construction materials	^ ^
S9.5	Dredged Marine Sediment The basic requirements and procedures for dredged mud disposal are specified under the ETWB TCW No. 34/2002. The management of the dredging, use and disposal of marine mud is monitored by the MFC, while the licensing of marine dumping is required under the Dumping at Sea Ordinance and is the responsibility of the Director of Environmental Protection (DEP)	N/A
S9.5	The dredged marine sediments would be loaded onto barges and transported to the designated disposal sites allocated by the MFC depending on their level of contamination. Sediment classified as Category L would be suitable for Type 1 - Open Sea Disposal. Contaminated sediment would require either Type 1 – Open Sea Disposal (Dedicated Sites), Type 2 - Confined Marine Disposal, or Type 3 – Special Treatment / Disposal and must be dredged and transported with great care in accordance with ETWB TCW No. 34/2002. Subject to the final allocation of the disposal sites by MFC, the dredged contaminated sediment must be effectively isolated from the environment and disposed properly at the designated disposal site	N/A
S9.5	It will be the responsibility of the contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, prior to the dredging contract being tendered. The contractor for the dredging works should apply for allocation of marine disposal sites and all necessary permits from relevant authorities for the disposal of dredged sediment. During transportation and disposal of the dredged marine sediments requiring Type 1, Type 2, or Type 3 disposal, the following measures should be taken to minimise potential impacts on water quality: • Bottom opening of barges should be fitted with tight fitting seals to prevent leakage of material. Excess material should be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved • Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels should be equipped with automatic selfmonitoring devices as required under the Dumping at Sea Ordinance and as specified by the DEP • Barges or hopper barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	 N/A N/A N/A

S9.5	Construction and Demolition Material Mitigation measures and good site practices should be incorporated into contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include: • Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for disposal, the transient stockpiles should be located away from waterfront or storm drains as far as possible • Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric • Skip hoist for material transport should be totally enclosed by impervious sheeting • Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site • The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores • The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle • All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet • The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 “Trip Ticket System for Disposal of Construction and Demolition Materials” should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	^ * ^ ^ ^ ^ ^ ^ ^

Appendix J – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

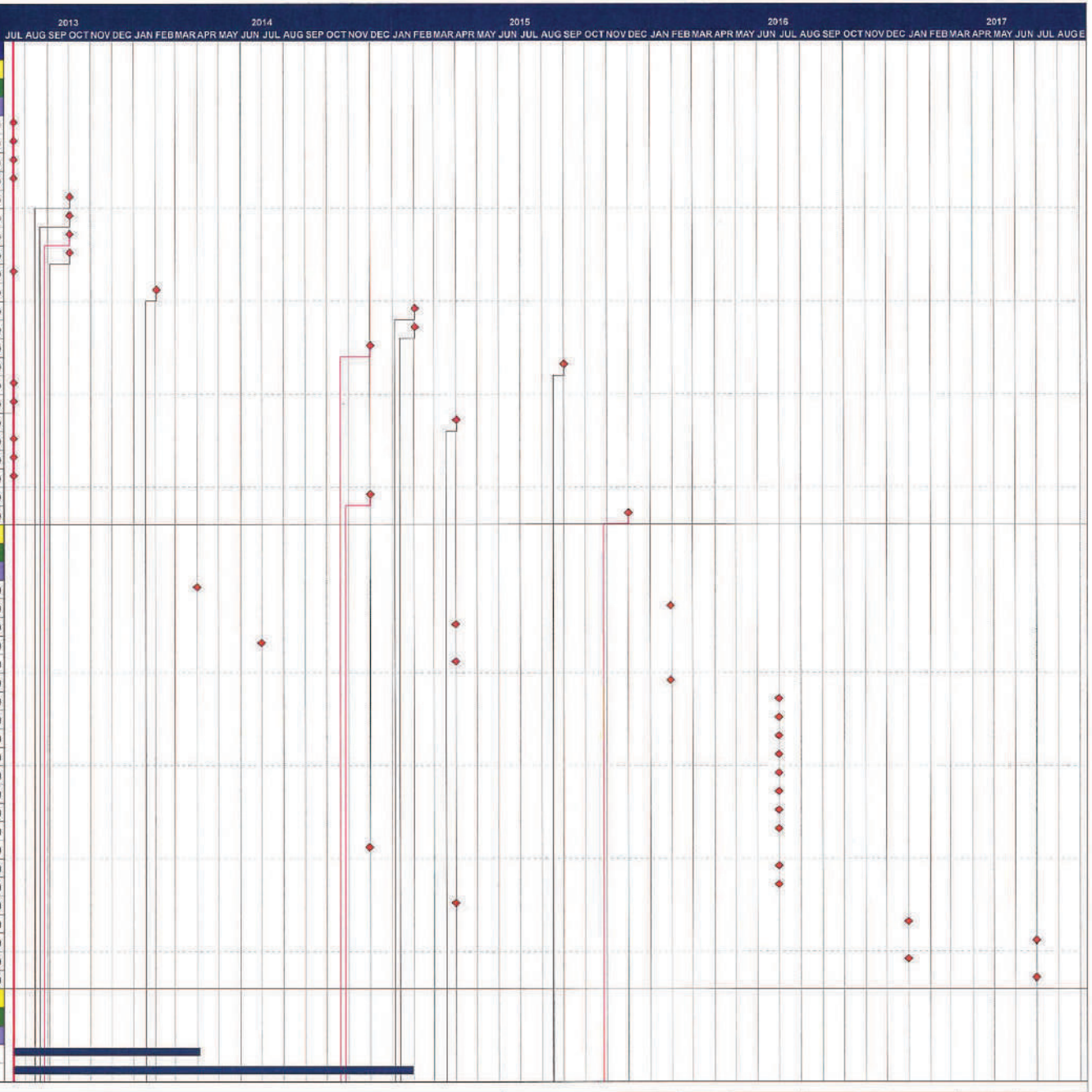
S9.5	Chemical Waste After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation*		*
S9.5	General Refuse General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem		*
Construction Landscape and Visual			
S13.9	CM1	All existing trees should be carefully protected during construction.	*
	CM2	Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.	^
	CM3	Control of night-time lighting.	N/A(1)
	CM4	Erection of decorative screen hoarding.	^

Remarks:

^	Compliance of mitigation measure
*	Recommendation was made during site audit but improved/rectified by the Contractor
•	Non-compliance but rectified by the Contractor
X	Non-compliance of mitigation measure
N/A	Not Applicable at this stage
N/A(1)	Not observed

APPENDIX K
CONSTRUCTION PROGRAMME OF CONTRACT KL/2012/02

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
Preliminaries					
Date of Possession					
0001	Portion A1	0	15JUL13 *		0
0002	Portion A2	0	15JUL13 *		0
0003	Portion B1	0	15JUL13 *		0
0004	Portion B2	0	15JUL13 *		0
0005	Portion B3	0	02OCT13 *		0
0006	Portion B4	0	02OCT13 *		0
0007	Portion B5	0	02OCT13 *		0
0008	Portion B6	0	02OCT13 *		0
0009	Portion C	0	15JUL13 *		0
0010	Portion D	0	02FEB14 *		0
0011	Portion E1	0	02FEB15 *		0
0012	Portion E2	0	02FEB15 *		0
0013	Portion E3	0	01DEC14 *		0
0014	Portion F1	0	01SEP15 *		0
0015	Portion F2	0	15JUL13 *		0
0016	Portion G	0	15JUL13 *		0
0017	Portion H	0	02APR15 *		0
0018	Portion I	0	15JUL13 *		0
0019	Portion K1	0	15JUL13 *		0
0020	Portion K2	0	15JUL13 *		0
0021	Portion K3	0	01DEC14 *		0
0022	Portion L	0	01DEC15 *		0
Date of Handover					
0100	Portion A1	0		31MAR14 *	0
0101	Portion A2	0		29JAN16 *	0
0102	Portion B1	0		31MAR15 *	0
0103	Portion B2	0		30JUN14 *	0
0104	Portion B3	0		31MAR15 *	0
0105	Portion B4	0		29JAN16 *	0
0106	Portion B5	0		30JUN16 *	0
0107	Portion B6	0		30JUN16 *	0
0108	Portion C	0		30JUN16 *	0
0109	Portion D	0		30JUN16 *	0
0110	Portion E1	0		30JUN16 *	0
0111	Portion E2	0		30JUN16 *	0
0112	Portion E3	0		30JUN16 *	0
0113	Portion F1	0		30JUN16 *	0
0114	Portion F2	0		29NOV14 *	0
0115	Portion G	0		30JUN16 *	0
0116	Portion H	0		30JUN16 *	0
0117	Portion I	0		31MAR15 *	0
0118	Portion K1	0		31DEC16 *	0
0119	Portion K2	0		30JUN17 *	0
0120	Portion K3	0		31DEC16 *	0
0121	Portion L	0		30JUN17 *	0
EOT Granted (Extended Completion Date)					
0500	Section 1 (Certified Completion)	0	15JUL13 A	04APR14 A	
0501	Section 2 (Certified Completion)	39d	15JUL13 A	30JAN15 A	



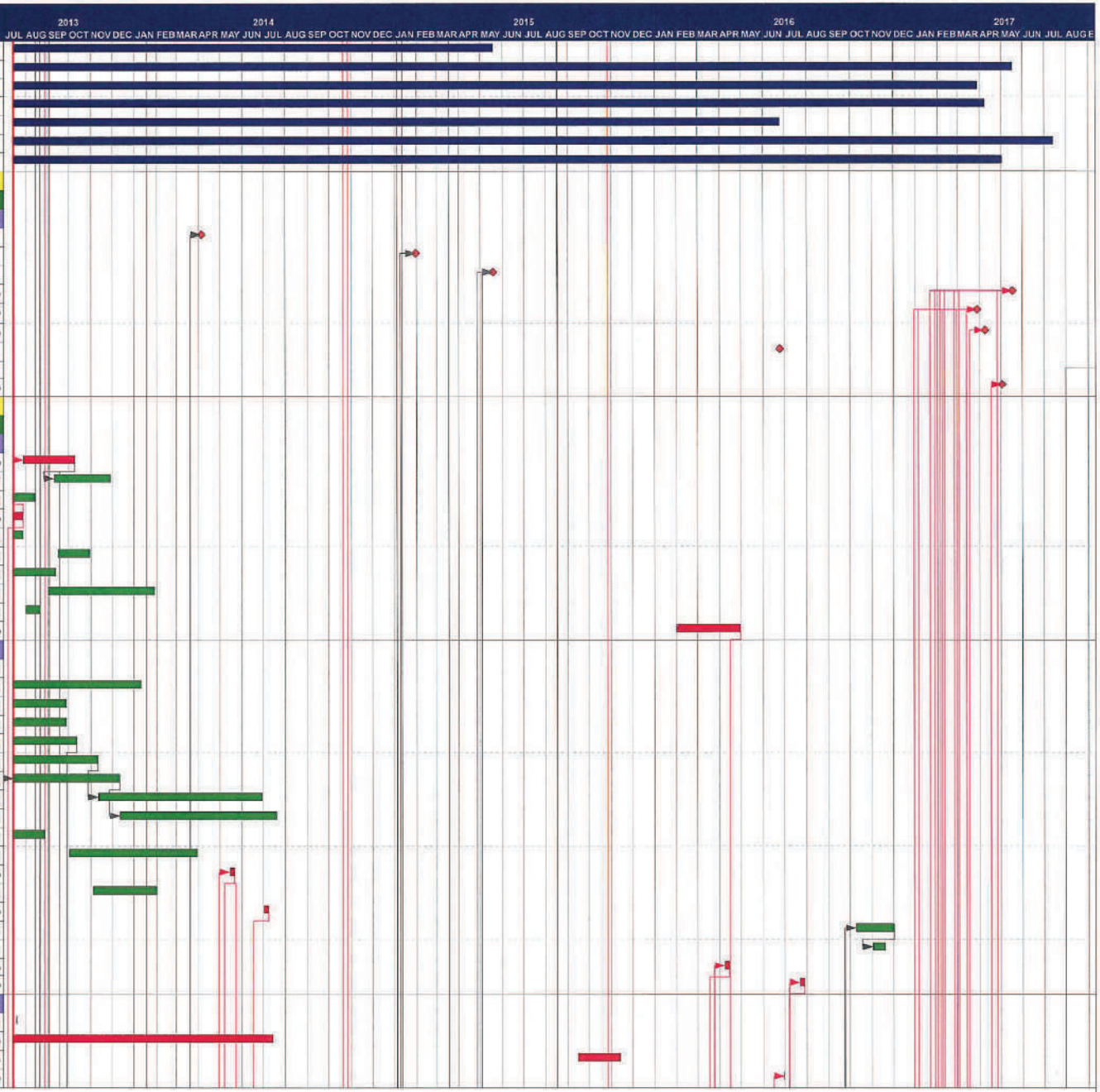
Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	1A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Date	Revision	Checked	Approved
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
0502	Section 3 (Certified Completion)	29d	15JUL13 A	18MAY15 A	
0503	Section 4	195d	15JUL13 A	17MAY17 A	
0504	Section 5	163d4h	15JUL13 A	28MAR17 A	
0505	Section 6	163d4h	15JUL13 A	08APR17 A	
0506	Section 7	0	15JUL13 A	24JUN16 A	
0507	Section 8	0	15JUL13 A	13JUL17 A	
0508	Section 9	123d4h	15JUL13 A	02MAY17 A	
Sectional Completion					
0150	Section 1 (Certified Completion)	0		04APR14 A	
0151	Section 2 (Certified Completion)	0		30JAN15 A	
0152	Section 3 (Certified Completion)	0		18MAY15 A	
0153	Section 4	0		17MAY17	0
0154	Section 5	0		28MAR17	0
0155	Section 6	0		08APR17	0
0156	Section 7	0		24JUN16 A	
0157	Section 8	0		25DEC17 A	
0158	Section 9	0		02MAY17	0
Preliminaries items and TTA					
General					
0200	Erection of Engineer accommodation	73d	29JUL13	09OCT13	0
0201	Erection of Contractor accommodation	80d	10SEP13	28NOV13	33d
0202	Initial survey	30d	15JUL13	13AUG13	60d
0203	Mobilization	14d	15JUL13	28JUL13	0
0204	Application of licenses	14d	15JUL13	28JUL13	2d
0205	Erection of site hoarding at WA 3	45d	16SEP13 *	30OCT13	31d
0206	Tree survey	60d	15JUL13	12SEP13	3d
0207	Geotechnical instrumentation installation	150d	02SEP13 *	29JAN14	30d
0208	Engagement of ET	21d	01AUG13 *	21AUG13	55d
0209	Relocation of Engineer accommodation	90d	01FEB16 *	30APR16	0
TTA					
0300	First TMLG meeting	1d	07AUG13 *	07AUG13	5d
0301	Submission of TTA for VT1 and SW2 construction	180d	15JUL13	10JAN14	49d
0302	Submission of TTA for Tsat Po St & Sze Mei St	75d	15JUL13	27SEP13	45d
0304	Submission of TTA for King Hong St	75d	15JUL13	27SEP13	45d
0305	Application of XP within SPK	90d	15JUL13	12OCT13	30d
0306	Application of XP for setback	120d	15JUL13	11NOV13	118d
0307	Application of XP for PERE	150d	15JUL13	11DEC13	190d
0308	Set-back at PERE	230d	12NOV13	29JUN14	118d
0309	Demolition of central divider (incl lighting)	220d	12DEC13	19JUL14	190d
0310	Dismantle of sign gantry	45d	15JUL13	28AUG13	296d
0311	Formation of diversion routing along Road D1	180d	02OCT13 *	30MAR14	45d
0312	Diversion of in and out to PERE at Concorde Rd	7d	15MAY14	21MAY14	0
0314	Formation of slip road to PERE near DSD PS	90d	04NOV13 *	01FEB14	102d
0315	Suspension of KHS	7d	02JUL14 *	08JUL14	0
0325	Road reinstatement for set back at PERE	54d	09OCT16	01DEC16	117d
0326	Reprovision of sign gantry	18d	02NOV16	19NOV16	129d
0327	Implementation of TTA for site 1F-1 handover	7d	08APR16	14APR16	0
0328	Implementation of TTA for site 1E-2 handover	7d	22JUL16	28JUL16	0
Utilities and interface matter					
0400	First ULG meeting	1d	19JUL13 *	19JUL13	5d
0401	DCS Road D1 (Part 1)	365d	15JUL13	14JUL14	0
0402	DCS Road D1 (Part 2)	60d	15SEP15 *	13NOV15	0
0404	Handover for Site 1F1	1d	30JUN16	30JUN16	0



