





Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016

August 2016



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Development at West Kowloon Cultural District Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016



This Monthly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

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Executive Summary

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex Foundation Works (Contract No.: CC/2015/3A/014) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum and Lyric Theatre Complex commenced on 31 October 2015 and 1 March 2016 respectively.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an "engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000" (Item 3 of Schedule 3) and "an underpass more than 100m in length under the built areas" (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/A (EP) was issued with respect to the "Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District" which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO.

This Monthly EM&A Report presents the monitoring works at both the main works of M+ Museum and foundation works of Lyric Theatre Complex conducted from 1 July to 31 July 2016.

Exceedance of Action and Limit Levels

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting month.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out on 8, 14, 20 and 28 July 2016 for M+ Museum and 7, 13, 22 and 27 July 2016 for Lyric Theatre Complex to confirm the implementation measures undertaken by the Contractors in the reporting month The outcomes are presented in **Section 4** and the status of implementation of mitigation measures in the site is shown in **Appendix J**.

Landscape and visual impact inspections were conducted as part of the abovementioned weekly site inspections during the reporting month. No adverse comment on landscape and visual aspects was made during these inspections.

EPD site inspection with Contractor was conducted on 2, 5, 18, 19 and 22 July 2016 at M+ Museum. A pink form was issued to the Contractor on 2 July 2016 and water sample at discharge point at ICP of M+ Museum was collected by EPD.

EPD site inspection with Contractor was conducted on 27 July 2016 at Lyric Theatre Complex.

Record of Complaints

One environmental complaint regarding muddy water discharge was recorded in the reporting month.

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Record of Notification of Summons and Successful Prosecutions

No notification of summons and successful prosecution were recorded in the reporting month.

Future Key Issues

The major site works at M+ Museum scheduled to be commissioned in the coming month include:

- Construction of pile caps
- Construction of slab
- Construction of columns & walls
- Installation of wailing & struts

The major site works at Lyric Theatre Complex scheduled to be commissioned in the coming month include:

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.



1 Introduction

1.1 Background

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex Foundation Works (Contract No.: CC/2015/3A/014) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum and Lyric Theatre Complex commenced on 31 October 2015 and 1 March 2016 respectively.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an "engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000" (Item 3 of Schedule 3) and "an underpass more than 100m in length under the built areas" (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/A (EP) was issued with respect to the "Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District" which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary also falls under this same category.

The M+ museum development aims to provide an iconic presence for the M+ museum, semi-transparent vertical plane, housing education facilities, a public restaurant and museum offices. At ground and lower levels, generous access will be provided to the park and other West Kowloon Cultural District facilities, alongside a public resource centre, theatres, retail and dining, and back-of-house functions.

The 1,200-seat Lyric Theatre Complex will be Hong Kong's first world-class facility for dance performances, including ballet, contemporary and Chinese dance forms. In the run up to the opening of further major performing arts venues in the WKCD, it will also be used for a wide variety of performing arts events including drama, opera and musical performances. The Lyric Theatre Complex will act as a platform for Hong Kong's leading arts organisations, and be a new major venue to show programmes from Asia and worldwide.

The Monthly EM&A Report is prepared in accordance with the Condition 3.4 of the Environmental Permit No. EP-453/2013/A. This Monthly EM&A Report presents the monitoring works at both the main works of M+ Museum and foundation works of Lyric Theatre Complex conducted from 1 July to 31 July 2016. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

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1.3 Environmental Status in the Reporting Period

During the reporting period, construction works at M+ Museum undertaken include:

- Construction of pile caps
- Construction of slab
- Construction of water tank
- Construction of columns & walls
- Installation of wailing & struts

During the reporting period, construction works at Lyric Theatre Complex undertaken include:

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

The Construction Works Programmes of M+ Museum and Lyric Theatre Complex are provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**. Please refer to **Table 4.3** on the status of the environmental licenses.

1.4 Summary of EM&A Requirements

The EM&A programme requires environmental monitoring of air quality, noise, landscape and visual as specified in the approved EM&A Manual.

A summary of impact EM&A requirements is presented in **Table 1.1**.

Table 1.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies
Air Quality	24-Hour TSP	AM1 - International Commerce Centre	At least once every 6 days
	1-Hour TSP	AM1 - International Commerce Centre	At least 3 times every 6 days
	24-Hour TSP	AM2 - The Harbourside Tower 1	At least once every 6 days
	1-Hour TSP	AM2 - The Harbourside Tower 1	At least 3 times every 6 days
Noise	L _{eq} , 30 minutes	NM1- Podium level of The Harbourside Tower 1	Weekly
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly

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Given that the Project covers only a small part of the whole WKCD area (i.e. M+ Museum, Lyric Theatre Complex and respective portions of underpass road), it was proposed that the EM&A programme for the Project should only require 1 noise monitoring station and 2 air quality monitoring stations located closest to the Project area. Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring stations AM1, AM2 and NM1 were set up. Other monitoring locations are too far away (i.e. AM3 to AM5 and NM2 to NM5) are not included in this EM&A programme until the construction of the corresponding area commences.

The Harbourside management office formally rejected our proposal of setting up air quality and noise monitoring equipment on its premises at the podium level of Tower 1 (AM2/NM1) on 10 November 2015. Alternative noise monitoring location was identified at The Arch (NM2), however The Arch management office formally rejected our proposal of setting up noise monitoring equipment on its premises on 23 November 2015. Nevertheless, suitable air quality monitoring location at AM2 was identified on the ground floor in front of The Harbourside Tower 1, which is at the same location as that of baseline monitoring for consistency. No management approval is required at the ground floor for conducting the air monitoring and a secure electricity supply is available there. Noise monitoring at G/F of Harbourside will not be representative. Approval from the management office of the International Commerce Centre has been granted on 29 February 2016 for conducting noise monitoring at the alternative noise monitoring location identified at the podium floor (NM1A) which is free from screening to the construction activities. Therefore, 2 air quality monitoring stations and 1 noise impact monitoring station were confirmed for the impact monitoring.

The Environmental Quality Performance Limits for air quality and noise are shown in **Appendix C**.

The Event and Action Plan for air quality, construction noise. landscape and visual are shown in **Appendix D**.

The EM&A programme followed the recommended mitigation measures in the EM&A Manual. The EM&A requirements as well as the summary of implementation status of the environmental mitigation measures are provided in **Appendix J**.



2 Impact Monitoring Methodology

2.1 Introduction

For air quality and noise, the monitoring methodology, including the monitoring locations, monitoring equipment used, monitoring parameters, and frequency and duration etc., for air quality and noise are detailed in this Section. The environmental monitoring schedules for the reporting period and the tentative monitoring Schedule for the coming month are provided in **Appendix E**.

For landscape and audit impact, the relevant EM&A monitoring requirements and details are also presented in this Section.

2.2 Air Quality

2.2.1 Monitoring Parameters, Frequency and Duration

Table 2.1 summarizes the monitoring parameters, frequency and duration of the TSP monitoring.

Table 2.1: Air Quality Monitoring Parameters, Frequency and Duration

Parameter	Frequency	Duration
24-hour TSP	At least once in every six-days	24 hours
1-hour TSP	At least 3 times every six-days	60 minutes

2.2.2 Monitoring Locations

Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring stations AM1 and AM2 were set up at the proposed locations in accordance with updated EM&A Manual. Location of the monitoring station is given in **Table 2.2** and shown in **Figure 1**.

Table 2.2: Air Quality Monitoring Station

Monitoring Station	Location
AM1	International Commerce Centre (ICC)
AM2	The Harbourside Tower 1

2.2.3 Monitoring Equipment

Continuous 24-hour TSP air quality monitoring was conducted using High Volume Sampler (HVS) (Model: TE-5170) located at the designated monitoring station. The HVS meets all the requirements stated in of the EM&A Manual. Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. **Table 2.3** summarizes the equipment used in the impact air quality monitoring. Copies of the calibration certificates for the HVS, calibration kit and portable dust meters are attached in **Appendix F**.



Table 2.3: TSP Monitoring Equipment

Equipment	Model
24-hour TSP monitoring	
High Volume Sampler	TE-5170 (Serial No.: 0767 and 8919)
Calibrator	TE-5025A (Orifice I.D.: 2454)
1-hour TSP monitoring	
Portable direct reading dust meter	Sibata LD-3B (Serial No.: 245834)

Calibration of the HVS (five point calibration) using Calibration Kit was carried out every two months. The HVS calibration orifice will be calibrated annually. Calibration certificate of the TE-5025A Calibration Kit and the HVS are provided in **Appendix F**

The 1-hour TSP monitoring should be determined periodically (e.g. annually) by the HVS to check the validity and accuracy of the results measured by direct reading method.

2.2.4 Monitoring Methodology

24-hour TSP Monitoring

Installation

The HVS was installed at the site boundary. The following criteria were considered in the installation of the HVS.

- A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
- The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
- A minimum of 2 metres separation from walls, parapets and penthouse was required for rooftop sampler.
- A minimum of 2 metres separation from any supporting structure, measured horizontally was required.
- No furnace or incinerator flues or building vent were nearby.
- Airflow around the sampler was unrestricted.
- The sampler has been more than 20 metres from any drip line.
- Permission was obtained to set up the sampler and to obtain access to the monitoring station.
- A secured supply of electricity is needed to operate the sampler.

Preparation of Filter Papers

- Glass fibre filters were labelled and sufficient filters that were clean and without pinholes were selected.
- The filters used are specified to have a minimum collection efficiency of 99 percent for 0.3 μm (DOP) particles.



