JOB NO.: TCS00715/14

TUEN MUN - CHEK LAP KOK LINK
CONTRACT NO. HY/2013/12 –
NORTHERN CONNECTION TOLL PLAZA AND ASSOCIATED WORKS

BASELINE MONITORING REPORT (REV.03)

PREPARED FOR
CRBC AND KADEN JOINT VENTURE

Date	Reference No.	Prepared By	Certified By
5 October 2015	TCS00715/14/600/R0033v7	 Nicola Hon (Environmental Consultant)	 T.W. Tam (Environmental Team Leader)

AUES 安順聯合環境服務及顧問
Action-United Environmental Services & Consulting

Our Ref: TCS00715/14/300/L0124b

AECOM
8/F Grand Central Plaza
Tower 2, 138 Shatin Rural Committee Road
Shatin

Attn: Mr. Roger Man

5 October 2015
By Email & by post

Dear Sir,

Re: Contract No. HY/2013/12
Tuen Mun - Chek Lap Kok Link - Northern Connection Toll Plaza and Associated Works
Environmental Permit No.: EP-354/2009/D
Baseline Monitoring Report (Rev.03)

We write to certify the Baseline Monitoring Report (TCS00715/14/600/R0033v7) in accordance with Condition 4.3 of the Environmental Permit no. EP-354/2009/D.

Should you have any queries or require further information, please feel free to contact us or the undersigned at Tel: 2959-6059 or Fax: 2959-6079.

Yours sincerely,
For and on Behalf of
Action-United Environmental Services & Consulting (AUES)

T. W. Tam
Environmental Team Leader

Encl.

c.c.	ENVIRON (IEC)	Mr. F.C. Tsang	By email
	CRBC - Kaden JV (Contractor)	Mr. John Wong	By email

香港新界葵涌大連排道35-41號金基工業大廈20樓A室
Unit A, 20/F, Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong
Tel (852) 2959-6059
Fax (852) 2959-6079
Email info@fordbusiness.com
Ford Business International Ltd.

RAMBOLL ENVIRON

Ref.: HYDHZMBEEM00_0_3451L.15 9 October 2015

AECOM By Fax (2293 6300) and By Post
Supervising Officer Representative's Office
No. 8 Mong Fat Street, Tuen Mun,
New Territories, Hong Kong

Attention: Mr. Roger Man

Dear Roger,

Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works
Baseline Monitoring Report (EP-354/2009/D)

Reference is made to the Baseline Monitoring Report (AUES reference: TCS00715/14/600/R0033v7 dated 5 October 2015) certified by the ET Leader and provided to us via e-mail on 5 October 2015.

Please be informed that we have no adverse comments on the captioned report. We write to verify the captioned submission in accordance with Condition 4.3 of EP-354/2009/D.

Thank you for your attention. Please do not hesitate to contact the undersigned or the ENPO Leader Mr. Y. H. Hui should you have any queries.

Yours sincerely,

F. C. Tsang
Independent Environmental Checker
Tuen Mun – Chek Lap Kok Link

c.c. HyD – Mr. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. Matthew Fung (By Fax: 3188 6614)
AECOM – Mr. Conrad Ng (By Fax: 3922 9797)
AUES – Mr. T. W. Tam (By Fax: 2959 6079)
CRBC – Kaden JV – Ms. Winnie Chu (By Fax: 2253 8399)

Internal: DY, YH, LP, CL, ENPO Site

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Ramboll Environ Hong Kong Limited 英環香港有限公司
Room 2403, 24/F., Jubilee Centre, 18 Fenwick Street, Wanchai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.Ramboll-Environ.com

CRBC – Kaden Joint Venture
Contract No. HY/2013/12
Tuen Mun - Chek Lap Kok Link Northern Connection Toll Plaza and Associated Works

Response to comments from EPD & PlanD for Baseline Monitoring Report

Item	EPD's Comments Ax(9) to EP2/N9/A/125 (II) dated 3 July 2015	Contractor's Response
2	The interface/scope of the different contracts under the Project (preferably with a plan showing the boundary of the various contracts) shall be provided to clearly set the scene for the viewing of this report. The various LRs/LCAs as mentioned in the EIA to be covered by this contract and other TM-CLKL contracts shall be clearly spelt out to avoid confusion.	Noted, a plan showing various contracts of TM-CLKL was added in ***figure 1.2 to 1.5***. Various LRs/LCAs as mentioned in the AEIAR were all added into the revised report, please refer to item d, f and i below.
Item	**PlanD's Comments ( ) in PDTM 4/5/48 dated 30 June 2015**	**Contractor's Response**
a.	Majority of the content of this submission are related to contractual arrangement which is not appropriate for EP submission.	This Baseline Monitoring Report was prepared according to the AEIAR, EP and project EM&A Manual. Since the Tuen Mun - Chek Lap Kok Link (TM-CLKL) EIA separated in three different Contracts, only content related to Contract 3 - HY/2013/12 - Northern Connection Toll Plaza and Associated Works will be covered.
b.	To save time, resources and avoid confusion, the Environmental Team Leader (ET) and Independent Environmental Checker (IEC) should critically review the content before submitting for comment. The IEC and ET are reminded to duly exercise their duties in accordance to EP Conditions 1.9 of this EP.	Noted.

c.	The revised content or drawings should be highlighted or clouded for reference.	Noted. Revised content and drawings was highlighted in yellow.
d.	The landscape resources listed in Table 4.1 is inconsistent to the Approved EIA Report. With references Table 10.6 of the Approved EIA Report (AEIAR 146/2009) LRs 8, 9, 10 and 11 are missing in this report.	LRs 8, 9, 10 and 11 are not related to Contract 3 - HY/2013/12 - Northern Connection Toll Plaza and Associated Works.
e.	LR02 in Table 4.1 in the BMR is different to Table 10.6 of AEIAR, please review.	Noted and amended.
f.	With reference to Table 10.5 of the AEIAR, there would be impacts on LRs 01, 02, 03, 04, 06, 10 and 11. However, only photographic records are submitted. There is no information regarding the monitoring the baseline data, assessment of non-compliance, identification of remedial works, etc. to readdress the unacceptable or unanticipated impacts on landscape resource.	Baseline result for LRs and LCAs are added in Table 4.2. Only LR 02, 03, 04 and 06 are added into the report as LR 01 is related to Contract 2 of TM-CLKL., and 10 & 11 are related to Contract 1 of TM-CLKL.
g.	According to Section 3, protected plant species under Forestry Regulations (subsidiary legislation of the Forest and Country Park Ordinance, Pitcher Plant, was identified within the proposed works area for TM-CLKL toll plaza. As pitcher plants are valuable landscape resources, they should be reflected and updated in the corresponding LR.	Added as LR Additional at Table 4.2.
h.	With reference to the section 4.2.1.3, the information regarding the trees to be transplanted, removed, felled and retained and Pitcher Plants to be transplanted are related to contractual arrangement. Hence, the proposed treatment regarding the captioned EP could not be fully ascertained.	Noted, the contractual arrangement has been removed. Propose treatment according to AEIAR was added in Table 4.3.
i.	There are no information regarding the baseline of the Landscape Character Areas (LCAs)	LCAs were added at Table 4.1 and 4.2 separately.

		Please note that only LCA01 and 02 are related to Contract 3.
j.	The action taken by ER and Contractor as shown in Table 4.2 appears a contractual arrangement. Should it be revised as project proponent or permit holder for consistency of the EP.	Noted and revised. The former Table 4.2 was changed as Table 4.4.
Item	**EPD's Comments** **Ax(9) to EP2/N9/A/125 (III) dated 15 July 2015**	**Contractor's Response**
2(a).	Please find below additional comment from PlanD: According to the VEP application, approx.. 05 ha of Pitcher Plants were identified within the proposed underpass works area for TM-CLKL Toll Plaza and will be directly affected. Please note that Pitcher Plant is considered significant landscape resource. PlanD's previous comment via my memo dated 22.1.2015 that the summary of the findings of the baseline survey of pitcher plant and the recommended treatments should be included in S.4.2.1.2 still valid.	Noted, an additional LR was added into Table 4.1 and 4.2 presenting the photographic record, baseline condition, description of impact and remedial works of existing pitcher plant found in the Toll Plaza works area.

EXECUTIVE SUMMARY

ES.01 CRBC-Kaden Joint Venture *(hereafter "CRBC-Kaden JV")* has been awarded by Highways Department as the Main Contractor for the *Contract HY/2013/12 - Northern Connection Toll Plaza and Associated Works* (hereinafter referred as "the Contract") in July 2014. This is a Designated Project to be implemented under Environmental Permit number EP-354/2009/D (hereinafter referred as "the EP").

ES.02 Action-United Environmental Services & Consulting (hereinafter referred as "AUES") has been commissioned as the Contract Environmental Team (hereinafter referred as "the ET") to implement the relevant EM&A program in accordance with the approved EM&A Manual and the Contract requirements, as well as the associated duties.

ES.03 According to the Approved EM&A Manual, baseline environmental monitoring is required to be conducted prior to commencement of the construction works. As such, baseline monitoring including air quality, ecology, landscape and visual and cultural heritage was conducted. During the baseline monitoring period, no construction activities under the Project or other external influencing factors of significant concern were observed.

ES.04 Baseline air quality monitoring was conducted by the ET of HyD Contract HY/2012/08 between 17 and 31 October 2013. The monitoring results and established Action and Limit Level for 1-hour TSP and 24-hour TSP would be adopted for this Contract.

ES.05 Baseline survey for Pitcher Plant has been conducted within the project area in September 2013 by a suitably qualified ecologist. During the survey, 280 nos. of individual were identified which were in good condition. Moreover, an initial survey for Pitcher Plant by the Contract HY/2013/12 was conducted in mid-September 2014 to confirm the number of existing Pitcher Plant. A total of 280 nos. of individual Pitcher Plant located at Zone 1 to 7 was identified. Since they are occurring on the rocky slope habitat which will be impacted by the proposed slope works (Zone 1 to 7), transplantation is required to minimize impacts to the population.

ES.06 Initial tree survey and photographic record for existing Landscape was conducted on 22 September 2014 for TM-CLKL prior commencement of the project.

ES.07 Condition survey for the Grave G1 was conducted on 23 September 2014. The grave was generally in good condition. However, a total of 10 cracks ranged from hairline to 2.8mm were identified in the cement rendering and mortar of bricks of the grave.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1 INTRODUCTION

1.1 BACKGROUND

1.1.1.1 According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway (NLH) will be operating beyond capacity after 2016 due to the increase in cross boundary traffic, developments in the NWNT, and possible developments in North Lantau, including the Airport developments, the Lantau Logistics Park (LLP) and the Hong Kong – Zhuhai – Macao Bridge (HZMB). In order to cope with the anticipated traffic demand, two new connections between NWNT and North Lantau – Tuen Mun – Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) are proposed.

1.1.1.2 The construction of the Project to be undertaken comprises of several separate contracts. The Contract number HY/2013/12 - Northern Connection Toll Plaza and Associated Works (hereinafter referred as "the Contract") is part of the Project, which is located at Pillar Point in Tuen Mun Area 46.

1.1.1.3 Layout Plan of the Contract and various contracts of TM-CLKL were shows in ***Figure 1.1*** and ***1.2*** respectively. ***Figure 1.3, 1.4*** and ***1.5*** shows different site boundary of each Contract of TM-CLKL:
Contract 1: HY/2012/07, TMCLKL – Southern Connection Viaduct Section
Contract 2: HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section
Contract 3: HY/2013/12 - Northern Connection Toll Plaza and Associated Works

1.1.1.4 CRBC-Kaden Joint Venture *(hereafter "CRBC-Kaden JV")* has been awarded by Highways Department as the Main Contractor for the Contract in July 2014. The works of the Contract mainly include:-

- construction of an approximately 5.4 hectares toll plaza and an associated footbridge;
- construction of associated carriageways including approximately 0.74 kilometre land viaducts, and an approximately 230 metres vehicular underpass to connect the toll plaza and the roundabout at Lung Mun Road/Lung Fu Road;
- site formation for the construction of the toll plaza, including associated slope works and natural terrain hazard mitigation measures;
- modification and realignment of the existing Lung Mun Road and Lung Fu Road; and
- associated waterworks, drainage, sewerage and landscaping works, etc..

1.1.1.5 The master construction programme is shown in ***Appendix A***.

1.1.1.6 An Environmental Impact Assessment (EIA) was prepared in accordance with the EIA Study Brief and the Technical Memorandum of the Environmental Impact Assessment (EIAO-TM) which has been submitted under the Environmental Impact Assessment Ordinance (EIAO Register Number AEIAR-146/2009). An Environmental Permit (EP-354/2009) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variations (EP-354/2009/A) issued on 8 December 2010 and (EP-354/2009/B) issued on 28 January 2014 and (EP-354/2009/C) issued on 10 December 2014 and the latest (EP-354/2009/D) issued on 13 March 2015.

1.1.1.7 Action-United Environmental Services & Consulting (hereinafter referred as

"AUES") has been commissioned as the Contract Environmental Team (hereinafter referred as "the ET") to implement the relevant EM&A program in accordance with the approved EM&A Manual and the Contract requirements, as well as the associated duties.

1.2 PROPOSE OF THIS REPORT

1.2.1.1 In view of the major construction activities under the Contract are land-based, the environmental aspects such as water quality and marine ecological monitoring should not be related the Contract works. Moreover, all designated noise monitoring locations are located in Lantau and therefore noise monitoring is not required under the Contract. In accordance with the Project EM&A Manual requirements, air quality monitoring, ecological monitoring, cultural heritage, landscape and visual monitoring and landfill gas monitoring and site inspections should be covered in this Contract. Overall, the EM&A works follows the demarcation of monitoring responsibilities set out in ENPO's letter dated 16.10.2014.

1.2.1.2 The objective of this Baseline Monitoring Report is to determine the baseline levels of the environmental aspect of air quality, ecology, landscape and visual and cultural heritage around the Project area prior to the commencement of any construction works of the Project.

1.3 STRUCTURE OF THE REPORT

1.3.1.1 The Baseline Monitoring Report is structured into five sections as follow:

Section 1 Introduction
Section 2 Air Quality Monitoring
Section 3 Ecology
Section 4 Landscape and Visual
Section 5 Cultural Heritage
Section 6 Conclusion

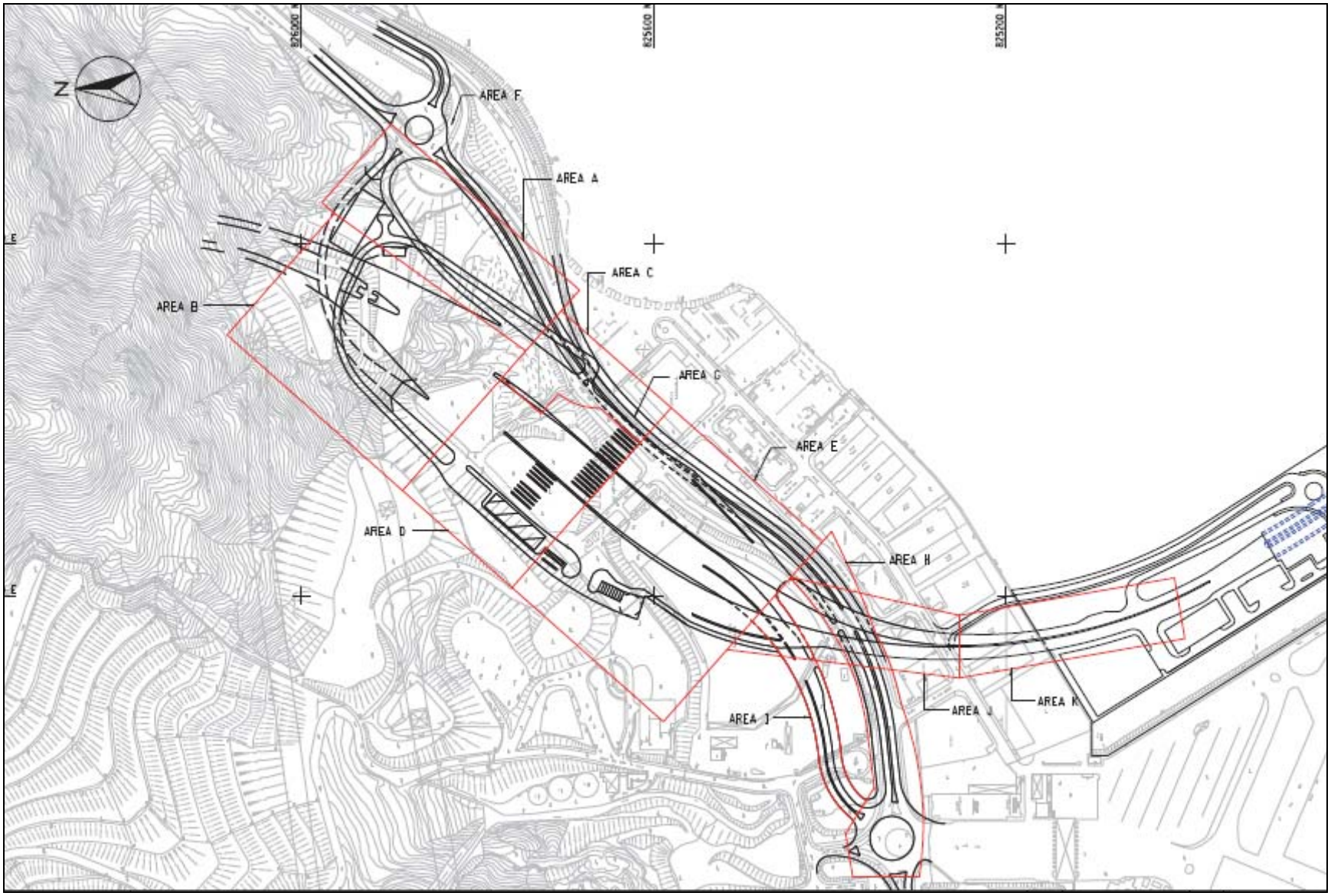


Figure 1.1 Layout Plan of the Contract

擬建「屯門至赤鱲角連接路」
Proposed "Tuen Mun – Chek Lap Kok Link"

Figure 1.2 Various Contracts of TM-CLKL

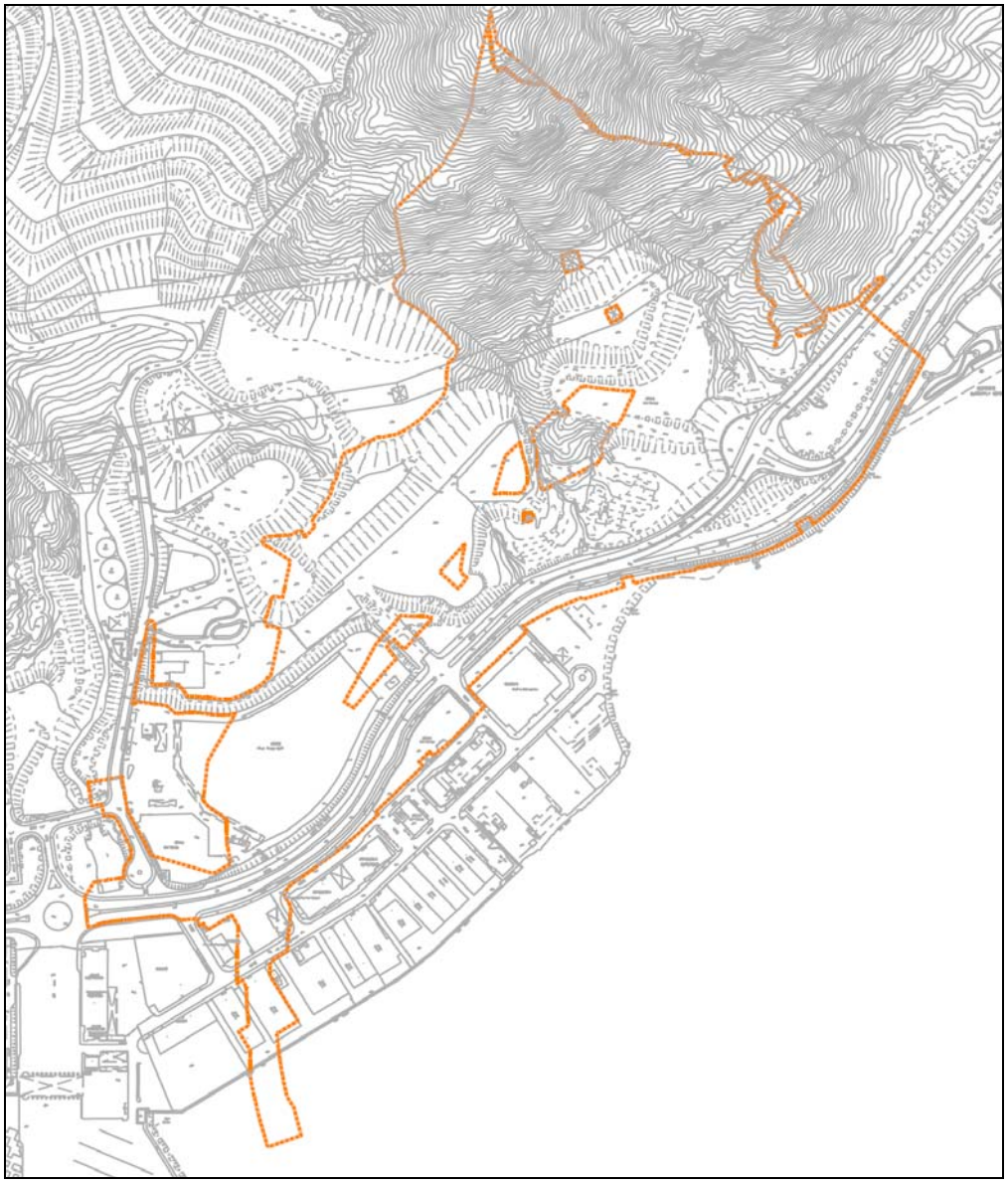


Figure 1.3 Site Boundary of HY/2013/12 - Northern Connection Toll Plaza and Associated Works "The Contract"

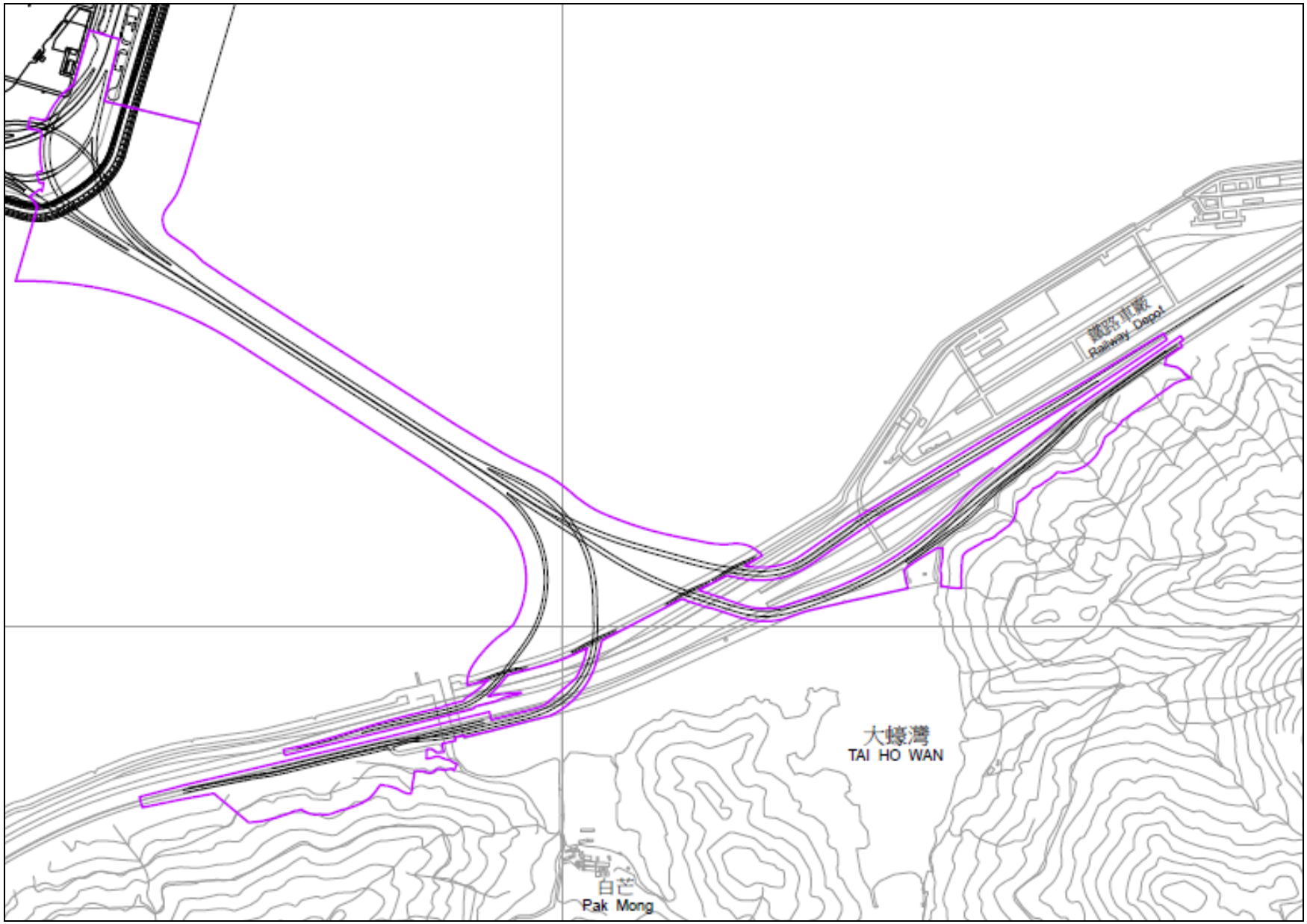


Figure 1.4 Site Boundary HY/2012/07, TMCLKL – Southern Connection Viaduct Section "Contract 1"

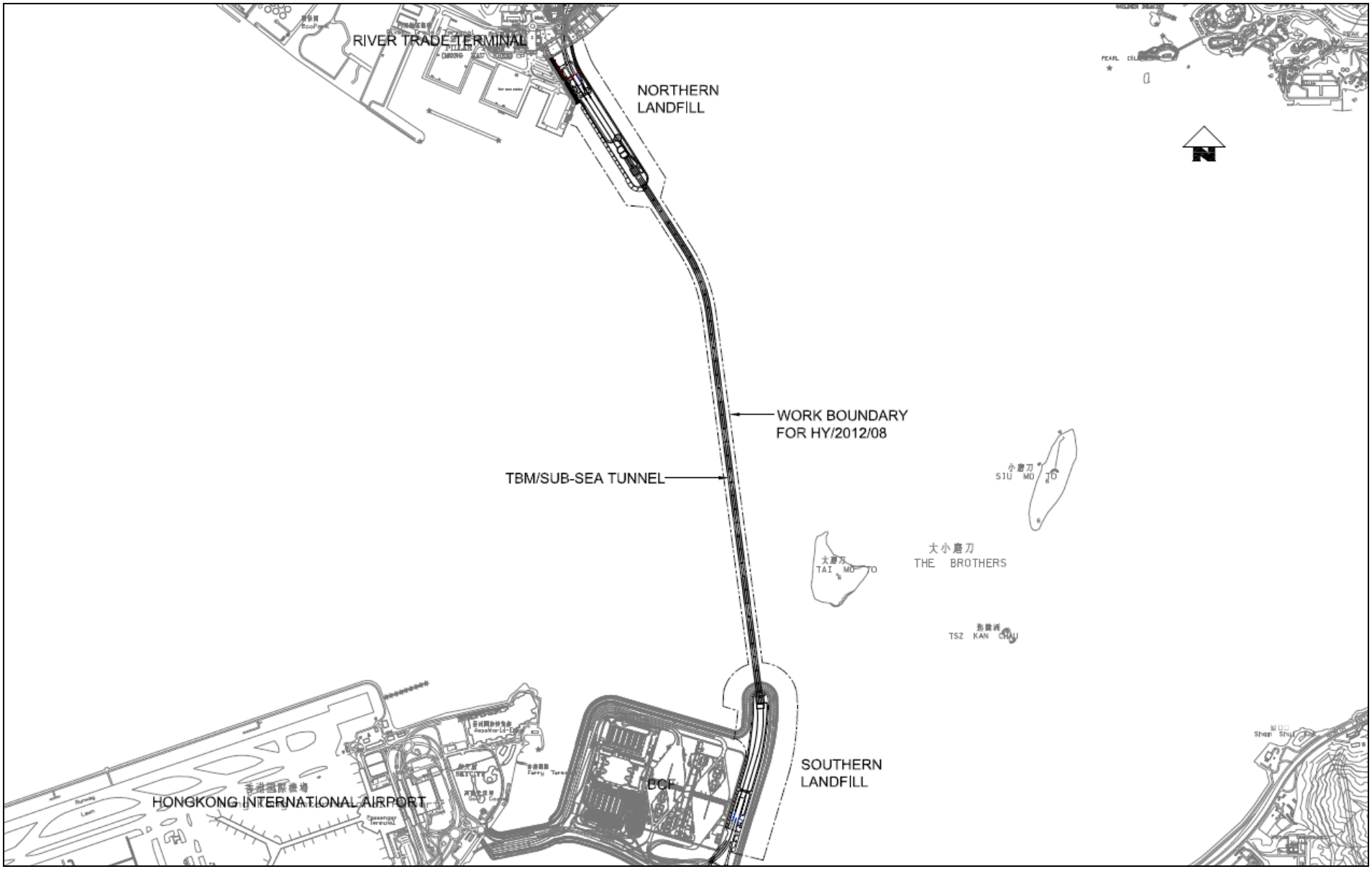


Figure 1.5 Site Boundary HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section "Contract 2"

2 AIR QUALITY

2.1 INTRODUCTION

2.1.1.1 Baseline air quality monitoring has been conducted by the ET of HyD Contract HY/2012/08 between 17 and 31 October 2013 and the associated baseline report has been submitted to the EPD for approval. It is agreed amongst by the Contractor, RE, IEC that this Contract could make use of the baseline monitoring data collected by the ET under HY/2012/08 and therefore no baseline monitoring is required under this Contract.