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	2A

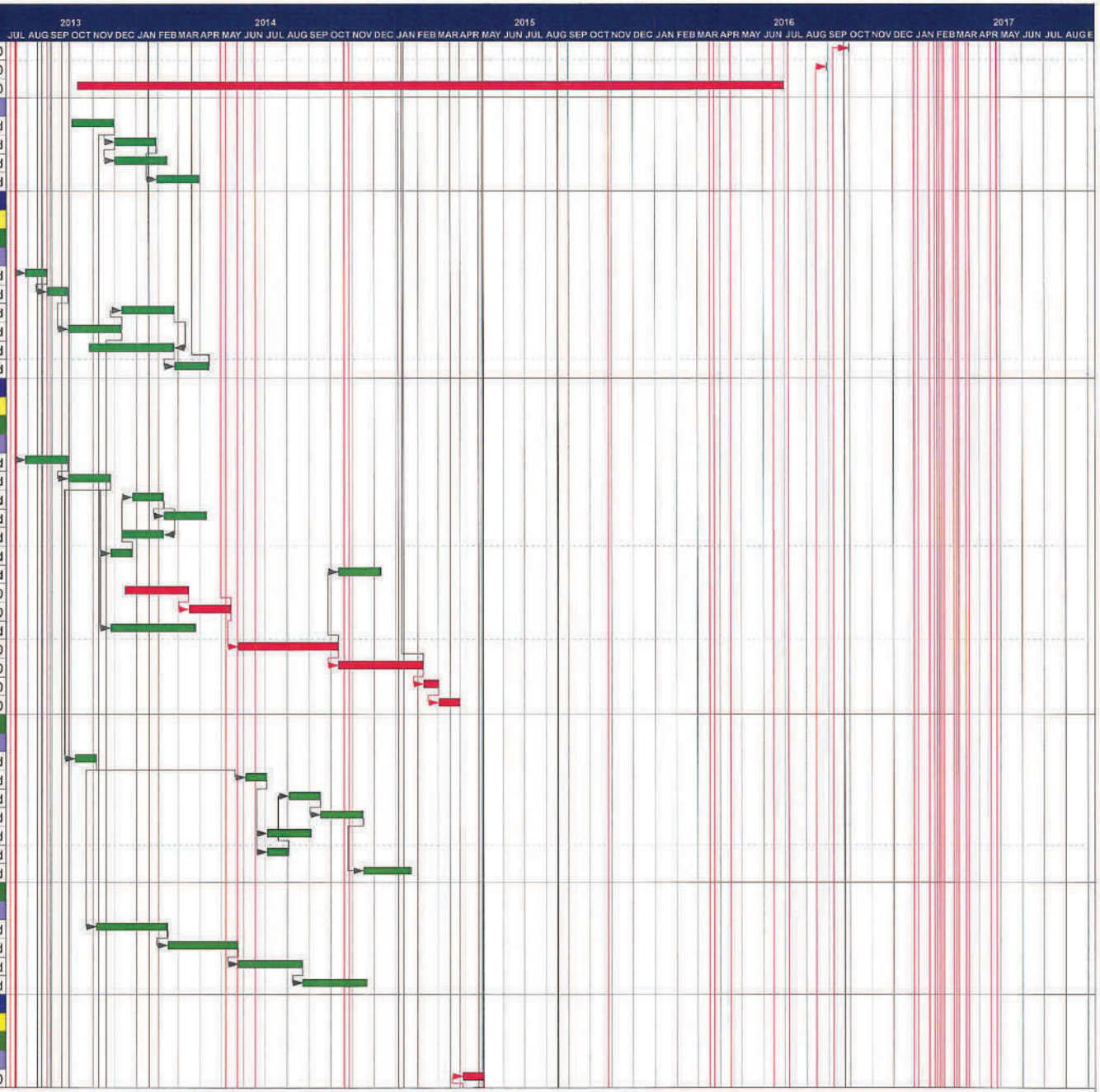
c Primavera Systems, Inc.

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Date	Revision	Checked	Approved
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
0405	Handover for Site 1E2	1d	30SEP16	30SEP16	0
0406	Complete of rondabout at KFS for HD development	1d	30AUG16	30AUG16	0
0407	Maintenance of WA6 as stock pile area	995d	10OCT13 *	30JUN16	0
Design and submission					
0450	Submission of ELS for VT1 and SW2 except PERE	60d	02OCT13 *	30NOV13	71d
0451	Submission of ELS for VT1 and SW2 at PERE	60d	01DEC13	29JAN14	71d
0452	Submission of road deck at PERE	75d	01DEC13	13FEB14	127d
0453	Submission of ELS for SW3	60d	30JAN14	30MAR14	71d
Section 1					
Portion A1					
1000	Site Clearance	30d	29JUL13	27AUG13	19d
1010	Erection of temporary fencing	30d	28AUG13	26SEP13	19d
1020	Demolition of existing structure	75d	11DEC13	23FEB14	1205d
1030	Demolition of existing fence wall	75d	27SEP13	10DEC13	19d
1040	Diversion of existing utilities	120d	27OCT13	23FEB14	1205d
1050	Erection of permanent fencing/hoarding	49d	24FEB14	13APR14	1205d
Section 2					
Portion F2					
Slip Road from PERE to roundabout					
2000	Site clearance	60d	29JUL13	26SEP13	50d
2001	Drainage works	60d	27SEP13	25NOV13	50d
2002	Utilities	45d	26DEC13	08FEB14	95d
2003	Footpath and hard landscaping works	60d	09FEB14	09APR14	609d
2004	Roadwork (original)	60d	11DEC13	08FEB14	95d
2005	Street furniture and ducting	30d	26NOV13	25DEC13	95d
2006	Formation of permanent bus stop	60d	12OCT14	10DEC14	60d
2007	* Formation of temporary bus stop	90d	16DEC13 *	15MAR14	0
2008	* Roadworks (revised)	60d	16MAR14 *	14MAY14	0
2009	* Additional drainage	120d	26NOV13	25MAR14	50d
2010	*Gas main diversion	140d	25MAY14	11OCT14	0
2011	* Revised kerb layout (Outstanding works)	120d	12OCT14 *	08FEB15	0
2012	* Modification for TI Tower (Outstanding works)	21d	09FEB15	01MAR15	0
2013	* Level adjustment for F/P (Outstanding works)	30d	02MAR15	31MAR15	0
Section of Road D1 near roundabout					
2100	Site clearance	30d	07OCT13	05NOV13	71d
2110	Drainage works	30d	04JUN14	03JUL14	149d
2120	Utilities	45d	03AUG14	16SEP14	389d
2130	Footpath and hard landscaping works	60d	17SEP14	15NOV14	389d
2140	Roadwork	62d	04JUL14	03SEP14	149d
2141	Road furniture	30d	04JUL14	02AUG14	389d
2142	Soft landscaping	67d	16NOV14	21JAN15	389d
1650 to 2250 pipe connect to nullah					
2200	Manhole E4 to E5	100d	06NOV13	13FEB14	71d
2201	Manhole E5 to E6	100d	14FEB14	24MAY14	71d
2202	Manhole E6 to E7	90d	25MAY14	22AUG14	71d
2203	Manhole E7 to E7A	90d	23AUG14	20NOV14	71d
Section 3					
Portion B1					
3000	Site clearance	30d	05APR15	04MAY15	0



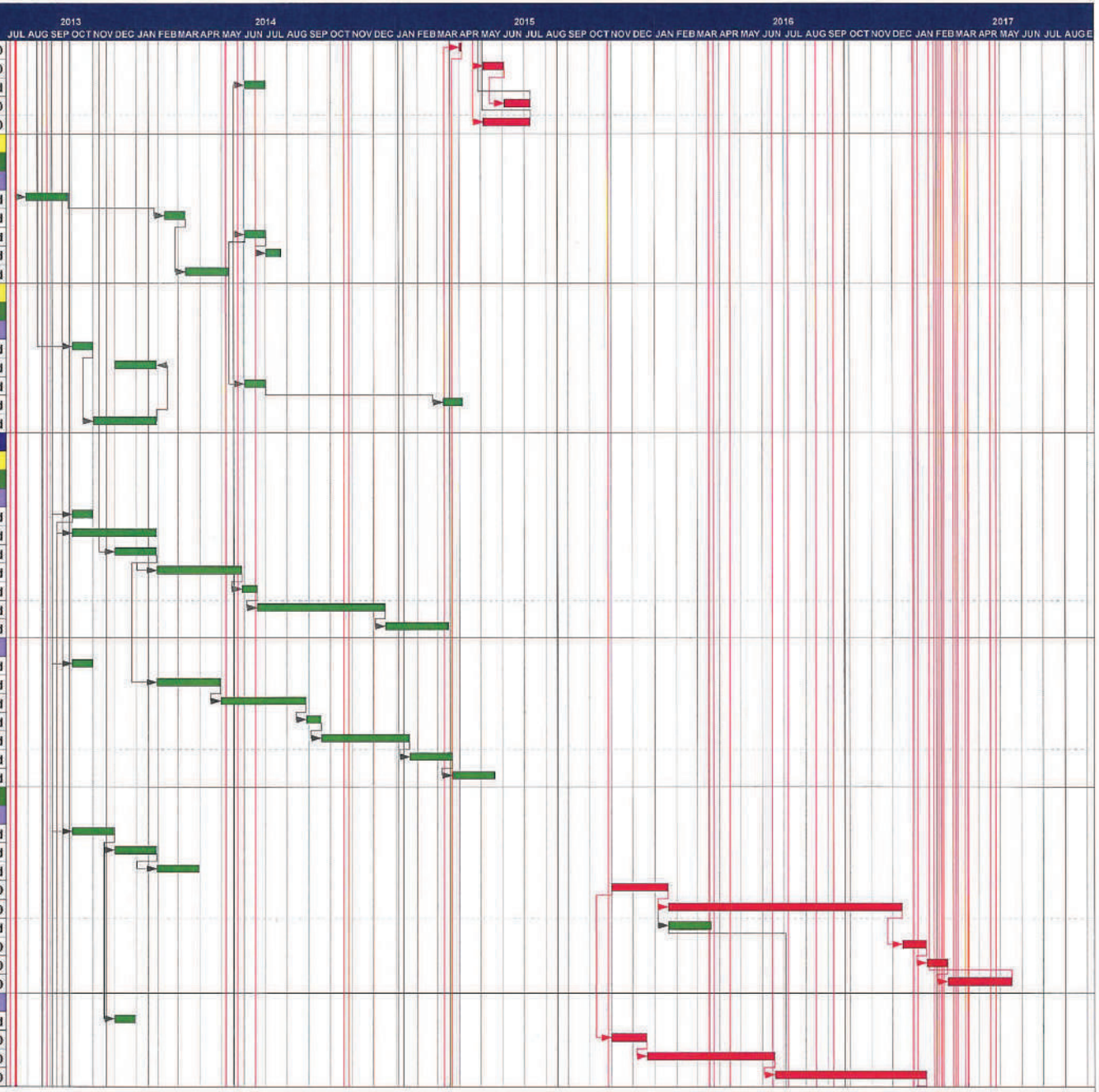
Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	3A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point