All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C with relative humidity (RH) < 50% and was not variable by more than ±5 %. A convenient working RH was 40%. All preparation of filters was done by Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory.</p>

Field Monitoring Procedures

- The power supply was checked to ensure the HVS works properly.
- The filter holder and the area surrounding the filter were cleaned.
- The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
- The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
- The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges.
- The shelter lid was closed and was secured with the aluminium strip.
- The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
- A new flow rate record sheet was set into the flow recorder.
- The flow rate of the HVS was checked and adjusted at around 1.3 m³/min. The range specified in the EM&A Manual was between 0.6-1.7 m³/min.
- The programmable timer was set for a sampling period of 24 hours, and the starting time, weather condition and the filter number were recorded.
- The initial elapsed time was recorded.
- At the end of sampling, the sampled filter was removed carefully and folded in half length so that only surfaces with collected particulate matter were in contact.
- It was then placed in a clean plastic envelope and sealed.
- All monitoring information was recorded on a standard data sheet.
- Filters were sent to a Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory for analysis.

Maintenance and Calibration

- The HVS and its accessories are maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVSs were calibrated upon installation and thereafter at bi-monthly intervals. The calibration kits were calibrated annually.
- Calibration records for HVS and calibration kit are shown in Appendix F.

1-hour TSP Monitoring

Field Monitoring

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

Turn the power on.



- Close the air collecting opening cover.
- Push the "TIME SETTING" switch to [BG].
- Push "START/STOP" switch to perform background measurement for 6 seconds.
- Turn the knob at SENSI ADJ position to insert the light scattering plate.
- Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
- Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes
 1 minute.
- Pull out the knob and return it to MEASURE position.
- Setting time period of 1 hour for the 1-hour TSP measurement.
- Push "START/STOP" to start the 1-hour TSP measurement.
- Regular checking of the time period setting to ensure monitoring time of 1 hour.

Maintenance and Calibration

- The 1-hour dust meter would be checked at 3-month intervals and calibrated at 1-year intervals throughout all stages of the air quality monitoring.
- Calibration records for direct dust meters are shown in Appendix F.

Weather Condition

 Meteorological data extracted from Hong Kong Observatory for the reporting month is provided in Appendix H.

2.3 Noise

2.3.1 Monitoring Parameters, Frequency and Duration

Table 2.4 summarizes the monitoring parameters, frequency and duration of noise monitoring. The noise in A-weighted levels L_{eq} , L_{10} and L_{90} are recorded in a 30-minute interval between 0700 and 1900 hours.

Table 2.4: Noise Monitoring Parameters, Period and Frequency

Time Period	Parameters	Frequency
Daytime on normal weekdays (0700-1900 hours)	$L_{eq}(30 \text{ min}), \ L_{90}(30 \text{ min}) \ \& \ L_{10} \ (30 \text{ min})$	Once every week

2.3.2 Monitoring Location

Currently, the works under the captioned project are confined in the western part of the WKCD site. Therefore, only the monitoring station NM1A was set up at the proposed location in accordance with updated EM&A Manual. Location of the monitoring station is given in **Table 2.5** and shown in **Figure 1**.

Table 2.5: Noise Monitoring Station

Monitoring Station	Location
NM1A	Podium floor of International Commerce Centre (ICC)



2.3.3 Monitoring Equipment

Integrating Sound Level Meter was used for noise monitoring. It was a Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{Aeq}) and percentile sound pressure level (L_x). They comply with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). **Table 2.6** summarizes the noise monitoring equipment model being used.

Table 2.6: Noise Monitoring Equipments

Equipment Model				
Monitoring Station	Integrating Sound Level Meter	Calibrator		
NM1	Rion NL-52 (Serial No.00131627)	Rion NC-73 (Serial No.10997142)		

2.3.4 Monitoring Methodology

Field Monitoring

- The microphone of the Sound Level Meter was set at least 1.2 m above the ground.
- Free Field measurement was made at the monitoring locations.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting: A
 - time weighting: Fast
 - time measurement: 30 minutes intervals (between 0700-1900 on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1 kHz. If the difference in the calibration level before and after measurement was more than 1 dB, the measurement would be considered invalid and has to be repeated after re-calibration or repair of the equipment.
- During the monitoring period, the L_{eq}, L₁₀ and L₉₀ were recorded. In addition, any site observations and noise sources were recorded on a standard record sheet.
- A correction of +3dB(A) was made to the free field measurements.

Maintenance and Calibration

- The microphone head of the sound level meter and calibrator is cleaned with soft cloth at quarterly intervals
- The sound level meter and calibrator are sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- Calibration records are shown in Appendix F.

Weather Condition

 Meteorological data extracted from Hong Kong Observatory for the reporting month is provided in Appendix H.

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2.4 Landscape and Visual

2.4.1 Monitoring Program

Table 2.7 details the monitoring program (as proposed in the WKCD EIA report) for landscape and visual impact during the construction phase.

Table 2.7: Monitoring Program for Landscape and Visual Impact during Construction Phase

Stage	Monitoring Task	Frequency	Report	Approval
Construction	Monitor implementation of proposed mitigation measures during the construction stage.	Bi-weekly	ET to report on Contractor's compliance	Counter-signed by IEC

During the landscape and visual impact monitoring, any changes in relation to the landscape and visual amenity should be monitored with reference to the baseline conditions of the site. In addition, mitigation measures were proposed in the WKCD EIA report to minimise the landscape and visual impacts during the construction phase. The proposed mitigation measures as shown in Table 9.1 and Table 9.2 of the EM&A Manual should be checked for proper implementation.



3 Monitoring Results

3.1 Impact Monitoring

Construction impact monitoring for air quality, noise and landscape and visual impact was undertaken in compliance with the EM&A Manual during the reporting month.

3.2 Air Quality Monitoring

3.2.1 1-hour TSP

Results of 1-hour TSP at the monitoring location AM1 and AM2 are summarised in **Table 3.1**. Graphical plots of the monitoring results are shown in **Appendix G**.

Table 3.1: Summary of 1-hour TSP monitoring results

			1-hour TSP (μg/m³)				Action	Limit	
Monitoring Station	Monitoring Date	Start Time	1st Result	2nd Result	3rd Result	Range (µg/m³)	Level (µg/m³)	Level (µg/m³)	
	06-Jul-16	14:00	80	85	91				
	12-Jul-16	10:40	80	87	95				
AM1	18-Jul-16	10:40	51	54	55	51-95	273.7	500	
	22-Jul-16	8:00	55	59	60				
	28-Jul-16	10:38	52	59	55				
	06-Jul-16	14:10	83	88	94				
	12-Jul-16	10:50	81	87	98				
AM2	18-Jul-16	10:50	58	61	55	51-98 274.2	274.2	274.2	500
	22-Jul-16	8:12	59	61	63				
	28-Jul-16	10:48	56	60	51				

3.2.2 24-hour TSP

Results of 24-hour TSP at the monitoring location AM1 and AM2 are summarised in **Table 3.2**. Graphical plots of the monitoring results are shown in **Appendix G**.

Table 3.2: Summary of 24-hour TSP monitoring results

Monitoring Date	Start Time	Monitoring Results (µg/m³)	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
06-Jul-16	13:10	46			
12-Jul-16	10:37	45			
18-Jul-16	10:38	45	45-50	143.6	260
22-Jul-16	08:02	47			
28-Jul-16	10:40	50			
06-Jul-16	13:20	44	44-64	151.1	260
	Date 06-Jul-16 12-Jul-16 18-Jul-16 22-Jul-16 28-Jul-16	Date Start Time 06-Jul-16 13:10 12-Jul-16 10:37 18-Jul-16 10:38 22-Jul-16 08:02 28-Jul-16 10:40	Monitoring Date Start Time Results (μg/m³) 06-Jul-16 13:10 46 12-Jul-16 10:37 45 18-Jul-16 10:38 45 22-Jul-16 08:02 47 28-Jul-16 10:40 50	Monitoring Date Start Time Results (μg/m³) Range (μg/m³) 06-Jul-16 13:10 46 12-Jul-16 10:37 45 18-Jul-16 10:38 45 45-50 22-Jul-16 08:02 47 28-Jul-16 10:40 50	Monitoring Date Start Time Results (μg/m³) Range (μg/m³) Action Level (μg/m³) 06-Jul-16 13:10 46 12-Jul-16 10:37 45 18-Jul-16 10:38 45 45-50 143.6 22-Jul-16 08:02 47 28-Jul-16 10:40 50



Monitoring Station	Monitoring Date	Start Time	Monitoring Results (µg/m³)	Range (µg/m³)	Action Level (μg/m³)	Limit Level (µg/m³)
	12-Jul-16	14:40	49			
	18-Jul-16	10:52	46			
	22-Jul-16	08:17	50			
	28-Jul-16	10:50	64			

No exceedance of 1-hour and 24-hour TSP (Action or Limit Level) was recorded in the reporting period.

3.3 Noise Monitoring

The construction noise monitoring results at the monitoring location NM1A are summarized in **Table 3.3**. Graphical plots of the monitoring data and the station set-up of a free-field measurement are shown in **Appendix G**.

Table 3.3: Summary of noise monitoring results during normal weekdays

Monitoring Date	Start Time	End Time	L _{eq} (30 mins), dB(A)	Limit Level for L _{eq} (dB(A))
06-Jul-16	16:14	16:44	69.3	
12-Jul-16	14:00	14:30	69.0	
18-Jul-16	14:00	14:30	68.8	— 75 —
28-Jul-16	14:00	14:30	69.2	

Remarks:

No exceedance (Action/Limit Level) of construction noise was recorded in the reporting period as no noise related environmental complaint was received during the reporting period and noise levels recorded during the monitoring period were below 75 dB(A).