2.2 MONITORING LOCATIONS

2.2.1.1 The monitoring stations for baseline air quality monitoring are shown ***Figure 2.1.*** Monitoring parameter, monitoring period and frequency are summarized in ***Table 2.1.***

Table 2.1 Monitoring Frequency and Parameter of Air Quality Monitoring Stations

Air quality monitoring station	Location	Landuse	No. of Storey	Parameter	Period	Frequency
ASR1	Tuen Mun Fireboat Station	Office	1	1-hour TSP 24-hour TSP	07:00-19:00 for 1-hour TSP 24 hours for 24-hour TSP	3 times / day for 1-hour TSP Daily for 24-hour TSP
ASR5	Pillar Point Fire Station	Office	5			
AQMS1	Previous River Trade Golf	Bare ground	0			
ASR6	Butterfly Beach Laundry	Commercial	0			
ASR10	Butterfly Beach Park	Recreational uses	0			

2.3 MONITORING EQUIPMENT

2.3.1.1 High Volume Samplers (HVS) were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined periodically by HVS to check the validity and accuracy of the results measured by direct reading method.

2.3.1.2 Wind data monitoring equipment was set at rooftop of ASR5 (Pillar Point Fire Station) for logging wind speed and wind direction such that the wind sensors are clear of obstructions or turbulence caused by building. The wind data monitoring equipment is recalibrated at least once every six months and the wind directions are divided into 16 sectors of 22.5 degrees each.

2.3.1.3 **Table 2.2** summarizes the equipment used in the baseline air quality monitoring programme.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make
HVS Sampler	GMWS-2310 ACCU-VOL
Calibrator	CM-AIR-43 (S/N 9833620)
1-hour TSP Dust Meter	Sibata LD-3B
Wind Anemometer	MetPak, WindSonic

2.4 MONITORING METHODOLOGY

24-hour TSP

Instrumentation

2.4.1.1 High volume Samplers (HVS) completed with appropriate sampling inlets were employed for air quality monitoring. Each sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

HVS Installation

2.4.1.2 The following guidelines were adopted during the installation of HVS:

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

Filter Preparation

2.4.1.3 Fiberglass filters were used [Note: these filters have a collection efficiency of larger than 99% for particles of 0.3μm diameter]. A HOKLAS accredited laboratory was responsible for the preparation of 24-hr conditioned and preweighed filter papers for monitoring team.

2.4.1.4 All prepared filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was <50% and not variable by more than ±5%. A convenient working RH was 40%.

Operating/ Analytical Procedures

2.4.1.5 Operating/analytical procedures for the air quality monitoring were highlighted as follows:

- Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m3/min. and 1.4 m3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an airtight seal on

the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%. Weighing results were used for further analysis of TSP concentrations collected by each filter.

Maintenance and Calibration

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

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of the baseline monitoring and thereafter at bi-monthly intervals.

1-hour TSP

Measuring Procedures

2.4.1.7 The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display. Finally, push the start/stop switch to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance and Calibration

2.4.1.8 The following maintenance/calibration is required for the 1-hour dust meter;

- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

2.5 MONITORING RESULT

2.5.1.1 The monitoring results, name of laboratory and calibration details, and QA/QC results and detection limits to be referred to the Baseline Monitoring Report under the Contract HY/2012/08.

2.6 ACTION AND LIMIT LEVELS

2.6.1.1 The baseline monitoring results formed the basis for determining the air quality criteria for the impact monitoring. The ET shall compare the impact monitoring results with air quality criteria set up for 24-hour TSP and 1-hour TSP. Based on results of the approved Baseline Monitoring Report of HyD Contract HY/2012/08, the proposed Action and Limit Levels are shown in ***Tables 2.3***.

Table 2.3 TSP Action and Limit Levels for Impact Air Quality Monitoring

Parameters	Air Quality Monitoring Stations	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
24 hour TSP ($\mu g/m^3$)	ASR1	213	260
	ASR5	238	260
	AQMS1	213	260
	ASR6	238	260
	ASR10	214	260
1 hour TSP ($\mu g/m^3$)	ASR1	331	500
	ASR5	340	500
	AQMS1	335	500
	ASR6	338	500
	ASR10	337	500

2.7 EVENT AND ACTION PLAN FOR AIR QUALITY

2.7.1.1 In case of non-compliance with the air quality criteria, more frequent monitoring exercise shall be conducted within 24 hours after the result is obtained. This additional monitoring shall be continued until the excessive dust emission or the deterioration in air quality is rectified. The Event/Action Plan for air quality is given in the attached ***Table 2.4***.

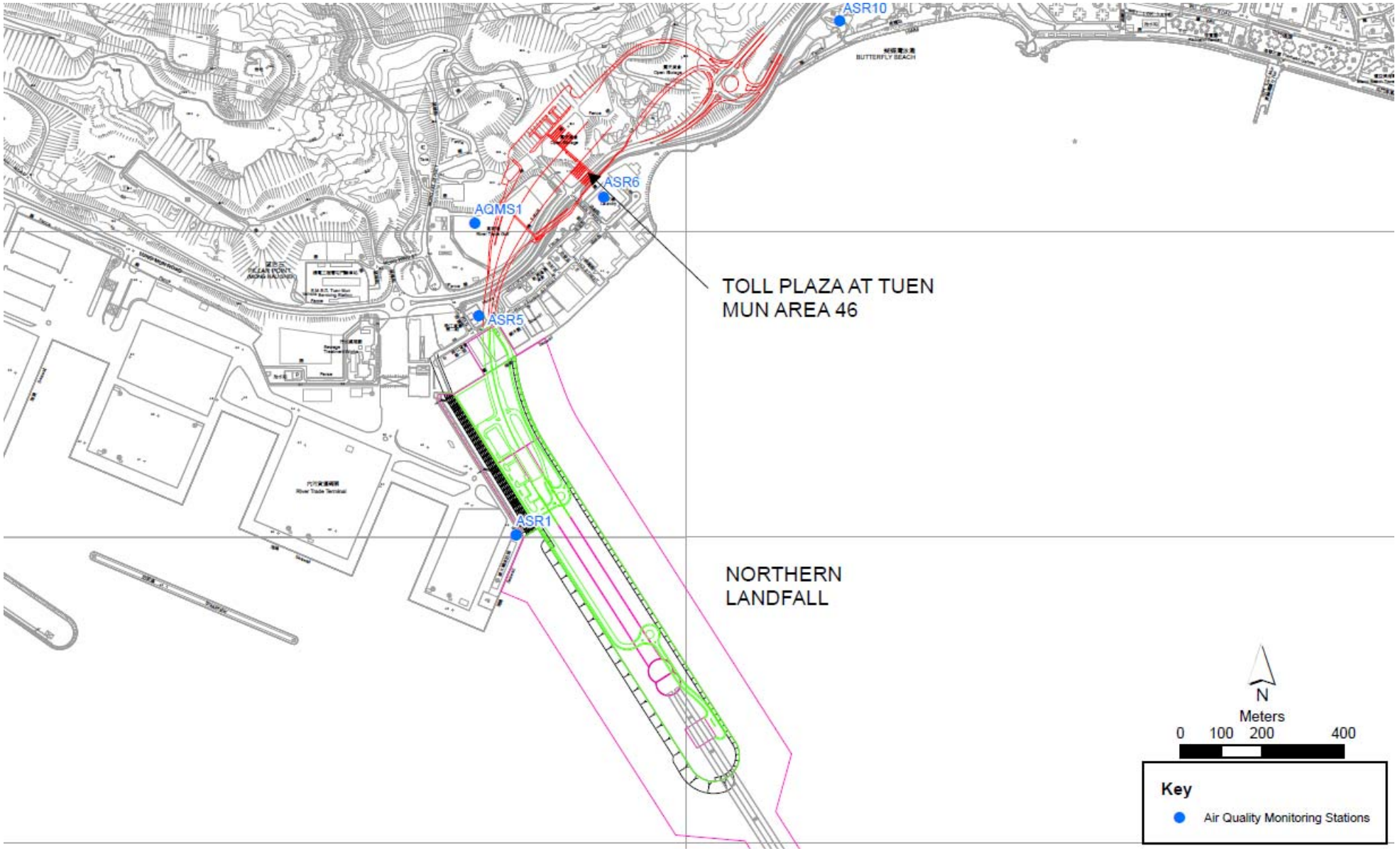


Figure 2.1 Location Map of Air Quality Monitoring Location

Table 2.4 Event / Action Plan for Air Quality

EVENT	ACTION			
	ET[1]	IEC[1]	SOR[1]	Contractor(s)
Action Level				
Exceedance recorded	1 Identify the source. 2 Repeat measurements to confirm findings. If two consecutive measurements exceed Action Level, the exceedance is then confirmed. 3 Inform the IEC, SOR and the Contractor. 4 Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5 If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6 Discuss with the IEC and the Contractor on remedial actions required. 7 If exceedance continues, arrange meeting with the IEC and the SOR. 8 If exceedance stops, cease additional monitoring.	1 Check monitoring data submitted by the ET. 2 Check the Contractor's working method. 3 If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4 Advise the SOR on the effectiveness of the proposed remedial measures. 5 Supervise implementation of remedial measures.	1 Confirm receipt of notification of failure in writing. 2 Notify the Contractor. 3 Ensure remedial measures properly implemented.	1 Rectify any unacceptable practice. 2 Amend working methods if appropriate 3 If the exceedance is confirmed to be Project related, submit proposals for remedial actions to IEC within 3 working days of notification 4 Implement the agreed proposals 5 Amend proposal if appropriate.
Limit Level				
Exceedance recorded	1. Identify the source. 2. Repeat measurement to confirm finding. If two consecutive measurements exceed Limit Level, the exceedance is then confirmed. 3. Inform the IEC, the SOR, the DEP and the Contractor. 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented. 5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily. 6. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 7. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken. 8. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 9. If exceedance stops, cease additional monitoring.	1 Check monitoring data submitted by the ET. 2 Check Contractor's working method. 3 If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures. 4 Advise the SOR on the effectiveness of the proposed remedial measures. 5 Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. If the exceedance is confirmed to be Project related after investigation, in consultation with the IEC, agree with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1 Take immediate action to avoid further exceedance. 2 If the exceedance is confirmed to be Project related after investigation, submit proposals for remedial actions to IEC within 3 working days of notification. 3 Implement the agreed proposals. 4 Amend proposal if appropriate. 5 Stop the relevant activity of works as determined by the SOR until the exceedance is abated.

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Office's Representative

3 ECOLOGY

3.1 INTRODUCTION

3.1.1.1 Ecological baseline EM&A will consist of undertaking the following:

- a walk-over survey, prior to construction works, of the land and streams where works will be undertaken. It may be necessary to rope off and protect specific habitats or species of special interest identified during the ecological surveys

3.2 BASELINE WALKOVER SURVEY

3.2.1.1 The purpose of the walk over survey will be to confirm the existing ecological conditions, with reference to the habitat maps included in the EIA Report and the established baseline conditions, in relation to the extent and condition of the habitats and species noted during the walkover survey. No detailed ecological surveys of flora and fauna will be required at this stage.

3.2.1.2 Baseline ecological walkover was conducted on 22 September 2014 and the results are presented in below.

Observations

3.2.1.3 Two major landscapes within the study area were tall shrubland and plantation according to the habitat map in the approved EIA Report. To better record specific species of native trees and shrubland, a general record about their habit of growth was made.

Tall Shrubland

3.2.1.4 Shrubland habitat is densely populated with a mix native tree shrubby plant species within study area. Native tree like *Acacia confuse* as well as other shrubby plant species are planted broadly in this area. Shrublands are widely distributed. The most common one are the *Acacia confusa, Leucaena leucocephala, Macaranga tanarius* and *Clausena lansium.* They have mixed with each other and get better greening benefit. No significant change to habitat maps in the EIA Report was observed.

Plantation

3.2.1.5 Plantation at the study area contain mainly roadside plantation for landscape use within the study area. The plantation part, trees, for instance, *Ficus microcarpa* and *Ficus elastica* are most widely used as roadside (riverside) plant and landscape greening. They are common evergreen trees in Hong Kong and can grow as tall as fifteen meters which are considered to be very aggressive. No significant change to habitat maps in the EIA Report was observed.

Stream

3.2.1.6 The outlet of the stream opposite to the River Trade Terminal is now modified to an artificial culvert. Other than that, the habitat types within the Study area are similar to the habitat maps in the EIA report.

Developed Area

3.2.1.7 The developed area such as warehouses and River Trade Terminal was observed. No significant change to habitat maps in the EIA Report was observed.

Sandy beach

3.2.1.8 Part of the Butterfly Beach as designated in EIA, is located at the eastern side of the pillar point. No significant change to habitat maps in the EIA Report was observed.

3.2.1.9 The habitat map of Tuen Mun is shown in ***Appendix B***.

3.3 BASELINE TRANSLOCATION WORKS - PITCHER PLANT

3.3.1.1 During the Environmental Impact Assessment (EIA) Stage of the TM-CLKL (which was approved on 23 October 2009), no Pitcher Plant (*Nepenthes mirabilis*) was identified within the proposed works area of the toll plaza. It was believed that the Pitcher Plant area identified would not be directly impacted by the toll plaza works and the only mitigation measures required were to install hoarding at the perimeter of the proposed works area to avoid encroachment into the Pitcher Plant area. However, during an ecology survey for the TMWB EIA in late 2011, Pitcher Plant was identified within the proposed works area for the TM-CLKL toll plaza. Pitcher Plant is protected under the Forestry Regulations (subsidiary legislation of the Forests and Countryside Ordinance, Cap. 96) and the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586). Discussion with Agriculture, Fisheries and Conservation Department (AFCD) (27 October 2012) has confirmed that if the TM-CLKL project was to impact the Pitcher Plant area that further mitigation measures for the Pitcher Plant would be required under the TM-CLKL project. As such, the project proponent Highways Department (HyD) has appointed AECOM to undertake baseline survey and propose a transplantation strategy for Pitcher Plant to be affected by the proposed TM-CLKL project.

3.3.1.2 A baseline Pitcher Plant survey was conducted in September 2013 by a suitably qualified ecologist. The aim of the survey was to update, identify and record the location, number, health condition (i.e. good, fair, or poor), and suitability for transplantation of the affected individuals in order to provide details for the transplantation exercise. Each identified individual was tagged. The habitats present and representative plant species were recorded.

3.3.1.3 The assessment area included the slope above the toll plaza on which the Pitcher Plant populations have been previously identified**.** The slope was surveyed to identify the extent of the Pitcher Plant populations particularly those that occur within and adjacent to the proposed works site.

<u>Baseline Results on September 2013</u>

3.3.1.4 The south-facing slope above the proposed toll plaza supports a mosaic of shrubland, rocky slope, plantation and watercourse habitats. Pitcher Plant was recorded in the rocky slope, shrubland and watercourse habitats. The rocky slope habitat comprised some exposed boulders and bare ground; however, much of it has been naturally regenerated by shrubland species such as Dichotomy Forked Fern (*Dicranopteris pedata*), with some encroachment by scattered Brisbane Box (*Lophostemon confertus*) saplings from the adjacent plantation habitat. This habitat supported a Pitcher Plant population **(see Zones 1-7 in *Appendix C*)** of approximately 0.5 ha in size and 259 Pitcher Plants **(see *Appendix C*, Plates 1-3))**.

3.3.1.5 In addition, three small areas **(see Zones 8 – 10 in *Appendix C*)** of Pitcher Plant were recorded along the watercourse in the shrubland habitat **(see *Appendix C*, Plate 4)**. The watercourse comprised a narrow, shallow flow over bedrock with occasional small, very shallow pooled areas. There is evidence that part of the flow is being

diverted for human use. Riparian vegetation comprised the shrubland habitat in which the watercourse flowed. Abundant tree/shrub species found in the shrubland habitat included Dwarf Mountain Pine *(Baeckea frutescens)*, Pop-gun Seed (*Bridelia tomentosa*), Eurya spp., Hong Kong Gordonia (*Gordonia axillaris*), Pond Spice (*Litsea glutinosa*), Pines (*Pinus spp.*), Wild Coffee (*Psychotria asiatica*), Rose Myrtle (*Rhodomyrtus tomentosa*), Hedge Sageretia (*Sageretia thea*), and Brisbane Box (*Lophostemon confertus*). While the understorey was dominated by Dichotomy Forked Fern (*Dicranopteris pedata*), with frequent Greenbrier (*Smilax china*), and occasional Hainan Galangal (*Alpinia hainanensis*), Oriental Blechnum (*Blechnum orientale*), Bentham's Rosewood (*Dalbergia benthami*), Dianella (*Dianella ensifolia*), and Chinese Silvergrass (*Miscanthus sinensis*).

3.3.1.6 The health and condition of the Pitcher Plant individuals was assessed and each plant was assessed, tagged and photographed by Pegasus Greenland Ltd.. All plants were assessed as being in "fair" health condition as summarized in ***Table 3***. As the plants mostly grew on rock faces with thin soils, the successful removal and transport of the existing individuals is likely to be challenging given the weak nature of the plant's roots.

Table 3 Pitcher Plant Numbers and Health Condition Recorded in the Site in September 2013

Zone	No. of Plants Found	Health Condition
1	3	Fair
2	1	Fair
3	15	Fair
4	6	Fair
5	33	Fair
6	185	Fair
7	16	Fair
8	3	Fair
9	8	Fair
10	10	Fair
TOTAL	**280**	

Baseline Results on September 2014

3.3.1.7 Before commencement of the construction of the Contract, the initial survey was conducted by Hong Kong Landscape in September 2014 to confirm the location and number of the affected Pitcher Plants by the proposed TM-CLKL project. During the initial survey in September 2014, a total of 280 nos. of individual Pitcher Plant located at Zone 1 to 7 was identified. They are occurring on the rocky slope habitat which will be impacted by the proposed slope works (Zone 1 to 7). Each identified individual were tagged and photographed. The location map of the pitcher plants is shown in ***Appendix C***.

3.3.1.8 280 nos. of Pitcher Plants identified in the initial survey will require transplantation to minimize impacts to the population. For those unaffected Pitcher Plant in Zone 8 to 10, fencing or other physical barriers will be erected for protection.

3.3.1.9 A transplantation proposal for Pitcher Plant in Zone 1 to 7 was submitted to EPD and AFCD for agreement separately.

4 LANDSCAPE AND VISUAL ASSESSMENT

4.1 INTRODUCTION

4.1.1.1 A one off survey shall be conducted prior to commencement of any construction works. A photographic record of the site at the time of the contractor's possession of the site shall be prepared by the Contractor and approved by the ER.

4.2 BASELINE MONITORING

4.2.1.1 Baseline walkover for the exiting landscape condition was conducted on 22 September 2014. During the baseline monitoring, apart from the temporary river trade golf at LR03 was demolished and abandoned, LR01 to LR07 were identified as same as the EIA study.

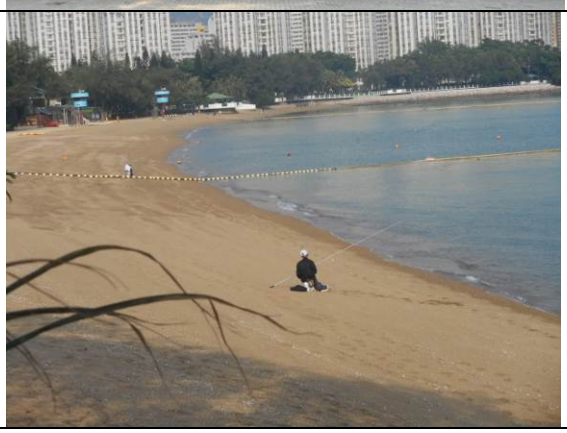
4.2.1.2 The photographic record and monitoring results are shown in ***Table 4.1 and 4.2***. The proposed landscape and visual mitigation measures for construction and operation phase are listed in ***Table 4.3.*** Key plan showing the location and extent of existing landscape and visual resource is shown in ***Appendix E.***

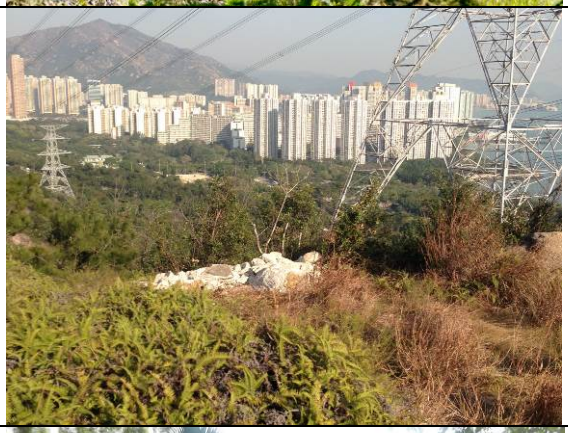
4.2.1.3 Moreover, a photographic record of baseline condition prepared by the RE was submitted to EPD on 29 September 2014 and the record is presented in ***Appendix D*** as supplementary information.

Observations

Table 4.1 Baseline Result for Landscape and Visual Impact

Existing Landscape Resources	Photographic record
Seawater body and shoreline near Pillar Point (LR01)	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.
Plantation within the industrial area and sewage treatment plant at Pillar Point (LR02)	
Temporary River Trade Golf (LR03)	

Tall Shrubland (LR04)	
Stream (LR05)	
Plantation (LR06)	
Sandy Beach (LR07)	
Seawater body and shoreline north of Tai Ho Wan (LR08)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Tai Ho Wan (LR09)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Roadside planting along North Lantau Highway and within	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection

MTR Siu Ho Wan Depot (LR10)	Viaduct Section contract.
Vegetation at Tai Ho and Pak Mong (LR11)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Stream course at Pak Mong (LR12)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Pitcher Plant at future Toll Plaza area (Additional LR)	
Siu Lang Shui Upland and Hillside Landscape (LCA01)	
Pillar Point Miscellaneous Urban Fringe Landscape (LCA02)	
Pillar Point Industrial Urban Landscape (LCA03)	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.
Inshore Water Landscape near Pillar Point (LCA04)	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.
North Lantau Transportation Corridor Landscape (LCA05)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Tai Ho Upland and Hillside Landscape (LCA06)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.

Tai Ho Settled Valley Landscape (LCA07)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Pak Mong Upland and Hillside Landscape (LCA08)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Inshore Water Landscape near Tai Ho (LCA09)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.

Table 4.2 Baseline Result for Landscape Resources and Landscape Character Areas

Existing Landscape Resources	Baseline Condition	Description of Impacts	Remedial Works
Seawater body and shoreline near Pillar Point (LR01)	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.		
Plantation within the industrial area and sewage treatment plant at Pillar Point (LR02)	**Plantation within the industrial area and sewage treatment plant at Pillar Point** There are approximately 240 trees at this developed industrial site. The trees are of small to medium size (height: 3-12m, spread: 2-6m, trunk diameter: 95-400mm) and of low to medium amenity value.	• approximately 140 no. of trees will be affected, of which approximately 2 no. of trees are proposed to be transplanted, approximately 10 no. of trees are proposed to be felled, approximately 130 no. of weed trees (*Leucaena leucocephala*) are proposed to be removed. • felled trees are mainly *Acacia confusa* of low amenity value.	CM1, CM2, CM9, CM10 and OM4
Temporary River Trade Golf (LR03)	**Abandon River Trade Golf** The Abandon River Trade Golf is classified as developed area. There are 50 **Acacia confusa**, **Caryota ochlandra** of medium size and of low to medium amenity value. Due to the artificial and temporary nature, the sensitivity of this landscape resource is considered as medium.	• Abandoned River Trade Golf and will be permanently lost	CM1, CM2, CM9, CM10 and OM4

Tall Shrubland (LR04)	**Tall shrubland and disturbed hillside plantation area at Pillar Point** The area consists of tall shrubland and disturbed hillside plantation. There are more than 3000 trees and tall shrubs on the slope and plantation. The trees are mostly of low to medium size together with approximately 20 mature trees (height: 2-16m, spread: 0.5-10m, trunk diameter: 95-820mm) and of small to medium amenity value.	• approximately 2600 no. of trees will be affected, of which approximately 2300 no. of trees are proposed to be felled, approximately 300 no. of weed trees (*Leucaena leucocephala*) are proposed to be removed. • felled trees are mainly *Acacia confusa*, *Casuarina equisetifolia*, *Clausena lansium*, *Dimocarpus longan*, *Eucalyptus torelliana*, *Litchi chinensis*, *Lophostemon confertus*, *Macaranga tanarius*. The trees are of low to medium amenity value • approximately 4.2ha tall shrubland will be lost permanently	CM1, CM2, CM9, CM10 and OM1
Stream (LR05)	**Stream course at Pillar Point** The small stream is partly artificial and partly natural. There are several patches of *Rhododendron simsii* near the stream.	• N.A.	CM7
Plantation (LR06)	**Roadside planting along Lung Mun Road** There are approximately 600 trees along the roadside. The trees are of medium size (height: 1.5-13m, spread: 0.5-8m, trunk diameter: 95-760mm) and of low to medium amenity value.	• approximately 260 no. of trees will be affected, of which approximately 20 no. of trees are proposed to be transplanted, approximately 200 no. of trees are proposed to be felled, approximately 40 no. of weed trees (*Leucaena leucocephala*) are proposed to be removed. • felled trees are mainly *Acacia confusa* of low amenity value.	CM1, CM2, CM9, CM10 and OM4
Sandy Beach (LR07)	**None**	• N.A.	Nil
Seawater body and shoreline north of Tai Ho Wan (LR08)	This landscape resources only covered in HY/2010/02, HKBCF – Reclamation Works contract.		
Tai Ho Wan (LR09)	This landscape resources only covered in HY/2010/02, HKBCF – Reclamation Works contract.		
Roadside planting along	This landscape resources only covered in HY/2010/02, HKBCF – Reclamation Works contract.		