Date	Revision	Checked	Approved
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
3010	Closure of KFS and SMS	4d	01APR15	04APR15	0
3020	Removal of existing furniture	30d	05MAY15	03JUN15	0
3030	Diversion of existing utilities	30d	02JUN14	01JUL14	156d
3040	Abandonment of existing utilities	37d	04JUN15	10JUL15	0
3050	Demolition of existing structure	67d	05MAY15	10JUL15	0
Portion B2					
3100	Site clearance	60d	29JUL13	26SEP13	30d
3110	Removal of existing furniture	30d	10FEB14	11MAR14	30d
3120	Diversion of existing utilities	30d	02JUN14	01JUL14	8d
3130	Abandonment of existing utilities	21d	02JUL14	22JUL14	87d
3140	Demolition of existing structure	60d	12MAR14	10MAY14	30d
Portion B3					
3200	Site clearance	30d	02OCT13	31OCT13	41d
3210	Removal of existing furniture	60d	01DEC13	29JAN14	41d
3220	Diversion of existing utilities	30d	02JUN14	01JUL14	8d
3230	Abandonment of existing utilities	28d	09MAR15	05APR15	8d
3240	Demolition of existing structure	90d	01NOV13	29JAN14	41d
Section 4					
Portion B6					
Underpass VT1					
VT1 CH 550 to CH 617					
4100	Site clearance	30d	02OCT13	31OCT13	30d
4101	Tree transplanting	120d	02OCT13	29JAN14	184d
4102	ELS installation	60d	01DEC13 *	29JAN14	164d
4103	Earthwork	120d	30JAN14	29MAY14	169d
4104	Laying of grade 200 and waterproofing	21d	30MAY14	19JUN14	169d
4105	RC works	180d	20JUN14	16DEC14	169d
4106	Waterproofing at wall	90d	17DEC14	16MAR15	169d
VT1 CH 500 to CH 550					
4150	Site clearance	30d	02OCT13	31OCT13	61d
4151	ELS installation	90d	30JAN14	29APR14	164d
4152	Earthwork	120d	30APR14	27AUG14	164d
4153	Laying of grade 200 and waterproofing	21d	28AUG14	17SEP14	164d
4154	RC works	125d	18SEP14	20JAN15	164d
4155	Waterproofing at wall and top slab	60d	21JAN15	21MAR15	164d
4156	Backfilling and reinstatement	60d	22MAR15	20MAY15	164d
Subway SW2					
SW2-LTA					
4200	Site clearance	60d	02OCT13	30NOV13	31d
4201	Pre-drilling works	60d	01DEC13	29JAN14	580d
4202	Pre-bored H-pile construction	60d	30JAN14	30MAR14	580d
4203	Pile cap construction	80d	01NOV15 *	19JAN16	0
4204	Lift Shaft RC works	330d	20JAN16	14DEC16	0
4205	Fabrication of structural steel frame	60d	20JAN16	19MAR16	129d
4206	Installation of structural steel frame	34d	15DEC16	17JAN17	0
4207	Glazing installation	30d	18JAN17	16FEB17	0
4208	Lift installation	90d	17FEB17	17MAY17	0
SW2-ST1					
4250	Site clearance	30d	01DEC13	30DEC13	610d
4251	ELS installation	50d	01NOV15	20DEC15	0
4252	Earthwork	180d	21DEC15	17JUN16	0
4253	Staircase RC works	214d	18JUN16	17JAN17	0



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	4A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

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Finish milestone point

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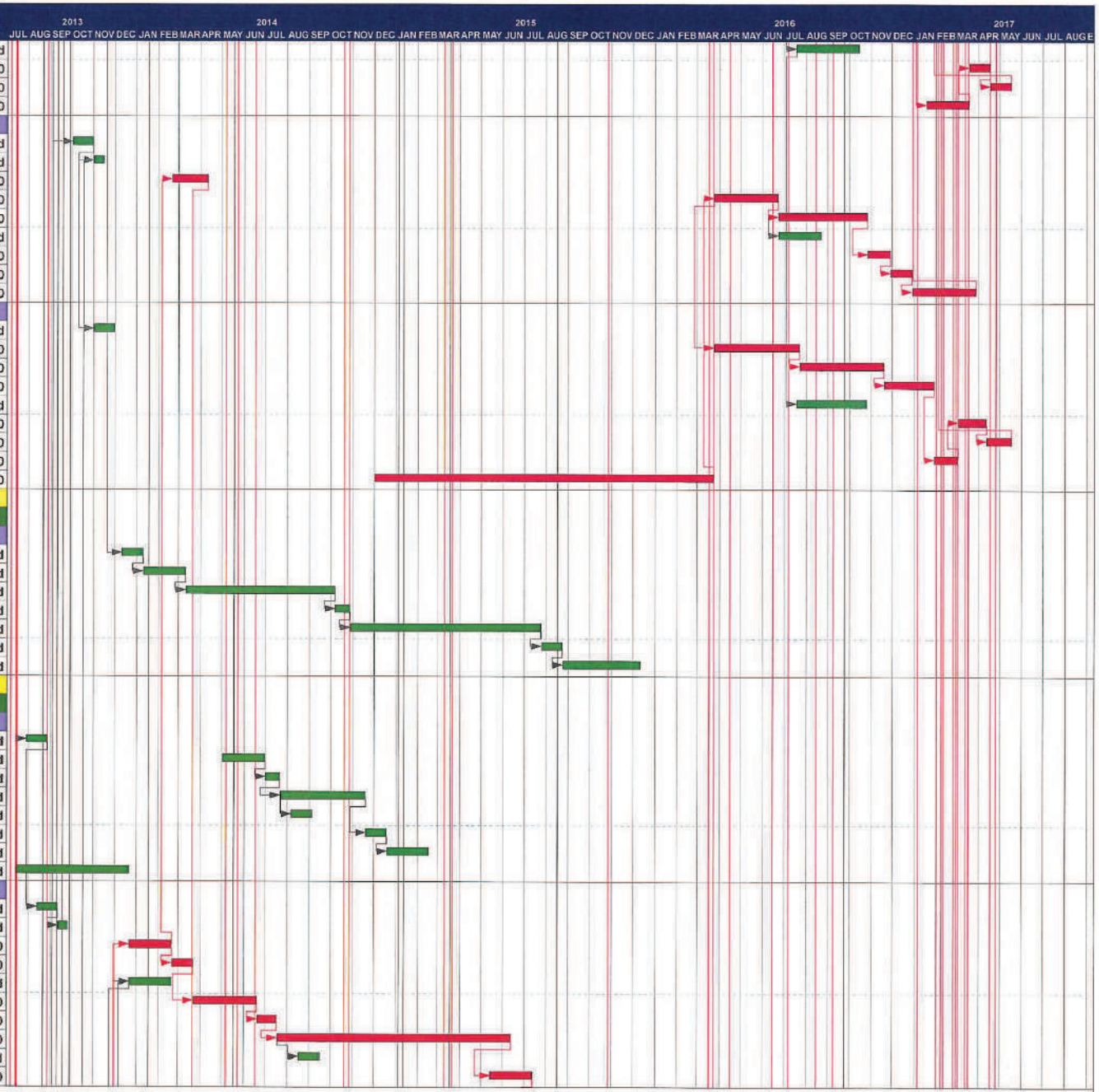
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
4254	Fabrication of structural steel frame	90d	18JUL16	15OCT16	129d
4255	Roof frame installation	30d	19MAR17	17APR17	0
4256	Roof panel installation	30d	18APR17	17MAY17	0
4258	Backfilling and reinstatement	60d	18JAN17	18MAR17	0
SW2-LTC					
5201	Site clearance	30d	02OCT13	31OCT13	97d
5202	Pre-drilling works	14d	01NOV13	14NOV13	97d
5203	Pre-bored H-pile construction	50d	20FEB14	10APR14	0
5204	Pile cap construction	90d	25MAR16 *	22JUN16	0
5205	Lift Shaft RC works	126d	23JUN16	26OCT16	0
5206	Fabrication of structural steel frame	60d	23JUN16	21AUG16	66d
5207	Installation of structural steel frame	33d	27OCT16	28NOV16	0
5208	Glazing installation	30d	29NOV16	28DEC16	0
5209	Lift installation	90d	29DEC16	28MAR17	0
SW2-ST3					
5211	Site clearance	30d	01NOV13	30NOV13	365d
5212	ELS installation	120d	25MAR16	22JUL16	0
5213	Earthwork	120d	23JUL16	19NOV16	0
5214	Staircase RC works	70d	20NOV16	28JAN17	0
5215	Fabrication of structural steel frame	100d	18JUL16	25OCT16	129d
5216	Roof frame installation	40d	04MAR17	12APR17	0
5217	Roof panel installation	35d	13APR17	17MAY17	0
5218	Backfilling and reinstatement	34d	29JAN17	03MAR17	0
5219	* Identify and diversion of unchart CLP HV cable	480d	01DEC14 *	24MAR16	0
Portion C					
Underpass VT1					
VT1 CH 300 to CH 340					
4300	Site clearance	30d	11DEC13 *	09JAN14	19d
4301	ELS installation	60d	10JAN14	10MAR14	19d
4302	Earthwork	210d	11MAR14	06OCT14	19d
4303	Laying of grade 200 and waterproofing	21d	07OCT14	27OCT14	19d
4304	RC works	270d	28OCT14	24JUL15	19d
4305	Waterproofing at wall and top slab	30d	25JUL15	23AUG15	19d
4306	Backfilling and reinstatement	110d	24AUG15	11DEC15	19d
Portion G					
Underpass VT1					
VT1 CH 000 to CH 080					
4350	Site clearance	30d	29JUL13	27AUG13	87d
4351	Earthwork	60d	02MAY14 *	30JUN14	206d
4352	Laying of grade 200 and waterproofing	21d	01JUL14	21JUL14	206d
4353	RC works	120d	22JUL14	18NOV14	206d
4354	Drainage in structure	30d	06AUG14	04SEP14	281d
4355	Waterproofing at wall	30d	19NOV14	18DEC14	206d
4356	Backfilling and reinstatement	60d	19DEC14	16FEB15	206d
4357	Diversion of existing utilities	160d	15JUL13	21DEC13	208d
VT1 CH 080 to CH 160					
4400	Site clearance	30d	13AUG13	11SEP13	87d
4401	Pre-drilling works	14d	12SEP13	25SEP13	87d
4402	Pre-bored H-pile construction	60d	22DEC13	19FEB14	0
4403	Pile load test	30d	20FEB14	21MAR14	0
4404	ELS installation	60d	22DEC13	19FEB14	15d
4405	Earthwork	90d	22MAR14	19JUN14	0
4406	Laying of grade 200 and waterproofing	28d	20JUN14	17JUL14	0
4407	RC works	330d	18JUL14	12JUN15	0
4408	Drainage in structure	30d	17AUG14	15SEP14	240d
4409	Waterproofing at wall	60d	14MAY15	12JUL15	0