Construction works were extended to holidays on 3, 10, 17, 24 and 31 July 2016. Additional monitoring was carried out during the restricted hours on 3, 10, 17, 24 and 31 July 2016. The measured L_{eq} (30 mins) is in the range of 68.0 – 68.8 dB(A). Construction Noise Permit for the works carried out during restricted hours was obtained and listed in **Table 4.3**.

3.4 Landscape and Visual Impact

Landscape and visual impact inspections were conducted as part of the weekly site inspections on 8 and 20 July 2016 for M+ Museum and 7 and 22 July 2016 for Lyric Theatre Complex during the reporting month. As reviewed by the registered Landscape Architect, no adverse comment on landscape and visual aspects was made during these inspections.

⁺³dB (A) correction was applied to free-field measurement.

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The	landscape	and	visual	mitigation	measures	were	implemented	during	the	reporting	period.	The
sumr	mary of imp	leme	ntation	status of the	e environm	ental n	nitigation meas	sures are	e pro	vided in A	ppendix	٤ J .



4 Environmental Site Inspection

4.1 Site Inspection

4.1.1 M+ Museum

Construction phase weekly site inspections were carried out on 8, 14, 20 and 28 July 2016. The joint site inspection with IEC, ET, ER and Contractor was held on 8 July 2016. EPD site inspection with Contractor was conducted on 2, 5, 18, 19 and 22 July 2016. Items including overall drainage arrangements, water samples at discharge points were inspected. A pink from has been issued to the Contractor on 2 July 2016 and water sample was collected at discharge point at ICP of M+ Museum by EPD. No non-compliance was recorded during the site inspection. All observations have been recorded in the site inspection checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary. The key observations from the site inspections and associated recommendations are summarized in **Table 4.1**.

Table 4.1: Summary of Site Inspections and Recommendations for M+ Museum

Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
23 Jun 2016	Air quality	The stockpile at M66 was observed without any dust suppression mitigation measures. The contractor was reminded to apply dust suppression spraying to the stockpile.	All stockpile at M66 site has been well covered by dust suppression spraying.	28 July 2016
30 June 2016	Waste management	Chemical without drip tray was found. The contractor was reminded to provide drip tray for the chemical.	The chemicals previously observed without drip tray have been removed.	4 July 2016
30 June 2016	Water quality	The treated wastewater of wetsep no.4 was found with some floating particulates. The contractor was reminded to rectifiy it and ensure the quality of the treated wastewater to comply with the discharge license.	The treated wastewater at wetsep no. 4 was found clear and without floating particulates.	4 July 2016
30 June 2016	Water quality	Some stagnant water/ wheel washing water was observed near vehicular entrance of M66. The contractor was reminded to provide wastewater collection facilities and apply proper wastewater treatment to the wastewater collected before discharge.	The stagnant water or wheel washing water at M66 has been cleared.	8 July 2016
8 July 2016	Water quality	The contractor was reminded to provide proper water sampling equipment for weekly inspection of effluent.	The contractor has provided proper water sampling equipment for effluent sampling.	28 July 2016
8 July 2016	Water quality	The contractor was reminded to conduct wheel washing at designated wheel washing facilities at ICP.	No vehicles were parked on the ICP wheel washing facilities and wheel washing has been conducted in the designated area.	14 July 2016
8 July 2016	Water quality	Overflow of sedimentation tank	The contractor has rectified the	13 July 2016



Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
		(treated wastewater which was visually clear) near wetsep no. 3 and Gate 1 was observed. The contractor was reminded to rectify it to prevent any effluent flowing out of the site.	overflow previously observed near wetsep no. 3	
8 July 2016	Water quality	The contractor was reminded to ensure the site hoarding near Gate 1 is properly sealed as seepage of site effluent was observed.	Filling material has been applied to the hoarding near Gate 1 to seal the seepage.	13 July 2016
8 July 2016	Waste management	Oil leakage was found on the ground. The contractor was reminded to clear the oil leakage.	The oil leakage previously observed was cleared.	13 July 2016
8 July 2016	Water quality	The effluent discharge quality at M+ and ICP discharge points was found visually clear and within acceptable pH range.	N/A	N/A
14 July 2016	Water quality	Seepage of runoff was observed near the hoarding outside DCS and seafront. The contractor was reminded to seal the seepage and remove all the refuse there.	The contractor has sealed the sepeage at the site hoarding.	16 July 2016
14 July 2016	Water quality	Stagnant water was observed near wetsep no.5. The contractor was reminded to clear the stagnant water.	The contractor has removed all stagnant water previously observed near wetsep no.5.	28 July 2016
14 July 2016	Water quality	The quality of effluent at M+ and ICP discharge points was checked and found visually clear. The pH was in acceptable range.	N/A	N/A
14 July 2016	Water quality	It was noticed that no bypass pipes were in use. The contractor was reminded to remove those bypass pipes from site.	The contractor has removed all bypass pipes.	28 July 2016
14 July 2016	Waste Management	The contractor was reminded to clear the drip tray at wetsep no. 3 and remove the refuse (plastic bottle) in drip tray.	The contractor has cleared the drip tray at wetsep no.3.	19 July 2016
20 July 2016	Water quality	The contractor was reminded to provide drainage layout plan at each wetsep to clearly show the direction of pipe flow.	The contractor has provided drainage layout plan at all wetseps.	28 July 2016
20 July 2016	Water quality	The contractor was reminded to carry out wheel washing within M66 site area to prevent any wash water flowing out of the site.	The contractor has arranged wheel washing to be carried out within M66 site area.	28 July 2016
20 July 2016	Water quality	The contractor was reminded to maintain regular checking/ maintenance record of all wetseps used in site.	The contractor has maintained proper maintenance/ checking record of wetseps.	28 July 2016
20 July 2016	Waste management	Chemicals without drip tray were found in some of the site area. The contractor was reminded to remove the chemicals or provide drip trays.	All chemicals previously observed without drip trays have been removed off site.	28 July 2016



Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
20 July 2016	Waste management	Refuse was observed in some area of the site. The contractor was reminded to keep better house- keeping.	The refuse previously observed has been removed.	28 July 2016
20 July 2016	Water quality	Treated wastewater at wetsep no. 1 was found milky. The contractor was reminded to check the performance of the wetsep.	The treated wastewater at wetsep no. 1 was found clear.	28 July 2016
20 July 2016	Water quality	The contractor was reminded to proper cover the hole at the top of the water barriers.	The contractor has covered the hole at the top of the water barriers.	28 July 2016
20 July 2016	Water quality	Effluent quality at discharge points of M+ and ICP was checked and found visually clear and within acceptable pH range.	N/A	N/A
20 July 2016	Waste management	Chemicals stored at wetsep no.2 were found without drip tray. The contractor was reminded to provide drip tray.	Chemicals previously observed without drip trays at wetsep no. 2 have been removed.	28 July 2016
28 July 2016	Water quality	The contractor was reminded to put boot washing facilities in proper place for use near Gate 1.	Follow-up status will be provided in the next reporting month	On-going
28 July 2016	Waste management	The contractor was reminded to enhance the cleaning frequency of all drip trays.	Follow-up status will be provided in the next reporting month	On-going
28 July 2016	Water quality	The effluent at M+ and ICP discharge points was checked and found visually clear by comparing with control solution and within acceptable pH range.	N/A	N/A

4.1.2 Lyric Theatre Complex

Construction phase weekly site inspections were carried out on 7, 13, 22 and 27 July 2016. The joint site inspection with IEC, ET, ER and Contractor was held on 22 July 2016. EPD site inspection with Contractor was conducted on 27 July 2016. Items including overall drainage system and chemical waste store were inspected. No non-compliance was recorded during the site inspection. All observations have been recorded in the site inspection checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary. The key observations from the site inspections and associated recommendations are summarized in **Table 4.2**.

Table 4.2: Summary of Site Inspections and Recommendations for Lyric Theatre Complex

Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
28 Jun 2016	Noise	The panel of the power generator was found open. The contractor was reminded to close the panel of the generator to reduce noise impact.	The panel of the generator has been closed.	29 Jun 2016
7 Jul 2016	Waste management	Oil leakage and chemicals without drip tray was found. The	The contaminated soil has been removed and the chemicals have	8 Jul 2016



Inspection Date	Parameter	Observation / Recommendation	Contactor's Responses / Action(s) Undertaken	Close-out (Date)
		contractor was reminded to remove the contaminated soil and provide drip tray to the chemicals.	been protected from direct contact to the ground.	
7 Jul 2016	Water quality	Stagnant water was observed in drip tray of the generator. The contractor was reminded to clear the drip trays frequently to prevent overflow of chemical waste/ stagnant water.	The concerned machine was removed from the site.	8 Jul 2016
13 Jul 2016	Water quality	The contractor was reminded to remove the site runoff near the Wet Sep and discharge point to avoid contamination with the water discharge.	Site runoff previously observed was cleaned.	14 Jul 2016
13 Jul 2016	Waste management	The contractor was reminded to clean the drip tray to avoid overflow.	The drip tray was cleaned up.	14 Jul 2016
22 Jul 2016	Air quality	Part of the haul road was observed to be dry. The contractor was reminded to provide sufficient water spray to prevent fugitive dust generation.	Sufficient water spraying has been provided to reduce dust impact.	23 Jul 2016
22 Jul 2016	Waste management	Oily mixture in a drip tray was observed. The contractor was reminded to remove the oily mixture and handle it as chemical waste.	The drip tray has been cleaned.	23 Jul 2016
22 Jul 2016	Water quality	Muddy trail was observed at the vehicular site entrance. The contractor was reminded to ensure adequate measures are implemented to prevent such occurrence.	Muddy trail at the site entrance has been cleaned up.	23 Jul 2016
22 Jul 2016	Waste management	Some chemical containers were observed to be on the ground. The contractor was reminded to place these in a drip tray or suitably bunded area.	The chemicals have been removed.	23 Jul 2016
22 Jul 2016	Water quality	Some sand bag arrangement near the site boundary at the shoreline was incomplete. The contractor was reminded to properly maintain such sand bagging.	Sand bags have been re-arranged properly.	23 Jul 2016
27 Jul 2016	Air quality	Dark smoke was emitted from the pumping machine. The contractor was reminded to check the machines on-site regularly.	The pumping machine has been maintained properly and no dark smoke was emitted.	30 Jul 2016
27 Jul 2016	Waste management	Chemicals was found leaking from the drip tray of the pumping machine. The contractor was reminded to seal the drip tray to avoid chemical leakage.	The ground has been cleaned and the drip tray has been sealed.	30 Jul 2016



4.2 Advice on the Solid and Liquid Waste Management Status

The Contractors have been registered as a chemical waste producer for the Project. Construction and demolition (C&D) material sorting will be carried out on site. A sufficient number of receptacles were available for general refuse collection.