North Lantau Highway and within MTR Siu Ho Wan Depot (LR10)			
Vegetation at Tai Ho and Pak Mong (LR11)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.		
Stream course at Pak Mong (LR12)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.		
Pitcher Plant (Additional LR)	**Existing Pitcher Plant** There are 280 pitcher plant within the construction area of the future toll plaza.	• The Construction of the future Toll Plaza underpass at Tuen Mun will affect the protected Pitcher Plant at that location. Therefore, it was proposed to transplant the affected Pitcher Plant.	Pitcher Plant unavoidably affected by the works shall be transplanted subject to the approval of AFCD and EPD. The transplantation works should strictly comply with the condition as stipulated in the license issued by AFCD and the VEP issued by EPD.
Siu Lang Shui Upland and Hillside Landscape (LCA01)	**Siu Lang Shui Upland and Hillside Landscape** This is upland and hillside lie above 40mPD and below 300mPD in which part of the area is former landfill site. The area is dominated with tall shrubland and plantation of medium amenity value. The area is predominantly undeveloped with occasional small buildings.	• Toll plaza, slope works and retaining walls are incompatible to undisturbed hillside landscape. More than 1000 trees and approximately 4.2ha tall shrubland will be lost permanently, leading to change in landscape quality	CM1, CM2, CM9, CM10, OM1
Pillar Point Miscellaneous Urban Fringe Landscape (LCA02)	**Pillar Point Miscellaneous Urban Fringe Landscape** The generally low rise developments within the area are of mixed land uses, including typically highways, transportation, storage, parks, residential sites and undeveloped land (hillside). The area is located at the edge of urbanized area.	• Toll plaza, slope works and retaining walls are not incompatible to miscellaneous urban fringe landscape which consisted of mixed land uses such as highways, transportation. More than 1000 will be lost permanently, leading to change in landscape quality	CM1, CM2, CM9, CM10 and OM1
Pillar Point Industrial Urban Landscape (LCA03)	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.		
Inshore Water Landscape near Pillar Point	This landscape resources only covered in HY/2012/08, TMCLKL – Northern Connection Sub-sea tunnel Section Contract.		

(LCA04)	
North Lantau Transportation Corridor Landscape (LCA05)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Tai Ho Upland and Hillside Landscape (LCA06)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Tai Ho Settled Valley Landscape (LCA07)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Pak Mong Upland and Hillside Landscape (LCA08)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.
Inshore Water Landscape near Tai Ho (LCA09)	This landscape resources only covered in HY/2012/07, TMCLKL – Southern Connection Viaduct Section contract.

Table 4.3 Proposed Landscape and Visual Mitigation Measures

ID No.	Construction Phase Mitigation Measures
CM1	Existing trees on boundary of the Project Area shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage).
CM2	Trees unavoidably affected by the works shall be transplanted where practical. Trees will be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.
CM3	Hillside and roadside screen planting to proposed roads, associated structures and slope works.
CM4	Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone).
CM5	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works.
CM6	Control night-time lighting and glare by hooding all lights.
CM7	Ensure no run-off into water body adjacent to the Project Area.
CM8	Avoidance of excessive height and bulk of buildings and structures.
CM9	Recycle/Reuse all felled trees and vegetation practicable, e.g. mulching
CM10	Compensatory tree planting shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006
ID No.	**Operation Phase Mitigation Measures**
OM1	Re-vegetation of affected woodland/shrubland with native species.
OM2	Tall buffer screen tree / shrub / climber planting should be incorporated to soften hard engineering structures and facilities.

OM3	Streetscape elements (e.g. paving, signage, street furniture, lighting etc.) shall be sensitively designed in a manner that responds to the local context, and minimises potential negative landscape and visual impacts. Lighting units should be directional and minimise unnecessary light spill.
OM4	Structure, ornamental tree / shrub / climber planting should be provided along roadside amenity strips, central dividers and newly formed slopes to enhance the townscape quality and further greenery enhancement.
OM5	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities.
OM6	Avoidance of excessive height and bulk of buildings and structures

4.3 EVENT AND ACTION PLAN

4.3.1.1 Should non-compliance of the landscape and visual impacts occur, actions in accordance with the action plan stated in ***Table 4.2*** should be carried out.

Table 4.4 Event and Action Plan for Landscape and Visual Impact

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

5 CULTURAL HERITAGE

5.1 INTRODUCTION

5.1.1.1 The EIA has recommended that EM&A for cultural heritage resources is undertaken during construction phase of the project. Implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.

5.2 BASELINE MONITORING

5.2.1.1 Prior to construction, a baseline survey of the grave G1 should be undertaken to establish the existing condition.

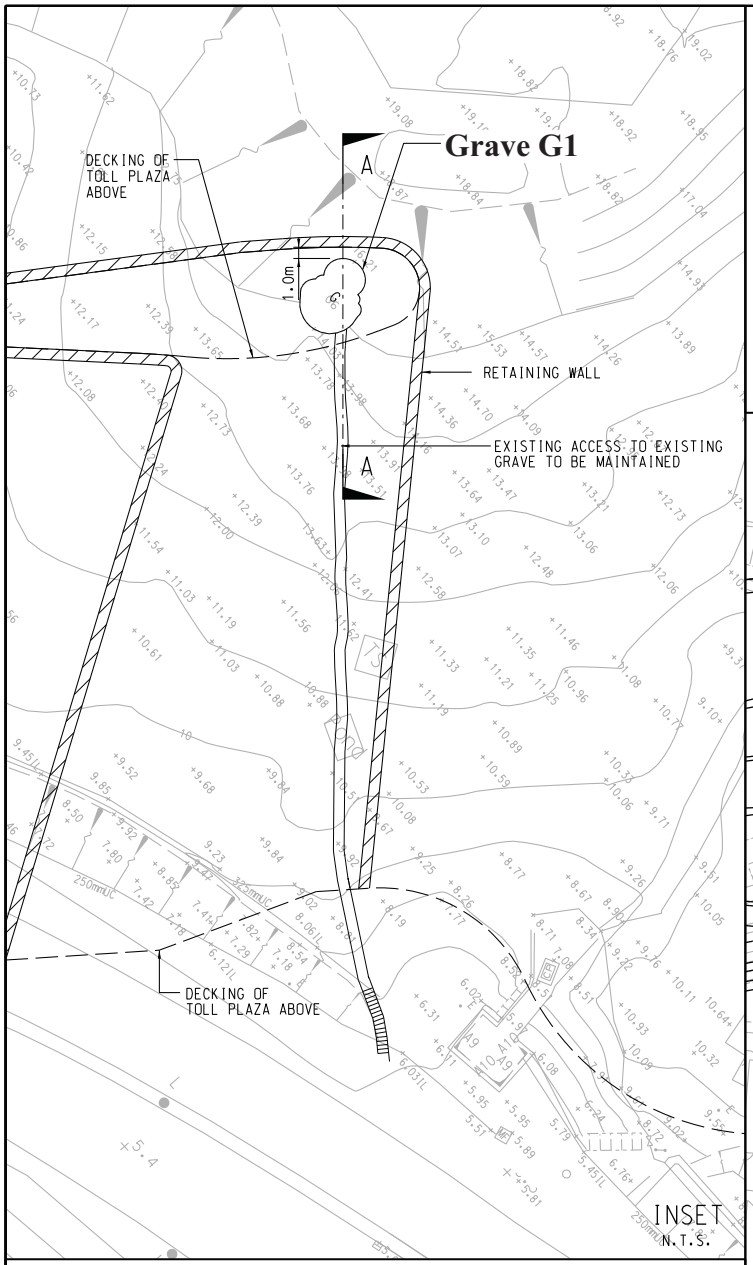
5.2.1.2 The purpose of the baseline condition survey was to record the existing condition of the grave and comprised the following task.

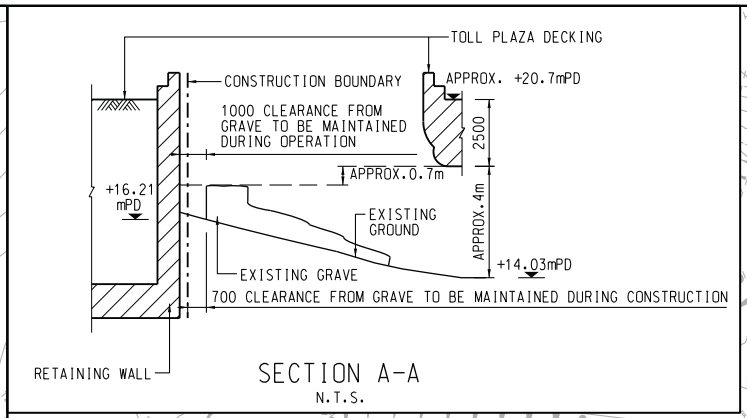
1. Identification of grave near the Project Site;
2. Carry out visual inspection for the condition survey;
3. Record the existing condition and evaluation of structural integrity of the grave;
4. Record the exact location of the grave prior to construction commencement. This information formed the baseline information for reference during construction phase;
5. Submission of all records such as photographs, grave locations, all detected cracks, defects and damage, if any.

5.3 CONDITION SURVEY FINDINGS

5.3.1.1 The condition survey was conducted on 23 September 2014 and the finding area presented below.

5.3.1.2 The historical grave was identified during the EIA stage of the project and the location of the grave (G1) was shown in ***Figure 5.1***. It was observed that plenty of bushes was grown around the grave. The general view of the grave was shown in ***Figure 5.2.***





NOTE:

1. ROAD DECKING OF TOLL PLAZA NOT SHOWN FOR CLARITY.

AGREEMENT NO. CE 52/2007(HY)
TUEN MUN - CHEK LAP KOK LINK - INVESTIGATION

Location of the Grave G1

Figure 5.1

Plotting By 2009.8.4
PLOT SCALE 150:8

Figure 5.2 General View of the Grave G1

5.4 EXISTING CONDITION

5.4.1.1 The Grave G1 is generally in good condition. However, a total of 10 cracks ranged from hairline to 2.8mm were identified in the cement rendering and mortar of bricks of the grave. The location of the cracks are shown in ***Figure 5.3***. Detailed information such as crack width and photographic record of the grave are summarized in ***Table 5.1***.

Figure 5.3 Existing Cracks of the Grave G1

Table 5.1 Crack width and Photographic record of the Grave G1

Crack No.	Crack Width (mm)	Photographic Record
1	Hairline	
2	1.2	
3	1.5	

Crack No.	Crack Width (mm)	Photographic Record
4	1.0	
5	Hairline	
6	1.0	
7	1.6	

Crack No.	Crack Width (mm)	Photographic Record
8	1.3-4.0	
9	2.5-2.8	
10	0.8-2.1	

5.5 EVENT AND ACTION PLAN

5.5.1.1 All measures undertaken by the Contractor during the construction phase in the vicinity of the grave shall be audited by the Environmental Team (ET), on a regular basis to ensure compliance with the intended aims of the recommended mitigation measures. Site inspections should be undertaken at least once per week throughout the construction period adjacent to these properties. The main aim of the survey is prevention of any possible damage to the grave and to ensure that the proposed mitigation measures are implemented. The broad scope of the audit will involve supervision of the following:

- non-contact effects of the engineering works, such as vibration from pneumatic drills which could cause damage, such as foundation or wall cracks and loosening of tiles or fixtures; and

- contact between the historic structures and equipment and materials associated with the engineering works.

5.5.1.2 Specifically, the monitoring programme will entail the following tasks:

- the extent of the agreed works areas should be regularly checked during the construction phase to ensure the buffer with a minimum of 1.0m set back of the permanent structure and a minimum of 0.7m clearance from the grave, can be maintained during construction, and
- ensure no stockpiling or equipment storage is affecting the structures.

5.5.1.3 In the event of non-compliance the responsibilities of the relevant parties is detailed in the Event /Action plan provided on ***Table 5.2***.

Table 5.2 Event / Action Plan for Cultural Heritage

Action Level	ET	IC (E)	ER	Contractor
Non-conformity on one occasion	1. Identify Source 2. Inform the IEC and the ER 3. Discuss remedial actions with the IEC, the ER and the Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check the Contractor's working method 3. Discuss with the ET and the Contractor on possible remedial measures 4. Advise the 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 2. Inform the IC(E) and the ER 3. Increase monitoring frequency 4. Discuss remedial actions with the IC(E), the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If exceedance stops, cease additional monitoring	1. Check monitoring report 2. Check the Contractor's working method 3. Discuss with the ES and the Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures.	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake any necessary replacement

Note:
ET – Environmental Specialist, IEC – Independent Environmental Checker, ER – Engineer's Representative

6 CONCLUSIONS

6.1.1.1 The Baseline monitoring has been conducted prior commencement of the construction works of the project in accordance with the EM&A Manual of the TM-CLKL. This Baseline Monitoring Report presents the baseline condition for air quality, ecology, landscape and visual and cultural heritage.

6.1.1.2 Baseline air quality monitoring was conducted by the ET of HyD Contract HY/2012/08 between 17 and 31 October 2013. The monitoring results and established Action and Limit Level for 1-hour TSP and 24-hour TSP would be adopted for this Contract.

6.1.1.3 Baseline survey for Pitcher Plant has been conducted within the project area in September 2013 by a suitably qualified ecologist. During the survey, a total of 280 nos. of individual were identified in Zones 1 to 10 which were in good condition. Moreover, an initial survey for Pitcher Plant by the Contract HY/2013/12 was conducted in mid-September 2014 to confirm the number of existing Pitcher Plant. A total of 280 nos. of individual Pitcher Plant located at Zone 1 to 7 was identified. Since they are occurring on the rocky slope habitat which will be impacted by the proposed slope works (Zone 1 to 7), transplantation is required to minimize impacts to the population.

6.1.1.4 Initial tree survey and photographic record for existing Landscape was conducted on 22 September 2014 for TM-CLKL prior commencement of the project.

6.1.1.5 Condition survey for the Grave G1 was conducted on 23 September 2014. The grave was generally in good condition. However, a total of 10 cracks ranged from hairline to 2.8mm were identified in the cement rendering and mortar of bricks of the grave.

Appendix A

Construction Programme

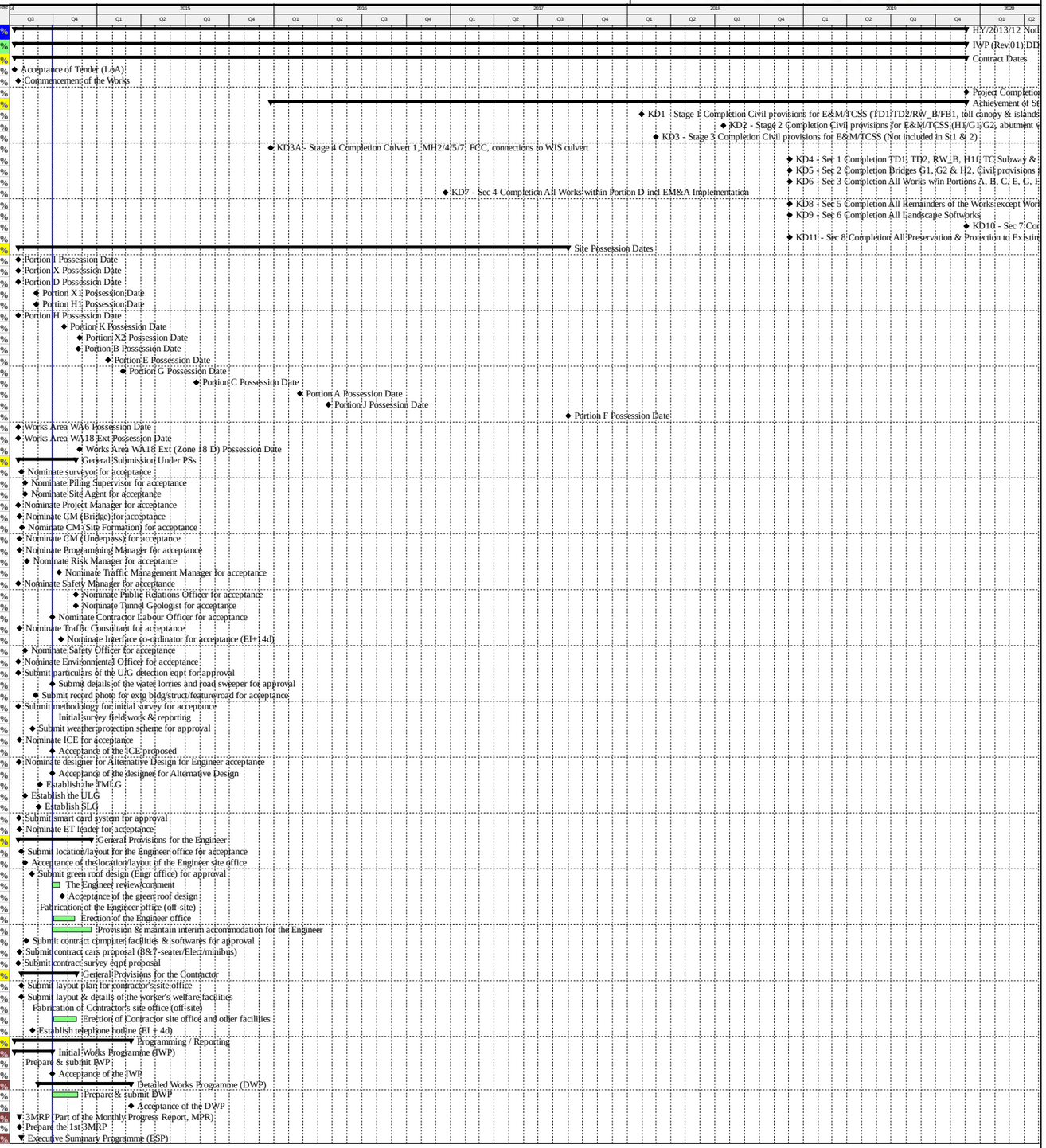
Data Date : 30-Sep-2014

Page: 1

HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
HY/2013/12 Nothern Connection Toll Plaza and Associated Works		1969	14-Jul-14	14-Jul-14	03-Dec-19			0	0%
IWP (Rev.01) DD30.Sep.14		1969	14-Jul-14	14-Jul-14	03-Dec-19			0	0%
Contract Dates		1969	14-Jul-14	14-Jul-14	03-Dec-19			0	0%
CD10100	Acceptance of Tender (LoA)	0	14-Jul-14	14-Jul-14					100%
CD10110	Commencement of the Works	0	21-Jul-14	21-Jul-14			CD101		100%
CD10120	Project Completion	0			03-Dec-19		KD101	0	0%
Achievement of Stages/ Completion of Sections		1440	25-Dec-15		03-Dec-19			0	0%
KD10100	KD1 - Stage 1 Completion Civil provisions for E&M/TCSS (TD1/TD2/I	0			30-Jan-18		TC101	0	0%
KD10110	KD2 - Stage 2 Completion Civil provisions for E&M/TCSS (H1/G1/G2,	0			19-Jul-18		RWE3	0	0%
KD10120	KD3 - Stage 3 Completion Civil provisions for E&M/TCSS (Not include	0			01-Mar-18		SFW11	0	0%
KD10130	KD3A - Stage 4 Completion Culvert 1, MH2/4/5/7, FCC, connections to	0			25-Dec-15		CUL10	0	0%
KD10140	KD4 - Sec 1 Completion TD1, TD2, RW_B, H1f, TC Subway & Bridge	0			03-Dec-18		CD101	0	0%
KD10150	KD5 - Sec 2 Completion Bridges G1, G2 & H2, Civil provisions for E&	0			03-Dec-18		BH110	0	0%
KD10160	KD6 - Sec 3 Completion All Works w/in Portions A, B, C, E, G, H, H1,	0			03-Dec-18		RWG3	0	0%
KD10170	KD7 - Sec 4 Completion All Works within Portion D incl EM&A Implen	0			21-Dec-16		CD101	0	0%
KD10180	KD8 - Sec 5 Completion All Remainders of the Works except Works und	0			03-Dec-18		CUL11	0	0%
KD10190	KD9 - Sec 6 Completion All Landscape Softworks	0			03-Dec-18		CD101	0	0%
KD10200	KD10 - Sec 7 Completion All Establishment Works for All Landscape Sc	0			03-Dec-19		CD101	0	0%
KD10210	KD11 - Sec 8 Completion All Preservation & Protection to Existing Trees	0			03-Dec-18		CD101	0	0%
Site Possession Dates		1138	21-Jul-14	21-Jul-14	01-Sep-17			824	0%
AD10100	Portion I Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10110	Portion X Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10120	Portion D Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10130	Portion X1 Possession Date	0	21-Jul-14	28-Aug-14			CD101		100%
AD10140	Portion H1 Possession Date	0	21-Jul-14	28-Aug-14			CD101		100%
AD10150	Portion H Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10160	Portion K Possession Date	0	24-Oct-14				CD101	1867	0%
AD10170	Portion X2 Possession Date	0	25-Nov-14				CD101	80	0%
AD10180	Portion B Possession Date	0	23-Nov-14				CD101	35	0%
AD10190	Portion E Possession Date	0	23-Jan-15				CD101	18	0%
AD10200	Portion G Possession Date	0	23-Feb-15				CD101	37	0%
AD10210	Portion C Possession Date	0	24-Jul-15				CD101	188	0%
AD10220	Portion A Possession Date	0	23-Feb-16				CD101	278	0%
AD10230	Portion J Possession Date	0	23-Apr-16				CD101	218	0%
AD10240	Portion F Possession Date	0	01-Sep-17				CD101	0	0%
AD10250	Works Area WA6 Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10260	Works Area WA18 Ext Possession Date	0	21-Jul-14	21-Jul-14			CD101		100%
AD10270	Works Area WA18 Ext (Zone 18 D) Possession Date	0	25-Nov-14				CD101	128	0%
General Submission Under PSs		120	21-Jul-14	21-Jul-14	17-Nov-14			1842	0%
PS10100	Nominate surveyor for acceptance	0			28-Jul-14	28-Jul-14	CD101		100%
PS10110	Nominate Piling Supervisor for acceptance	0			04-Aug-14	04-Aug-14	CD101		100%
PS10120	Nominate Site Agent for acceptance	0			04-Aug-14	04-Aug-14	CD101		100%
PS10130	Nominate Project Manager for acceptance	0			04-Aug-14	21-Jul-14	CD101		100%
PS10140	Nominate CM (Bridge) for acceptance	0			04-Aug-14	24-Jul-14	CD101		100%
PS10150	Nominate CM (Site Formation) for acceptance	0			04-Aug-14	29-Jul-14	CD101		100%
PS10160	Nominate CM (Underpass) for acceptance	0			04-Aug-14	24-Jul-14	CD101		100%
PS10170	Nominate Programming Manager for acceptance	0			04-Aug-14	24-Jul-14	CD101		100%
PS10182	Nominate Risk Manager for acceptance	0			12-Sep-14	08-Aug-14	CD101		100%
PS10190	Nominate Traffic Management Manager for acceptance	0			13-Oct-14		CD101	52	0%
PS10200	Nominate Safety Manager for acceptance	0			04-Aug-14	21-Jul-14	CD101		100%
PS10210	Nominate Public Relations Officer for acceptance	0			17-Nov-14		CD101	68	0%
PS10220	Nominate Tunnel Geologist for acceptance	0			17-Nov-14		CD101	90	0%
PS10230	Nominate Contractor Labour Officer for acceptance	0			30-Sep-14	30-Sep-14	CD101		100%
PS10240	Nominate Traffic Consultant for acceptance	0			12-Sep-14	24-Jul-14	CD101		100%
PS10260	Nominate Interface co-ordinator for acceptance (EI+14d)	0			18-Oct-14		CD101	78	0%
PS10282	Nominate Safety Officer for acceptance	0			12-Sep-14	04-Aug-14	CD101		100%
PS10290	Nominate Environmental Officer for acceptance	0			04-Aug-14	21-Jul-14	CD101		100%
PS10332	Submit particulars of the U/G detection eqpt for approval	0			12-Sep-14	21-Jul-14	CD101		100%
PS10340	Submit details of the water lorries and road sweeper for approval	0			30-Sep-14	30-Sep-14	CD101		100%
PS10360	Submit record photo for extg bldg/struct/feature/road for acceptance	0			23-Sep-14	26-Aug-14	CD101		100%
PS10370	Submit methodology for initial survey for acceptance	0			04-Aug-14	21-Jul-14	CD101		100%
PS10374	Initial survey field work & reporting	68	21-Jul-14	21-Jul-14	26-Sep-14	30-Sep-14	CD101		100%
PS10380	Submit weather protection scheme for approval	0			19-Aug-14	19-Aug-14	CD101		100%
PS10390	Nominate ICE for acceptance	0			12-Sep-14	24-Jul-14	CD101		100%
PS10400	Acceptance of the ICE proposed	0			30-Sep-14		PS103	124	0%
PS10410	Nominate designer for Alternative Design for Engineer acceptance	0			12-Sep-14	23-Jul-14	CD101		100%
PS10420	Acceptance of the designer for Alternative Design	0			30-Sep-14		PS104	98	0%
PS10430	Establish the TMLG	0			12-Sep-14	05-Sep-14	CD101		100%
PS10440	Establish the ULG	0			04-Aug-14	04-Aug-14	CD101		100%
PS10450	Establish SLG	0			12-Sep-14	02-Sep-14	CD101		100%
PS10460	Submit smart card system for approval	0			07-Aug-14	23-Jul-14	CD101		100%
PS10470	Nominate ET leader for acceptance	0			12-Sep-14	24-Jul-14	CD101		100%
General Provisions for the Engineer		168	28-Jul-14	21-Jul-14	12-Jan-15			1810	0%
GP10100	Submit location/layout for the Engineer office for acceptance	0			12-Sep-14	28-Jul-14	CD101		100%
GP10120	Acceptance of the location/layout of the Engineer site office	0			03-Oct-14	04-Aug-14	GP101		100%
GP10130	Submit green roof design (Engr office) for approval	0			30-Sep-14	19-Aug-14	CD101		100%
GP10140	The Engineer review/comment	14	30-Sep-14		15-Oct-14		GP101	412	0%
GP10150	Acceptance of the green roof design	0			20-Oct-14		GP101	412	0%
GP10160	Fabrication of the Engineer office (off-site)	9	03-Oct-14	15-Aug-14	11-Oct-14	23-Aug-14	GP101		100%
GP10170	Erection of the Engineer office	72	14-Oct-14	29-Jul-14	12-Jan-15		GP101	293	50%
GP10180	Provision & maintain interim accommodation for the Engineer	100	12-Sep-14	02-Sep-14	16-Dec-14		CD101	347	15%
GP10190	Submit contract computer facilities & softwares for approval	0			07-Aug-14	07-Aug-14	CD101		100%
GP10230	Submit contract cars proposal (8&7-seater/Elect/minibus)	0			31-Jul-14	24-Jul-14	CD101		100%
GP10320	Submit contract survey eqpt proposal	0			28-Jul-14	21-Jul-14	CD101		100%
General Provisions for the Contractor		123	28-Jul-14	28-Jul-14	29-Nov-14			1841	0%
GP20100	Submit layout plan for contractor's site office	0			28-Jul-14	28-Jul-14	CD101		100%
GP20150	Submit layout & details of the worker's welfare facilities	0			28-Jul-14	28-Jul-14	GP201		100%
GP20190	Fabrication of Contractor's site office (off-site)	30	11-Aug-14	31-Jul-14	06-Sep-14	07-Aug-14	CD101		100%
GP20200	Erection of Contractor site office and other facilities	48	29-Sep-14	02-Aug-14	29-Nov-14		AD102	99	20%
GP20210	Establish telephone hotline (EI + 4d)	0			19-Aug-14	19-Aug-14			100%
Programming / Reporting		249	14-Jul-14	14-Jul-14	12-Mar-15			1751	0%
Initial Works Programme (IWP)		83	14-Jul-14	14-Jul-14	30-Sep-14			91	0%
PR10100	Prepare & submit IWP	12	14-Jul-14	14-Jul-14	24-Jul-14	24-Jul-14	CD101		100%
PR10150	Acceptance of the IWP	0			30-Sep-14		PR101	91	0%
Detailed Works Programme (DWP)		166	30-Sep-14	01-Sep-14	12-Mar-15			91	0%
PR20100	Prepare & submit DWP	60	30-Sep-14	01-Sep-14	26-Nov-14		PR101	91	5%
PR20170	Acceptance of the DWP	0			12-Mar-15		PR201	91	0%
3MRP (Part of the Monthly Progress Report, MPR)		0	28-Jul-14	24-Jul-14	28-Jul-14	24-Jul-14			0%
PR30100	Prepare the 1st 3MRP	0			28-Jul-14	24-Jul-14	CD101		100%
Executive Summary Programme (ESP)		0	28-Jul-14	28-Jul-14	28-Jul-14	28-Jul-14			0%



Remaining Work

Critical Remaining Work

Milestone

Summary

CRBC - Kaden JV

Initial Works Programme (Rev.1)