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	5A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
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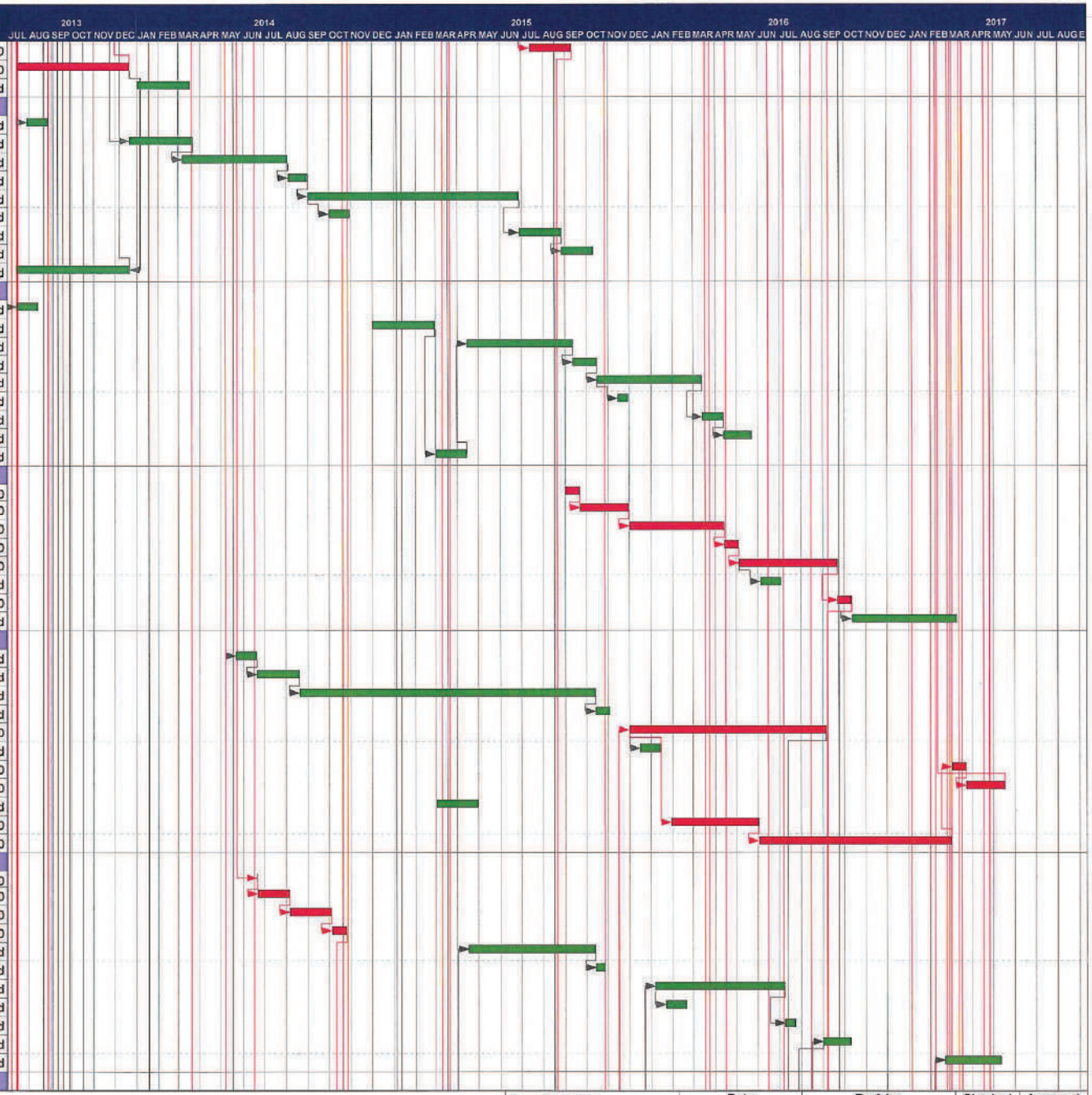
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
4410	Backfilling and reinstatement	60d	13JUL15	10SEP15	0
4411	Diversion of existing utilities	160d	15JUL13	21DEC13	0
4412	* Pumping test	75d	02JAN14 *	17MAR14	4d
VT1 CH 160 to CH 200					
4450	Site clearance	30d	29JUL13	27AUG13	131d
4451	ELS installation	90d	22DEC13	21MAR14	15d
4452	Earthwork	150d	07MAR14	03AUG14	15d
4453	Laying of grade 200 and waterproofing	28d	04AUG14	31AUG14	15d
4454	RC works	300d	01SEP14	27JUN15	15d
4455	Drainage in structure	30d	01OCT14	30OCT14	255d
4456	Waterproofing at wall and top slab	60d	28JUN15	26AUG15	15d
4457	Backfilling and reinstatement	45d	27AUG15	10OCT15	15d
4458	Diversion of existing utilities	160d	15JUL13	21DEC13	15d
VT1 CH 200 to CH 250					
4500	Site clearance	30d	15JUL13	13AUG13	576d
4501	ELS installation	90d	01DEC14 *	28FEB15	102d
4502	Earthwork	150d	15APR15	11SEP15	102d
4503	Laying of grade 200 and waterproofing	34d	12SEP15	15OCT15	102d
4504	RC works	150d	16OCT15	13MAR16	102d
4505	Drainage in structure	15d	15NOV15	29NOV15	207d
4506	Waterproofing at wall and top slab	30d	14MAR16	12APR16	102d
4507	Backfilling and reinstatement	40d	13APR16	22MAY16	102d
4508	* Identification and removal of CLP cable	45d	01MAR15	14APR15	102d
VT1 CH 250 to CH 300					
4550	Site clearance	21d	01SEP15 *	21SEP15	0
4551	ELS installation	70d	22SEP15	30NOV15	0
4552	Earthwork	135d	01DEC15	13APR16	0
4553	Laying of grade 200 and waterproofing	21d	14APR16	04MAY16	0
4554	RC works	140d	05MAY16	21SEP16	0
4555	Drainage in structure	30d	04JUN16	03JUL16	80d
4556	Waterproofing at wall and top slab	20d	22SEP16	11OCT16	0
4557	Backfilling and reinstatement	150d	12OCT16	10MAR17	68d
VT1 CH 340 to CH 360 & associated SW2					
4600	Site clearance	30d	22MAY14	20JUN14	27d
4601	ELS installation	60d	21JUN14	19AUG14	27d
4603	Earthwork	420d	20AUG14	13OCT15	27d
4604	Laying of grade 200 and waterproofing	21d	14OCT15	03NOV15	27d
4605	RC works	280d	01DEC15	05SEP16	0
4606	Drainage in structure	30d	16DEC15	14JAN16	414d
4607	Waterproofing at wall and top slab	20d	04MAR17	23MAR17	0
4608	Backfilling and reinstatement	55d	24MAR17	17MAY17	0
4609	Identification and temporary measures by CLP	60d	02MAR15 *	30APR15	43d
4610	Excavation for pump house	124d	30JAN16	01JUN16	0
4611	RC works for pump house	275d	02JUN16	03MAR17	0
VT1 CH 360 to CH 370 & associated SW2					
4650	Implementation of TTA Stage 1	1d	21JUN14	21JUN14	0
4651	Diversion of existing UU	45d	22JUN14	05AUG14	0
4652	ELS installation and piling for decking	60d	06AUG14	04OCT14	0
4653	Decking Installation	21d	05OCT14	25OCT14	0
4654	Earthwork	180d	17APR15	13OCT15	48d
4655	Laying of grade 200 and waterproofing	14d	14OCT15	27OCT15	131d
4656	RC works	184d	07JAN16	08JUL16	60d
4657	Drainage in structure	30d	22JAN16	20FEB16	139d
4658	Waterproofing at wall and top slab	15d	09JUL16	23JUL16	60d
4659	Backfilling	40d	01SEP16	10OCT16	21d
4660	Road reinstatement	80d	21FEB17	11MAY17	6d
VT1 CH 370 to CH 376 & associated SW2					



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	6A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
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27MAY16	M	AL	JY
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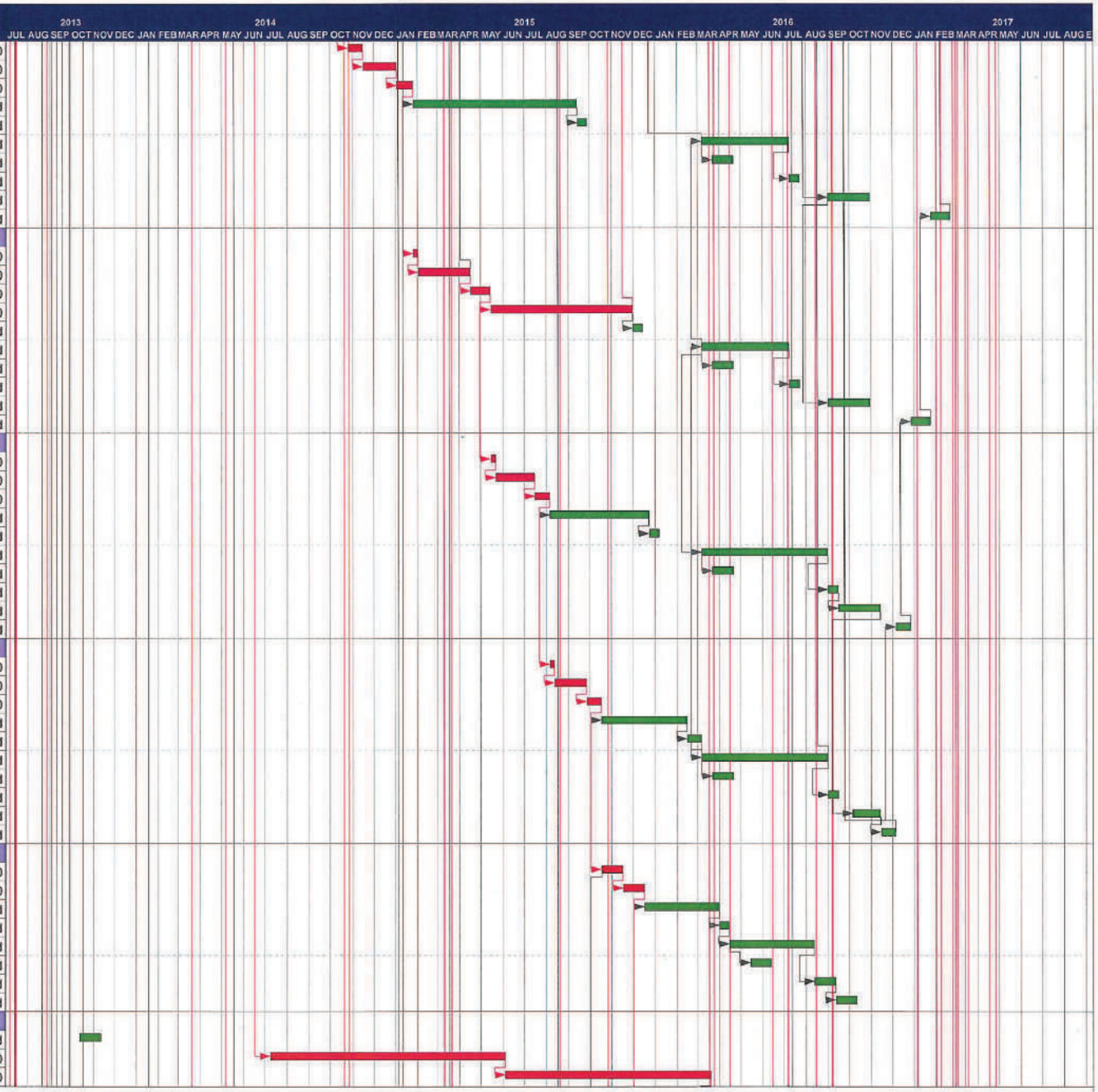
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
4700	Implementation of TTA Stage 2	21d	26OCT14	15NOV14	0
4701	ELS installation and piling for decking	48d	16NOV14	02JAN15	0
4702	Decking Installation	23d	03JAN15	25JAN15	0
4703	Earthwork	231d	26JAN15	13SEP15	221d
4704	Laying of grade 200 and waterproofing	14d	14SEP15	27SEP15	221d
4705	RC works	124d	07MAR16	08JUL16	60d
4706	Drainage in structure	30d	22MAR16	20APR16	139d
4707	Waterproofing at wall and top slab	15d	09JUL16	23JUL16	60d
4708	Backfilling	60d	01SEP16	30OCT16	21d
4709	Road reinstatement	28d	24JAN17	20FEB17	6d
VT1 CH 376 to CH 383 & associated SW2					
4750	Implementation of TTA Stage 3	7d	26JAN15	01FEB15	0
4751	ELS installation and piling for decking	74d	02FEB15	16APR15	0
4752	Decking Installation	28d	17APR15	14MAY15	0
4753	Earthwork	200d	15MAY15	30NOV15	0
4754	Laying of grade 200 and waterproofing	14d	01DEC15	14DEC15	89d
4755	RC works	124d	07MAR16	08JUL16	6d
4756	Drainage in structure	30d	22MAR16	20APR16	139d
4757	Waterproofing at wall and top slab	15d	09JUL16	23JUL16	60d
4758	Backfilling	60d	01SEP16	30OCT16	21d
4759	Road reinstatement	28d	27DEC16	23JAN17	6d
VT1 CH 383 to CH 390 & associated SW2					
4800	Implementation of TTA Stage 4	7d	15MAY15	21MAY15	0
4801	ELS installation and piling for decking	55d	22MAY15	15JUL15	0
4802	Decking Installation	21d	16JUL15	05AUG15	0
4803	Earthwork	140d	06AUG15	23DEC15	66d
4804	Laying of grade 200 and waterproofing	14d	24DEC15	06JAN16	66d
4805	RC works	178d	07MAR16	31AUG16	6d
4806	Drainage in structure	30d	22MAR16	20APR16	139d
4807	Waterproofing at wall and top slab	15d	01SEP16	15SEP16	6d
4808	Backfilling	60d	16SEP16	14NOV16	6d
4809	Road reinstatement	21d	06DEC16	26DEC16	6d
VT1 CH 390 to CH 396 & associated SW2					
4850	Implementation of TTA Stage 5	7d	06AUG15	12AUG15	0
4851	ELS installation and piling for decking	45d	13AUG15	26SEP15	0
4852	Decking Installation	21d	27SEP15	17OCT15	0
4853	Earthwork	120d	18OCT15	14FEB16	6d
4854	Laying of grade 200 and waterproofing	21d	15FEB16	06MAR16	6d
4855	RC works	178d	07MAR16	31AUG16	6d
4856	Drainage in structure	30d	22MAR16	20APR16	159d
4857	Waterproofing at wall and top slab	15d	01SEP16	15SEP16	26d
4858	Backfilling	40d	06OCT16	14NOV16	6d
4859	Road reinstatement	21d	15NOV16	05DEC16	6d
VT1 CH 396 to CH 410 & associated SW2					
4900	Site clearance	30d	18OCT15	16NOV15	0
4901	ELS installation (delay due to public concern)	30d	17NOV15	16DEC15	0
4902	Earthwork	106d	17DEC15	31MAR16	40d
4903	Laying of grade 200 and waterproofing	14d	01APR16	14APR16	40d
4904	RC works	120d	15APR16	12AUG16	40d
4905	Drainage in structure	30d	15MAY16	13JUN16	100d
4906	Waterproofing at wall and top slab	30d	13AUG16	11SEP16	40d
4907	Backfilling and reinstatement	30d	12SEP16	11OCT16	40d
VT1 CH 410 to CH 470 & associated SW2					
4920	Site clearance	30d	13OCT13 *	11NOV13	179d
4921	ELS installation (delay due to public concern)	330d	09JUL14	03JUN15	0
4922	Earthwork	290d	04JUN15	19MAR16	0