4.2.1 M+ Museum

As advised by the Contractor, 291.46 ton and 705.64 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 Public Fill respectively, while 83.1 ton of general refuse was disposed of at SENT landfill. 77.6 ton of metals, 0 ton of paper/cardboard packaging, 0 ton of plastic and 33.6 ton of timber were collected by recycling contractors in the reporting month. 2656.0 ton of inert C&D materials was reused in other projects. 0 ton of chemical wastes was collected by licensed contractors in the reporting period.

The actual amounts of different types of waste generated by the activities of construction works at M+ Museum in the reporting month are shown in **Appendix I**.

4.2.2 Lyric Theatre Complex

As advised by the Contractor, 1678.7 ton and 10945.5 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 respectively, while 9.9 ton of general refuse was disposed of at SENT landfill. 19.6 ton of metals, 0 ton of paper/cardboard packaging, 0 ton of plastic and 0 ton of timber were collected by recycling contractors in the reporting month. 0 ton of inert C&D materials was reused on site. 0 ton of inert C&D materials was reused in other projects. 2.0 ton of chemical wastes was collected by licensed contractors in the reporting period.

The actual amounts of different types of waste generated by the activities of construction works at Lyric Theatre Complex in the reporting month are shown in **Appendix I**.

4.3 Status of Environmental Licenses and Permits

The environmental permits, licenses, and/or notifications on environmental protection for this Project which were valid during the period are summarised in **Table 4.3** and **Table 4.4**.

4.3.1 M+ Museum

Table 4.3: Status of Environmental Submissions, Licenses and Permits for M+ Museum

Permit / License No.	Valid I	Period					
/ Notification /							
Reference No.	From	То	Status	Remarks			
Chemical Waste Producer Registration							



Permit / License No.	Valid I	Period						
/ Notification /								
Reference No.	From	То	Status	Remarks				
5213-217-H2913-45	05-Nov-15		Valid					
Billing Account Constru	iction Waste Disposal							
7023393	13-Oct-15		Account Active					
Construction Noise Per	mit							
GW-RE0637-16	30-Jun-16	29-Dec-16	Vaild					
Wastewater Discharge	Wastewater Discharge License							
WT00023633-2016	4-Mar-16	31-Mar-21	Valid					
Notification under Air Pollution Control (Construction Dust) Regulation								
		_						
394083	7-Oct-15		Notified					

4.3.2 **Lyric Theatre Complex**

Table 4.4: Status of Environmental Submissions, Licenses and Permits for Lyric Theatre Complex

Permit / License No.	Valid Period							
/ Notification /								
Reference No.	From	То	Status	Remarks				
Chemical Waste Producer Registration								
5213-217-G2347-39	17-Feb-16		Valid					
Billing Account Constru	ction Waste Disposal							
7024189	25-Jan-16		Account Active					
Construction Noise Per	mit							
GW-RE0402-16	25-Apr-16	24-Oct-16	Valid					
Wastewater Discharge License								
WT00023648-2016	9-Mar-16	31-Mar-21	Valid					



Permit / License No.	Valid I	Period		
/ Notification /				
Reference No.	From	То	Status	Remarks
Notification under Air P	ollution Control (Construc	tion Dust) Regulation		
398075	18-Jan-16		Notified	

4.4 Recommended Mitigation Measures

The EM&A programme followed the recommended mitigation measures in the EM&A Manual. The EM&A requirements as well as the summary of implementation status of the environmental mitigation measures are provided in **Appendix J**. In particular, the following mitigation measures were brought to attention during the site inspections:

4.4.1 M+ Museum

Chemical and Waste Management

- All chemicals stored on site should be provided with drip trays.
- Drip trays should be kept in good condition.
- Enhance cleaning frequency for drip trays.
- Any chemical leakage should be properly collected and treated as chemical waste.
- Good housekeeping of site should be maintained.

Air Quality

- Maintain high standard of housekeeping to prevent emission of fugitive dust.
- All stockpile should be well covered or applied with dust suppression spraying to reduce dust impact.

Water Quality

- Wetsep units should be regularly checked to ensure proper function and adequate capacility of the system to treat wastewater or runoff before discharge.
- All wastewaster or site runoff must be treated in wastewater treatment facilities before discharge.
- Maintain records for checking/ maintenance and provide draingage layout plan for all wetsep units.
- All stagnant water in site area should be properly collected and treated before discharge.
- Wheel washing should be carried out at proper wheel washing facilities and within site area.
- Boot washing facilities should be provided at site entrance.
- Proper water sampling equipment must be provided for effluent checking.
- Ensure no seepage at site boundary to prevent any runoff from flowing out of site area.
- Hole at the top of water barriers should be covered to prevent the accumulation of stagnant water.

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4.4.2 Lyric Theatre Complex

Chemical and Waste Management

- All chemicals stored on-site should be provided with drip trays.
- Drip trays should be kept in good condition.
- Chemical waste in drip trays should be frequently removed and ensure no leakage of oil/ chemicals from machines.

Air Quality

- Enhance water spraying frequency to reduce dust impact.
- All machines on-site should be regularly checked.

Water Quality

- Stagnant water at the site should be regularly removed.
- No leakage of site runoff from the site near site boundary and discharge point should be ensured.
- The trail at the vehicular site entrance should be regularly cleaned.



5 Compliance with Environmental Permit

The status of the required submission under the EP during the reporting period is summarized in **Table 5.1**.

Table 5.1: Status of Submissions under the Environmental Permit

EP Condition	Submission	Submission Date
Condition 3.4	Monthly EM&A Report for June 2016	14 July 2016



6 Report on Non-compliance, Complaints, Notification of Summons and Successful Prosecutions

6.1 Record on Non-compliance of Action and Limit Levels

There was no breach of Action or Limit Levels for Air Quality and Noise monitoring in the reporting month.

6.2 Record on Environmental Complaints Received

One environmental complaint was referred from EPD on 13 July 2016 in the reporting month. The complaint was handled in accordance with the EM&A Manual and relevant parties including the Engineer's Representative and IEC were informed of the complaint.

The complainant claimed that muddy water was generated from the WKCDA construction sites and discharged to the harbour, and yellowish muddy water can be seen discharging to the Victoria Harbour via the drainage reserve outfall.

The investigation is still ongoing and has not been concluded in this reporting month. The investigation findings and subsequent mitigation measures, if any, will be reported in the next reporting month.

The cumulative statistics on complaints were provided in **Appendix K**.

6.3 Record on Notifications of Summons and Successful Prosecution

No notifications of summons or successful prosecution were received this month. The cumulative statistics on notifications of summons and successful prosecutions were provided in **Appendix K**.



7 Future Key Issues

7.1 Construction Works for the Coming Month(s)

7.1.1 M+ Museum

The major site works scheduled to be commissioned in the coming month include:

- Construction of pile caps
- Construction of slab
- Construction of columns & walls
- Installation of wailing & struts

7.1.2 Lyric Theatre Complex

The major site works scheduled to be commissioned in the coming month include:

- H-Pile Construction
- Bored Pile Construction
- Excavation and lateral support

7.2 Key Issues for the Coming Month

7.2.1 M+ Museum

Key issues to be considered in the coming month include:

- Generation of dust from construction works;
- Noise impact from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Management of stockpiles and slopes, particularly on rainy days;
- Sorting, recycling, storage and disposal of general refuse and construction waste; and
- Management of chemicals and avoidance of oil spillage on-site.

7.2.2 Lyric Theatre Complex

Key issues to be considered in the coming month include:

- Generation of dust from construction works;
- Noise impact from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Management of stockpiles and slopes, particularly on rainy days;
- Sorting, recycling, storage and disposal of general refuse and construction waste; and
- Management of chemicals and avoidance of oil spillage on-site.

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7.3 Monitoring Schedule for the Coming Month

The environmental site inspection and environmental monitoring will be continued in the coming month. Impact monitoring for air quality and noise in accordance with the approved EM&A Manual has commenced since 31 October 2015 and 5 March 2016 respectively. The tentative monitoring schedule for the coming month is shown in the **Appendix E**.



8 Conclusions and Recommendations

8.1 Conclusions

The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction of M+ Museum main works commenced on 31 October 2015, and the construction of Lyric Therate Complex foundation works commenced on 1 March 2016.

Monitoring of air quality and noise with respect to the Projects is underway. In particular, the 1-hour TSP, 24-hour TSP, noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action and Limit Levels for 1-hour TSP, 24-hour TSP and noise in the reporting month.

One environmental complaint and no notifications of summons or successful prosecution were received during the reporting month.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting month as required. It was observed that the Contractors had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

A pink form was issued to the Contractor of M+ Museum on 2 July 2016 and water sample at discharge point at ICP of M+ Museum was collected by EPD.