Date	Revision	Checked	Approved
30-Sep-14	Draft		

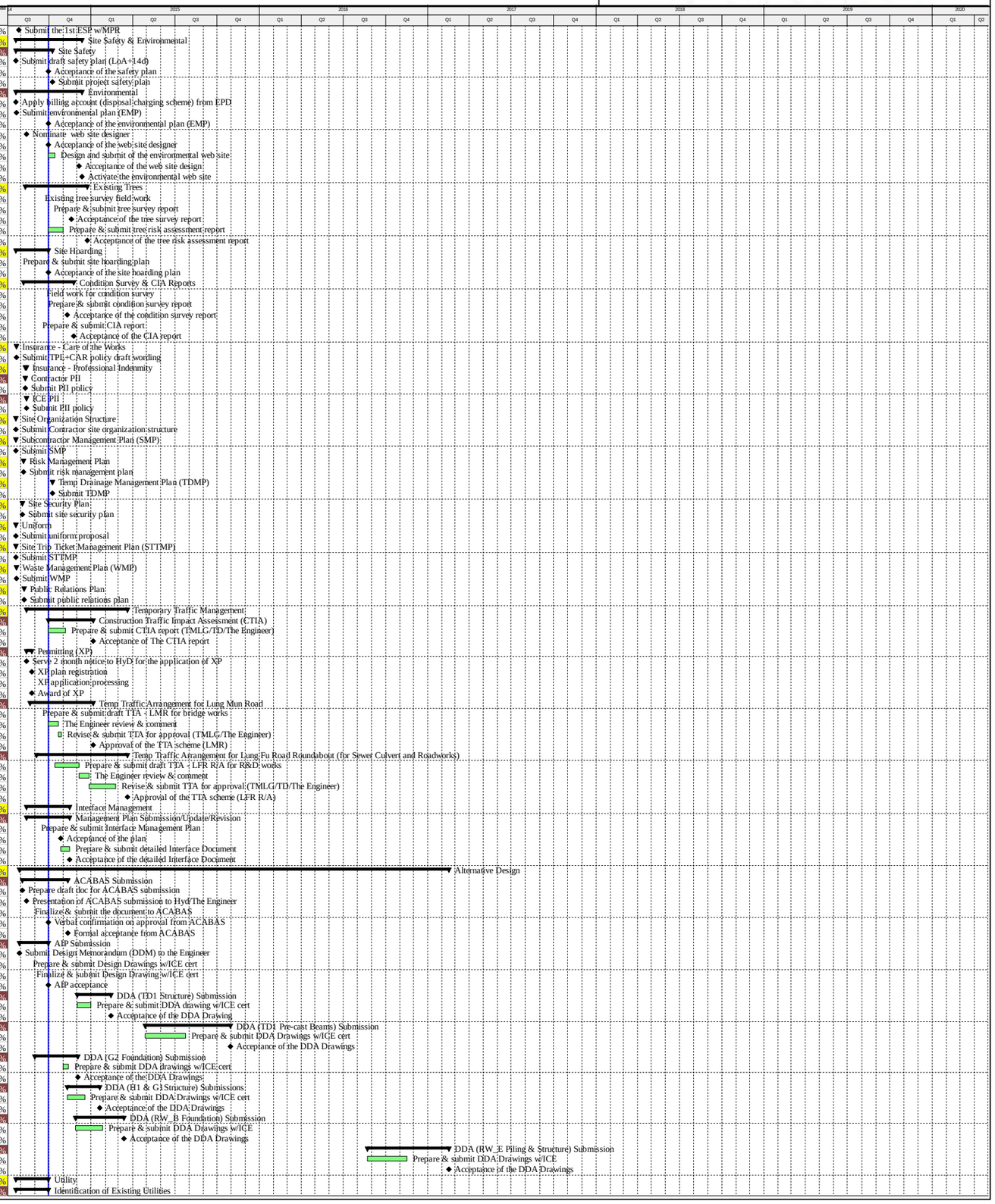
Data Date : 30-Sep-2014

Page: 2

HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
PR40110	Submit the 1st ESP w/MPR	0			28-Jul-14	28-Jul-14			100%
Site Safety & Environmental		131	03-Aug-14	21-Jul-14	12-Dec-14			1818	0%
Site Safety		26	12-Sep-14	21-Jul-14	08-Oct-14			10	0%
SE10100	Submit draft safety plan (LoA+14d)	0			12-Sep-14	21-Jul-14	CD101		100%
SE10150	Acceptance of the safety plan	0			30-Sep-14	30-Sep-14	SE101		100%
SE10200	Submit project safety plan	0			08-Oct-14		SE101	10	0%
Environmental		131	03-Aug-14	21-Jul-14	12-Dec-14			1818	0%
SE20050	Apply billing account (disposal charging scheme) from EPD	0			03-Aug-14	21-Jul-14	CD101		100%
SE20100	Submit environmental plan (EMP)	0			12-Sep-14	23-Jul-14	CD101		100%
SE20140	Acceptance of the environmental plan (EMP)	0			30-Sep-14	30-Sep-14	SE201		100%
SE20150	Nominate web site designer	0			12-Sep-14	13-Aug-14	CD101		100%
SE20160	Acceptance of the web site designer	0			30-Sep-14	30-Sep-14	SE201		100%
SE20170	Design and submit of the environmental web site	14	30-Sep-14	27-Sep-14	15-Oct-14		SE201	41	1.99%
SE20210	Acceptance of the web site design	0			05-Dec-14		SE201	41	0%
SE20220	Activate the environmental web site	0			12-Dec-14		SE202	41	0%
Existing Trees		134	11-Aug-14	11-Aug-14	23-Dec-14			317	0%
TR10100	Existing tree survey field work	24	11-Aug-14	11-Aug-14	10-Sep-14	10-Sep-14	CD101		100%
TR10110	Prepare & submit tree survey report	30	01-Sep-14	18-Aug-14	30-Sep-14	29-Sep-14	TR101		100%
TR10150	Acceptance of the tree survey report	0			19-Nov-14		TR101	47	0%
TR10160	Prepare & submit tree risk assessment report	40	12-Sep-14	05-Sep-14	21-Oct-14		TR101	319	20%
TR10200	Acceptance of the tree risk assessment report	0			23-Dec-14		TR101	319	0%
Site Hoarding		60	04-Aug-14	21-Jul-14	30-Sep-14			141	0%
SH10100	Prepare & submit site hoarding plan	14	04-Aug-14	21-Jul-14	16-Aug-14	24-Jul-14	CD101		100%
SH10140	Acceptance of the site hoarding plan	0			30-Sep-14		SH101	141	0%
Condition Survey & CIA Reports		74	12-Sep-14	07-Aug-14	24-Nov-14			127	0%
CS10100	Field work for condition survey	48	12-Sep-14	07-Aug-14	13-Nov-14	14-Sep-14	CD101		100%
CS10110	Prepare & submit condition survey report	30	07-Oct-14	15-Sep-14	03-Nov-14	17-Sep-14	CS101		100%
CS10150	Acceptance of the condition survey report	0			10-Nov-14		CS101	128	0%
CS10160	Prepare & submit CIA report	30	27-Oct-14	01-Sep-14	24-Nov-14	04-Sep-14	CS101		100%
CS10200	Acceptance of the CIA report	0			24-Nov-14		CS101	128	0%
Insurance - Care of the Works		0	31-Jul-14	23-Jul-14	31-Jul-14	23-Jul-14			0%
IN10100	Submit TPL+CAR policy draft wording	0			31-Jul-14	23-Jul-14	CD101		100%
Insurance - Professional Indemnity		4	13-Aug-14	11-Aug-14	16-Aug-14	13-Aug-14			0%
Contractor PII		0	13-Aug-14	11-Aug-14	13-Aug-14	11-Aug-14			0%
IN20100	Submit PII policy	0			13-Aug-14	11-Aug-14	CD101		100%
ICE PII		0	16-Aug-14	13-Aug-14	16-Aug-14	13-Aug-14			0%
IN40100	Submit PII policy	0			16-Aug-14	13-Aug-14	PS104		100%
Site Organization Structure		0	31-Jul-14	21-Jul-14	31-Jul-14	21-Jul-14			0%
OR10100	Submit Contractor site organization structure	0			31-Jul-14	21-Jul-14	CD101		100%
Subcontractor Management Plan (SMP)		0	31-Jul-14	21-Jul-14	31-Jul-14	21-Jul-14			0%
MP20100	Submit SMP	0			31-Jul-14	21-Jul-14	CD101		100%
Risk Management Plan		0	11-Aug-14	07-Aug-14	11-Aug-14	07-Aug-14			0%
MP30100	Submit risk management plan	0			11-Aug-14	07-Aug-14	CD101		100%
Temp Drainage Management Plan (TDMP)		0	08-Oct-14		08-Oct-14			64	0%
MP50100	Submit TDMP	0			08-Oct-14		CD101	64	0%
Site Security Plan		0	07-Aug-14	04-Aug-14	07-Aug-14	04-Aug-14			0%
MP60100	Submit site security plan	0			07-Aug-14	04-Aug-14	CD101		100%
Uniform		0	31-Jul-14	21-Jul-14	31-Jul-14	21-Jul-14			0%
UN10100	Submit uniform proposal	0			31-Jul-14	21-Jul-14	CD101		100%
Site Trip Ticket Management Plan (STTMP)		0	31-Jul-14	21-Jul-14	31-Jul-14	21-Jul-14			0%
MP70100	Submit STTMP	0			31-Jul-14	21-Jul-14	CD101		100%
Waste Management Plan (WMP)		0	04-Aug-14	23-Jul-14	04-Aug-14	23-Jul-14			0%
MP80100	Submit WMP	0			04-Aug-14	23-Jul-14	CD101		100%
Public Relations Plan		0	18-Sep-14	08-Aug-14	18-Sep-14	08-Aug-14			0%
MP90100	Submit public relations plan	0			18-Sep-14	08-Aug-14	CD101		100%
Temporary Traffic Management		220	13-Aug-14	13-Aug-14	21-Mar-15			54	0%
Construction Traffic Impact Assessment (CTIA)		98	30-Sep-14	30-Sep-14	05-Jan-15			62	0%
TT10100	Prepare & submit CTIA report (TMLG/TD/The Engineer)	40	30-Sep-14	30-Sep-14	07-Nov-14		CD101	62	5%
TT10150	Acceptance of The CTIA report	0			05-Jan-15		TT101	62	0%
Permitting (XP)		88	13-Aug-14	13-Aug-14	08-Nov-14	25-Aug-14			0%
TT20100	Serve 2 month notice to HyD for the application of XP	0			13-Aug-14	13-Aug-14	CD101		100%
TT20150	XP plan registration	0			13-Oct-14	25-Aug-14	TT201		100%
TT20200	XP application processing	90	14-Aug-14	14-Aug-14	08-Nov-14	25-Aug-14	TT201		100%
TT20250	Award of XP	0			12-Sep-14	25-Aug-14	TT202		100%
Temp Traffic Arrangement for Lung Mun Road		109	18-Sep-14	21-Aug-14	05-Jan-15			62	0%
TT30100	Prepare & submit draft TTA - LMR for bridge works	14	18-Sep-14	21-Aug-14	04-Oct-14	05-Sep-14	CD101		100%
TT30150	The Engineer review & comment	21	30-Sep-14		21-Oct-14		TT301	71	0%
TT30200	Revise & submit TTA for approval (TMLG/The Engineer)	10	20-Oct-14	05-Sep-14	29-Oct-14		TT301	71	30%
TT30250	Approval of the TTA scheme (LMR)	0			05-Jan-15		TT101	62	0%
Temp Traffic Arrangement for Lung Fu Road Roundabout (for Sewer Culvert and Roadworks)		163	13-Oct-14	05-Sep-14	21-Mar-15			52	0%
TT40100	Prepare & submit draft TTA - LFR R/A for R&D works	60	13-Oct-14	05-Sep-14	08-Dec-14		CUL10	52	5%
TT40150	The Engineer review & comment	21	05-Dec-14		27-Dec-14		TT401	52	0%
TT40200	Revise & submit TTA for approval (TMLG/TD/The Engineer)	60	30-Dec-14	05-Sep-14	28-Feb-15		TT401	52	5%
TT40250	Approval of the TTA scheme (LFR R/A)	0			21-Mar-15		TT402	52	0%
Interface Management		67	12-Sep-14	13-Aug-14	15-Nov-14			69	0%
Management Plan Submission/Update/Revision		67	12-Sep-14	13-Aug-14	15-Nov-14			69	0%
IF10100	Prepare & submit Interface Management Plan	42	12-Sep-14	13-Aug-14	23-Oct-14	02-Sep-14	CD101		100%
IF10150	Acceptance of the plan	0			27-Oct-14		IF10100	69	0%
IF10200	Prepare & submit detailed Interface Document	21	27-Oct-14		15-Nov-14		PS102	69	0%
IF10250	Acceptance of the detailed Interface Document	0			15-Nov-14		IF10200	69	0%
Alternative Design		944	31-Jul-14	29-Jul-14	15-Feb-17			279	0%
ACABAS Submission		99	07-Aug-14	05-Aug-14	11-Nov-14			98	0%
DN10150	Prepare draft doc for ACABAS submission	0			07-Aug-14	05-Aug-14	PS104		100%
DN10200	Presentation of ACABAS submission to Hyd/The Engineer	0			13-Aug-14	13-Aug-14	DN101		100%
DN10250	Finalize & submit the document to ACABAS	14	13-Aug-14	13-Aug-14	26-Aug-14	19-Aug-14	DN102		100%
DN10300	Verbal confirmation on approval from ACABAS	0			30-Sep-14		DN102	98	0%
DN10350	Formal acceptance from ACABAS	0			11-Nov-14		DN103	98	0%
AIP Submission		76	31-Jul-14	29-Jul-14	13-Oct-14			17	0%
DN20150	Submit Design Memorandum (DDM) to the Engineer	0			31-Jul-14	29-Jul-14	CD101		100%
DN20200	Prepare & submit Design Drawings w/ICE cert	2	13-Aug-14	13-Aug-14	14-Aug-14	14-Aug-14	DN201		100%
DN20250	Finalize & submit Design Drawing w/ICE cert	30	12-Sep-14	15-Aug-14	13-Oct-14	23-Aug-14	DN202		100%
DN20300	AIP acceptance	0			30-Sep-14		DN202	17	0%
DDA (TD1 Structure) Submission		75	02-Dec-14		12-Feb-15			17	0%
DN40100	Prepare & submit DDA drawing w/ICE cert	30	02-Dec-14		31-Dec-14		DN203	17	0%
DN40150	Acceptance of the DDA Drawing	0			12-Feb-15		DN401	17	0%
DDA (TD1 Pre-cast Beams) Submission		190	28-Apr-15		29-Oct-15			224	0%
DN50100	Prepare & submit DDA Drawings w/ICE cert	90	28-Apr-15		24-Jul-15		DN203	224	0%
DN50150	Acceptance of the DDA Drawings	0			29-Oct-15		DN501	224	0%
DDA (G2 Foundation) Submission		34	01-Nov-14	01-Sep-14	02-Dec-14			34	0%
DN51100	Prepare & submit DDA drawings w/ICE cert	21	01-Nov-14	01-Sep-14	20-Nov-14		DN202	34	40%
DN51150	Acceptance of the DDA Drawings	0			02-Dec-14		DN511	34	0%
DDA (H1 & G1Structure) Submissions		72	10-Nov-14		19-Jan-15			213	0%
ND52100	Prepare & submit DDA Drawings w/ICE cert	42	10-Nov-14		18-Dec-14		DN202	213	0%
ND52150	Acceptance of the DDA Drawings	0			19-Jan-15		ND521	213	0%
DDA (RW_B Foundation) Submission		105	28-Nov-14		12-Mar-15			180	0%
DN50210	Prepare & submit DDA Drawings w/ICE	60	28-Nov-14		26-Jan-15		DN202	180	0%
DN50220	Acceptance of the DDA Drawings	0			12-Mar-15		DN502	180	0%
DDA (RW_E Piling & Structure) Submission		180	22-Aug-16		15-Feb-17			279	0%
DN50240	Prepare & submit DDA Drawings w/ICE	90	22-Aug-16		16-Nov-16		DN501	279	0%
DN50250	Acceptance of the DDA Drawings	0			15-Feb-17		DN502	279	0%
Utility		85	12-Sep-14	21-Jul-14	06-Dec-14			156	0%
Identification of Existing Utilities		19	12-Sep-14	21-Jul-14	30-Sep-14			158	0%



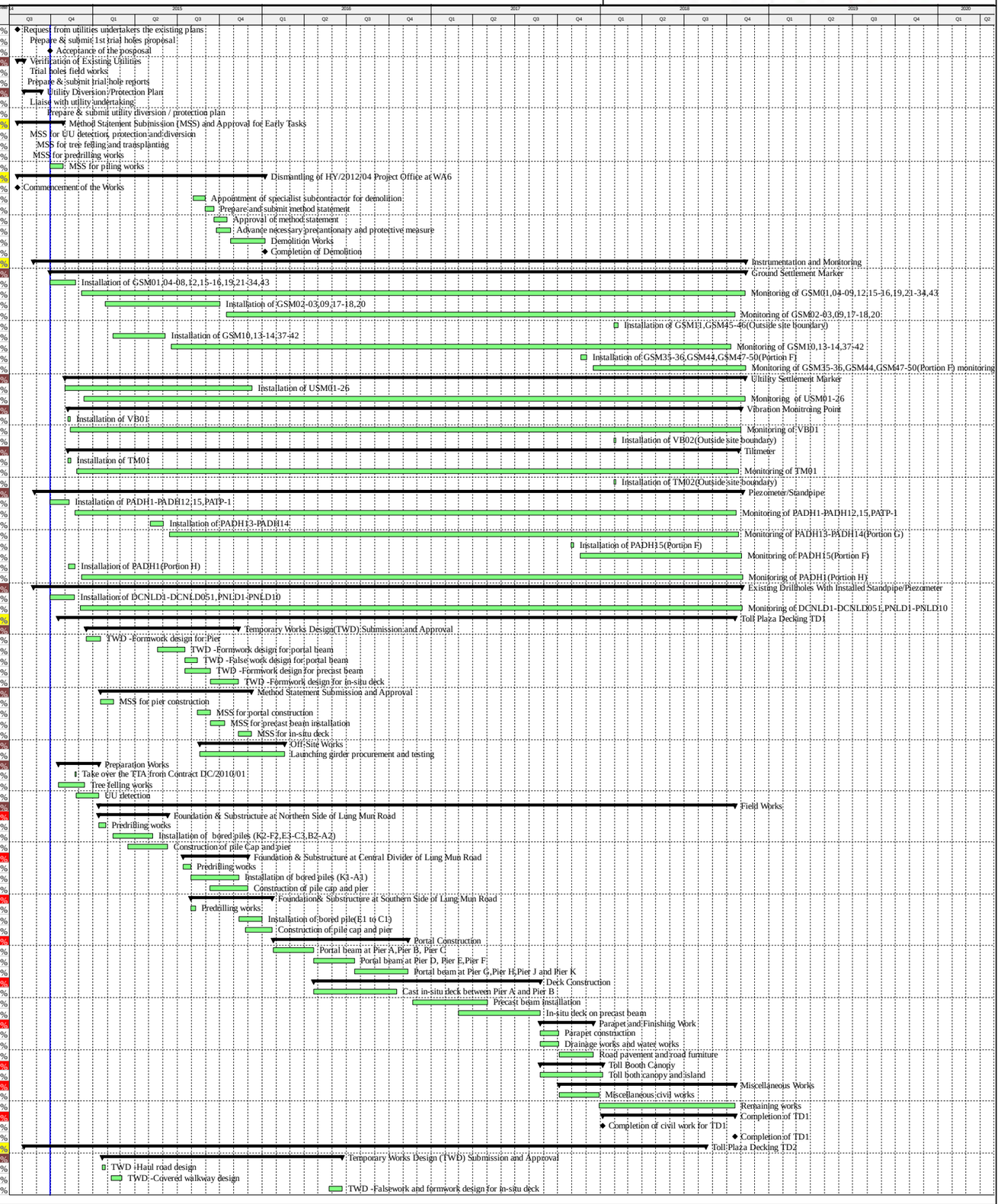
Data Date : 30-Sep-2014

Page: 3

HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

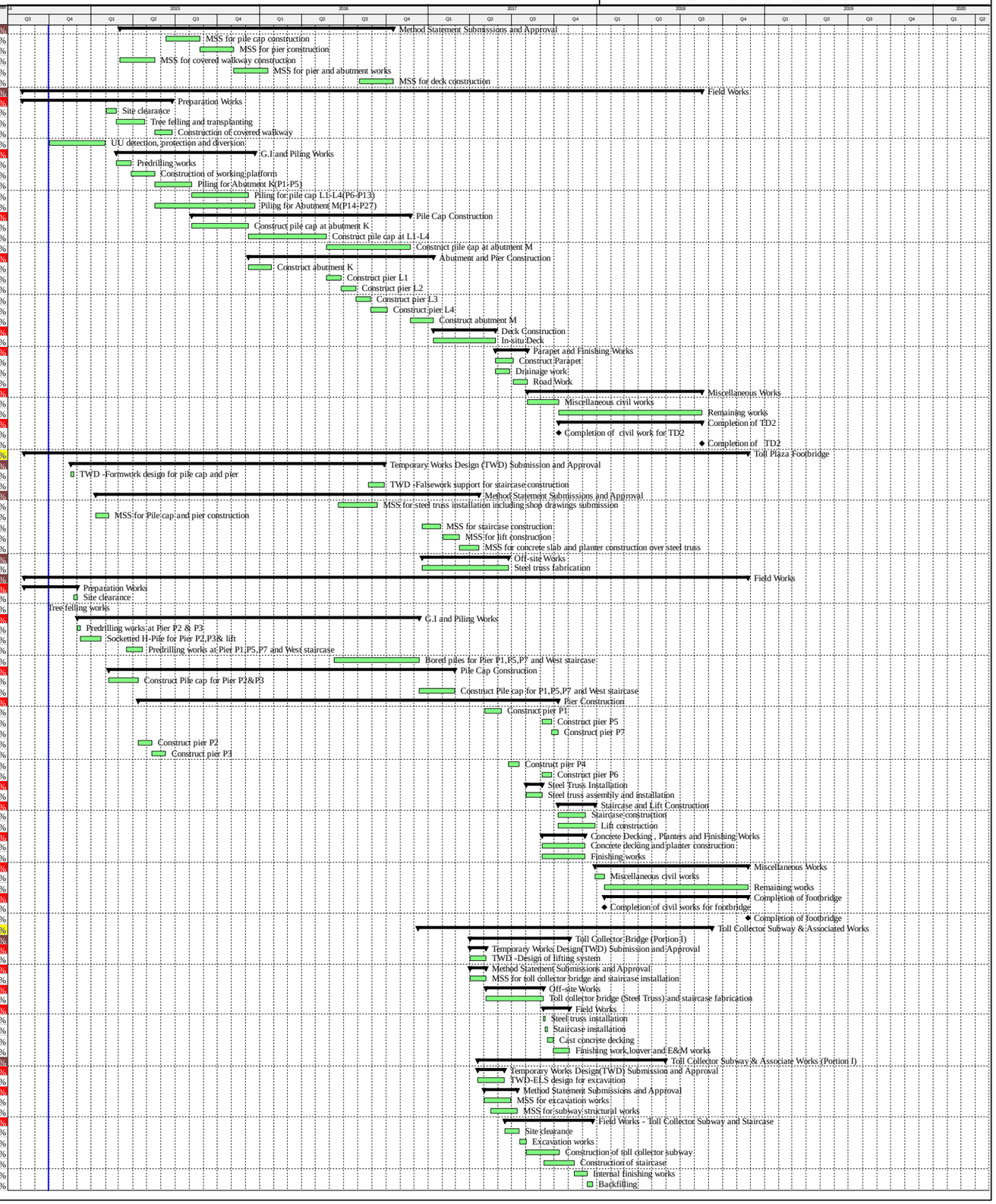
Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
UT10100	Request from utilities undertakers the existing plans	0			12-Sep-14	21-Jul-14	CD101		100%
UT10200	Prepare & submit 1st trial holes proposal	14	16-Sep-14	04-Aug-14	29-Sep-14	05-Aug-14	UT101		100%
UT10250	Acceptance of the posposal	0			30-Sep-14		PS104	158	0%
Verification of Existing Utilities		27	21-Oct-14	21-Jul-14	17-Nov-14	05-Aug-14			0%
UT20100	Trial holes field works	17	21-Oct-14	04-Aug-14	10-Nov-14	05-Aug-14	TT202		100%
UT20150	Prepare & submit trial hole reports	14	04-Nov-14	21-Jul-14	17-Nov-14	30-Jul-14	UT201		100%
Utility Diversion /Protection Plan		28	10-Nov-14	04-Aug-14	06-Dec-14	11-Sep-14			0%
UT30050	Liaise with utility undertaking	21	10-Nov-14	04-Aug-14	29-Nov-14	04-Aug-14	UT201		100%
UT30100	Prepare & submit utility diversion / protection plan	14	24-Nov-14	04-Aug-14	06-Dec-14	11-Sep-14	UT300		100%
Method Statement Submission (MSS) and Approval for Early Tasks		49	12-Sep-14	21-Jul-14	29-Oct-14			49	0%
MS10000	MSS for UU detection, protection and diversion	42	12-Sep-14	21-Jul-14	23-Oct-14	04-Aug-14	CD101		100%
MS10010	MSS for tree felling and transplanting	21	12-Sep-14	18-Aug-14	03-Oct-14	20-Aug-14	MS100		100%
MS10020	MSS for predrilling works	42	12-Sep-14	07-Aug-14	23-Oct-14	11-Aug-14	CD101		100%
MS10030	MSS for piling works	30	30-Sep-14	30-Sep-14	29-Oct-14		MS100	49	5%
Dismantling of HY/2012/04 Project Office at WA6		483	12-Sep-14	21-Jul-14	07-Jan-16			22	0%
DM10000	Commencement of the Works	0	12-Sep-14	21-Jul-14			CD101		100%
DM10010	Appointment of specialist subcontractor for demolition	28	04-Aug-15		31-Aug-15		DM10(	26	0%
DM10020	Prepare and submit method statement	21	31-Aug-15		19-Sep-15		DM10(	26	0%
DM10030	Approval of method statement	28	19-Sep-15		17-Oct-15		DM10(	26	0%
DM10040	Advance necessary precantionary and protective measure	21	24-Sep-15		24-Oct-15		DM10(	19	0%
DM10050	Demolition Works	60	24-Oct-15		07-Jan-16		DM10(	19	0%
DM10060	Completion of Demolition	0			07-Jan-16		DM10(	19	0%
Instrumentation and Monitoring		1521	12-Sep-14	25-Aug-14	11-Nov-18			388	0%
Ground Settlement Marker		1503	30-Sep-14	30-Sep-14	11-Nov-18			23	0%
IM10050	Installation of GSM01,04-08,12,15-16,19,21-34,43	60	30-Sep-14	30-Sep-14	26-Nov-14		CD101	22	5%
IM10055	Monitoring of GSM01,04-09,12,15-16,19,21-34,43	1435	06-Dec-14		10-Nov-18		IM100	23	0%
IM10070	Installation of GSM02-03,09,17-18,20	250	27-Jan-15		02-Oct-15		TPD31	47	0%
IM10075	Monitoring of GSM02-03,09,17-18,20	1100	15-Oct-15		19-Oct-18		IM100	45	0%
IM10090	Installation of GSM11,GSM45-46(Outside site boundary)	10	30-Jan-18		08-Feb-18		KD101	301	0%
IM10100	Installation of GSM10,13-14,37-42	110	12-Feb-15		05-Jun-15		SUW3	55	0%
IM10105	Monitoring of GSM10,13-14,37-42	1210	19-Jun-15		10-Oct-18		IM101	54	0%
IM10110	Installation of GSM35-36,GSM44,GSM47-50(Portion F)	15	20-Nov-17		02-Dec-17		AD102	20	0%
IM10120	Monitoring of GSM35-36,GSM44,GSM47-50(Portion F) monitoring	330	16-Dec-17		11-Nov-18		IM101	23	0%
Utility Settlement Marker		1471	01-Nov-14		10-Nov-18			23	0%
IM20020	Installation of USM01-26	315	01-Nov-14		09-Dec-15		AD101	17	0%
IM20025	Monitoring of USM01-26	1430	12-Dec-14		10-Nov-18		IM200	23	0%
Vibration Monitroing Point		1455	07-Nov-14		01-Nov-18			397	0%
IM30010	Installation of VB01	5	07-Nov-14		12-Nov-14		CD101	34	0%
IM30015	Monitoring of VB01	1450	13-Nov-14		01-Nov-18		IM300	32	0%
IM30020	Installation of VB02(Outside site boundary)	5	30-Jan-18		03-Feb-18		KD101	676	0%
Tiltmeter		1449	07-Nov-14		26-Oct-18			403	0%
IM40010	Installation of TM01	6	07-Nov-14		13-Nov-14		CD101	38	0%
IM40015	Monitoring of TM01	1430	27-Nov-14		26-Oct-18		IM400	38	0%
IM40020	Installation of TM02(Outside site boundary)	5	30-Jan-18		03-Feb-18		KD101	676	0%
Piezometer/Standpipe		1516	12-Sep-14	28-Aug-14	05-Nov-18			28	0%
IM50010	Installation of PADH1-PADH12,15,PATP-1	70	12-Sep-14	28-Aug-14	18-Nov-14		CD101	42	40%
IM50015	Monitoring of PADH1-PADH12,15,PATP-1	1430	22-Nov-14		22-Oct-18		IM500	42	0%
IM50020	Installation of PADH13-PADH14	30	04-May-15		01-Jun-15		AD102	39	0%
IM50025	Monitoring of PADH13-PADH14(Portion G)	1230	15-Jun-15		27-Oct-18		IM500	38	0%
IM50030	Installation of PADH15(Portion F)	6	30-Oct-17		04-Nov-17		AD102	33	0%
IM50035	Monitoring of PADH15(Portion F)	350	18-Nov-17		02-Nov-18		IM500	31	0%
IM50040	Installation of PADH1(Portion H)	15	08-Nov-14		22-Nov-14		AD101	28	0%
IM50045	Monitoring of PADH1(Portion H)	1430	07-Dec-14		05-Nov-18		IM500	28	0%
Existing Drillholes With Installed Standpipe/Piezometer		1495	30-Sep-14	25-Aug-14	03-Nov-18			31	0%
IM60010	Installation of DCNLD1-DCNLD051,PNLD1-PNLD10	90	30-Sep-14	25-Aug-14	24-Dec-14		CD101	30	40%
IM60020	Monitoring of DCNLD1-DCNLD051,PNLD1-PNLD10	1430	04-Dec-14		03-Nov-18		IM600	31	0%
Toll Plaza Decking TD1		1463	18-Oct-14		19-Oct-18			45	0%
Temporary Works Design(TWD) Submission and Approval		330	17-Dec-14		10-Nov-15			180	0%
TD111200	TWD -Formwork design for Pier	30	17-Dec-14		17-Jan-15		CD101	45	0%
TD111350	TWD -Formwork design for portal beam	60	19-May-15		17-Jul-15		TD111	180	0%
TD111400	TWD -False work design for portal beam	30	17-Jul-15		14-Aug-15		TD111	180	0%
TD111450	TWD -Formwork design for precast beam	60	17-Jul-15		11-Sep-15		TD111	180	0%
TD111460	TWD -Formwork design for in-situ deck	60	11-Sep-15		10-Nov-15		TD111	180	0%
Method Statement Submission and Approval		330	17-Jan-15		08-Dec-15			180	0%
TD120000	MSS for pier construction	30	17-Jan-15		14-Feb-15		TD111	45	0%
TD131350	MSS for portal construction	30	14-Aug-15		11-Sep-15		TD111	210	0%
TD131400	MSS for precast beam installation	30	11-Sep-15		12-Oct-15		TD131	210	0%
TD131450	MSS for in-situ deck	30	10-Nov-15		08-Dec-15		TD111	180	0%
Off-Site Works		144	19-Aug-15		19-Feb-16			219	0%
TD130000	Launching girder procurement and testing	144	19-Aug-15		19-Feb-16		TD131	219	0%
Preparation Works		87	18-Oct-14		13-Jan-15			31	0%
TD130050	Take over the TTA from Contract DC/2010/01	3	23-Nov-14		25-Nov-14		AD101	35	0%
TD130100	Tree felling works	48	18-Oct-14		13-Dec-14		MS100	49	0%
TD130150	UU detection	35	25-Nov-14		13-Jan-15		MS100	26	0%
Field Works		1376	13-Jan-15		19-Oct-18			45	0%
Foundation & Substructure at Northern Side of Lung Mun Road		115	13-Jan-15		10-Jun-15			14	0%
TD130200	Predrilling works	13	13-Jan-15		28-Jan-15		TD130	27	0%
TD130250	Installation of bored piles (K2-F2,E3-C3,B2-A2)	64	13-Feb-15		09-May-15		BG212	14	0%
TD130300	Construction of pile Cap and pier	64	17-Mar-15		10-Jun-15		TD130	14	0%
Foundation & Substructure at Central Divider of Lung Mun Road		110	14-Jul-15		01-Dec-15			14	0%
TD130350	Predrilling works	14	14-Jul-15		30-Jul-15		TD130	14	0%
TD130400	Installation of bored piles (K1-A1)	80	30-Jul-15		12-Nov-15		TD130	14	0%
TD130450	Construction of pile cap and pier	64	09-Sep-15		01-Dec-15		TD130	14	0%
Foundation& Substructure at Southern Side of Lung Mun Road		138	30-Jul-15		22-Jan-16			14	0%
TD130500	Predrilling works	8	30-Jul-15		10-Aug-15		TD130	103	0%
TD130550	Installation of bored pile(E1 to C1)	40	12-Nov-15		31-Dec-15		TD130	31	0%
TD130650	Construction of pile cap and pier	46	25-Nov-15		22-Jan-16		TD130	14	0%
Portal Construction		221	25-Jan-16		11-Nov-16			11	0%
TD130600	Portal beam at Pier A,Pier B, Pier C	65	25-Jan-16		21-Apr-16		TD111	11	0%
TD130700	Portal beam at Pier D, Pier E,Pier F	66	21-Apr-16		19-Jul-16		TD130	11	0%
TD131200	Portal beam at Pier G,Pier H,Pier J and Pier K	91	19-Jul-16		11-Nov-16		TD130	11	0%
Deck Construction		490	21-Apr-16		24-Aug-17			24	0%
TD130750	Cast in-situ deck between Pier A and Pier B	135	21-Apr-16		17-Oct-16		TD130	35	0%
TD130800	Precast beam installation	120	21-Nov-16		02-May-17		TD130	8	0%
TD131250	In-situ deck on precast beam	135	01-Mar-17		24-Aug-17		TD130	18	0%
Parapet and Finishing Work		90	25-Aug-17		16-Dec-17			26	0%
TD130850	Parapet construction	30	25-Aug-17		03-Oct-17		TD131	26	0%
TD130900	Drainage works and water works	30	25-Aug-17		03-Oct-17		TD130	26	0%
TD130950	Road pavement and road furniture	60	04-Oct-17		16-Dec-17		TD130	26	0%
Toll Booth Canopy		105	25-Aug-17		06-Jan-18			20	0%
TD131000	Toll both canopy and island	105	25-Aug-17		06-Jan-18		TD131	20	0%
Miscellaneous Works		293	04-Oct-17		19-Oct-18			37	0%
TD131050	Miscellaneous civil works	69	04-Oct-17		29-Dec-17		TD130	26	0%
TD131300	Remaining works	224	29-Dec-17		19-Oct-18		TD131	37	0%
Completion of TD1		286	06-Jan-18		19-Oct-18			45	0%
TD131100	Completion of civil work for TD1	0			06-Jan-18		TD131	20	0%
TD131150	Completion of TD1	0			19-Oct-18		TD131	45	0%
Toll Plaza Decking TD2		1436	12-Sep-14	05-Aug-14	17-Aug-18			108	0%
Temporary Works Design (TWD) Submission and Approval		522	20-Jan-15		22-Jun-16			316	0%
TD210150	TWD -Haul road design	7	20-Jan-15		27-Jan-15		CD101	15	0%
TD210350	TWD -Covered walkway design	21	09-Feb-15		04-Mar-15		TD210	43	0%
TD210400	TWD -Falsework and formwork design for in-situ deck	30	24-May-16		22-Jun-16		TD210	316	0%



HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

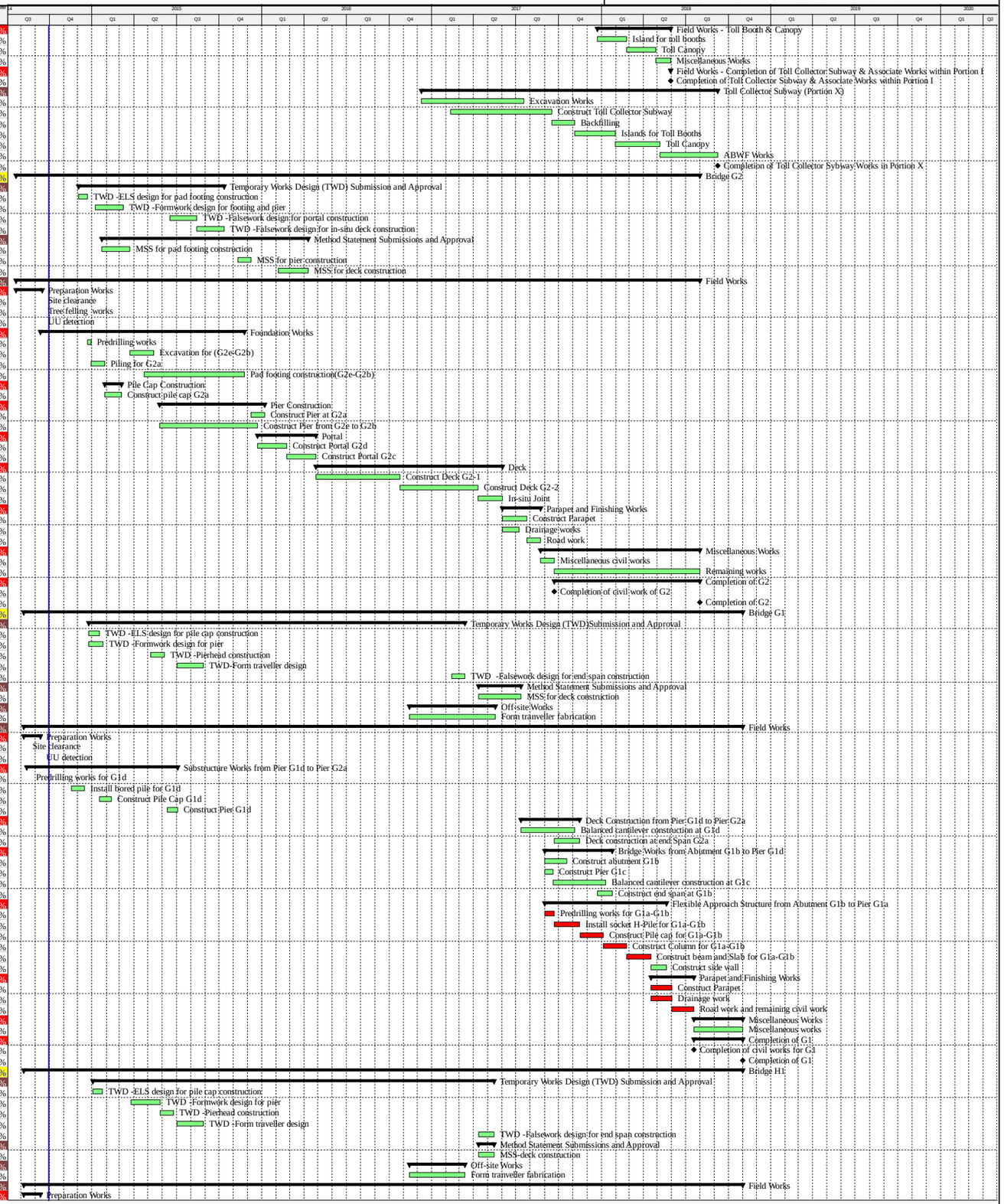
Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
Method Statement Submissions and Approval		600	04-Mar-15		17-Oct-16			196	0%
TD210746	MSS for pile cap construction	75	12-Jun-15		24-Aug-15		TD210	43	0%
TD210748	MSS for pier construction	75	24-Aug-15		05-Nov-15		TD210	43	0%
TD210750	MSS for covered walkway construction	75	04-Mar-15		19-May-15		TD210	119	0%
TD210850	MSS for pier and abutment works	75	05-Nov-15		18-Jan-16		TD210	196	0%
TD210900	MSS for deck construction	75	04-Aug-16		17-Oct-16		TD210	196	0%
Field Works		1436	12-Sep-14	05-Aug-14	17-Aug-18			108	0%
Preparation Works		222	12-Sep-14	05-Aug-14	25-Jun-15			88	0%
TD211050	Site clearance	17	02-Feb-15		24-Feb-15		AD101	7	0%
TD211100	Tree felling and transplanting	48	24-Feb-15		27-Apr-15		TD211	104	0%
TD211150	Construction of covered walkway	28	19-May-15		25-Jun-15		TD211	88	0%
TD211200	UU detection, protection and diversion	110	12-Sep-14	05-Aug-14	28-Jan-15		MS100	7	0%
G.I and Piling Works		300	24-Feb-15		21-Dec-15			227	0%
TD211250	Predrilling works	28	24-Feb-15		28-Mar-15		TD211	7	0%
TD211260	Construction of working platform	45	28-Mar-15		19-May-15		TD211	9	0%
TD211300	Piling for Abutment K(P1-P5)	60	19-May-15		06-Aug-15		MS100	7	0%
TD211350	Piling for pile cap L1-L4(P6-P13)	96	06-Aug-15		07-Dec-15		MS100	56	0%
TD211400	Piling for Abutment M(P14-P27)	168	19-May-15		21-Dec-15		TD211	174	0%
Pile Cap Construction		366	06-Aug-15		22-Nov-16			56	0%
TD211450	Construct pile cap at abutment K	96	06-Aug-15		07-Dec-15		TD211	7	0%
TD211500	Construct pile cap at L1-L4	130	07-Dec-15		24-May-16		AD102	56	0%
TD211550	Construct pile cap at abutment M	140	24-May-16		22-Nov-16		TD211	56	0%
Abutment and Pier Construction		310	07-Dec-15		11-Jan-17			84	0%
TD211600	Construct abutment K	40	07-Dec-15		26-Jan-16		TD210	7	0%
TD211650	Construct pier L1	25	24-May-16		25-Jun-16		TD210	164	0%
TD211700	Construct pier L2	25	25-Jun-16		28-Jul-16		TD211	164	0%
TD211750	Construct pier L3	25	28-Jul-16		29-Aug-16		TD211	164	0%
TD211800	Construct pier L4	25	29-Aug-16		03-Oct-16		TD211	164	0%
TD211850	Construct abutment M	40	22-Nov-16		11-Jan-17		RWA3	56	0%
Deck Construction		104	11-Jan-17		26-May-17			84	0%
TD211900	In-situ Deck	104	11-Jan-17		26-May-17		TD211	84	0%
Parapet and Finishing Works		52	26-May-17		03-Aug-17			84	0%
TD211950	Construct Parapet	28	26-May-17		04-Jul-17		TD211	84	0%
TD212000	Drainage work	22	26-May-17		26-Jun-17		TD211	90	0%
TD212050	Road Work	24	04-Jul-17		03-Aug-17		TD212	84	0%
Miscellaneous Works		293	03-Aug-17		17-Aug-18			84	0%
TD212100	Miscellaneous civil works	53	03-Aug-17		11-Oct-17		TD212	84	0%
TD212150	Remaining works	240	11-Oct-17		17-Aug-18		TD212	84	0%
Completion of TD2		310	11-Oct-17		17-Aug-18			108	0%
TD212200	Completion of civil work for TD2	0			11-Oct-17		TD212	111	0%
TD212250	Completion of TD2	0			17-Aug-18		TD212	108	0%
Toll Plaza Footbridge		1469	17-Nov-14	08-Aug-14	26-Nov-18			8	0%
Temporary Works Design (TWD) Submission and Approval		688	17-Nov-14		27-Sep-16			139	0%
TFB10150	TWD -Formwork design for pile cap and pier	7	17-Nov-14		24-Nov-14		CD101	59	0%
TFB10300	TWD -Falsework support for staircase construction	35	24-Aug-16		27-Sep-16		TFB10	139	0%
Method Statement Submissions and Approval		840	10-Jan-15		20-Apr-17			174	0%
TFB10600	MSS for steel truss installation including shop drawings submission	90	20-Jun-16		12-Sep-16		CD101	43	0%
TFB10610	MSS for Pile cap and pier construction	30	10-Jan-15		07-Feb-15		TFB10	321	0%
TFB10650	MSS for staircase construction	40	19-Dec-16		27-Jan-17		TFB10	174	0%
TFB10700	MSS for lift construction	40	01-Feb-17		09-Mar-17		TFB10	174	0%
TFB10750	MSS for concrete slab and planter construction over steel truss	40	10-Mar-17		20-Apr-17		TFB10	174	0%
Off-site Works		144	19-Dec-16		24-Jun-17			34	0%
TFB10800	Steel truss fabrication	144	19-Dec-16		24-Jun-17		TFB10	34	0%
Field Works		1463	24-Nov-14	08-Aug-14	26-Nov-18			8	0%
Preparation Works		48	24-Nov-14	08-Aug-14	21-Jan-15			47	0%
TFB10850	Site clearance	12	24-Nov-14	08-Aug-14	08-Dec-14		TFB10	47	50%
TFB10900	Tree felling works	36	08-Dec-14	08-Aug-14	21-Jan-15	16-Sep-14	MS100		100%
G.I and Piling Works		574	01-Dec-14		12-Dec-16			47	0%
TFB11000	Predrilling works at Pier P2 & P3	6	01-Dec-14		08-Dec-14		PS103	47	0%
TFB11010	Socketted H-Pile for Pier P2,P3& lift	36	08-Dec-14		22-Jan-15		TFB11	256	0%
TFB11020	Predrilling works at Pier P1,P5,P7 and West staircase	24	18-Mar-15		21-Apr-15		MS100	47	0%
TFB11100	Bored piles for Pier P1,P5,P7 and West staircase	144	10-Jun-16		12-Dec-16		TFB11	47	0%
Pile Cap Construction		579	07-Feb-15		27-Feb-17			47	0%
TFB11295	Construct Pile cap for Pier P2&P3	48	07-Feb-15		13-Apr-15		TFB11	243	0%
TFB11300	Construct Pile cap for P1,P5,P7 and West staircase	60	12-Dec-16		27-Feb-17		TFB10	47	0%
Pier Construction		700	13-Apr-15		09-Oct-17			7	0%
TFB11750	Construct pier P1	28	04-May-17		08-Jun-17		TD130	47	0%
TFB11800	Construct pier P5	17	05-Sep-17		26-Sep-17		TFB12	7	0%
TFB11850	Construct pier P7	8	26-Sep-17		09-Oct-17		TFB12	7	0%
TFB11900	Construct pier P2	22	13-Apr-15		12-May-15		TFB11	243	0%
TFB11950	Construct pier P3	22	12-May-15		10-Jun-15		TFB11	243	0%
TFB12000	Construct pier P4	17	24-Jun-17		17-Jul-17		TD131	18	0%
TFB12050	Construct pier P6	17	05-Sep-17		26-Sep-17		TFB12	15	0%
Steel Truss Installation		28	01-Aug-17		05-Sep-17			7	0%
TFB12100	Steel truss assembly and installation	28	01-Aug-17		05-Sep-17		TFB10	7	0%
Staircase and Lift Construction		64	09-Oct-17		28-Dec-17			7	0%
TFB12150	Staircase construction	48	09-Oct-17		07-Dec-17		TFB10	7	0%
TFB12200	Lift construction	64	09-Oct-17		28-Dec-17		TFB10	7	0%
Concrete Decking , Planters and Finishing Works		72	05-Sep-17		06-Dec-17			24	0%
TFB12250	Concrete decking and planter construction	72	05-Sep-17		06-Dec-17		TFB12	24	0%
TFB12260	Finishing works	72	05-Sep-17		06-Dec-17		TFB12	24	0%
Miscellaneous Works		256	28-Dec-17		26-Nov-18			7	0%
TFB12300	Miscellaneous civil works	16	28-Dec-17		17-Jan-18		TFB12	7	0%
TFB12400	Remaining works	240	17-Jan-18		26-Nov-18		TFB12	7	0%
Completion of footbridge		313	17-Jan-18		26-Nov-18			8	0%
TFB12350	Completion of civil works for footbridge	0			17-Jan-18		TFB12	14	0%
TFB12450	Completion of footbridge	0			26-Nov-18		TFB12	8	0%
Toll Collector Subway & Associated Works		638	09-Dec-16		08-Sep-18			87	0%
Toll Collector Bridge (Portion I)		215	01-Apr-17		03-Nov-17			89	0%
Temporary Works Design(TWD) Submission and Approval		30	01-Apr-17		06-May-17			100	0%
TCS10100	TWD -Design of lifting system	30	01-Apr-17		06-May-17		AD101	100	0%
Method Statement Submissions and Approval		30	01-Apr-17		06-May-17			100	0%
TCS10150	MSS for toll collector bridge and staircase installation	30	01-Apr-17		06-May-17		TCS10	100	0%
Off-site Works		96	06-May-17		07-Sep-17			74	0%
TCS10200	Toll collector bridge (Steel Truss) and staircase fabrication	96	06-May-17		07-Sep-17		TCS10	74	0%
Field Works		56	07-Sep-17		03-Nov-17			89	0%
TCS10250	Steel truss installation	2	07-Sep-17		12-Sep-17		TD131	72	0%
TCS10300	Staircase installation	3	12-Sep-17		16-Sep-17		TCS10	73	0%
TCS10350	Cast concrete decking	11	16-Sep-17		29-Sep-17		TCS10	73	0%
TCS10400	Finishing work,louver and E&M works	24	29-Sep-17		03-Nov-17		TCS10	73	0%
Toll Collector Subway & Associate Works (Portion I)		407	18-Apr-17		30-May-18			188	0%
Temporary Works Design(TWD) Submission and Approval		60	18-Apr-17		15-Jun-17			192	0%
TCS10500	TWD-ELS design for excavation	60	18-Apr-17		15-Jun-17		CD101	192	0%
Method Statement Submissions and Approval		74	02-May-17		13-Jul-17			208	0%
TCS10550	MSS for excavation works	60	02-May-17		29-Jun-17		TCS10	208	0%
TCS10600	MSS for subway structural works	60	16-May-17		13-Jul-17		TCS10	208	0%
Field Works - Toll Collector Subway and Staircase		150	16-Jun-17		23-Dec-17			145	0%
TCS10650	Site clearance	24	16-Jun-17		17-Jul-17		TCS10	145	0%
TCS10750	Excavation works	11	18-Jul-17		01-Aug-17		TCS10	145	0%
TCS10800	Construction of toll collector subway	56	01-Aug-17		12-Oct-17		TCS10	145	0%
TCS10850	Construction of staircase	48	09-Sep-17		13-Nov-17		TCS10	145	0%
TCS10900	Internal finishing works	24	13-Nov-17		11-Dec-17		TCS10	145	0%
TCS10950	Backfilling	11	11-Dec-17		23-Dec-17		TCS10	145	0%



HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

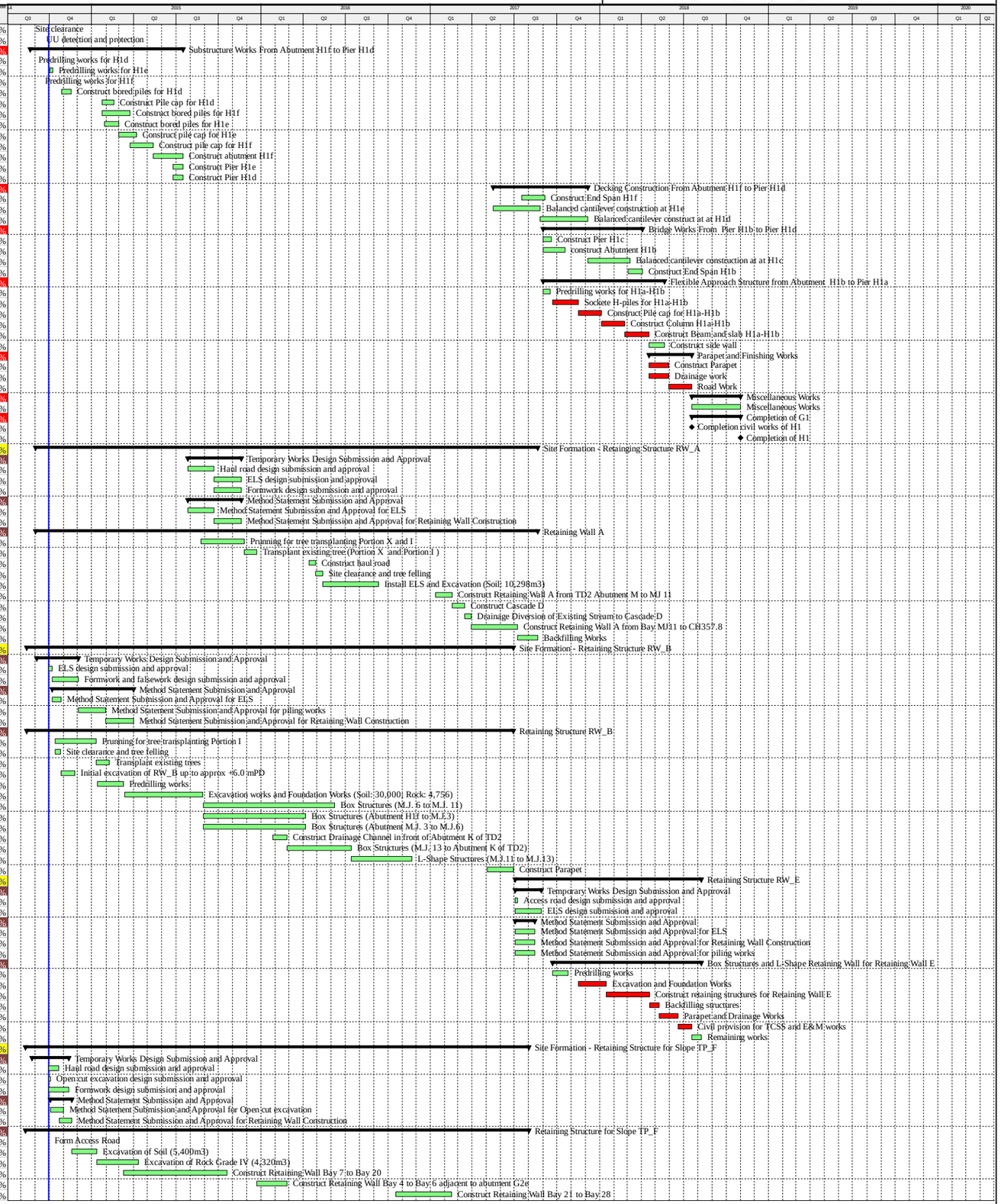
Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
	Field Works - Toll Booth & Canopy	120	23-Dec-17		30-May-18			145	0%
TCS11000	Island for toll booths	48	23-Dec-17		24-Feb-18		TCS10	145	0%
TCS11050	Toll Canopy	48	24-Feb-18		27-Apr-18		TCS11	145	0%
TCS11100	Miscellaneous Works	24	27-Apr-18		30-May-18		TCS11	145	0%
	Field Works - Completion of Toll Collector Subway & Associate Works within Portion I	0	30-May-18		30-May-18			145	0%
TCS11150	Completion of Toll Collector Subway & Associate Works within Portion I	0			30-May-18		TCS11	145	0%
	Toll Collector Subway (Portion X)	638	09-Dec-16		08-Sep-18			87	0%
TCB11000	Excavation Works	168	09-Dec-16		18-Jul-17		TPE31	67	0%
TCB11050	Construct Toll Collector Subway	168	10-Feb-17		16-Sep-17		TCB11	67	0%
TCB11100	Backfilling	36	16-Sep-17		04-Nov-17		TCB11	67	0%
TCB11150	Islands for Toll Booths	72	04-Nov-17		31-Jan-18		TCB11	67	0%
TCB11200	Toll Canopy	72	31-Jan-18		07-May-18		TCB11	67	0%
TCB11250	ABWF Works	96	07-May-18		08-Sep-18		TCB11	67	0%
TCB11300	Completion of Toll Collector Sybway Works in Portion X	0			08-Sep-18		TCB11	87	0%
Bridge G2		1419	12-Sep-14	21-Jul-14	01-Aug-18			125	0%
	Temporary Works Design (TWD) Submission and Approval	316	02-Dec-14		12-Oct-15			150	0%
BG210750	TWD -ELS design for pad footing construction	21	02-Dec-14		22-Dec-14		DN511	34	0%
BG210900	TWD -Formwork design for footing and pier	60	08-Jan-15		09-Mar-15		BG210	150	0%
BG210910	TWD -Falsework design for portal construction	60	17-Jun-15		14-Aug-15		BG210	150	0%
BG210950	TWD -Falsework design for in-situ deck construction	60	14-Aug-15		12-Oct-15		BG210	150	0%
	Method Statement Submissions and Approval	445	22-Jan-15		09-Apr-16			150	0%
BG211750	MSS for pad footing construction	60	22-Jan-15		23-Mar-15		BG210	132	0%
BG211760	MSS for pier construction	30	10-Nov-15		08-Dec-15		BG210	240	0%
BG211850	MSS for deck construction	60	05-Feb-16		09-Apr-16		BG210	150	0%
	Field Works	1419	12-Sep-14	21-Jul-14	01-Aug-18			125	0%
	Preparation Works	92	12-Sep-14	21-Jul-14	07-Jan-15	16-Sep-14			0%
BG211950	Site clearance	12	12-Sep-14	21-Jul-14	26-Sep-14	16-Sep-14	CD101		100%
BG212000	Tree felling works	11	22-Dec-14	01-Sep-14	07-Jan-15	16-Sep-14	BG211		100%
BG212050	UU detection	11	22-Dec-14	16-Aug-14	07-Jan-15	16-Sep-14	MS100		100%
	Foundation Works	254	30-Dec-14	12-Sep-14	25-Nov-15			98	0%
BG212100	Predrilling works	16	07-Jan-15	12-Sep-14	26-Jan-15		BG211	27	70%
BG212120	Excavation for (G2e-G2b)	38	23-Mar-15		14-May-15		BG210	98	0%
BG212150	Piling for G2a	24	30-Dec-14		28-Jan-15		BG212	27	0%
BG212750	Pad footing construction(G2e-G2b)	165	23-Apr-15		25-Nov-15		BG212	98	0%
	Pile Cap Construction	79	23-Jan-15		02-Mar-15			297	0%
BG212800	Construct pile cap G2a	28	28-Jan-15		05-Mar-15		BG212	397	0%
	Pier Construction	175	26-May-15		07-Jan-16			184	0%
BG212850	Construct Pier at G2a	22	08-Dec-15		07-Jan-16		BG211	184	0%
BG212900	Construct Pier from G2e to G2b	165	26-May-15		23-Dec-15		BG212	98	0%
	Portal	96	23-Dec-15		26-Apr-16			98	0%
BG213180	Construct Portal G2d	48	23-Dec-15		24-Feb-16		BG212	98	0%
BG213200	Construct Portal G2c	48	24-Feb-16		26-Apr-16		BG210	98	0%
	Deck	308	26-Apr-16		02-Jun-17			98	0%
BG210200	Construct Deck G2-1	136	26-Apr-16		24-Oct-16		BG213	98	0%
BG210250	Construct Deck G2-2	136	24-Oct-16		10-Apr-17		BG210	98	0%
BG210300	In-situ Joint	36	10-Apr-17		02-Jun-17		BG210	98	0%
	Parapet and Finishing Works	64	02-Jun-17		23-Aug-17			98	0%
BG210350	Construct Parapet	40	02-Jun-17		24-Jul-17		BG210	98	0%
BG210400	Drainage works	28	02-Jun-17		08-Jul-17		BG210	110	0%
BG210450	Road work	24	24-Jul-17		23-Aug-17		BG210	98	0%
	Miscellaneous Works	264	23-Aug-17		01-Aug-18			98	0%
BG210550	Miscellaneous civil works	24	23-Aug-17		22-Sep-17		BG210	98	0%
BG210600	Remaining works	240	22-Sep-17		01-Aug-18		BG210	98	0%
	Completion of G2	313	22-Sep-17		01-Aug-18			125	0%
BG210500	Completion of civil work of G2	0			22-Sep-17		BG210	301	0%
BG210650	Completion of G2	0			01-Aug-18		BG210	125	0%
Bridge G1		1517	06-Sep-14	07-Aug-14	01-Nov-18			33	0%
	Temporary Works Design (TWD)Submission and Approval	817	24-Dec-14		13-Mar-17			44	0%
BG110000	TWD -ELS design for pile cap construction	21	24-Dec-14		16-Jan-15		AD101	14	0%
BG110010	TWD -Formwork design for pier	30	24-Dec-14		24-Jan-15		CD101	14	0%
BG110020	TWD -Pierhead construction	30	07-May-15		05-Jun-15		BG110	291	0%
BG110030	TWD-Form traveller design	60	03-Jul-15		28-Aug-15		BG110	14	0%
BG110040	TWD -Falsework design for end span construction	30	13-Feb-17		13-Mar-17		BG110	44	0%
	Method Statement Submissions and Approval	90	11-Apr-17		12-Jul-17			14	0%
BG110050	MSS for deck construction	90	11-Apr-17		12-Jul-17		BG110	14	0%
	Off-site Works	144	14-Nov-16		18-May-17			32	0%
BG110060	Form tranveller fabrication	144	14-Nov-16		18-May-17		ND521	32	0%
	Field Works	1517	06-Sep-14	07-Aug-14	01-Nov-18			33	0%
	Preparation Works	28	06-Sep-14	07-Aug-14	14-Oct-14	12-Sep-14			0%
BG110070	Site clearance	24	12-Sep-14	07-Aug-14	14-Oct-14	14-Aug-14	AD101		100%
BG110080	UU detection	24	06-Sep-14	08-Aug-14	09-Oct-14	12-Sep-14	MS100		100%
	Substructure Works from Pier G1d to Pier G2a	176	17-Nov-14	14-Aug-14	03-Jul-15			294	0%
BG110090	Predrilling works for G1d	5	26-Nov-14	14-Aug-14	02-Dec-14	21-Aug-14	BG110		100%
BG110110	Install bored pile for G1d	24	17-Nov-14		15-Dec-14		BG110	38	0%
BG110130	Construct Pile Cap G1d	22	16-Jan-15		12-Feb-15		BG110	384	0%
BG110180	Construct Pier G1d	14	12-Jun-15		03-Jul-15		BG110	294	0%
	Deck Construction from Pier G1d to Pier G2a	96	12-Jul-17		14-Nov-17			122	0%
BG110185	Balanced cantilever construction at G1d	88	12-Jul-17		04-Nov-17		BG110	122	0%
BG110190	Deck construction at end Span G2a	40	21-Sep-17		14-Nov-17		BG110	122	0%
	Bridge Works from Abutment G1b to Pier G1d	114	01-Sep-17		24-Jan-18			64	0%
BG110160	Construct abutment G1b	36	01-Sep-17		19-Oct-17		AD102	64	0%
BG110170	Construct Pier G1c	14	01-Sep-17		19-Sep-17		BG110	64	0%
BG110210	Balanced cantilever construction at G1c	88	19-Sep-17		10-Jan-18		BG110	64	0%
BG110300	Construct end span at G1b	24	23-Dec-17		24-Jan-18		BG110	64	0%
	Flexible Approach Structure from Abutment G1b to Pier G1a	203	01-Sep-17		21-May-18			9	0%
BG110100	Predrilling works for G1a-G1b	17	01-Sep-17		22-Sep-17		AD102	0	0%
BG110120	Install socket H-Pile for G1a-G1b	40	22-Sep-17		15-Nov-17		BG110	0	0%
BG110140	Construct Pile cap for G1a-G1b	41	15-Nov-17		05-Jan-18		BG110	1	0%
BG110150	Construct Column for G1a-G1b	40	05-Jan-18		24-Feb-18		BG110	1	0%
BG110220	Construct beam and Slab for G1a-G1b	40	24-Feb-18		18-Apr-18		BG110	1	0%
BG110290	Construct side wall	25	18-Apr-18		21-May-18		BG110	9	0%
	Parapet and Finishing Works	69	18-Apr-18		19-Jul-18			1	0%
BG110230	Construct Parapet	33	18-Apr-18		01-Jun-18		BG110	1	0%
BG110240	Drainage work	33	18-Apr-18		01-Jun-18		BG110	1	0%
BG110250	Road work and remaining civil work	36	01-Jun-18		19-Jul-18		BG110	1	0%
	Miscellaneous Works	80	19-Jul-18		01-Nov-18			28	0%
BG110260	Miscellaneous works	80	19-Jul-18		01-Nov-18		BG110	28	0%
	Completion of G1	105	19-Jul-18		01-Nov-18			33	0%
BG110270	Completion of civil works for G1	0			19-Jul-18		BG110	1	0%
BG110280	Completion of G1	0			01-Nov-18		BG110	33	0%
Bridge H1		1518	06-Sep-14	07-Aug-14	01-Nov-18			32	0%
	Temporary Works Design (TWD) Submission and Approval	870	03-Jan-15		15-May-17			291	0%
BH110000	TWD -ELS design for pile cap construction	21	03-Jan-15		23-Jan-15		AD101	288	0%
BH110010	TWD -Formwork design for pier	60	25-Mar-15		27-May-15		BG110	271	0%
BH110020	TWD -Pierhead construction	30	27-May-15		25-Jun-15		BG110	271	0%
BH110030	TWD -Form traveller design	60	03-Jul-15		28-Aug-15		BG110	14	0%
BH110040	TWD -Falsework design for end span construction	30	11-Apr-17		15-May-17		BG110	291	0%
	Method Statement Submissions and Approval	30	11-Apr-17		15-May-17			14	0%
BH110050	MSS-deck construction	30	11-Apr-17		15-May-17		BH110	14	0%
	Off-site Works	96	14-Nov-16		13-Mar-17			32	0%
BH110060	Form tranveller fabrication	96	14-Nov-16		13-Mar-17		BH110	32	0%
	Field Works	1518	06-Sep-14	07-Aug-14	01-Nov-18			32	0%
	Preparation Works	24	06-Sep-14	07-Aug-14	09-Oct-14	12-Sep-14			0%



HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
BH110070	Site clearance	12	12-Sep-14	07-Aug-14	26-Sep-14	20-Aug-14	BG110		100%
BH110080	UU detection and protection	24	06-Sep-14	08-Aug-14	09-Oct-14	12-Sep-14	BG110		100%
Substructure Works From Abutment H1f to Pier H1d		223	03-Oct-14	21-Aug-14	17-Jul-15			227	0%
BH110082	Predrilling works for H1d	5	03-Oct-14	21-Aug-14	09-Oct-14	27-Aug-14	BH110		100%
BH110084	Predrilling works for H1e	5	03-Oct-14		08-Oct-14		BH110	303	0%
BH110090	Predrilling works for H1f	11	09-Jan-15	21-Aug-14	22-Jan-15	10-Sep-14	BH110		100%
BH110092	Construct bored piles for H1d	16	28-Oct-14		17-Nov-14		BH110	38	0%
BH110094	Construct Pile cap for H1d	22	23-Jan-15		18-Feb-15		BH110	302	0%
BH110130	Construct bored piles for H1f	48	23-Jan-15		24-Mar-15		BH110	217	0%
BH110140	Construct bored piles for H1e	24	28-Jan-15		28-Feb-15		BG212	288	0%
BH110145	Construct pile cap for H1e	28	28-Feb-15		07-Apr-15		BH110	288	0%
BH110170	Construct pile cap for H1f	36	24-Mar-15		13-May-15		BH110	217	0%
BH110210	Construct abutment H1f	48	13-May-15		17-Jul-15		BH110	217	0%
BH110220	Construct Pier H1e	14	25-Jun-15		16-Jul-15		BH110	228	0%
BH110230	Construct Pier H1d	14	25-Jun-15		16-Jul-15		BH110	208	0%
Decking Construction From Abutment H1f to Pier H1d		160	16-May-17		06-Dec-17			102	0%
BH110270	Construct End Span H1f	41	17-Jul-17		05-Sep-17		BH110	174	0%
BH110280	Balanced cantilever construction at H1e	80	16-May-17		25-Aug-17		BH110	10	0%
BH110290	Balanced cantilever construct at at H1d	80	26-Aug-17		06-Dec-17		BH110	10	0%
Bridge Works From Pier H1b to Pier H1d		168	01-Sep-17		03-Apr-18			10	0%
BH110240	Construct Pier H1c	14	01-Sep-17		19-Sep-17		AD102	72	0%
BH110250	construct Abutment H1b	36	01-Sep-17		19-Oct-17		BH110	118	0%
BH110300	Balanced cantilever construction at at H1c	72	07-Dec-17		07-Mar-18		BH110	10	0%
BH110310	Construct End Span H1b	24	03-Mar-18		03-Apr-18		BH110	10	0%
Flexible Approach Structure from Abutment H1b to Pier H1a		203	01-Sep-17		21-May-18			8	0%
BH110120	Predrilling works for H1a-H1b	12	01-Sep-17		16-Sep-17		BG110	5	0%
BH110160	Sockete H-piles for H1a-H1b	40	22-Sep-17		15-Nov-17		BG110	0	0%
BH110200	Construct Pile cap for H1a-H1b	40	15-Nov-17		04-Jan-18		BH110	0	0%
BH110260	Construct Column H1a-H1b	40	05-Jan-18		23-Feb-18		BH110	0	0%
BH110320	Construct Beam and slab H1a-H1b	40	24-Feb-18		18-Apr-18		BH110	0	0%
BH110390	Construct side wall	25	18-Apr-18		21-May-18		BH110	8	0%
Parapet and Finishing Works		70	18-Apr-18		19-Jul-18			0	0%
BH110330	Construct Parapet	33	18-Apr-18		30-May-18		BH110	0	0%
BH110340	Drainage work	33	18-Apr-18		30-May-18		BH110	0	0%
BH110350	Road Work	37	30-May-18		19-Jul-18		BH110	0	0%
Miscellaneous Works		80	19-Jul-18		01-Nov-18			27	0%
BH110360	Miscellaneous Works	80	19-Jul-18		01-Nov-18		BH110	27	0%
Completion of G1		105	19-Jul-18		01-Nov-18			32	0%
BH110370	Completion civil works of H1	0			19-Jul-18		BH110	0	0%
BH110380	Completion of H1	0			01-Nov-18		BH110	32	0%
Site Formation - Retainging Structure RW_A		755	27-Jul-15	02-Sep-14	21-Aug-17			74	0%
Temporary Works Design Submission and Approval		120	27-Jul-15		19-Nov-15			326	0%
RWA11000	Haul road design submission and approval	60	27-Jul-15		21-Sep-15		CD101	326	0%
RWA11050	ELS design submission and approval	60	21-Sep-15		19-Nov-15		RWB1	326	0%
RWA11100	Formwork design submission and approval	60	21-Sep-15		19-Nov-15		RWA1	326	0%
Method Statement Submission and Approval		120	27-Jul-15		19-Nov-15			326	0%
RWA21000	Method Statement Submission and Approval for ELS	60	27-Jul-15		21-Sep-15		RWB2	326	0%
RWA21050	Method Statement Submission and Approval for Retaining Wall Construc	60	21-Sep-15		19-Nov-15		RWA2	326	0%
Retaining Wall A		562	24-Apr-15	02-Sep-14	21-Aug-17			56	0%
RWA31000	Prunning for tree transplanting Portion X and I	72	24-Aug-15		25-Nov-15		TR101	197	0%
RWA31015	Transplant existing tree (Portion X and Portion I)	24	25-Nov-15		23-Dec-15		RWA3	197	0%
RWA31020	Construct haul road	11	14-Apr-16		28-Apr-16		RWA3	111	0%
RWA31025	Site clearance and tree felling	12	01-Jun-16	02-Sep-14	17-Jun-16		TR101	111	5%
RWA31050	Install ELS and Excavation (Soil: 10,298m3)	92	13-May-16		10-Sep-16		RWA3	111	0%
RWA31100	Construct Retaining Wall A from TD2 Abutment M to MJ 11	28	11-Jan-17		16-Feb-17		RWA3	56	0%
RWA31150	Construct Cascade D	24	16-Feb-17		16-Mar-17		TD211	56	0%
RWA31200	Drainage Diversion of Existing Stream to Cascade D	12	16-Mar-17		30-Mar-17		RWA3	56	0%
RWA31250	Construct Retaining Wall A from Bay MJ11 to CH357.8	72	30-Mar-17		08-Jul-17		RWA3	56	0%
RWA31300	Backfilling Works	34	08-Jul-17		21-Aug-17		RWA3	56	0%
Site Formation - Retaining Structure RW_B		1022	12-Sep-14	14-Aug-14	29-Jun-17			12	0%
Temporary Works Design Submission and Approval		85	12-Sep-14	05-Sep-14	03-Dec-14			385	0%
RWB11050	ELS design submission and approval	21	12-Sep-14	05-Sep-14	03-Oct-14		CD101	83	70%
RWB11100	Formwork and falsework design submission and approval	60	08-Oct-14		03-Dec-14		RWB1	385	0%
Method Statement Submission and Approval		180	08-Oct-14		01-Apr-15			325	0%
RWB21000	Method Statement Submission and Approval for ELS	21	08-Oct-14		27-Oct-14		RWB1	83	0%
RWB21025	Method Statement Submission and Approval for piling works	60	03-Dec-14		31-Jan-15		RWB1	220	0%
RWB21050	Method Statement Submission and Approval for Retaining Wall Construc	60	31-Jan-15		01-Apr-15		RWB2	325	0%
Retaining Structure RW_B		767	13-Oct-14	14-Aug-14	29-Jun-17			8	0%
RWB31000	Prunning for tree transplanting Portion I	72	13-Oct-14		10-Jan-15		AD101	67	0%
RWB31030	Site clearance and tree felling	24	13-Oct-14	14-Aug-14	12-Nov-14		RWB3	67	60%
RWB31040	Transplant existing trees	24	10-Jan-15		07-Feb-15		RWB3	159	0%
RWB31060	Initial excavation of RW_B up to approx +6.0 mPD	24	27-Oct-14		25-Nov-14		RWB3	66	0%
RWB31080	Predrilling works	48	13-Jan-15	04-Sep-14	12-Mar-15		TD130	136	5%
RWB31100	Excavation works and Foundation Works (Soil: 30,000; Rock: 4,756)	128	13-Mar-15		28-Aug-15		DN502	134	0%
RWB31200	Box Structures (M.J. 6 to M.J. 11)	220	29-Aug-15		08-Jun-16		TD130	134	0%
RWB31401	Box Structures (Abutment H1f to M.J.3)	172	29-Aug-15		06-Apr-16		TFB11	182	0%
RWB31501	Box Structures (Abutment M.J. 3 to M.J.6)	172	29-Aug-15		06-Apr-16		RWB3	182	0%
RWB31526	Construct Drainage Channel in front of Abutment K of TD2	24	26-Jan-16		26-Feb-16		TD211	7	0%
RWB31551	Box Structures (M.J. 13 to Abutment K of TD2)	105	26-Feb-16		14-Jul-16		RWB3	7	0%
RWB31701	L-Shape Structures (M.J.11 to M.J.13)	100	14-Jul-16		21-Nov-16		RWB3	7	0%
RWB31860	Construct Parapet	45	04-May-17		29-Jun-17		TD130	8	0%
Retaining Structure RW_E		402	03-Jul-17		09-Aug-18			117	0%
Temporary Works Design Submission and Approval		60	03-Jul-17		28-Aug-17			144	0%
RWE11000	Access road design submission and approval	7	03-Jul-17		08-Jul-17		CD101	104	0%
RWE11050	ELS design submission and approval	60	03-Jul-17		28-Aug-17		AD102	144	0%
Method Statement Submission and Approval		45	03-Jul-17		14-Aug-17			159	0%
RWE21000	Method Statement Submission and Approval for ELS	45	03-Jul-17		14-Aug-17		CD101	159	0%
RWE21050	Method Statement Submission and Approval for Retaining Wall Construc	45	03-Jul-17		14-Aug-17		CD101	159	0%
RWE21100	Method Statement Submission and Approval for piling works	45	03-Jul-17		14-Aug-17		CD101	98	0%
Box Structures and L-Shape Retaining Wall for Retaining Wall E		247	22-Sep-17		09-Aug-18			91	0%
RWE31000	Predrilling works	24	22-Sep-17		25-Oct-17		BH110	17	0%
RWE31050	Excavation and Foundation Works	49	15-Nov-17		15-Jan-18		BH110	1	0%
RWE31110	Construct retaining structures for Retaining Wall E	72	15-Jan-18		18-Apr-18		BG110	1	0%
RWE31150	Backfilling structures	16	18-Apr-18		09-May-18		BG110	1	0%
RWE31200	Parapet and Drainage Works	30	09-May-18		19-Jun-18		RWE3	1	0%
RWE31225	Civil provision for TCSS and E&M works	23	19-Jun-18		19-Jul-18		RWE3	1	0%
RWE31250	Remaining works	17	19-Jul-18		09-Aug-18		RWE3	91	0%
Site Formation - Retaining Structure for Slope TP_F		1054	12-Sep-14	11-Aug-14	01-Aug-17			8	0%
Temporary Works Design Submission and Approval		64	12-Sep-14	25-Aug-14	12-Nov-14			15	0%
RWF11000	Haul road design submission and approval	30	12-Sep-14	25-Aug-14	11-Oct-14		CD101	39	30%
RWF11050	Open cut excavation design submission and approval	30	30-Sep-14	10-Sep-14	29-Oct-14		CD101	8	90%
RWF11100	Formwork design submission and approval	45	30-Sep-14		12-Nov-14		RWF11	8	0%
Method Statement Submission and Approval		49	04-Oct-14		19-Nov-14			8	0%
RWF21000	Method Statement Submission and Approval for Open cut excavation	30	04-Oct-14		01-Nov-14		RWF11	27	0%
RWF21050	Method Statement Submission and Approval for Retaining Wall Construc	30	22-Oct-14		19-Nov-14		RWF11	8	0%
Retaining Structure for Slope TP_F		799	03-Oct-14	11-Aug-14	01-Aug-17			7	0%
RWF31000	Form Access Road	24	03-Oct-14	11-Aug-14	03-Nov-14	30-Sep-14	RWF11		100%
RWF31050	Excavation of Soil (5,400m3)	43	19-Nov-14		12-Jan-15		RWF21	7	0%
RWF31100	Excavation of Rock Grade IV (4,320m3)	70	12-Jan-15		11-Apr-15		RWF31	7	0%
RWF31300	Construct Retaining Wall Bay 7 to Bay 20	168	10-Mar-15		19-Oct-15		RWF31	7	0%
RWF31325	Construct Retaining Wall Bay 4 to Bay 6 adjacent to abutment G2e	50	23-Dec-15		26-Feb-16		TFB11	407	0%
RWF31350	Construct Retaining Wall Bay 21 to Bay 28	96	18-Oct-16		15-Feb-17		RWF31	133	0%



HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

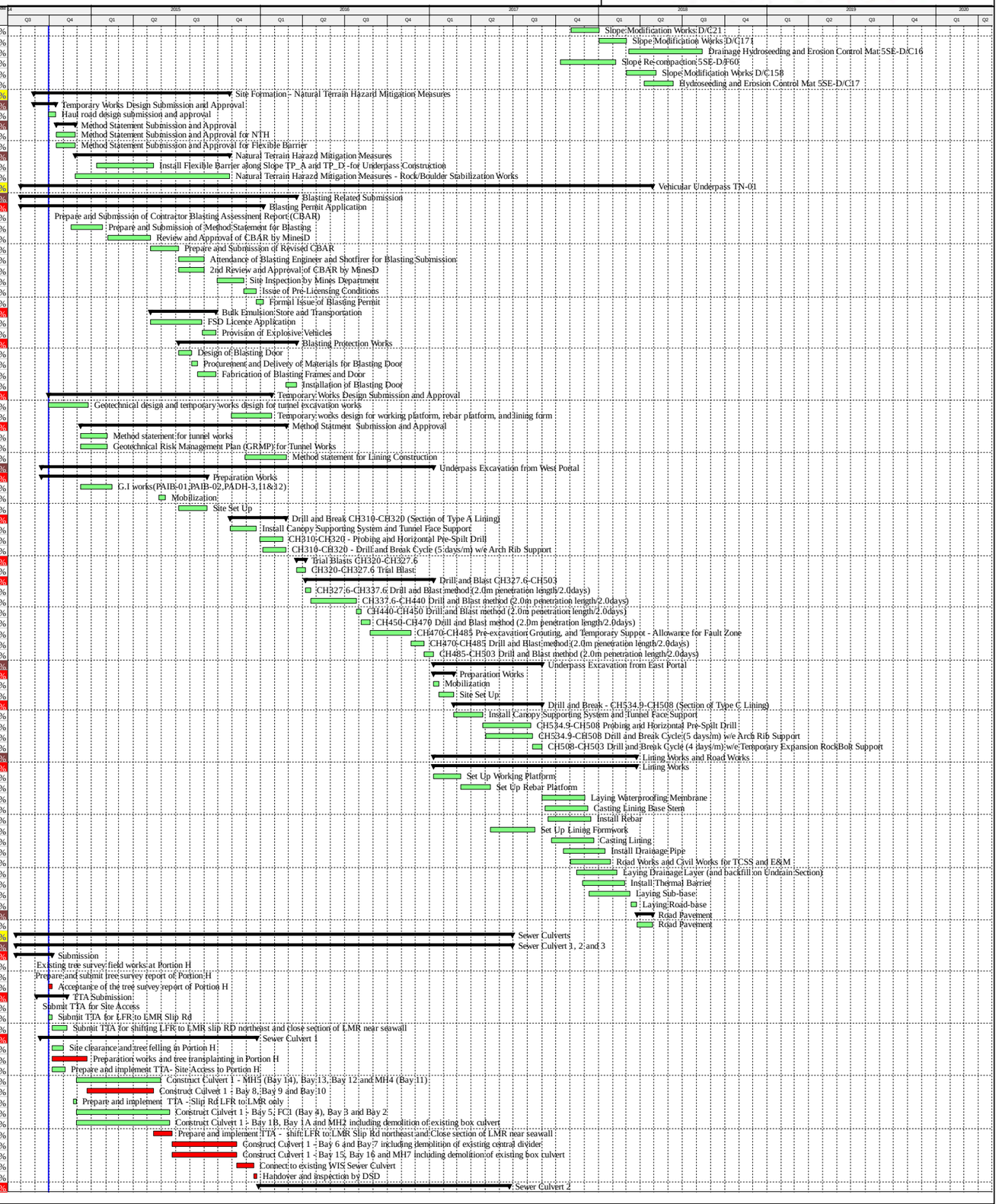
CRBC - KADEN Joint Venture

Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
RWF31400	Backfilling (51,449m3)	504	19-Oct-15		01-Aug-17		RWF31	7	0%
Site Formation - Retaining Structure for Slope TP_G		973	20-Oct-15		19-Jun-18			167	0%
Temporary Works Design Submission and Approval		60	20-Oct-15		16-Dec-15			176	0%
RWG11000	ELS design submission and approval	60	20-Oct-15		16-Dec-15		CD101	176	0%
Method Statement Submission and Approval		120	16-Dec-15		18-Apr-16			176	0%
RWG21000	Method Statement Submission and Approval for ELS	60	16-Dec-15		17-Feb-16		CD101	176	0%
RWG21050	Method Statement Submission and Approval for TP_G	60	17-Feb-16		18-Apr-16		CD101	176	0%
Retaining Structure for Slope TP_G		610	18-Apr-16		19-Jun-18			130	0%
RWG31000	Construct Retaining Wall	244	18-Apr-16		27-Feb-17		RWG2	130	0%
RWG31050	Road Works at Lun Mun Road	366	27-Feb-17		19-Jun-18		RWG3	130	0%
Site Formation - Slope TP_A & Associated Works		532	09-Oct-14	29-Aug-14	24-Mar-16			508	0%
Temporary Works Design Submission and Approval		45	09-Oct-14	29-Aug-14	20-Nov-14			288	0%
TPA11000	Haul road design submission and approval for TP_A,B&C	45	09-Oct-14	29-Aug-14	20-Nov-14		TPD21	288	60%
Method Statement Submission and Approval		45	30-Oct-14	29-Sep-14	10-Dec-14			261	0%
TPA21050	Method Statement Submission and Approval for TP_A ,B&C	45	30-Oct-14	29-Sep-14	10-Dec-14		CD101	261	30%
Slope Feature - Slope TP_A		384	19-Nov-14	03-Sep-14	24-Mar-16			388	0%
TPA31000	Prunnning for tree transplanting in Portion X	72	19-Nov-14		14-Feb-15		TR101	111	0%
TPA31030	Transplant existing trees (Portion X)	24	14-Feb-15		18-Mar-15		TPA31	111	0%
TPA31040	Form Access Road	24	18-Mar-15	03-Sep-14	21-Apr-15		TPA21	111	30%
TPA31050	Site Clearance and Tree Felling	24	11-Apr-15	11-Sep-14	13-May-15		TPA31	111	60%
TPA31055	G.I works	15	24-Apr-15		14-May-15		TPA31	111	0%
TPA31100	Excavation of Soil (23,933m3)	48	14-May-15		18-Jul-15		TPA31	111	0%
TPA31150	Excavation of Rock Grade IV (2,314m3)	18	18-Jul-15		10-Aug-15		TPA31	111	0%
TPA31200	Excavation of Rock Grade II/III (6,539m3)	60	10-Aug-15		28-Oct-15		TPA31	116	0%
TPA31250	Forming East Portal Formation and temporary ground drainage works	60	28-Oct-15		11-Jan-16		TPA31	282	0%
TPA31300	Construct Cascade A	60	11-Jan-16		24-Mar-16		TPA31	388	0%
Site Formation - Slope TP_B & Associated Works		226	10-Sep-15	03-Sep-14	29-Jun-16			151	0%
Slope Feature - Slope TP_B		226	10-Sep-15	03-Sep-14	29-Jun-16			151	0%
TPB31000	Form Access Road	24	10-Sep-15	03-Sep-14	13-Oct-15		TPA31	111	30%
TPB31050	Site Clearance and Tree Felling	24	09-Oct-15	11-Sep-15	10-Nov-15		TR101	111	60%
TPB31100	Excavation of Soil (49,155m3)	72	05-Oct-15		04-Jan-16		TPB31	111	0%
TPB31150	Excavation of Rock Grade IV (15,049m3)	80	04-Jan-16		14-Apr-16		TPB31	111	0%
TPB31210	Excavation of Rock II/III	28	14-Apr-16		23-May-16		TPB31	158	0%
TPB31260	Forming road formation and temporary ground drainage works	11	16-Jun-16		29-Jun-16		TPC31	151	0%
Site Formation - Slope TP_C & Associated Works		215	10-Sep-15	03-Sep-14	16-Jun-16			151	0%
Slope Feature - Slope TP_C		215	10-Sep-15	03-Sep-14	16-Jun-16			151	0%
TPC31015	Form Access Road	24	10-Sep-15	03-Sep-14	13-Oct-15		AD101	184	30%
TPC31030	Site Clearance and Tree Felling	24	19-Sep-15	11-Sep-14	23-Oct-15		TPC31	184	60%
TPC31035	G.I works	15	05-Oct-15		24-Oct-15		TPC31	184	0%
TPC31060	Excavation of Soil (12,000m3)	24	03-Dec-15		04-Jan-16		TPC31	151	0%
TPC31100	Excavation of Rock II/III (12,964m3)	115	04-Jan-16		01-Jun-16		TPC31	151	0%
TPC31160	Forming road formation and temporary ground drainage works	11	01-Jun-16		16-Jun-16		TPC31	151	0%
Site Formation - Slope TP_D & Associated Works		259	08-Sep-14	29-Aug-14	26-May-15			77	0%
Temporary Works Design Submission and Approval		30	08-Sep-14	29-Aug-14	09-Oct-14			63	0%
TPD21000	Haul road design submission and approval	30	08-Sep-14	29-Aug-14	09-Oct-14		CD101	63	50%
Method Statement Submission and Approval		30	30-Sep-14	30-Sep-14	29-Oct-14			261	0%
TPD11050	Method Statement Submission and Approval for TP_D Slope Site Formati	30	30-Sep-14	30-Sep-14	29-Oct-14		TPD21	261	5%
Slope Feature - Slope TP_D		193	19-Sep-14	03-Sep-14	26-May-15			59	0%
TPD31000	Form Access Road	24	19-Sep-14	03-Sep-14	22-Oct-14		TPD21	48	5%
TPD31025	Site Clearance and Tree Felling	24	19-Nov-14	11-Sep-14	17-Dec-14		TPD31	37	60%
TPD31035	G.I works	17	17-Dec-14	19-Sep-14	09-Jan-15		TPD31	37	5%
TPD31100	Excavation of Soil (4,570m3)	12	19-Dec-14		06-Jan-15		PS103	37	0%
TPD31150	Excavation of Rock Grade IV (999m3)	12	06-Jan-15		20-Jan-15		TPD31	38	0%
TPD31200	Excavation of Rock II/III (12,196m3)	92	20-Jan-15		20-May-15		TPD31	38	0%
TPD31250	Forming West Portal Formation and temporary ground drainage works	4	20-May-15		26-May-15		TPD31	59	0%
Site Formation - Slope TP_E & Associated Works		828	08-Sep-14	11-Aug-14	14-Dec-16			238	0%
Temporary Works Design Submission and Approval		30	08-Sep-14	29-Aug-14	09-Oct-14			67	0%
TPE11000	Haul road design submission and approval	30	08-Sep-14	29-Aug-14	09-Oct-14		CD101	67	50%
Method Statement Submission and Approval		45	30-Sep-14	30-Sep-14	12-Nov-14			75	0%
TPE21000	Method Statement Submission and Approval for TP_E Slope Site Format	45	30-Sep-14	30-Sep-14	12-Nov-14		TPE11	75	5%
Slope Feature - Slope TP_E (at 5SE-DC/153) at Non-Pitcher Plant Area		748	09-Oct-14	11-Aug-14	27-Oct-16			56	0%
TPE31000	Form Access Road	72	09-Oct-14	11-Aug-14	07-Jan-15		TPE11	52	60%
TPE31010	G.I works	15	19-Nov-14		06-Dec-14		TPE31	61	0%
TPE31050	Site Clearance, Tree Transplanting and Felling	72	19-Nov-14	01-Sep-14	14-Feb-15		TR101	46	80%
TPE31100	Excavation of Soil (Max. 200m3/n/d; 13,958m3)	72	27-Nov-14		26-Feb-15		TPE31	46	0%
TPE31150	Excavation of Rock Grade IV (55m3/n/d; 2,810m3)	44	27-Dec-14		18-Feb-15		TPE31	46	0%
TPE31200	Excavation of Rock Grade III (45m3/n/d; 17,388m3)	129	18-Feb-15		10-Aug-15		TPE31	46	0%
TPE31250	Excavation of Rock Grade II (35m3/n/d; 85,388m3)	332	10-Aug-15		14-Oct-16		TPE31	46	0%
TPE31300	Hand Over of Portion D	13	14-Oct-16		27-Oct-16		TPE31	56	0%
Slope Feature - Slope TP_E and 5SE-D/C116 at Pitcher Plant Area		612	18-Oct-14		14-Dec-16			182	0%
TPE41000	Preservation of Existing Pitcher Plants before Translocation	154	18-Oct-14		02-May-15		CD101	142	0%
TPE41020	Translocation of Pitcher Plants	67	02-May-15		29-Jul-15		TPE41	142	0%
TPE41050	Form Access Road	48	10-Aug-15		12-Oct-15		TPE31	133	0%
TPE41100	Excavation of Soil (Max. 200m3/n/d; 12,159m3)	16	12-Oct-15		03-Nov-15		TPE41	133	0%
TPE41150	Excavation of Rock Grade IV (55m3/n/d; 6,408m3)	34	12-Nov-15		21-Dec-15		TPE41	133	0%
TPE41200	Excavation of Rock Grade III (45m3/n/d; 14,000m3)	93	21-Dec-15		20-Apr-16		TPE41	133	0%
TPE41250	Excavation of Rock Grade II (35m3/n/d; 15,226m3)	136	20-Apr-16		18-Oct-16		TPE41	133	0%
TPE41300	Construct Cascade C	48	18-Oct-16		14-Dec-16		TPE41	182	0%
Site Formation - Roadworks		607	16-Jun-16		10-Aug-18			90	0%
Roadworks (Other than Underpass)		607	16-Jun-16		10-Aug-18			90	0%
SFW11000	Road and drainage works and Civil Works for TCSS and E&M (Retainin	160	03-Jul-17		20-Jan-18		RWB3	8	0%
SFW11025	Road and drainage works and Civil Works for TCSS and E&M (Retainin	160	01-Aug-17		21-Feb-18		RWF31	8	0%
SFW11050	Road and drainage works and Civil Works for TCSS and E&M (Toll Plaz	160	14-Dec-16		12-Jul-17		TPE31	182	0%
SFW11100	Road and drainage works and Civil Works for TCSS and E&M (Retainin	96	21-Aug-17		20-Dec-17		RWA3	56	0%
SFW11150	Road and drainage works and Civil Works for TCSS and E&M (East Por	156	16-Jun-16		03-Jan-17		TPB31	328	0%
SFW11200	Road and drainage works and Civil Works for TCSS and E&M (West Por	96	01-Nov-17		28-Feb-18		UDP82	2	0%
SFW11250	Road Pavement (All Area in Section 1)	148	22-Jan-18		03-Aug-18		SFW11	95	0%
SFW11260	Road Pavement (All Area in Section 5)	124	28-Feb-18		10-Aug-18		SFW11	90	0%
Site Formation - Slope Upgrading Works		1335	17-Dec-14		13-Aug-18			112	0%
Temporary Works Design Submission and Approval		30	17-Dec-14		17-Jan-15			55	0%
SUW11000	General temporary works design for slope works	30	17-Dec-14		17-Jan-15		CD101	55	0%
Method Statement Submission and Approval		45	17-Dec-14		31-Jan-15			55	0%
SUW21000	General method statement for Slope Upgrading Works (soil nails, rock do	45	17-Dec-14		31-Jan-15		SUW1	55	0%
Slope Feature - Slope 5SE-D/C170		118	05-Jan-15		02-May-15			87	0%
SUW31000	Implementation of TTA	14	05-Jan-15		17-Jan-15		TT302	62	0%
SUW31050	Site Clearance and Tree Felling	15	17-Jan-15		04-Feb-15		TR101	77	0%
SUW31100	Prepare Access Road	7	17-Jan-15		26-Jan-15		TT302	49	0%
SUW31150	Excavation of Soil (1,240m3)	14	31-Jan-15		17-Feb-15		SUW3	44	0%
SUW31200	Excavation of Rock Grade IV (350m3)	9	17-Feb-15		03-Mar-15		SUW3	66	0%
SUW31250	Slope Works (Recompaction; Soil Nail 45 nr) and Drainage System	45	03-Mar-15		02-May-15		SUW3	66	0%
Other Slope Features		993	31-Jan-15		13-Aug-18			97	0%
SUW41000	Hydroseeding 5SE-D/C152	72	31-Jan-15		07-May-15		SUW2	104	0%
SUW42000	Hydroseeding and Erosion Control Mat 5SE-D/C121	36	20-May-15		08-Jul-15		SUW1	38	0%
SUW43000	Hydroseeding and Erosion Control Mat 5SE-D/C122	36	20-May-15		08-Jul-15		TPD31	38	0%
SUW45000	Hydroseeding 5SE-D/C150	72	31-Jan-15		07-May-15		SUW1	308	0%
SUW46000	Slope Modification Works 5SE-D/C14	72	01-Aug-17		03-Nov-17		SUW1	164	0%
SUW47000	Hydroseeding 5SE-D/C151	72	31-Jan-15		07-May-15		TPE31	230	0%
SUW47500	Re-compaction, Fill and Hydroseeding 5SE-D/C149, 150 and 152	72	31-Jan-15		07-May-15		SUW1	208	0%
SUW48000	Rock Mapping and Stabilization 5SE-D/C115	72	31-Jan-15		07-May-15		TPE31	208	0%
SUW49000	Hydroseeding and Erosion Control Mat 5SE-D/C18	136	25-May-17		18-Nov-17		SUW2	230	0%
SUW50000	Hydroseeding and Erosion Control Mat 5SE-D/C117	148	26-Jun-17		03-Jan-18		SUW2	230	0%
SUW51000	Slope Cut 5SE-D/C165 (1E - 50m3/n/d, 210m3; Soil Nail 47 nr., each 8	196	30-Mar-16		09-Dec-16		SUW4	558	0%

HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

CRBC - KADEN Joint Venture

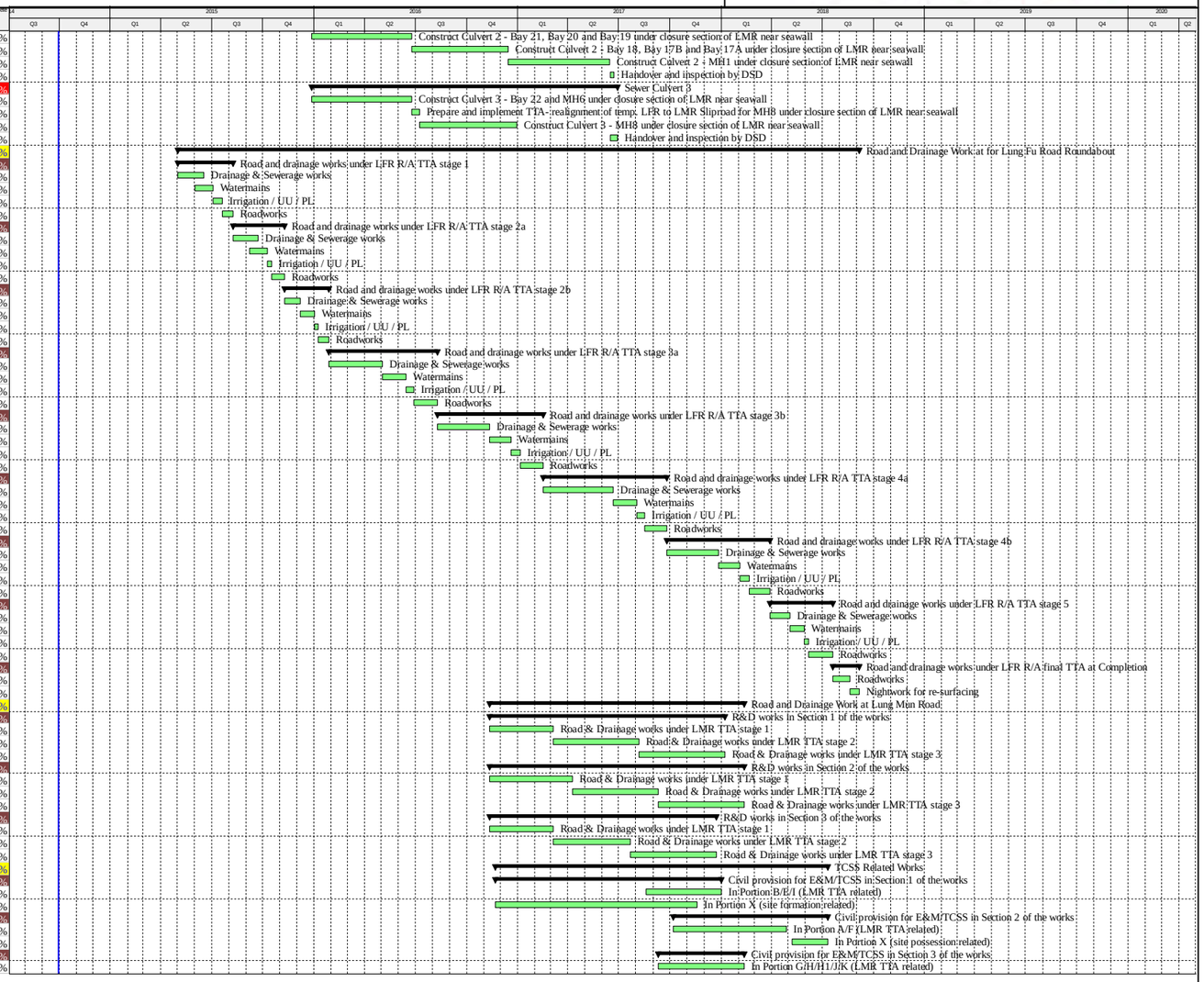
Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
SUW52000	Slope Modification Works D/C21	48	03-Nov-17		02-Jan-18		SUW1	164	0%
SUW53000	Slope Modification Works D/C171	48	02-Jan-18		02-Mar-18		SUW2	164	0%
SUW54000	Drainage Hydroseeding and Erosion Control Mat 5SE-D/C16	120	08-Mar-18		13-Aug-18		SUW5	87	0%
SUW55000	Slope Re-compaction 5SE-D/F60	96	11-Oct-17		07-Feb-18		TD212	228	0%
SUW56000	Slope Modification Works D/C158	48	02-Mar-18		05-May-18		SUW1	164	0%
SUW57000	Hydroseeding and Erosion Control Mat 5SE-D/C17	48	10-Apr-18		11-Jun-18		SUW5	135	0%
Site Formation - Natural Terrain Hazard Mitigation Measures		403	18-Sep-14	29-Aug-14	26-Oct-15			2	0%
Temporary Works Design Submission and Approval		30	18-Sep-14	29-Aug-14	18-Oct-14			2	0%
NTH11000	Haul road design submission and approval	30	18-Sep-14	29-Aug-14	18-Oct-14		CD101	2	50%
Method Statement Submission and Approval		45	16-Oct-14		26-Nov-14			208	0%
NTH21000	Method Statement Submission and Approval for NTH	45	16-Oct-14		26-Nov-14		NTH11	2	0%
NTH21050	Method Statement Submission and Approval for Flexible Barrier	45	16-Oct-14		26-Nov-14		NTH21	208	0%
Natural Terrain Harazd Mitigation Measures		256	27-Nov-14		26-Oct-15			2	0%
NTH31000	Install Flexible Barrier along Slope TP_A and TP_D -for Underpass Cor	96	12-Jan-15		14-May-15		NTH11	126	0%
NTH31050	Natural Terrain Harazd Mitigation Measures - Rock/Boulder Stabilizatio	256	27-Nov-14		26-Oct-15		NTH11	2	0%
Vehicular Underpass TN-01		1324	12-Sep-14	01-Aug-14	27-Apr-18			585	0%
Blasting Related Submission		555	12-Sep-14	01-Aug-14	19-Mar-16			1354	0%
Blasting Permit Application		490	12-Sep-14	01-Aug-14	07-Jan-16			76	0%
UDP14000	Prepare and Submission of Contractor Blasting Assessment Report (CBA	90	12-Sep-14	01-Aug-14	06-Dec-14	30-Sep-14	CD101		100%
UDP14050	Prepare and Submission of Method Statement for Blasting	70	17-Nov-14		24-Jan-15		PS102	90	0%
UDP14100	Review and Approval of CBAR by MinesD	90	05-Feb-15		08-May-15		UDP15	78	0%
UDP14150	Prepare and Submission of Revised CBAR	60	09-May-15		07-Jul-15		UDP14	78	0%
UDP14200	Attendance of Blasting Engineer and Shotfirer for Blasting Submission	60	08-Jul-15		01-Sep-15		UDP14	163	0%
UDP14225	2nd Review and Approval of CBAR by MinesD	60	08-Jul-15		01-Sep-15		UDP14	103	0%
UDP14250	Site Inspection by Mines Department	60	29-Sep-15		25-Nov-15		UDP12	76	0%
UDP14300	Issue of Pre-Licensing Conditions	28	26-Nov-15		22-Dec-15		UDP14	76	0%
UDP14350	Formal Issue of Blasting Permit	14	22-Dec-15		07-Jan-16		UDP14	76	0%
Bulk Emulsion Store and Transportation		141	09-May-15		26-Sep-15			75	0%
UDP12000	FSD Licence Application	115	09-May-15		27-Aug-15		UDP14	78	0%
UDP12100	Provision of Explosive Vehicles	24	28-Aug-15		26-Sep-15		UDP12	58	0%
Blasting Protection Works		256	08-Jul-15		19-Mar-16			1354	0%
UDP13000	Design of Blasting Door	30	08-Jul-15		04-Aug-15		UDP14	1551	0%
UDP13050	Procurement and Delivery of Materials for Blasting Door	14	05-Aug-15		18-Aug-15		UDP13	1551	0%
UDP13100	Fabrication of Blasting Frames and Door	32	18-Aug-15		26-Sep-15		UDP13	1181	0%
UDP13150	Installation of Blasting Door	20	25-Feb-16		19-Mar-16		UDP31	2	0%
Temporary Works Design Submission and Approval		490	30-Sep-14		25-Jan-16			392	0%
UDP16000	Geotechnical design and temporary works design for tunnel excavation wc	90	30-Sep-14		24-Dec-14		CD101	243	0%
UDP16100	Temporary works design for working platform, rebar platform, and lining	90	30-Oct-15		25-Jan-16		UDP16	392	0%
Method Statement Submission and Approval		450	09-Dec-14		26-Feb-16			361	0%
UDP15000	Method statement for tunnel works	60	08-Dec-14		04-Feb-15		CD101	78	0%
UDP15050	Geotechnical Risk Management Plan (GRMP) for Tunnel Works	60	08-Dec-14		04-Feb-15		CD101	78	0%
UPD15200	Method statement for Lining Construction	90	28-Nov-15		26-Feb-16		UDP15	361	0%
Underpass Excavation from West Portal		589	08-Dec-14	15-Sep-14	09-Jan-17			2	0%
Preparation Works		210	08-Dec-14	15-Sep-14	07-Sep-15			38	0%
UDP15250	G.I works(PAIB-01,PAIB-02,PADH-3,11&12)	60	08-Dec-14	15-Sep-14	18-Feb-15		UDP15	132	5%
UDP21000	Mobilization	11	26-May-15		09-Jun-15		UDP15	59	0%
UDP21050	Site Set Up	48	08-Jul-15		07-Sep-15		UDP15	38	0%
Drill and Break CH310-CH320 (Section of Type A Lining)		98	27-Oct-15		25-Feb-16			2	0%
UDP31000	Install Canopy Supporting System and Tunnel Face Support	48	27-Oct-15		22-Dec-15		NTH31	2	0%
UDP31050	CH310-CH320 - Probing and Horizontal Pre-Spilt Drill	40	30-Dec-15		18-Feb-16		UDP31	2	0%
UDP31100	CH310-CH320 - Drill and Break Cycle (5 days/m) w/e Arch Rib Support	40	06-Jan-16		25-Feb-16		UDP31	2	0%
Trial Blasts CH320-CH327.6		12	19-Mar-16		07-Apr-16			2	0%
UDP50000	CH320-CH327.6 Trial Blast	12	19-Mar-16		07-Apr-16		UDP13	2	0%
Drill and Blast CH327.6-CH503		213	07-Apr-16		09-Jan-17			2	0%
UDP55100	CH327.6-CH337.6 Drill and Blast method (2.0m penetration length/2.0	8	07-Apr-16		18-Apr-16		UDP5	2	0%
UDP55125	CH337.6-CH440 Drill and Blast method (2.0m penetration length/2.0da	75	18-Apr-16		26-Jul-16		UDP5	2	0%
UDP55150	CH440-CH450 Drill and Blast method (2.0m penetration length/2.0days)	8	26-Jul-16		05-Aug-16		UDP5	2	0%
UDP55200	CH450-CH470 Drill and Blast method (2.0m penetration length/2.0days)	16	05-Aug-16		25-Aug-16		UDP5	2	0%
UDP55250	CH470-CH485 Pre-excavation Grouting, and Temporary Suppot - Allow	67	25-Aug-16		21-Nov-16		UDP5	2	0%
UDP55300	CH470-CH485 Drill and Blast method (2.0m penetration length/2.0days)	24	22-Nov-16		19-Dec-16		UDP5	2	0%
UDP55350	CH485-CH503 Drill and Blast method (2.0m penetration length/2.0days)	14	20-Dec-16		09-Jan-17		UDP5	2	0%
Underpass Excavation from East Portal		181	09-Jan-17		01-Sep-17			2	0%
Preparation Works		35	09-Jan-17		22-Feb-17			2	0%
UDP61000	Mobilization	11	09-Jan-17		21-Jan-17		TPC31	2	0%
UDP61050	Site Set Up	24	21-Jan-17		22-Feb-17		UDP61	2	0%
Drill and Break - CH534.9-CH508 (Section of Type C Lining)		146	22-Feb-17		01-Sep-17			2	0%
UDP71000	Install Canopy Supporting System and Tunnel Face Support	48	22-Feb-17		25-Apr-17		UDP61	2	0%
UDP71050	CH534.9-CH508 Probing and Horizontal Pre-Spilt Drill	78	25-Apr-17		07-Aug-17		UDP71	2	0%
UDP71100	CH534.9-CH508 Drill and Break Cycle (5 days/m) w/e Arch Rib Support	78	02-May-17		11-Aug-17		UDP71	2	0%
UDP71150	CH508-CH503 Drill and Break Cycle (4 days/m) w/e Temporary Expan	16	11-Aug-17		01-Sep-17		UDP71	2	0%
Lining Works and Road Works		344	09-Jan-17		24-Mar-18			168	0%
Lining Works		344	09-Jan-17		24-Mar-18			168	0%
UDP82000	Set Up Working Platform	48	09-Jan-17		09-Mar-17		UPD15	32	0%
UDP82050	Set Up Rebar Platform	48	09-Mar-17		13-May-17		UDP82	32	0%
UDP82100	Laying Waterproofing Membrane	72	01-Sep-17		02-Dec-17		UDP71	2	0%
UDP82150	Casting Lining Base Stem	72	08-Sep-17		09-Dec-17		UDP82	2	0%
UDP82175	Install Rebar	72	14-Sep-17		15-Dec-17		UDP82	2	0%
UDP82200	Set Up Lining Formwork	72	13-May-17		16-Aug-17		UDP82	32	0%
UDP82250	Casting Lining	72	22-Sep-17		22-Dec-17		UDP82	2	0%
UDP82300	Install Drainage Pipe	72	17-Oct-17		15-Jan-18		UDP82	2	0%
UDP82350	Road Works and Civil Works for TCSS and E&M	72	01-Nov-17		27-Jan-18		UDP82	2	0%
UDP82400	Laying Drainage Layer (and backfill on Undrain Section)	72	14-Nov-17		09-Feb-18		UDP82	3	0%
UDP82450	Install Thermal Barrier	72	27-Nov-17		26-Feb-18		UDP82	3	0%
UDP82500	Laying Sub-base	72	11-Dec-17		10-Mar-18		UDP82	168	0%
UDP82550	Laying Road-base	12	12-Mar-18		24-Mar-18		UDP82	168	0%
Road Pavement		24	26-Mar-18		27-Apr-18			168	0%
UDP91000	Road Pavement	24	26-Mar-18		27-Apr-18		UDP82	168	0%
Sewer Culverts		1089	21-Jul-14	21-Jul-14	29-Jun-17			533	0%
Sewer Culvert 1, 2 and 3		1089	21-Jul-14	21-Jul-14	29-Jun-17			533	0%
Submission		92	21-Jul-14	21-Jul-14	17-Oct-14			0	0%
CUL10650	Existing tree survey field works at Portion H	30	21-Jul-14	21-Jul-14	18-Aug-14	23-Aug-14	CUL1		100%
CUL10700	Prepare and submit tree survey report of Portion H	15	25-Aug-14	01-Aug-14	06-Sep-14	20-Aug-14	CUL1		100%
CUL10750	Acceptance of the tree survey report of Portion H	30	17-Sep-14	21-Aug-14	17-Oct-14		CUL1	0	80%
TTA Submission		51	30-Sep-14	05-Sep-14	18-Nov-14			186	0%
CUL10800	Submit TTA for Site Access	21	30-Sep-14	05-Sep-14	21-Oct-14	05-Sep-14	CUL1		100%
CUL10850	Submit TTA for LFR to LMR Slip Rd	30	22-Oct-14	05-Sep-14	18-Nov-14		CUL1	2	80%
CUL10900	Submit TTA for shifting LFR to LMR slip RD northeast and close sectio	35	07-Oct-14		08-Nov-14		CUL1	186	0%
Sewer Culvert 1		454	07-Oct-14	12-Sep-14	24-Dec-15			0	0%
CUL10000	Site clearance and tree felling in Portion H	30	07-Oct-14	12-Sep-14	04-Nov-14		CUL1	24	10%
CUL10050	Preparation works and tree transplanting in Portion H	90	07-Oct-14	22-Sep-14	02-Jan-15		CUL1	0	10%
CUL10100	Prepare and implement TTA- Site Access to Portion H	30	07-Oct-14		04-Nov-14		CUL1	51	0%
CUL10150	Construct Culvert 1 - MH5 (Bay 14), Bay 13, Bay 12 and MH4 (Bay 11)	180	29-Nov-14		30-May-15		CUL1	24	0%
CUL10200	Construct Culvert 1 - Bay 8, Bay 9 and Bay 10	140	22-Dec-14		14-May-15		CUL1	0	0%
CUL10250	Prepare and implement TTA - Slip Rd LFR to LMR only	7	22-Nov-14		29-Nov-14		CUL1	2	0%
CUL10300	Construct Culvert 1 - Bay 5, FC1 (Bay 4), Bay 3 and Bay 2	200	29-Nov-14		18-Jun-15		CUL1	2	0%
CUL10350	Construct Culvert 1 - Bay 1B, Bay 1A and MH2 including demolition of	200	29-Nov-14		18-Jun-15		CUL1	2	0%
CUL10400	Prepare and implement TTA - shift LFR to LMR Slip Rd northeast and C	40	14-May-15		23-Jun-15		CUL1	0	0%
CUL10450	Construct Culvert 1 - Bay 6 and Bay 7 including demolition of existing c	145	23-Jun-15		10-Nov-15		CUL1	0	0%
CUL10500	Construct Culvert 1 - Bay 15, Bay 16 and MH7 including demolition of e	145	23-Jun-15		10-Nov-15		CUL1	0	0%
CUL10550	Connect to existing WIS Sewer Culvert	40	10-Nov-15		17-Dec-15		CUL1	0	0%
CUL10600	Handover and inspection by DSD	8	17-Dec-15		24-Dec-15		CUL1	0	0%
Sewer Culvert 2		548	28-Dec-15		23-Jun-17			539	0%