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	7A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

- Early bar
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- Critical bar
- Summary bar
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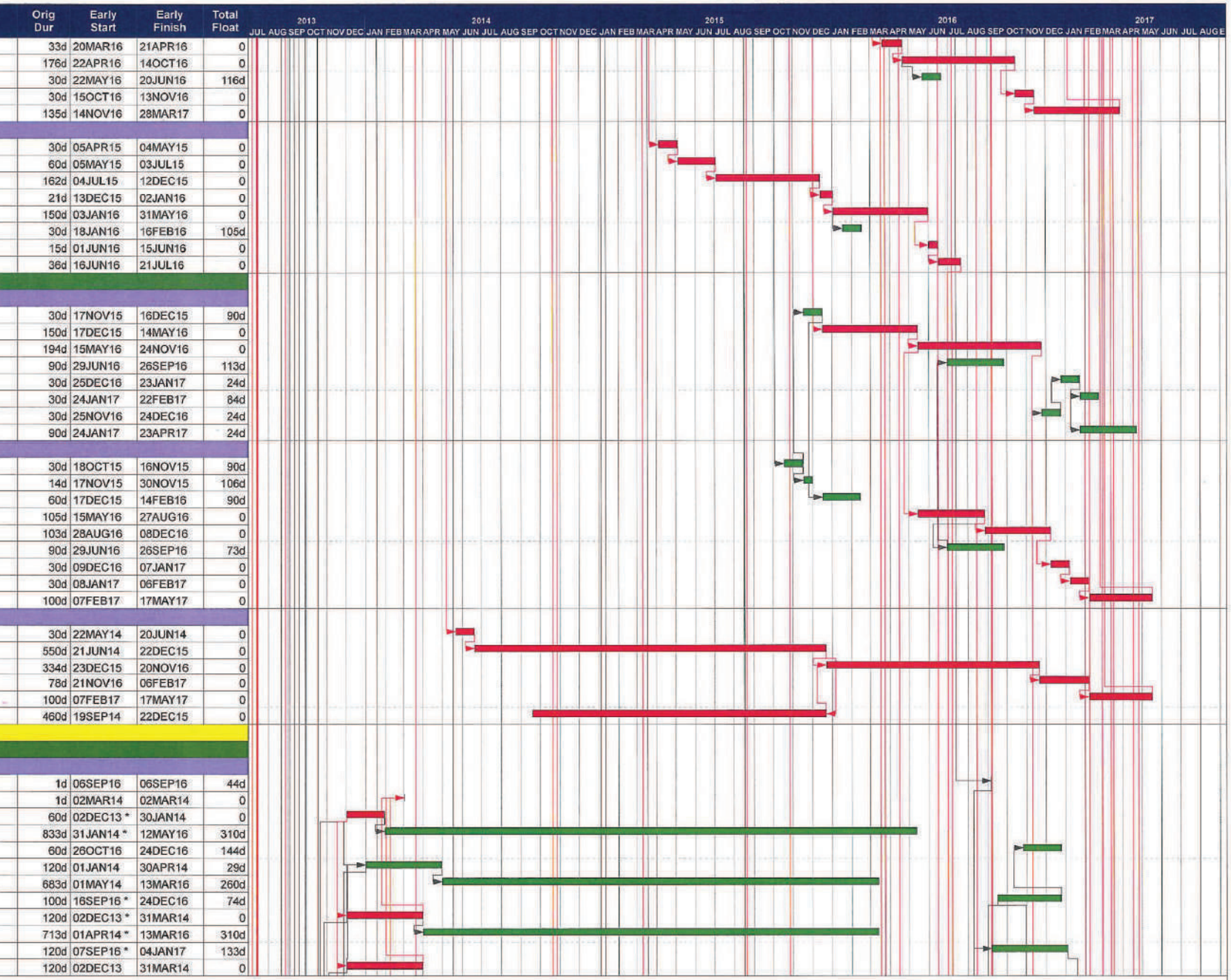
- Finish milestone point

Date	Revision	Checked	Approved
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
4923	Laying of grade 200 and waterproofing	33d	20MAR16	21APR16	0
4924	RC works	176d	22APR16	14OCT16	0
4925	Drainage in structure	30d	22MAY16	20JUN16	116d
4926	Waterproofing at wall and top slab	30d	15OCT16	13NOV16	0
4927	Backfilling and reinstatement	135d	14NOV16	28MAR17	0
VT1 CH 470 to CH 500 & associated SW2					
4950	Site clearance	30d	05APR15	04MAY15	0
4951	ELS installation	60d	05MAY15	03JUL15	0
4952	Earthwork	162d	04JUL15	12DEC15	0
4953	Laying of grade 200 and waterproofing	21d	13DEC15	02JAN16	0
4954	RC works	150d	03JAN16	31MAY16	0
4955	Drainage in structure	30d	18JAN16	16FEB16	105d
4956	Waterproofing at wall and top slab	15d	01JUN16	15JUN16	0
4957	Backfilling and reinstatement	36d	16JUN16	21JUL16	0
Subway SW2					
SW2-ST2					
4970	Site clearance	30d	17NOV15	16DEC15	90d
4972	Earthwork	150d	17DEC15	14MAY16	0
4973	Staircase RC works	194d	15MAY16	24NOV16	0
4974	Fabrication of structural steel frame	90d	29JUN16	26SEP16	113d
4975	Roof frame installation	30d	25DEC16	23JAN17	24d
4976	Roof panel installation	30d	24JAN17	22FEB17	84d
4977	Backfilling and reinstatement	30d	25NOV16	24DEC16	24d
4978	Balustrade and railing	90d	24JAN17	23APR17	24d
SW2-LTB					
4960	Site clearance	30d	18OCT15	16NOV15	90d
4961	Pre-drilling works	14d	17NOV15	30NOV15	106d
4962	Pre-bored H-pile construction	60d	17DEC15	14FEB16	90d
4964	Pile cap construction	105d	15MAY16	27AUG16	0
4965	Lift Shaft RC works	103d	28AUG16	08DEC16	0
4966	Fabrication of structural steel frame	90d	29JUN16	26SEP16	73d
4967	Installation of structural steel frame	30d	09DEC16	07JAN17	0
4968	Glazing installation	30d	08JAN17	06FEB17	0
4969	Lift installation	100d	07FEB17	17MAY17	0
SW2-Across slip road					
4980	Site clearance	30d	22MAY14	20JUN14	0
4981	ELS installation	550d	21JUN14	22DEC15	0
4982	Earthwork	334d	23DEC15	20NOV16	0
4983	RC works	78d	21NOV16	06FEB17	0
4984	Backfilling and reinstatement	100d	07FEB17	17MAY17	0
4985	Identification on uncharted UU	460d	19SEP14	22DEC15	0
VT1 associated works					
5000	Completion of VT1 RC works	1d	06SEP16	06SEP16	44d
5001	Confirmation of conceal item	1d	02MAR14	02MAR14	0
5002	Submission for pumping system	60d	02DEC13 *	30JAN14	0
5021	Procurement for pumping system	833d	31JAN14 *	12MAY16	310d
5022	Installation of pumping system	60d	26OCT16	24DEC16	144d
5023	Submission for power supply system	120d	01JAN14	30APR14	29d
5024	Procurement of power supply system	683d	01MAY14	13MAR16	260d
5025	Installation of power supply system	100d	16SEP16 *	24DEC16	74d
5026	Submission for fire services system	120d	02DEC13 *	31MAR14	0
5027	Procurment for fire services system	713d	01APR14 *	13MAR16	310d
5028	Installation of fire services system	120d	07SEP16 *	04JAN17	133d
5029	Submission for ventilation system	120d	02DEC13	31MAR14	0



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	8A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

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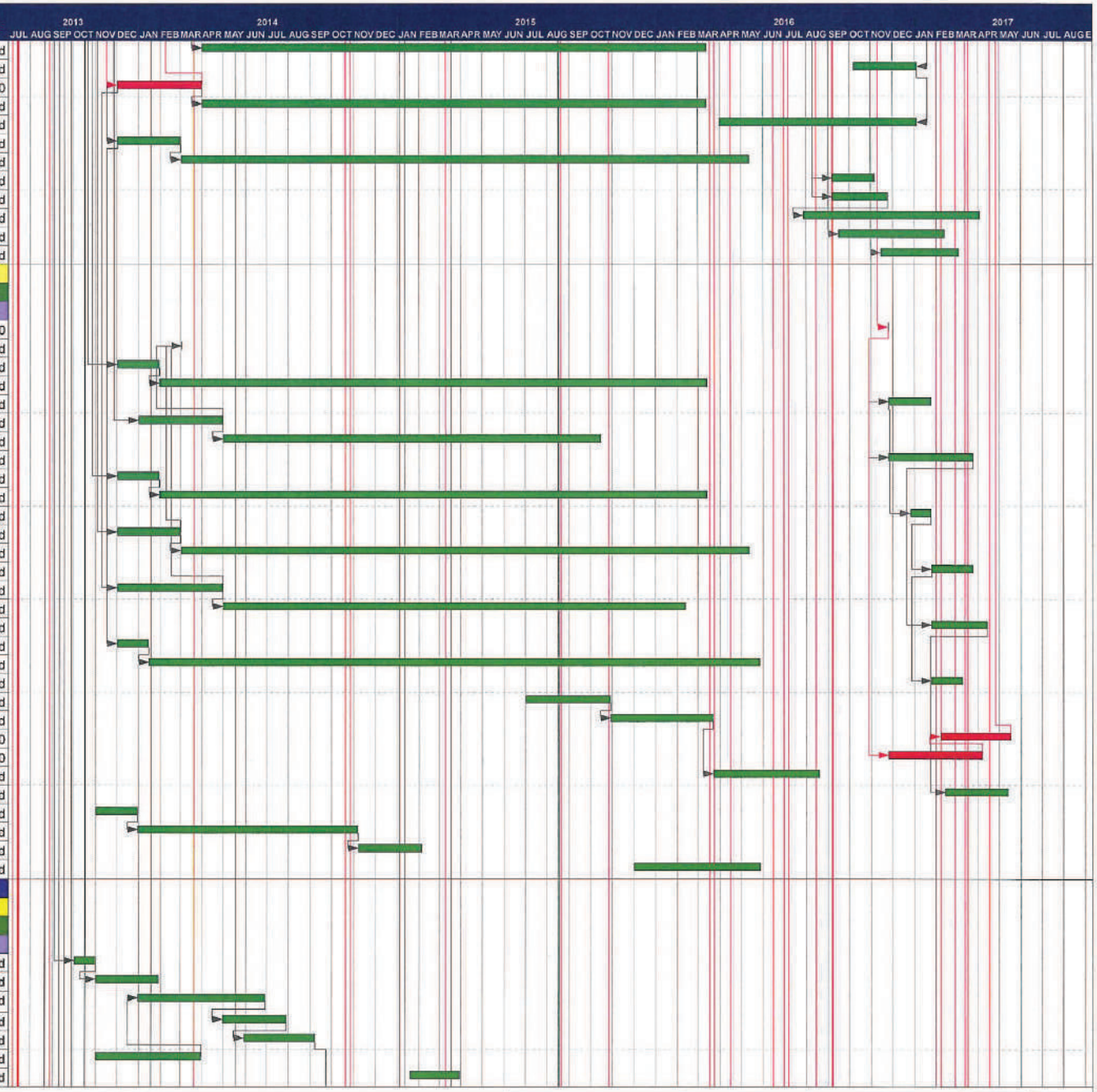
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
5030	Procurement for ventilation system	713d	01APR14	13MAR16	340d
5031	Installation of ventilation system	90d	07OCT16	04JAN17	133d
5032	Submission for lighting system	120d	02DEC13	31MAR14	0
5033	Procurement for lighting system	713d	01APR14	13MAR16	150d
5034	Installation of lighting system	280d	31MAR16	04JAN17	133d
5035	Submission for flooding warning system	90d	02DEC13	01MAR14	30d
5036	Procurement for flooding warning system	803d	02MAR14	12MAY16	310d
5037	Installation of flooding warning system	60d	07SEP16	05NOV16	193d
5038	Roadworks	79d	07SEP16	24NOV16	44d
5039	Painting & finishing works	250d	28JUL16	03APR17	44d
5140	Installation of cable containment	150d	16SEP16	12FEB17	94d
5141	Installation of additional dual source power	110d	15NOV16	04MAR17	74d
	Subway SW2 associated works				
5040	Completion of SW2 RC works	1d	25NOV16	25NOV16	0
5041	Confirmation of conceal item	1d	03MAR14	03MAR14	20d
5045	Submission for pumping system	60d	02DEC13	30JAN14	59d
5046	Procurement for pumping system	773d	31JAN14	13MAR16	310d
5047	Installation of pumping system	60d	26NOV16 *	24JAN17	53d
5048	Submission for power supply system	120d	01JAN14	30APR14	29d
5049	Procurement for power supply system	533d	01MAY14	15OCT15	411d
5050	Installation of power supply system	120d	26NOV16	25MAR17	4d
5051	Submission for fire services system	60d	02DEC13	30JAN14	59d
5052	Procurement for fire services system	773d	31JAN14	13MAR16	340d
5053	Installation of fire services system	30d	26DEC16	24JAN17	53d
5054	Submission for ventilation system	90d	02DEC13	01MAR14	29d
5055	Procurement of ventilation system	803d	02MAR14	12MAY16	310d
5056	Installation of ventilation system	60d	25JAN17	25MAR17	53d
5057	Submission for lighting system	150d	02DEC13	30APR14	29d
5058	Procurement for lighting system	653d	01MAY14	12FEB16	351d
5059	Installation of lighting system	80d	25JAN17	14APR17	4d
5060	Submission for flooding warning system	45d	02DEC13	15JAN14	74d
5061	Procurement for flooding warning system	863d	16JAN14	27MAY16	310d
5062	Installation of flooding warning system	45d	25JAN17	10MAR17	68d
5063	Submission for VE panel system	120d	02JUL15 *	29OCT15	182d
5064	Fabrication for VE panel system	145d	30OCT15	22MAR16	182d
5065	Installation of VE panel	100d	07FEB17	17MAY17	0
5066	ABWF	133d	26NOV16	07APR17	0
5067	Fabrication of light trough	150d	23MAR16	19AUG16	182d
5068	Installation of light tough	89d	14FEB17	13MAY17	4d
5069	Submission for roofing system	60d	01NOV13 *	30DEC13	663d
5070	Procurement and fabrication for roofing system	311d	31DEC13 *	06NOV14	663d
5071	Fabrication of roofing system	90d	07NOV14	04FEB15	663d
5072	Fabrication of lift system	180d	01DEC15 *	28MAY16	214d
	Section 5				
	Portion B6				
	Re-provision of car parking near Sam Chuk St				
4000	Site clearance	30d	02OCT13	31OCT13	71d
4001	Diversion of existing utilities	90d	01NOV13	29JAN14	71d
4002	Roadworks	180d	31DEC13	28JUN14	11d
4003	Construction of 300 UC	90d	30APR14	28JUL14	35d
4004	Ducting and street furniture	101d	30MAY14	07SEP14	35d
4005	* Existing Palm Tree	150d	01NOV13 *	30MAR14	11d
4006	* Modification for TD/HyD comment on 19 Jan 15	70d	19JAN15 *	29MAR15	2d