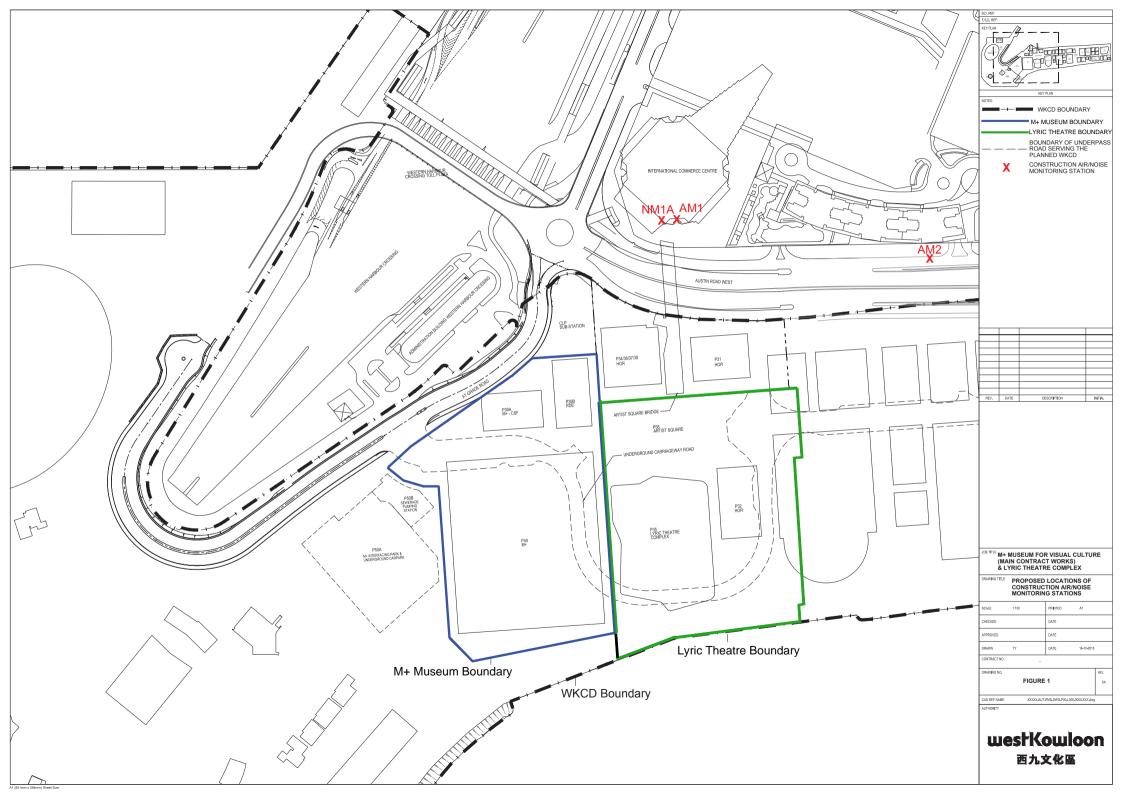
8.2 Recommendations

Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

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Figure 1 Site Layout Plan and Monitoring Stations



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Appendix A. Project Organisation

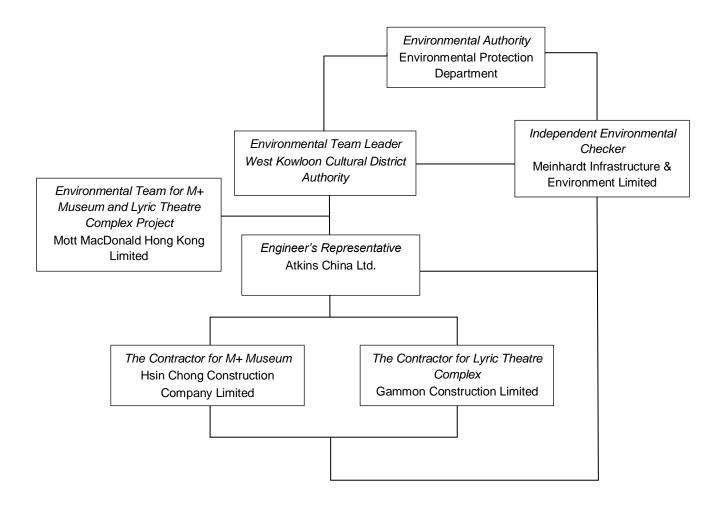


Table A-1: Contact information

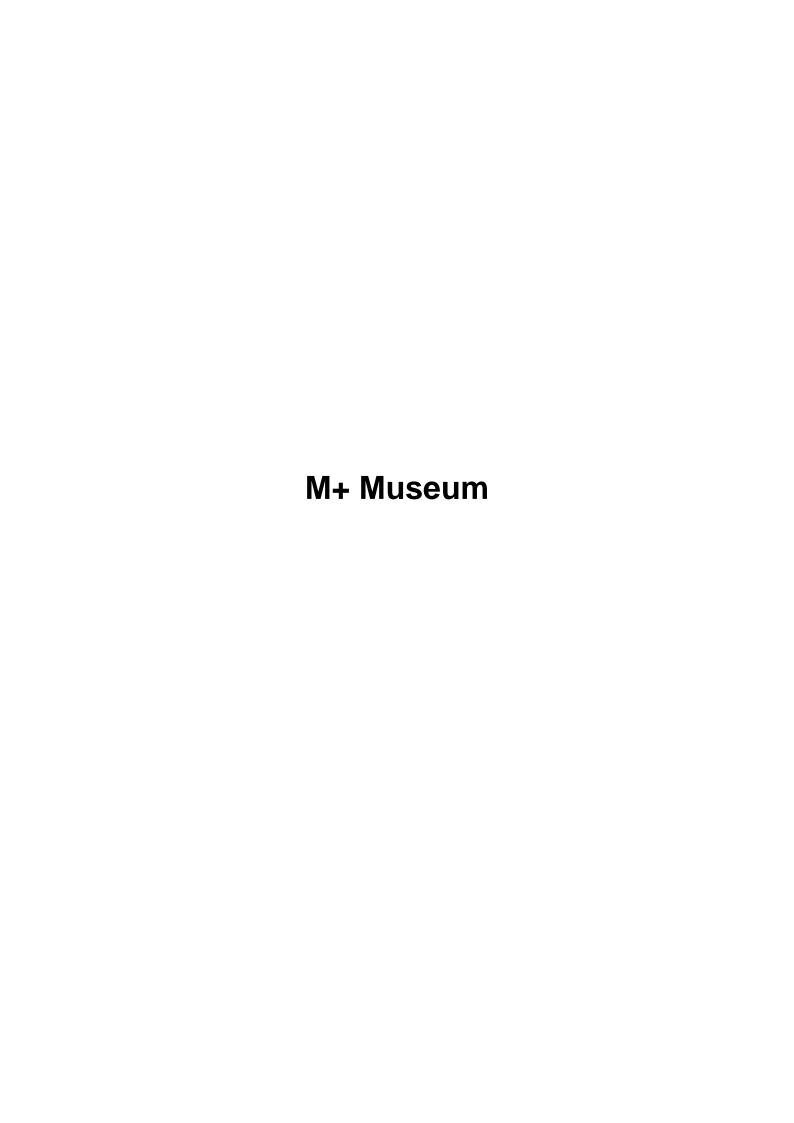
Company Name	Role	Name	Telephone
Atkins China Ltd.	Senior Resident Engineer	Mr. Alfred Lee	5401 7289
Meinhardt Infrastructure & Environment Limited	IEC	Mr. Fredrick Leong	2859 1739
Hsin Chong Construction Company Limited	Environmental Manager	Mr. Leo Chow	9266 6855
Gammon Construction Limited	Environmental Manager	Ms. Michelle Tang	9267 8866
Mott MacDonald Hong Kong Ltd.	Contractor's Environmental Team Leader	Mr Brandon Wong	2828 5875
West kowloon Cultural District Authority	Senior Environmental Specialist	Mr. Brian Tam	2200 0059