HY/2013/12 TM-CLKL Northern Connection Toll Plaza and Associated Works

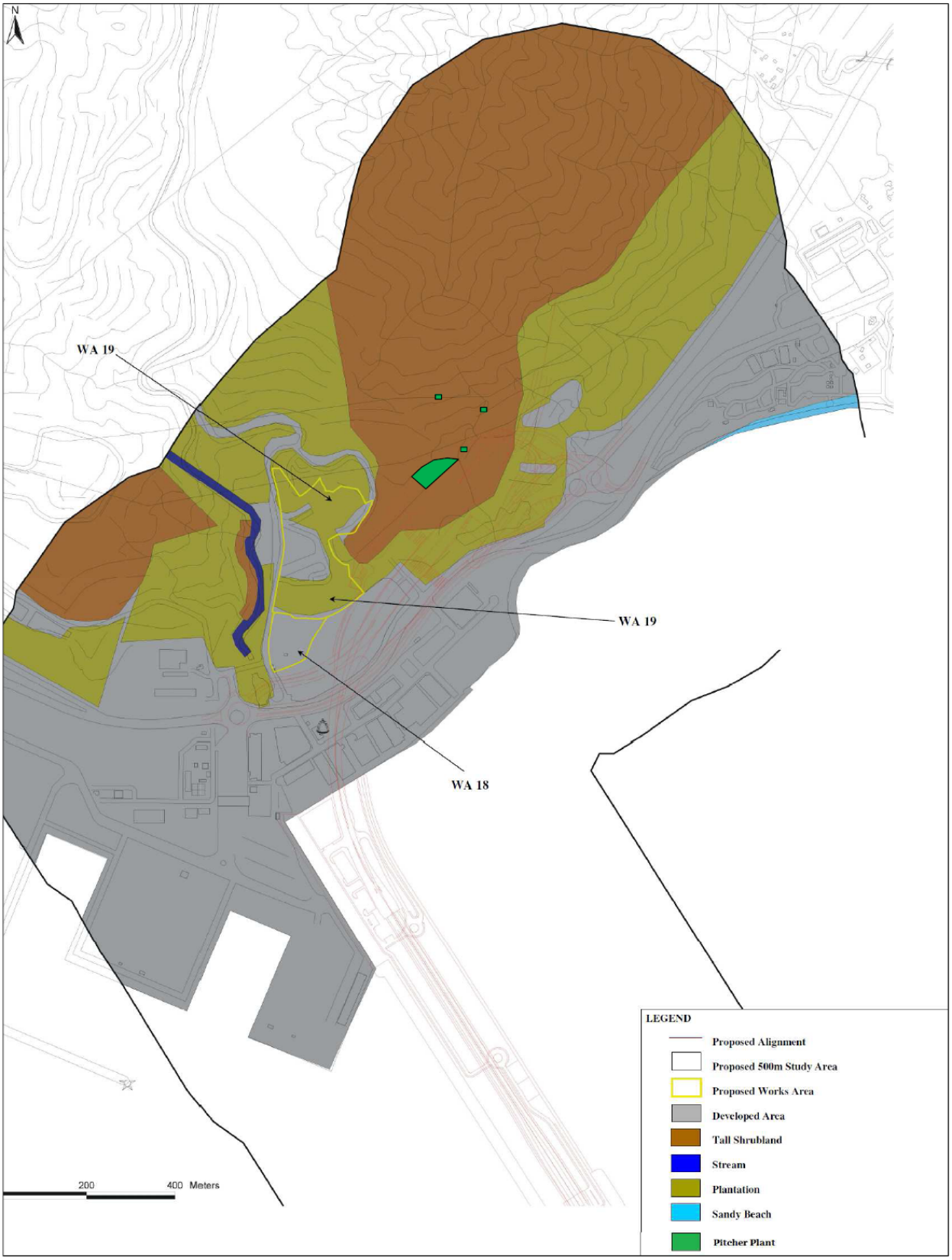
CRBC - KADEN Joint Venture

Activity ID	Activity Name	Original Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Predecessors	Total Float	Performance % Complete
CUL10950	Construct Culvert 2 - Bay 21, Bay 20 and Bay 19 under closure section c	180	28-Dec-15		24-Jun-16		CUL10	533	0%
CUL11000	Construct Culvert 2 - Bay 18, Bay 17B and Bay 17A under closure sectio	180	25-Jun-16		14-Dec-16		CUL10	533	0%
CUL11050	Construct Culvert 2 - MH1 under closure section of LMR near seawall	180	15-Dec-16		15-Jun-17		CUL11	533	0%
CUL11100	Handover and inspection by DSD	8	16-Jun-17		23-Jun-17		CUL11	539	0%
Sewer Culvert 3		554	28-Dec-15		29-Jun-17			533	0%
CUL11150	Construct Culvert 3 - Bay 22 and MH6 under closure section of LMR ne	180	28-Dec-15		24-Jun-16		CUL10	699	0%
CUL11200	Prepare and implement TTA- realignment of temp. LFR to LMR Sliproac	14	25-Jun-16		09-Jul-16		CUL11	699	0%
CUL11250	Construct Culvert 3 - MH8 under closure section of LMR near seawall	180	09-Jul-16		30-Dec-16		CUL11	699	0%
CUL11300	Handover and inspection by DSD	14	16-Jun-17		29-Jun-17		CUL11	533	0%
Road and Drainage Work at for Lung Fu Road Roundabout		1222	02-May-15		05-Sep-18			85	0%
Road and drainage works under LFR R/A TTA stage 1		75	02-May-15		08-Aug-15			66	0%
LF10100	Drainage & Sewerage works	35	02-May-15		17-Jun-15		SUW3	66	0%
LF10150	Watermains	24	02-Jun-15		04-Jul-15		LF101	66	0%
LF10200	Irrigation / UU / PL	11	04-Jul-15		20-Jul-15		LF101	66	0%
LF10250	Roadworks	17	20-Jul-15		08-Aug-15		LF102	66	0%
Road and drainage works under LFR R/A TTA stage 2a		69	08-Aug-15		09-Nov-15			66	0%
LF20100	Drainage & Sewerage works	35	08-Aug-15		22-Sep-15		LF102	66	0%
LF20150	Watermains	24	07-Sep-15		09-Oct-15		LF201	66	0%
LF20200	Irrigation / UU / PL	6	09-Oct-15		17-Oct-15		LF201	66	0%
LF20250	Roadworks	17	17-Oct-15		09-Nov-15		LF202	66	0%
Road and drainage works under LFR R/A TTA stage 2b		66	09-Nov-15		28-Jan-16			66	0%
LF30100	Drainage & Sewerage works	24	09-Nov-15		07-Dec-15		AD102	66	0%
LF30150	Watermains	20	07-Dec-15		02-Jan-16		LF301	66	0%
LF30200	Irrigation / UU / PL	6	02-Jan-16		08-Jan-16		LF301	66	0%
LF30250	Roadworks	17	08-Jan-16		28-Jan-16		LF302	66	0%
Road and drainage works under LFR R/A TTA stage 3a		147	28-Jan-16		09-Aug-16			66	0%
LF40100	Drainage & Sewerage works	72	28-Jan-16		03-May-16		LF302	66	0%
LF40150	Watermains	32	03-May-16		14-Jun-16		LF401	66	0%
LF40200	Irrigation / UU / PL	11	14-Jun-16		28-Jun-16		LF401	66	0%
LF40250	Roadworks	32	28-Jun-16		09-Aug-16		LF402	66	0%
Road and drainage works under LFR R/A TTA stage 3b		147	09-Aug-16		15-Feb-17			66	0%
LF50100	Drainage & Sewerage works	72	09-Aug-16		11-Nov-16		LF402	66	0%
LF50150	Watermains	32	11-Nov-16		19-Dec-16		LF501	66	0%
LF50200	Irrigation / UU / PL	11	19-Dec-16		05-Jan-17		LF501	66	0%
LF50250	Roadworks	32	05-Jan-17		15-Feb-17		LF502	66	0%
Road and drainage works under LFR R/A TTA stage 4a		171	15-Feb-17		25-Sep-17			66	0%
LF60100	Drainage & Sewerage works	96	15-Feb-17		21-Jun-17		LF502	66	0%
LF60150	Watermains	32	21-Jun-17		02-Aug-17		LF601	66	0%
LF60200	Irrigation / UU / PL	11	02-Aug-17		16-Aug-17		LF601	66	0%
LF60250	Roadworks	32	16-Aug-17		25-Sep-17		LF602	66	0%
Road and drainage works under LFR R/A TTA stage 4b		147	25-Sep-17		29-Mar-18			66	0%
LF70100	Drainage & Sewerage works	72	25-Sep-17		27-Dec-17		LF602	66	0%
LF70150	Watermains	32	27-Dec-17		03-Feb-18		LF701	66	0%
LF70200	Irrigation / UU / PL	11	03-Feb-18		20-Feb-18		LF701	66	0%
LF70250	Roadworks	32	20-Feb-18		29-Mar-18		LF702	66	0%
Road and drainage works under LFR R/A TTA stage 5		92	29-Mar-18		20-Jul-18			66	0%
LF80100	Drainage & Sewerage works	24	29-Mar-18		04-May-18		LF702	66	0%
LF80150	Watermains	20	04-May-18		30-May-18		LF801	66	0%
LF80200	Irrigation / UU / PL	6	30-May-18		07-Jun-18		LF801	66	0%
LF80250	Roadworks	32	07-Jun-18		20-Jul-18		LF802	66	0%
Road and drainage works under LFR R/A final TTA at Completion		48	20-Jul-18		05-Sep-18			85	0%
LF95100	Roadworks	24	20-Jul-18		20-Aug-18		LF802	66	0%
LF95150	Nightwork for re-surfacing	14	20-Aug-18		05-Sep-18		LF951	65	0%
Road and Drainage Work at Lung Mun Road		270	11-Nov-16		10-Feb-18			49	0%
R&D works in Section 1 of the works		250	11-Nov-16		07-Jan-18			17	0%
LM10100	Road & Drainage works under LMR TTA stage 1	70	11-Nov-16		06-Mar-17		TT302	11	0%
LM10150	Road & Drainage works under LMR TTA stage 2	90	06-Mar-17		06-Aug-17		LM101	17	0%
LM10200	Road & Drainage works under LMR TTA stage 3	90	06-Aug-17		07-Jan-18		LM101	17	0%
R&D works in Section 2 of the works		270	11-Nov-16		10-Feb-18			49	0%
LM20100	Road & Drainage works under LMR TTA stage 1	90	11-Nov-16		10-Apr-17		TT302	49	0%
LM20150	Road & Drainage works under LMR TTA stage 2	90	10-Apr-17		10-Sep-17		LM201	49	0%
LM20200	Road & Drainage works under LMR TTA stage 3	90	10-Sep-17		10-Feb-18		LM201	49	0%
R&D works in Section 3 of the works		240	11-Nov-16		23-Dec-17			11	0%
LM30100	Road & Drainage works under LMR TTA stage 1	70	11-Nov-16		06-Mar-17		TT302	11	0%
LM30150	Road & Drainage works under LMR TTA stage 2	80	06-Mar-17		22-Jul-17		LM301	11	0%
LM30200	Road & Drainage works under LMR TTA stage 3	90	22-Jul-17		23-Dec-17		LM301	11	0%
TCSS Related Works		597	21-Nov-16		11-Jul-18			8	0%
Civil provision for E&M/TCSS in Section 1 of the works		405	21-Nov-16		01-Jan-18			30	0%
TC10100	In Portion B/E/1 (LMR TTA related)	80	20-Aug-17		01-Jan-18		LM102	17	0%
TC10150	In Portion X (site formation related)	280	21-Nov-16		18-Nov-17		RWB3	59	0%
Civil provision for E&M/TCSS in Section 2 of the works		278	06-Oct-17		11-Jul-18			8	0%
TC20100	In Portion A/F (LMR TTA related)	120	06-Oct-17		27-Apr-18		LM202	49	0%
TC20150	In Portion X (site possession related)	48	08-May-18		11-Jul-18		AD102	6	0%
Civil provision for E&M/TCSS in Section 3 of the works		90	10-Sep-17		10-Feb-18			11	0%
TC30100	In Portion G/H/H1/J/K (LMR TTA related)	90	10-Sep-17		10-Feb-18		LM302	11	0%



Appendix B

Habitat Map of Tuen Mun


N
WA 19
WA 19
WA 18
200
400 Meters
LEGEND
Proposed Alignment
Proposed 500m Study Area
Proposed Works Area
Developed Area
Tall Shrubland
Stream
Plantation
Sandy Beach
Pitcher Plant

Appendix C

Location of Pitcher Plant

Plate 1: Pitcher Plant (*Nepenthes mirabilis*) in Rocky Slope habitat at the Donor Site

Plate 3: Tagged Pitcher Plant (Zone 6 in Rocky Slope habitat)

Plate 2: Pitcher Plant population in Donor Site - Zone 6 (looking west)

Plate 4: Tagged Pitcher Plant (Zone 10 in Shrubland habitat)

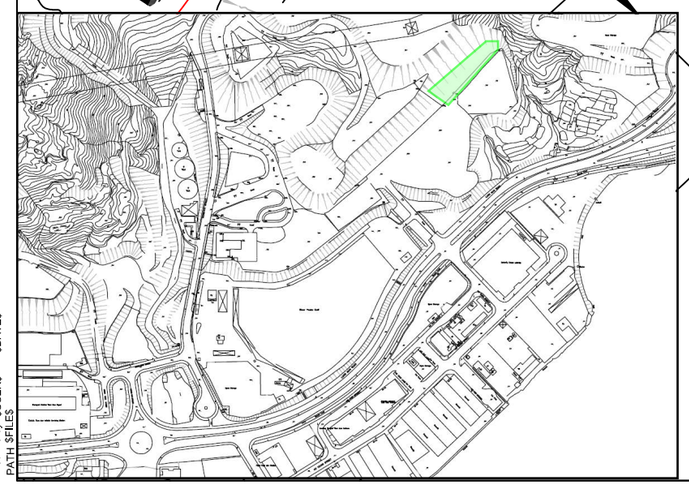
NOTES:

1. ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK(1980) GAUSS CO-ORDINATE SYSTEM.
2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

LEGEND:

- SITE BOUNDARY
- LOCATION OF KNOWN POPULATIONS OF PITCHER PLANT
- PROPOSED ALIGNMENT OF FENCING (EXACT ALIGNMENT TO BE DETERMINED ON SITE)
- LOCATION OF PROPOSED NURSERY SITE
- LOCATION OF PROPOSED RECEPTOR SITE
- UNDERPASS WORKS AREA (ZONE 8-10 AND NURSERY SITE WILL NOT BE AFFECTED)

812800 E
812900 E
813000 E
825900 N
825800 N
ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
ZONE 7
ZONE 8
ZONE 9
ZONE 10
ROAD
WIP Sep 1999



Project Management Initials: Designer: NKCC Checked: ALCF Approved: CWN ISO A1 594mm x 841mm

Plot File by: $USER$ $DATE$
PATH: $FILE$

AECOM

PROJECT
TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
TUEN MUN - CHEK LAP KOK LINK - NORTHERN CONNECTION TOLL PLAZA AND ASSOCIATED WORKS

CLIENT
HIGHWAYS DEPARTMENT
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.
A	FEB.14	TENDER ADDENDUM NO. 1	CWN
-	JAN.14	TENDER DRAWING	CWN

STATUS
PRELIMINARY

SCALE
A1 1 : 500

DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60240249

CONTRACT NO.
HY/2013/12

SHEET TITLE
LOCATION OF KNOWN POPULATION OF PITCHER PLANT AND PROPOSED TM-CLKL SITE BOUNDARY

SHEET NUMBER
60240249/C3/6503A

Appendix D

Photographic Record of Baseline Condition for Landscape and Visual

AECOM
8/F, Grand Central Plaza, Tower 2,
138 Shatin Rural Committee Road,
Shatin, Hong Kong
香港新界沙田鄉事會路 138 號
新城市中央廣場第 2 座 8 樓
www.aecom.com

Engineer's Representative's Office
No. 8 Mong Fat Street, Tuen Mun,
New Territories, Hong Kong
香港新界屯門望發街 8 號
+ 852 2293 6200 tel
+ 852 2293 6300 fax

Your Ref :
Our Ref : C3/(HY/2013/12)/M45/002/B000211

B000211

29 September 2014

Director of Environmental Protection
Environmental Assessment Division
Regional Assessment Group
Environmental Protection Department
27/F, Southorn Centre
130 Hennessy Road
Wan Chai
Hong Kong

Attn: Ms. Marlene Y. H. Ho

Dear Sirs,

Contract No. HY/2013/12
Tuen Mun – Chek Lap Kok Link
- Northern Connection Toll Plaza and Associated Works

Photographic Record of Baseline Condition

Pursuant to Clause 7.4.1.1 of the EM&A Manual No. CE35/2011 EP, we would like to submit a copy of the Photographic Record for this Contract for your record.

Should you have any queries, please feel free to contact my Resident Engineer (S&E), Mr. Kelvin Yeung at 6906 1933.

Yours faithfully,
For and on behalf of
AECOM Asia Co. Ltd.

Roger Man
Chief Resident Engineer
Transportation

Encl.

cc	CE/NWNT, HyD	-	Attn: Mr. Stephen W. C. Chan	-	w/e (1 hardcopy + 1 softcopy)
	ENPO	-	Attn: Mr. Y. H. Hui	-	w/o
	IEC	-	Attn: Mr. F. C. Tsang	-	w/e(1 hardcopy + 1 softcopy)
	AECOM	-	Attn: Mr. Conrad Ng	-	w/o
	CKJV	-	Attn: Mr. John Wong	-	w/o
	AUES	-	Attn: Mr. T. W. Tam	-	w/e(1 hardcopy + 1 softcopy)

RM/RW/wl

Your Ref :
Our Ref : C3/(HY/2013/12)/M45/002/B000211

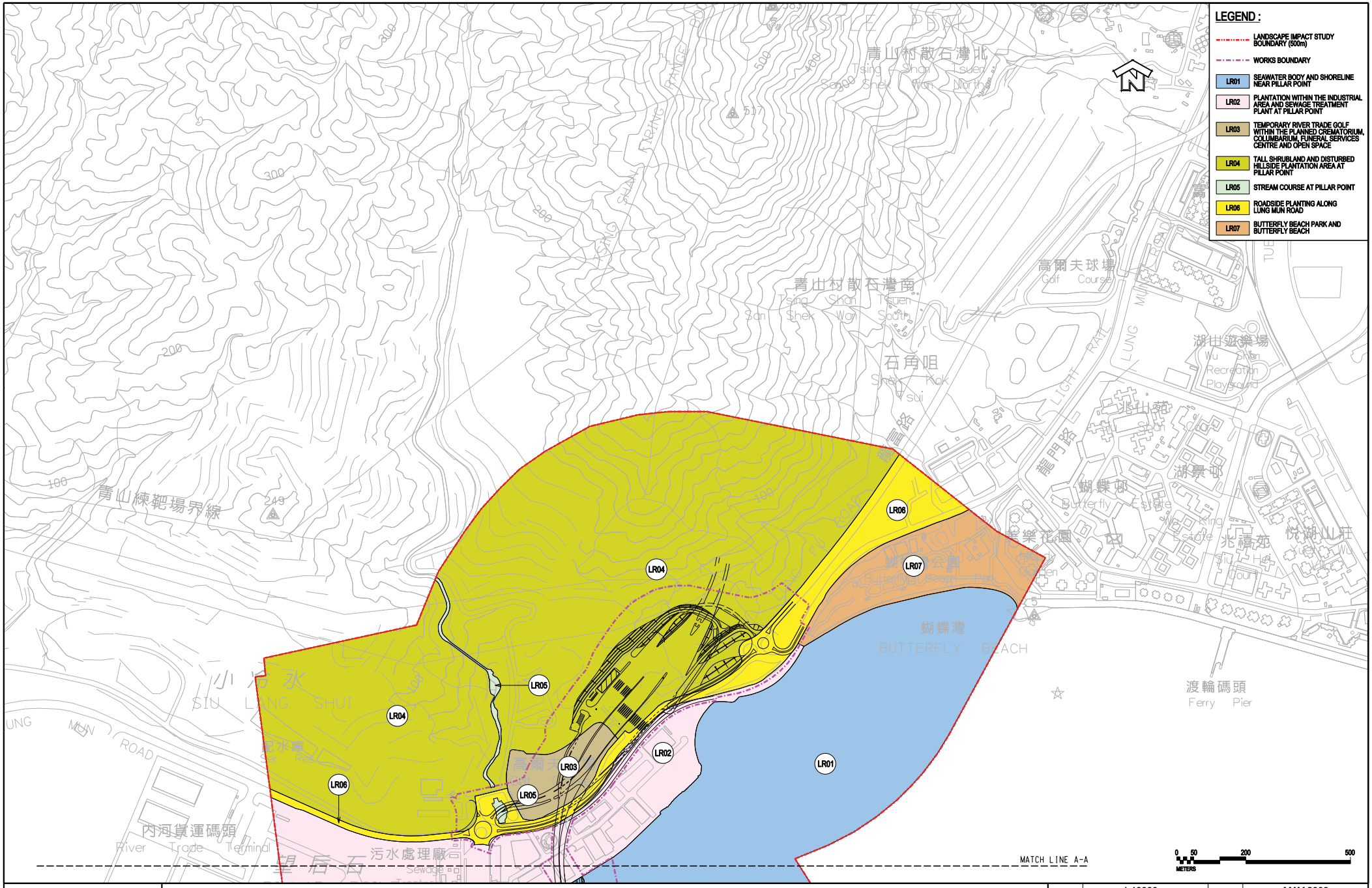
	General view of works area B at northern bound of Lung Mun Road (opposite to Butterfly Beach Laundry)
	General view of works area D
	General view of works area G at southern bound of Lung Mun Road

Your Ref :
Our Ref : C3/(HY/2013/12)/M45/002/B000211

	General view of works area I at south-west side of site entrance at Ho Sheun Street
	General View of works area X facing north side
	General view of works area WA18 at south-west side

Appendix E

Key Plan of
Landscape and Visual Resource



AECOM

AGREEMENT NO. CE 52/2007(HY)
TUEN MUN - CHEK LAP KOK LINK - INVESTIGATION

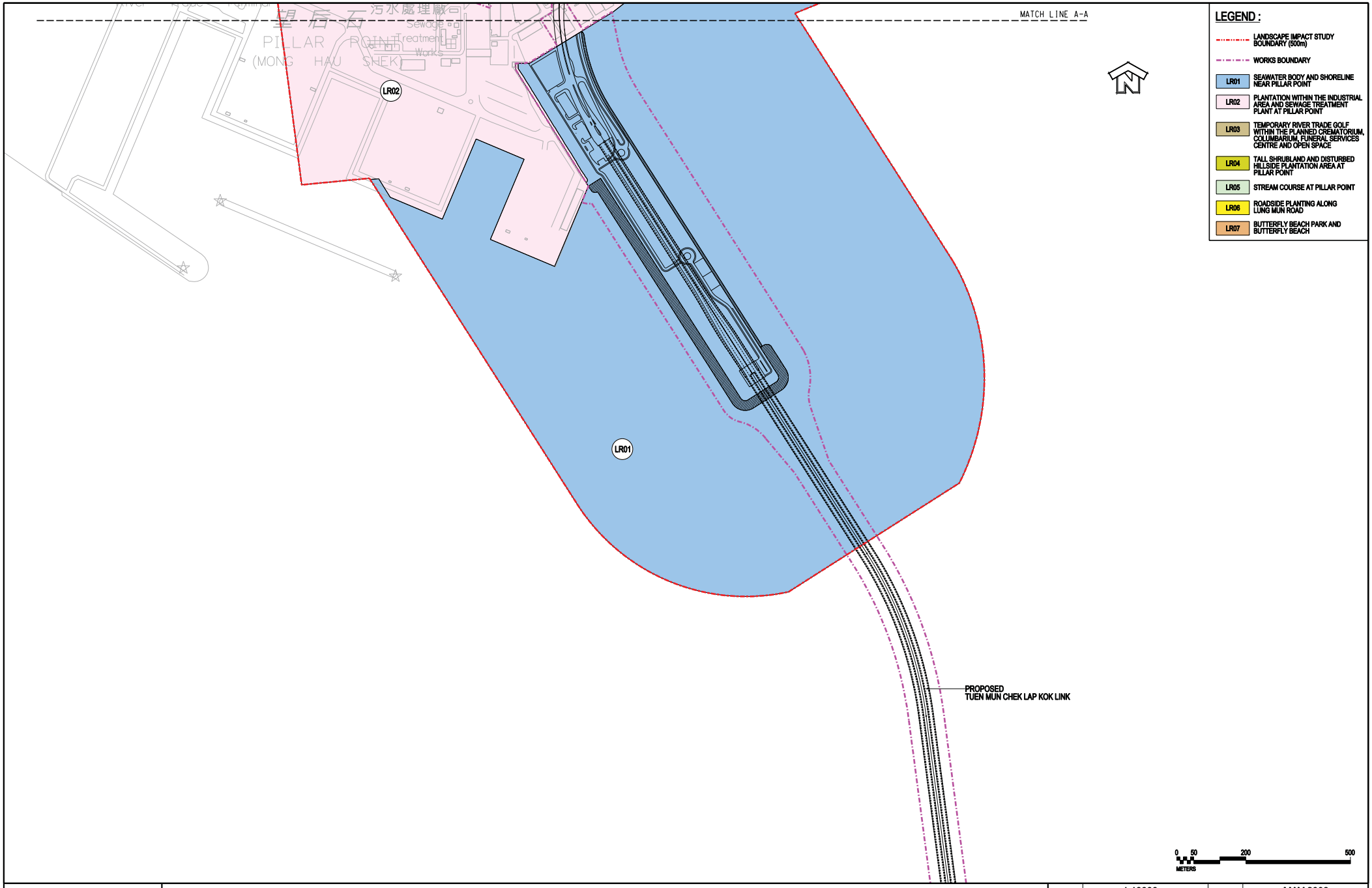
BASELINE LANDSCAPE RESOURCES WITH DEVELOPMENT PROPOSAL OVERLAID

SHEET 1 OF 5

SCALE	1:10000	DATE	MAY 2009
CHECK	E.L.	DRAWN	F.L.
JOB No.	60044963	DRAWING No.	FIGURE 7.1.1.1
		REV	--

Plotting By: 21/7/2009
PLOT SCALE: 1=10

D:\2008278 TM-CLK\03CAD\3.1Sheets\LVIA-EMA\FIG-07-01-01-1.dgn



Plotting By: 21/7/2009
PLOT SCALE: 1:10

AECOM

AGREEMENT NO. CE 52/2007(HY)
TUEN MUN - CHEK LAP KOK LINK - INVESTIGATION

BASELINE LANDSCAPE RESOURCES WITH DEVELOPMENT PROPOSAL OVERLAID

SHEET 2 OF 5

SCALE	1:10000	DATE	MAY 2009
CHECK	E.L.	DRAWN	F.L.
JOB No.	60044963	DRAWING No.	FIGURE 7.1.1.2
		REV	--

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