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	9A
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Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

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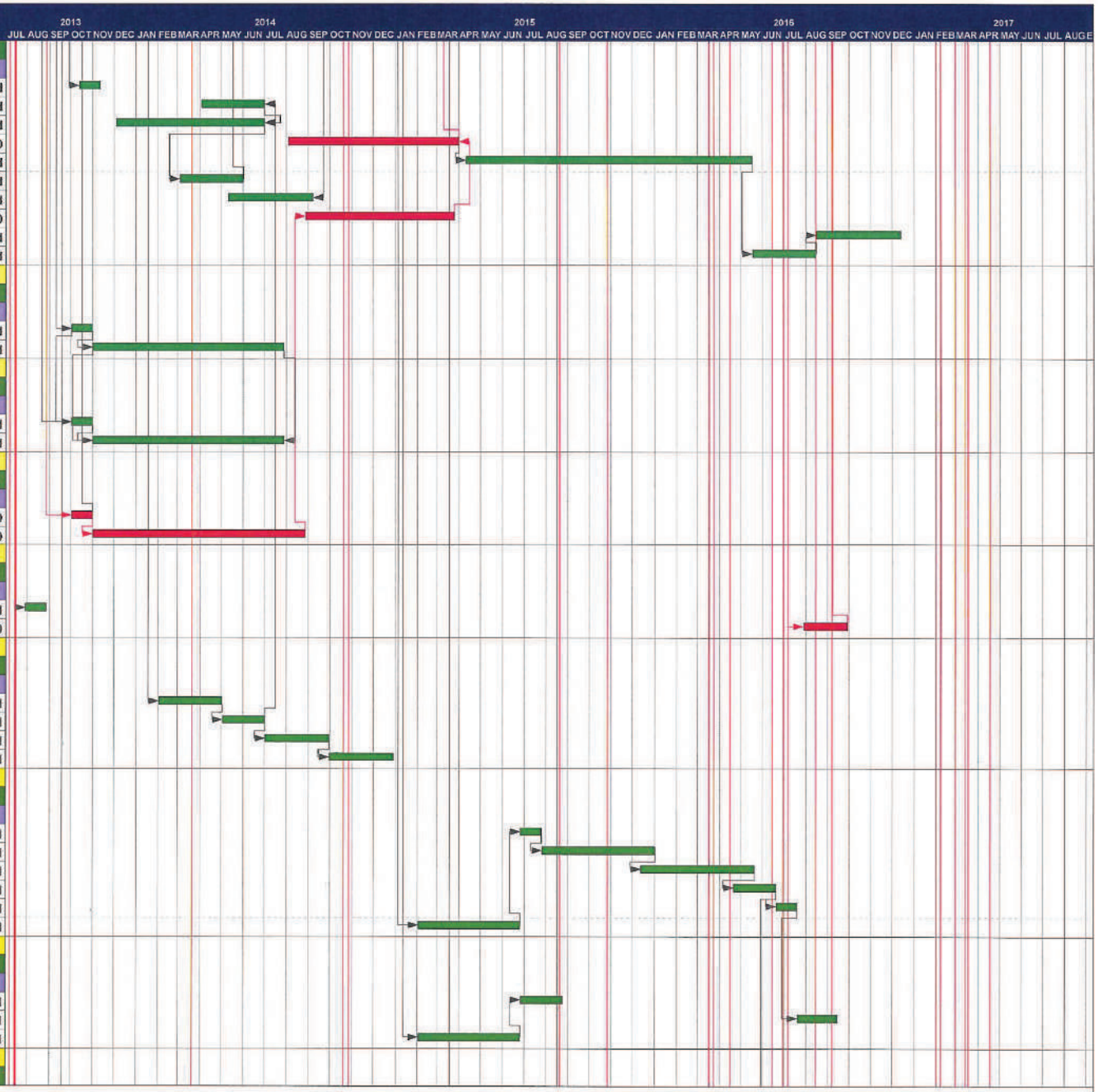
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
Road widening at Tsat Po St					
4050	Site clearance	30d	13OCT13	11NOV13	30d
4051	Diversion of existing utilities	90d	03APR14	01JUL14	8d
4052	Drainage works	210d	04DEC13	01JUL14	8d
4053	Roadworks (New)	240d	04AUG14	31MAR15	0
4054	Roadworks (Existing)	403d	11APR15	17MAY16	105d
4055	Utilities	90d	04MAR14	01JUN14	8d
4056	Footpath and road furniture	120d	11MAY14	07SEP14	205d
4057	*Additional protection works to ext UU	210d	28AUG14	25MAR15	0
4058	Roadworks (Remove disused watermain)	120d	16AUG16	13DEC16	105d
4059	*Additional CLP connection works	90d	18MAY16	15AUG16	105d
Portion A2					
6000	Site clearance	30d	02OCT13	31OCT13	30d
6001	Reinstatement	270d	01NOV13	28JUL14	30d
Portion B4					
6010	Site clearance	30d	02OCT13	31OCT13	30d
6011	Reinstatement	270d	01NOV13	28JUL14	30d
Portion B5					
6020	Site clearance	30d	02OCT13	31OCT13	0
6021	Reinstatement	300d	01NOV13	27AUG14	0
Portion C					
6030	Site clearance	30d	29JUL13	27AUG13	80d
6031	Reinstatement	63d	29JUL16	29SEP16	0
Portion D					
6040	Site clearance	90d	02FEB14	02MAY14	8d
6041	Utilities	60d	03MAY14	01JUL14	8d
6042	Hard landscaping	90d	02JUL14	29SEP14	184d
6043	Reinstatement of Fencing	90d	30SEP14	28DEC14	184d
Portion E1					
6050	Site clearance	30d	26JUN15	25JUL15	195d
6051	Drainage works	160d	26JUL15	01JAN16	195d
6052	Roadworks	160d	13DEC15	20MAY16	195d
6053	Footpath and street furniture	60d	21APR16	19JUN16	195d
6054	Fencing	30d	20JUN16	19JUL16	195d
6055	* Non-possession	144d	02FEB15	25JUN15	195d
Portion E2					
6060	Site clearance	60d	26JUN15	24AUG15	305d
6061	Erection of fencing	57d	20JUL16	14SEP16	195d
6062	* Non-possession	144d	02FEB15	25JUN15	305d
Portion E3					