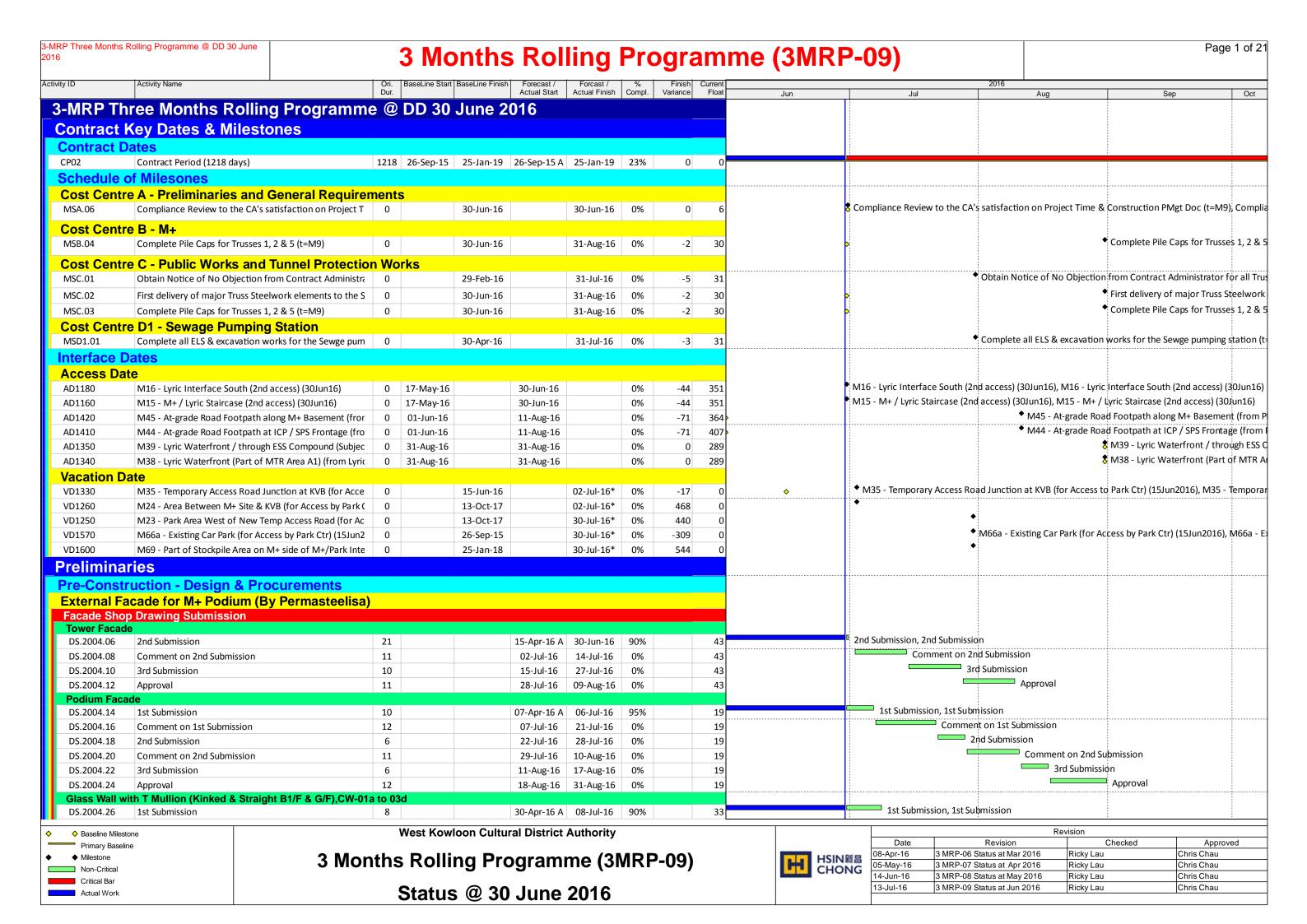
Development at West Kowloon Cultural District

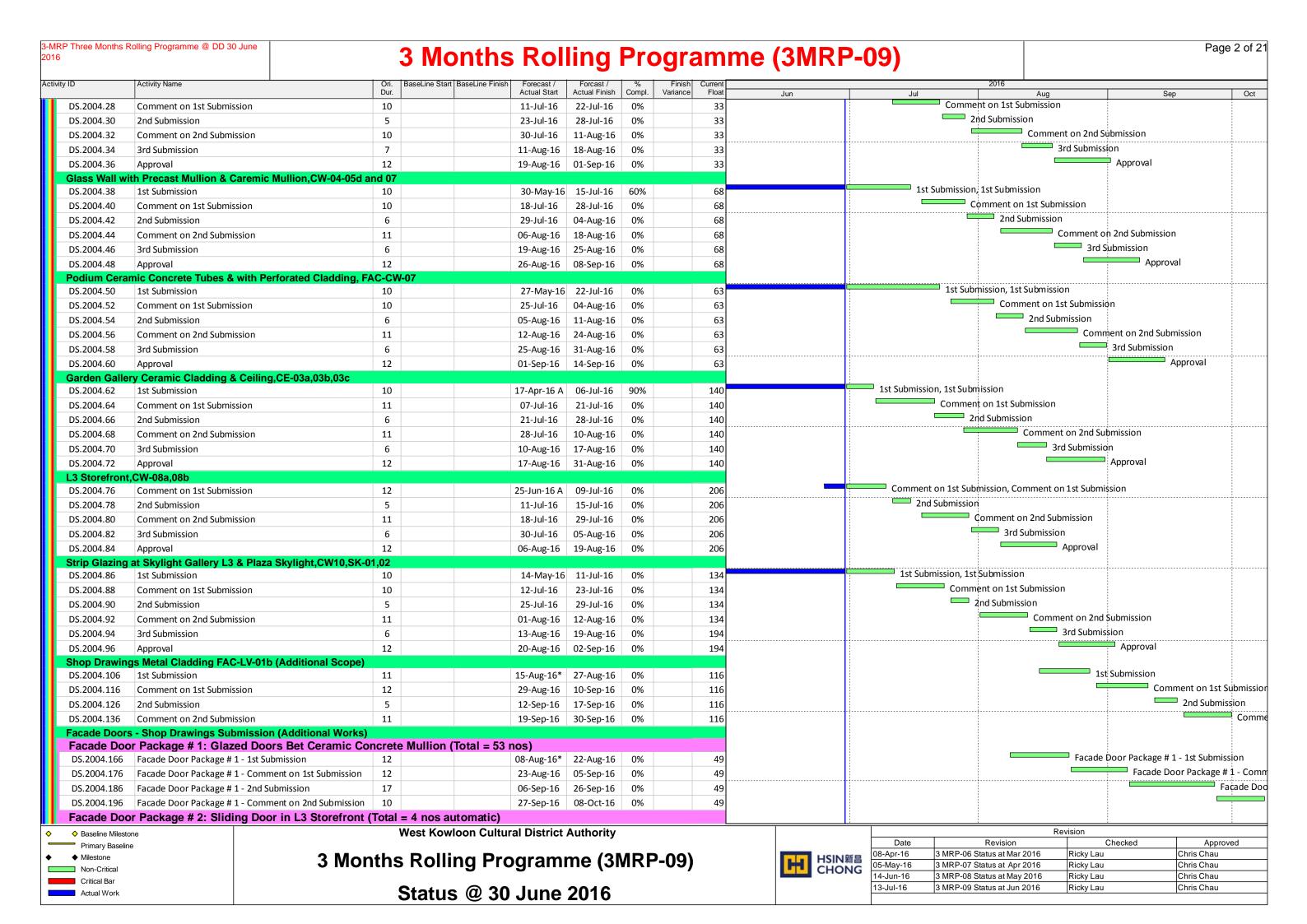
Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016

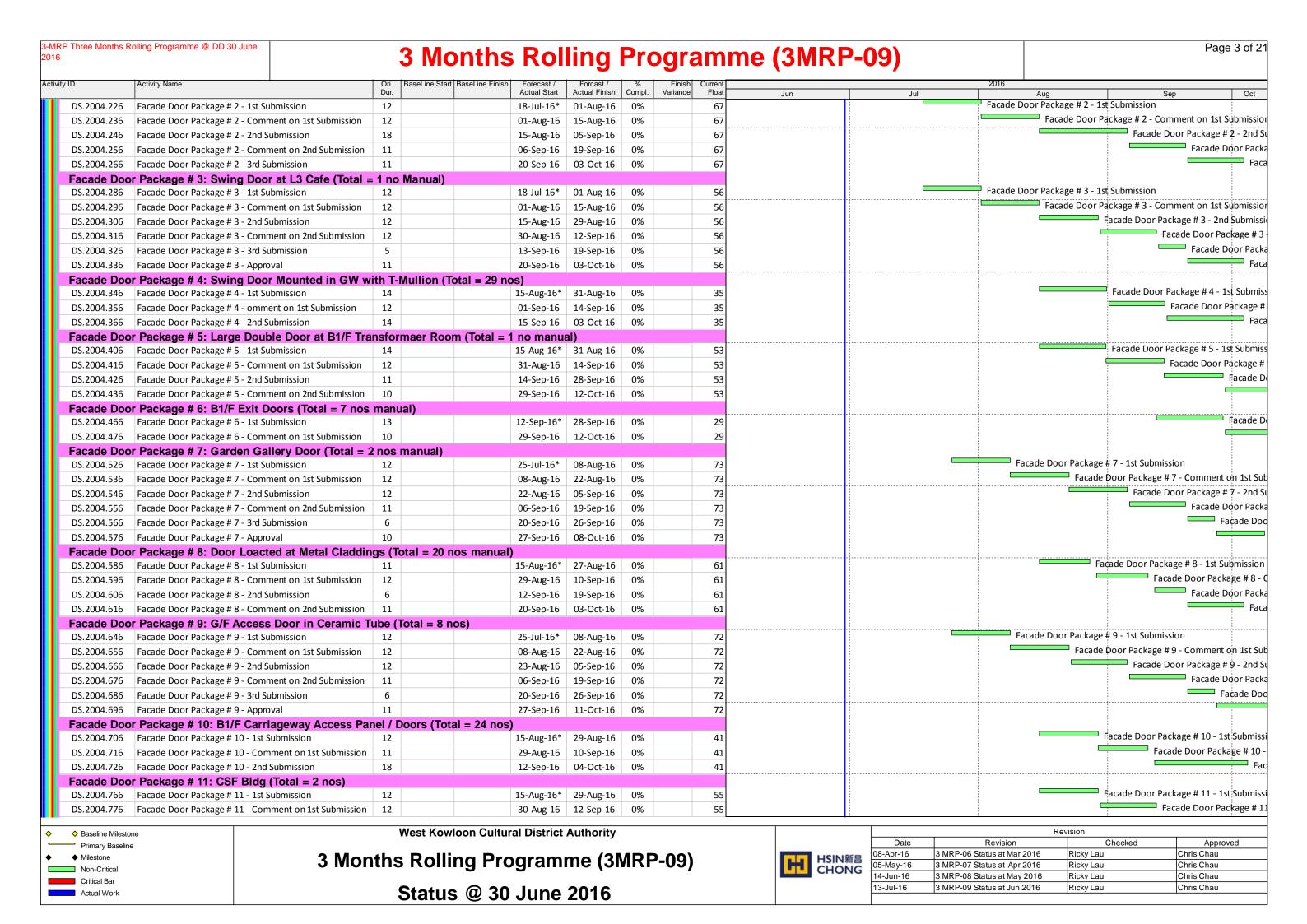


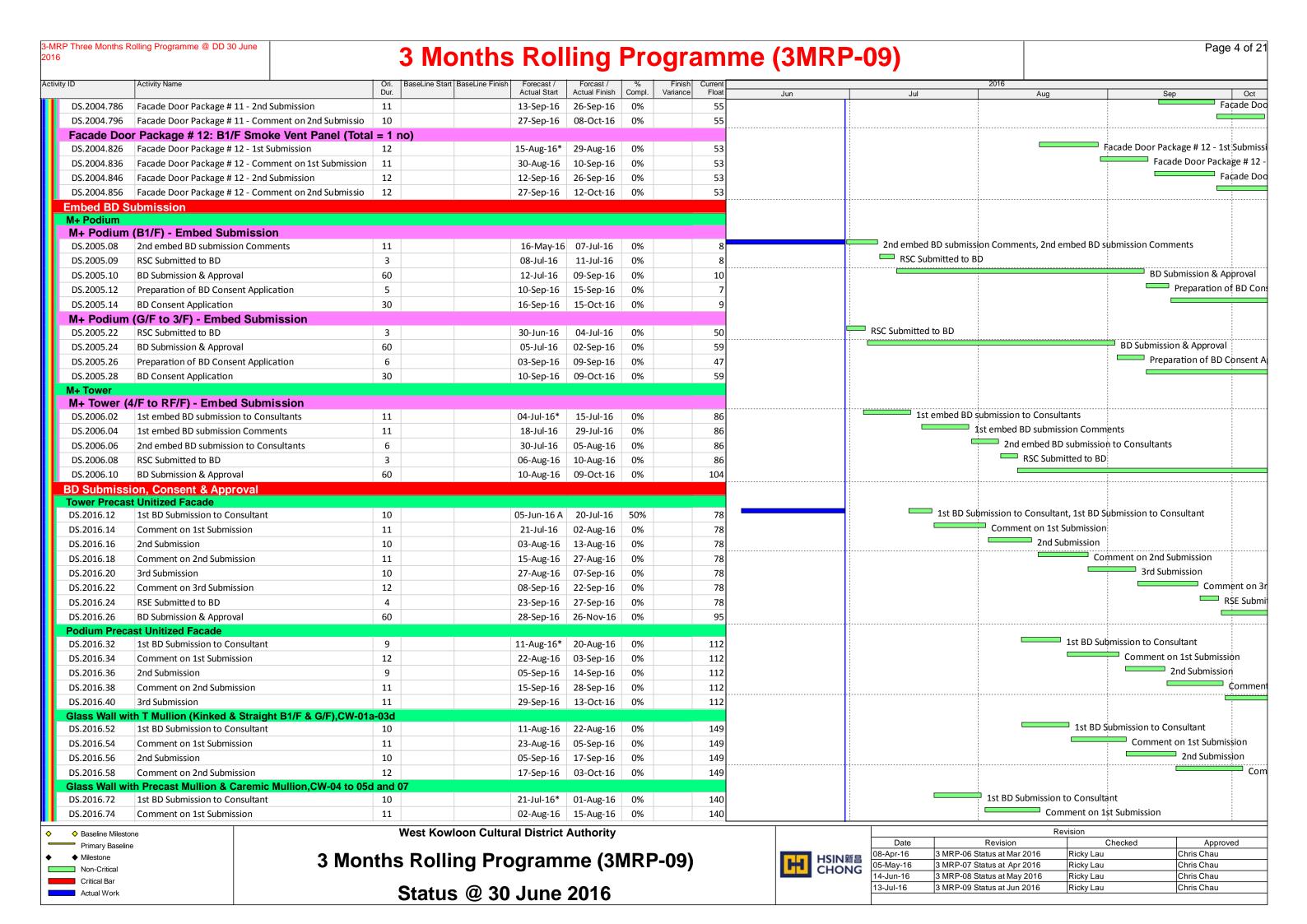
Appendix B. Tentative Construction Programme