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	10A
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Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
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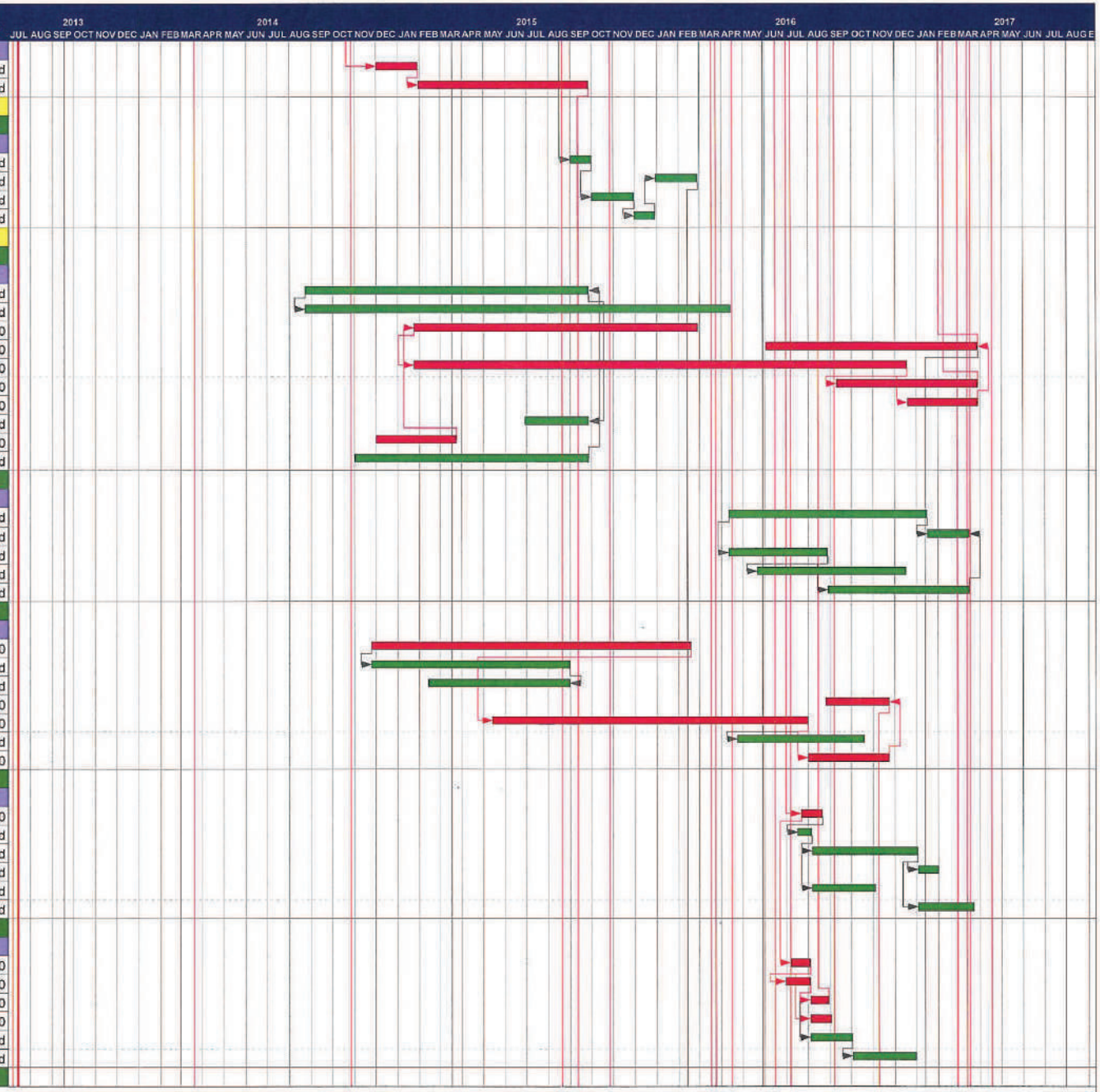
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
6070	Site clearance	60d	01DEC14	29JAN15	-359d
6071	Hard landscaping works	240d	30JAN15	26SEP15	-359d
Portion F1					
6080	Site clearance	30d	01SEP15	30SEP15	94d
6081	Hard landscaping works	60d	30DEC15	27FEB16	94d
6083	Drainage works	60d	01OCT15	29NOV15	94d
6084	Utilities	30d	30NOV15	29DEC15	94d
Portion G					
J/O Choi Hung Rd and Sze Mei St					
7000	Set back Choi Hung Rd	400d	23AUG14 *	26SEP15	4d
7001	Diversion of utilities	600d	23AUG14	13APR16	149d
7002	Provision of cross road duct	400d	24JAN15	27FEB16	0
7003	Hard landscaping works	300d	02JUN16	28MAR17	0
7005	Roadworks	695d	24JAN15	18DEC16	0
7006	Footpath and street furniture	200d	10SEP16	28MAR17	0
7007	Traffic signals	100d	19DEC16	28MAR17	0
7008	* Protection of existing UU	90d	29JUN15	26SEP15	149d
7009	* Outstanding information of traffic control sys	114d	01DEC14 *	24MAR15	0
7010	* Relocation of existing water meter	330d	01NOV14 *	26SEP15	4d
J/O Choi Hung Rd and Tai Yau St					
7102	Provision of cross road duct	280d	11APR16 *	15JAN17	12d
7103	Hard landscaping works	60d	16JAN17	16MAR17	12d
7104	Roadworks	140d	11APR16	28AUG16	12d
7105	Footpath and street furniture	210d	21MAY16	16DEC16	102d
7106	Traffic signals	200d	29AUG16	16MAR17	12d
J/O Sze Mei St and Ng Fong St					
7200	Set back Sze Mei St	450d	25NOV14 *	17FEB16	0
7201	Diversion of utilities	280d	25NOV14	31AUG15	90d
7202	Provision of cross road duct	200d	13FEB15	31AUG15	90d
7203	Hard landscaping works	90d	26AUG16	23NOV16	0
7205	Roadworks	445d	14MAY15	31JUL16	0
7206	Footpath and street furniture	180d	23APR16	19OCT16	35d
7207	Traffic signals	115d	01AUG16	23NOV16	0
King Fuk St					
8060	Drainage works	30d	22JUL16	20AUG16	0
8061	Waterworks	20d	17JUL16	05AUG16	5d
8062	Roadworks	150d	06AUG16	02JAN17	5d
8063	Utilities	30d	03JAN17	01FEB17	55d
8064	Hard landscaping works	90d	06AUG16	03NOV16	65d
8065	Footpath and street furniture	80d	03JAN17	23MAR17	5d
King Fuk Street Roundabout					
8070	Drainage works	28d	07JUL16	03AUG16	0
8071	Waterworks	35d	30JUN16	03AUG16	0
8072	Roadworks	26d	04AUG16	29AUG16	0
8073	Utilities	30d	04AUG16	02SEP16	0
8074	Hard landscaping works	60d	04AUG16	02OCT16	87d
8075	Footpath and street furniture	90d	03OCT16	31DEC16	87d
Sze Mei St					



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	11A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

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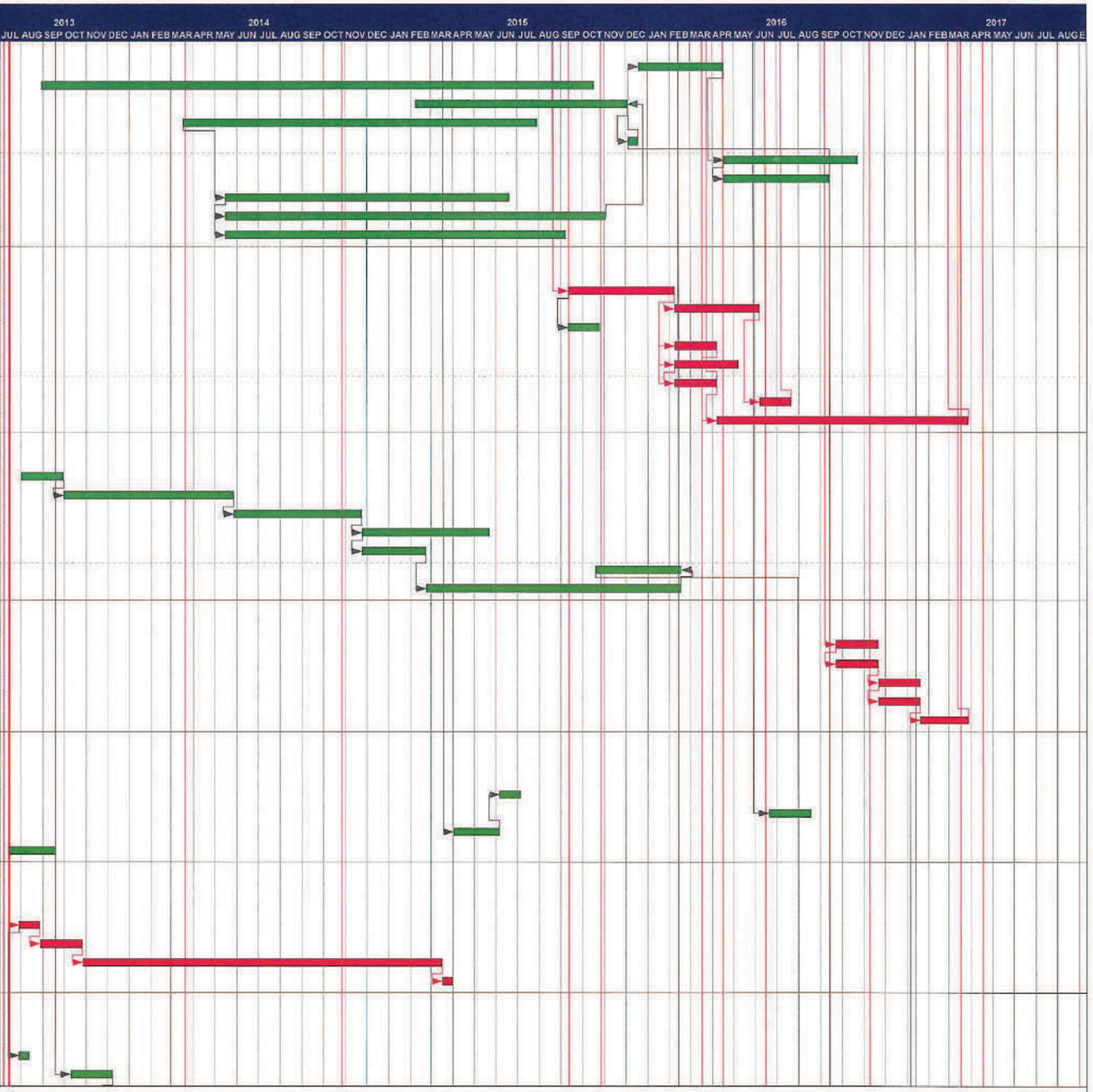
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
7305	Construction of new roundabout	120d	19DEC15 *	16APR16	196d
7800	* Design issue regarding 600UC and ext tree	780d	29AUG13 *	17OCT15	429d
7801	Set back Sze Mei St	300d	07FEB15	03DEC15	132d
7802	Diversion of utilities	500d	17MAR14 *	29JUL15	132d
7803	Hard landscaping works	15d	04DEC15	18DEC15	132d
7804	Roadworks	190d	17APR16	23OCT16	196d
7805	Footpath and street furniture	150d	17APR16	13SEP16	196d
7806	* Lowering of existing 132kV cable	400d	16MAY14	19JUN15	132d
7807	* Protection of existing UU	537d	16MAY14	03NOV15	132d
7808	* Diversion of existing watermain	480d	16MAY14	07SEP15	219d
Section of Road D1 adj to VT1 approach tunnel					
5100	Drainage works (W/B near Site 1F-1)	150d	11SEP15	07FEB16	0
5101	Drainage works (W/B near Site 1E-2)	120d	08FEB16	06JUN16	0
5102	Drainage works (E/B)	45d	11SEP15	25OCT15	105d
5104	Waterworks (E/B)	60d	08FEB16	07APR16	0
5105	Utilities (W/B)	90d	08FEB16	07MAY16	0
5106	Roadworks (W/B near Site 1F-1)	60d	08FEB16	07APR16	0
5107	Roadworks (W/B near Site 1E-2)	45d	07JUN16	21JUL16	0
5108	Roadworks (E/B)	355d	08APR16	28MAR17	0
Road L11					
8001	Site clearance	60d	01AUG13 *	29SEP13	117d
8002	Drainage works	240d	30SEP13	27MAY14	117d
8003	Waterworks	180d	28MAY14	23NOV14	117d
8004	Roadworks	180d	24NOV14	22MAY15	117d
8005	Utilities	90d	24NOV14	21FEB15	117d
8007	Hard landscaping works	120d	20OCT15	16FEB16	117d
8008	Footpath and street furniture	360d	22FEB15	16FEB16	117d
Roundabout near KTOB					
8050	Drainage works	60d	22SEP16	20NOV16	0
8051	Waterworks	60d	22SEP16	20NOV16	0
8052	Roadworks	60d	21NOV16	19JAN17	0
8054	Hard landscaping works	60d	21NOV16	19JAN17	0
8055	Footpath and street furniture	68d	20JAN17	28MAR17	0
Portion H					
7250	Site clearance	30d	06JUN15	05JUL15	361d
7251	Footpath	60d	20JUN16	18AUG16	222d
7252	Delay Possession	65d	02APR15	05JUN15	361d
7253	Relocation of fencing	65d	15JUL13	17SEP13	1413d
Portion I					
7300	Site clearance	30d	29JUL13	27AUG13	0
7301	Erection of site hoarding	60d	28AUG13	26OCT13	0
7302	Stock piling of material	506d	27OCT13	16MAR15	0
7303	Clear up area for handover	15d	17MAR15	31MAR15	0
Portion K1					
7400	Site clearance	15d	29JUL13	12AUG13	88d
7401	Erection of site hoarding	60d	10OCT13	08DEC13	30d



Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	12A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
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7402	Servicing as ER site office	874d	09DEC13	30APR16	30d
7403	Removal of temp structure	30d	31MAY16	29JUN16	0
7404	Erection of fencing for site handover	60d	15APR16	13JUN16	0
Portion K2					
7500	Site clearance	60d	29JUL13	26SEP13	0
7501	Erection of site hoarding	90d	27SEP13	25DEC13	0
7502	Servicing as stock piling area	1258d	26DEC13	05JUN17	0
7503	Clear up area for handover	25d	06JUN17	30JUN17	0
Portion K3					
7600	Site clearance	15d	01DEC14	15DEC14	0
7601	Servicing as Contractor accommodation	730d	16DEC14	14DEC16	0
7602	Clear up area for handover	17d	15DEC16	31DEC16	0
Portion L					
7700	Site clearance	15d	01DEC15	15DEC15	0
7701	Erection of site hoarding	90d	16DEC15	14MAR16	0
7702	Servicing as stock piling area	433d	15MAR16	21MAY17	0
7703	Servicing as ER principle site office	386d	01MAY16	21MAY17	0
7704	Clear up area for handover	40d	22MAY17	30JUN17	0
Section 6					
Portion G					
8000	Soft landscaping works	600d	01JUN15 *	20JAN17	0
Portion E3					
6072	Soft landscaping works	500d	27SEP15	07FEB17	-359d
Portion F1					
6082	Soft landscaping works	30d	28FEB16	28MAR16	94d
Portion G					
J/O Choi Hung Rd and Sze Mei St					
7004	Soft Landscaping works	51d	28JAN17	19MAR17	50d
J/O Sze Mei St and Ng Fong St					
7204	Soft Landscaping works	136d	24NOV16	08APR17	0
Sze Mei St					
7304	Soft Landscaping works	60d	29SEP16	27NOV16	132d
Road L11					
8006	Soft Landscaping works	120d	15AUG16	12DEC16	117d
Roundabout near KTOB					
8056	Soft Landscaping	53d	20JAN17	04APR17	3d
Section 7					

Start date	15JUL13
Finish date	31JUL17
Data date	15JUL13
Run date	20FEB17
Page number	13A
c Primavera Systems, Inc.	

Kaden Construction Limited
KL/2012/02
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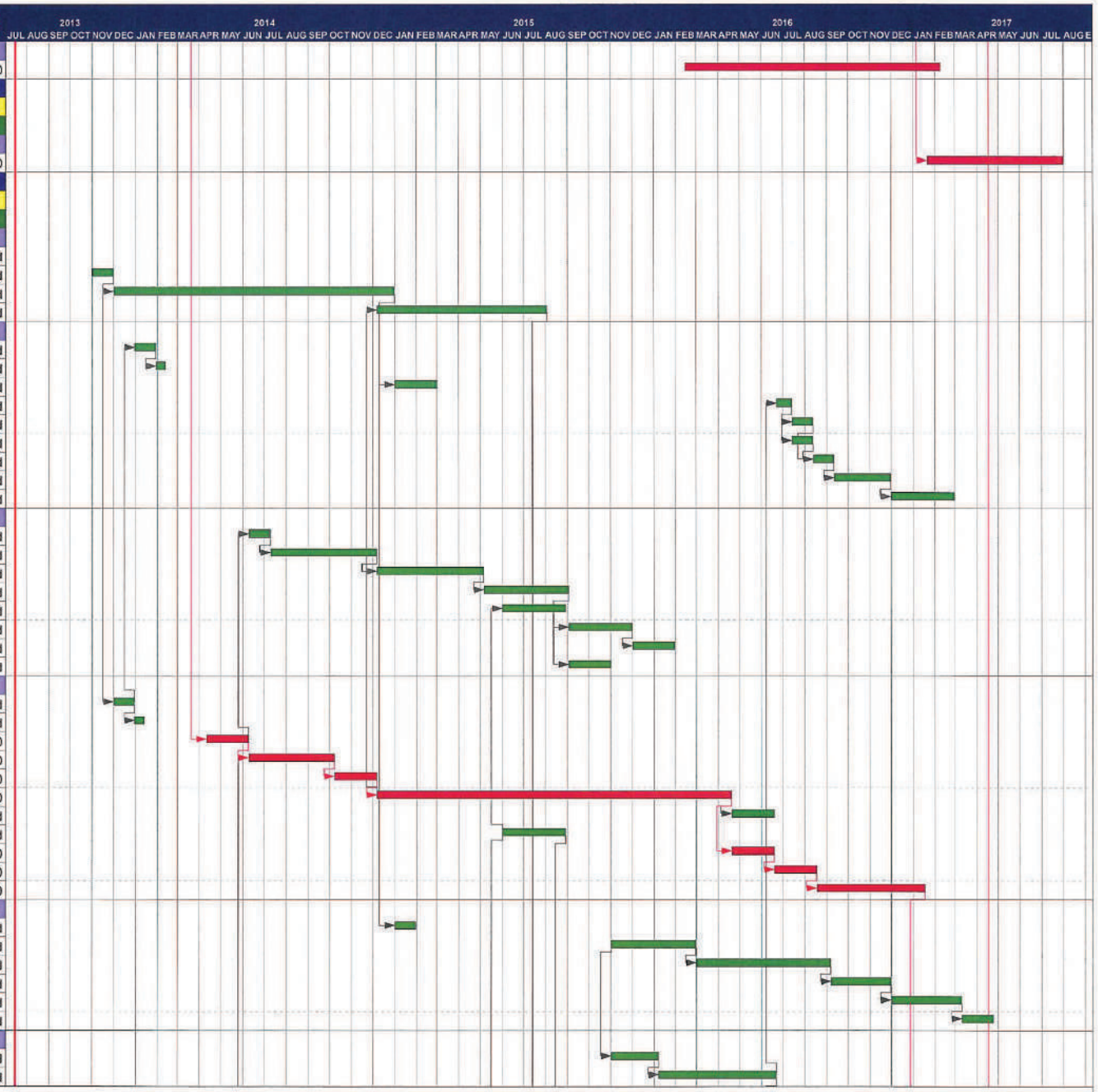
27MAY16	M	AL	JY
19AUG16	N	AL	JY
10NOV16	O	AL	JY
16FEB17	P	PC	JY

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float
8100	Establishment of soft landscaping works	360d	15FEB16	08FEB17 *	0
Section 8					
8200	Establishment of soft landscaping works	192d	21JAN17	31JUL17	0
Section 9					
Portion G					
SW3					
General					
9000	* Instructed to Proceed Section 9	1d	09OCT13 *	09OCT13	109d
9001	* Inspection pit under VO 005	30d	01NOV13 *	30NOV13	87d
9002	* Slewing of existing 132kV cable by CLP	396d	01DEC13	31DEC14	283d
9003	* Revised Drainage detail	240d	07DEC14	03AUG15	288d
SW3-LTA					
9021	Site clearance	30d	31DEC13	29JAN14	863d
9022	Pre-drilling works	14d	30JAN14	12FEB14	863d
9023	Pre-bored H-pile construction	60d	01JAN15	01MAR15	541d
9024	Pile cap construction	22d	22JUN16	13JUL16	63d
9025	Lift Shaft RC works	30d	14JUL16	12AUG16	63d
9026	Fabrication of structural steel frame	30d	14JUL16	12AUG16	63d
9027	Installation of structural steel frame	30d	13AUG16	11SEP16	63d
9028	Glazing installation	80d	12SEP16	30NOV16	63d
9029	Lift installation	90d	01DEC16	28FEB17	63d
SW3-ST1 and associated subway					
9052	Site clearance	30d	10JUN14	09JUL14	353d
9053	ELS installation	150d	10JUL14	06DEC14	353d
9054	Earthwork	150d	07DEC14	05MAY15	353d
9055	Staircase RC works	120d	06MAY15	02SEP15	353d
9056	Fabrication of structural steel frame	90d	01JUN15	29AUG15	357d
9057	Roof frame installation	90d	03SEP15	01DEC15	353d
9058	Roof panel installation	60d	02DEC15	30JAN16	353d
9059	Backfilling and reinstatement	60d	03SEP15	01NOV15	383d
SW3-LTB and associated subway					
9100	Site clearance	30d	01DEC13	30DEC13	87d
9101	Pre-drilling works	14d	31DEC13	13JAN14	87d
9102	Pre-bored H-pile construction	60d	11APR14	09JUN14	0
9103	ELS installation	120d	10JUN14	07OCT14	0
9104	Earthwork	60d	08OCT14	06DEC14	0
9105	RC works	500d	07DEC14	19APR16	0
9106	Backfilling and reinstatement	60d	20APR16	18JUN16	318d
9107	Fabrication of structural steel frame	90d	01JUN15 *	29AUG15	234d
9108	Installation of structural steel frame	60d	20APR16	18JUN16	0
9109	Glazing installation	60d	19JUN16	17AUG16	0
9110	Lift installation	153d	18AUG16	17JAN17	0
SW3-Connection portion					
9200	Site clearance	30d	01JAN15	30JAN15	283d
9201	ELS installation	120d	02NOV15 *	29FEB16	8d
9202	Earthwork	190d	01MAR16	06SEP16	8d
9203	Connection with existing structure	85d	07SEP16	30NOV16	8d
9204	RC works	100d	01DEC16	10MAR17	8d
9205	Backfilling and reinstatement	45d	11MAR17	24APR17	8d
SW3-Open section					
9500	ELS installation	67d	02NOV15	07JAN16	52d
9501	Earthwork	166d	08JAN16	21JUN16	52d



Start date	15JUL13
Finish date	31JUL17
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Run date	20FEB17
Page number	14A
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Kaden Construction Limited
KL/2012/02
Kai Tak Development - Stage 3A infrastructure at former north apron area
Works Programme (Rev. P)

Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

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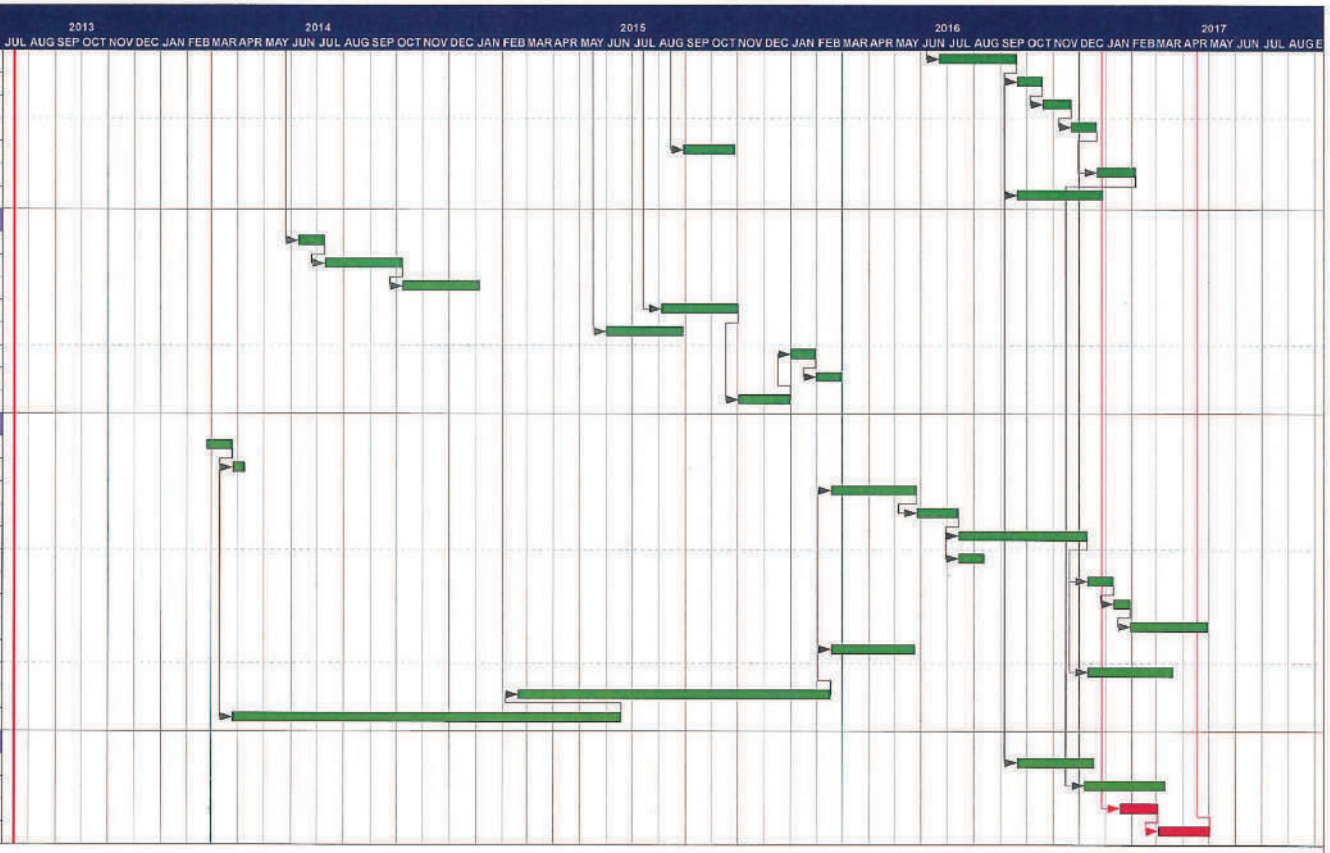
9502	RC works (Base slab and wall 1st pour)	90d	22JUN16	19SEP16	52d
9503	Mass concrete infill	30d	20SEP16	19OCT16	52d
9504	RC works (Wall 2nd pour)	33d	20OCT16	21NOV16	52d
9505	RC works (Wall 3rd pour)	30d	22NOV16	21DEC16	52d
9506	Fabrication of structural steelworks	60d	30AUG15	28OCT15	472d
9507	Installation of Structural steel with roof panel	45d	22DEC16	04FEB17	52d
9511	Backfilling and reinstatement	100d	20SEP16	28DEC16	125d
SW3-ST2					
9300	Site clearance	30d	10JUN14	09JUL14	498d
9301	ELS installation	90d	10JUL14	07OCT14	498d
9302	Earthwork	90d	08OCT14	05JAN15	498d
9303	Staircase RC works	90d	04AUG15	01NOV15	288d
9304	Fabrication of structural steel frame	90d	01JUN15	29AUG15	412d
9305	Roof frame installation	30d	01JAN16	30JAN16	288d
9306	Roof panel installation	30d	31JAN16	29FEB16	288d
9307	Backfilling and reinstatement	60d	02NOV15	31DEC15	288d
SW3-LTC					
9400	Trial pit investigation	30d	24FEB14 *	25MAR14	3d
9401	Pre-drilling works	14d	26MAR14	08APR14	319d
9402	Pre-bored H-pile construction	100d	17FEB16	26MAY16	3d
9403	Pile cap construction	48d	27MAY16	13JUL16	3d
9404	Lift Shaft RC works	150d	14JUL16	10DEC16	3d
9405	Fabrication of structural steel frame	30d	14JUL16	12AUG16	123d
9406	Installation of structural steel frame	30d	11DEC16	09JAN17	3d
9407	Glazing installation	20d	10JAN17	29JAN17	3d
9408	Lift installation	90d	30JAN17	29APR17	3d
9409	Drainage works	70d	17FEB16	24MAY16	3d
9410	Reprovision of pump house	100d	11DEC16	20MAR17	43d
9415	Diversion of existing UU	363d	19FEB15	16FEB16	3d
9416	*Awaiting diversion scheme by CLP	450d	26MAR14	18JUN15	3d
9411	ABWF	90d	20SEP16	18DEC16	100d
9412	E&M works	95d	07DEC16	11MAR17	52d
9413	Construction of permanent fencing	45d	18JAN17	03MAR17	0
9414	Footpath construction	60d	04MAR17	02MAY17	0



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