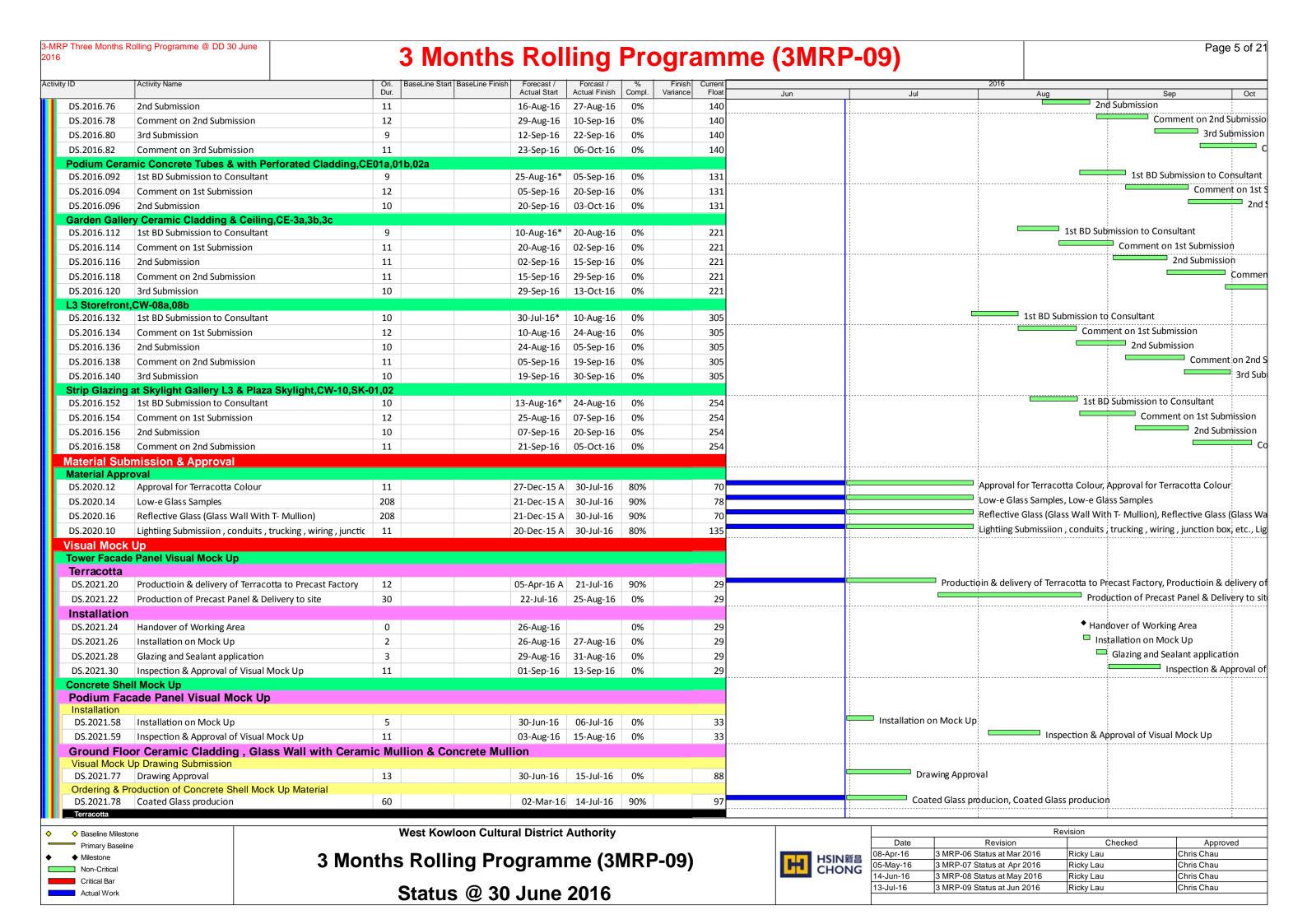


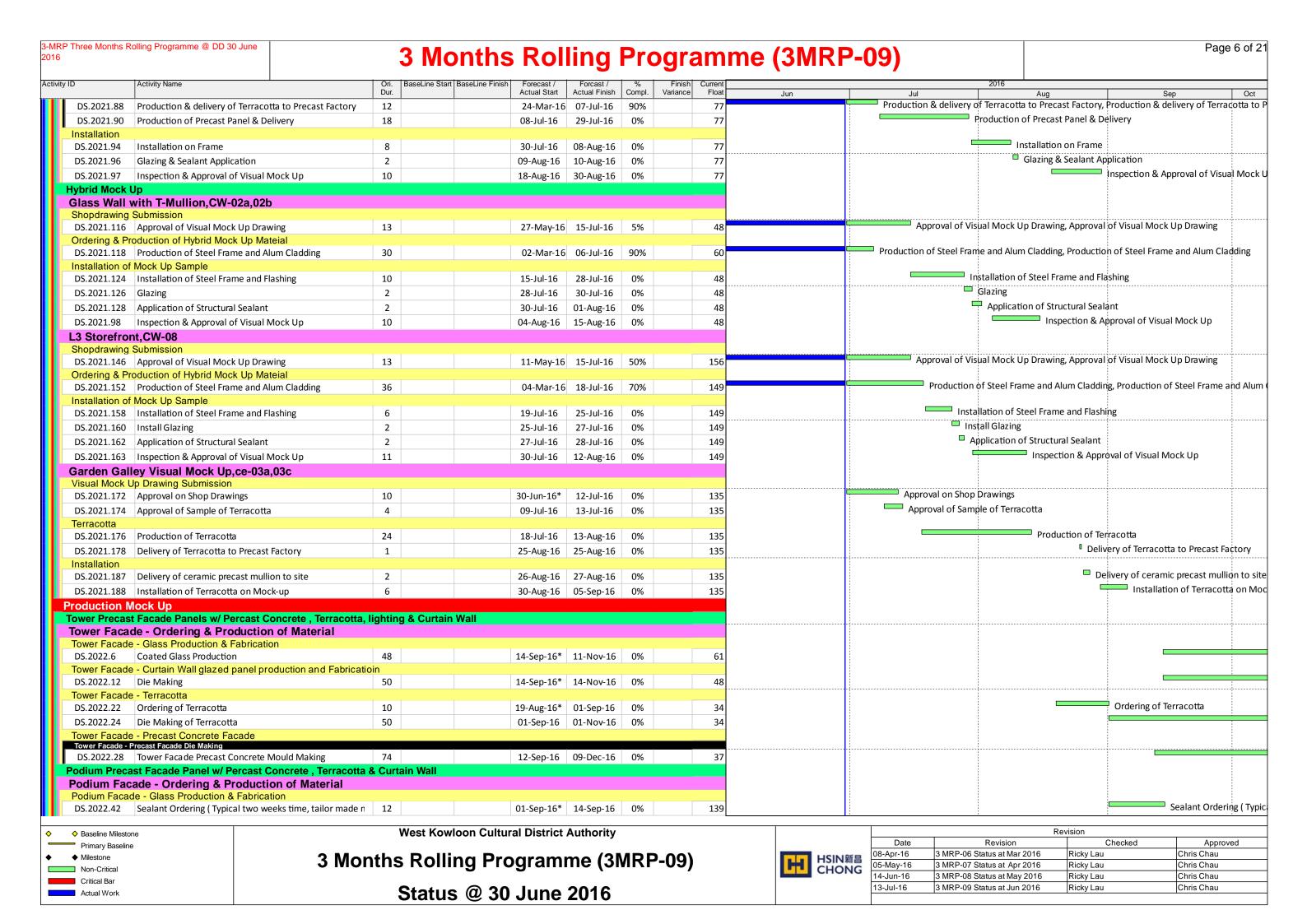


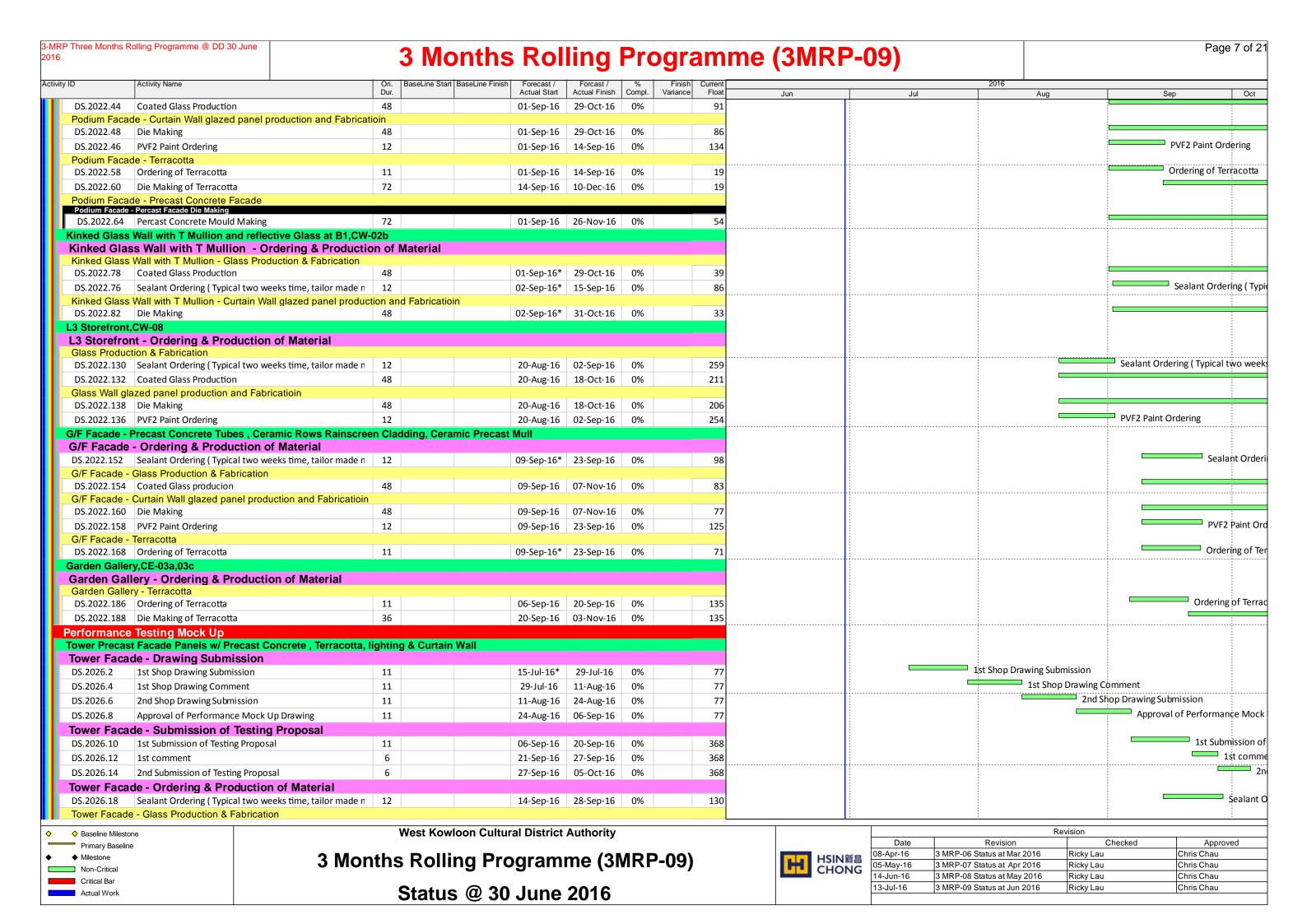


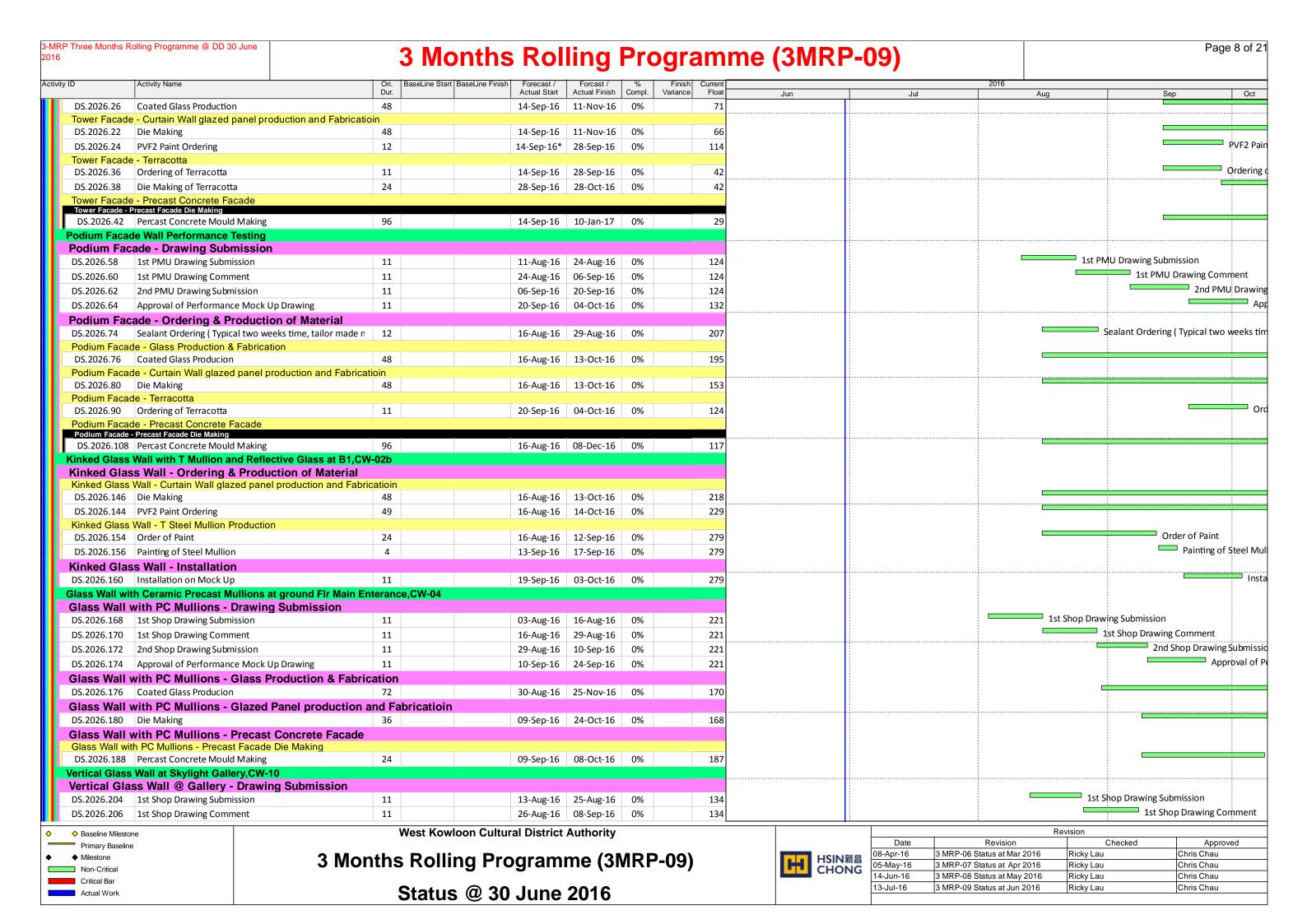


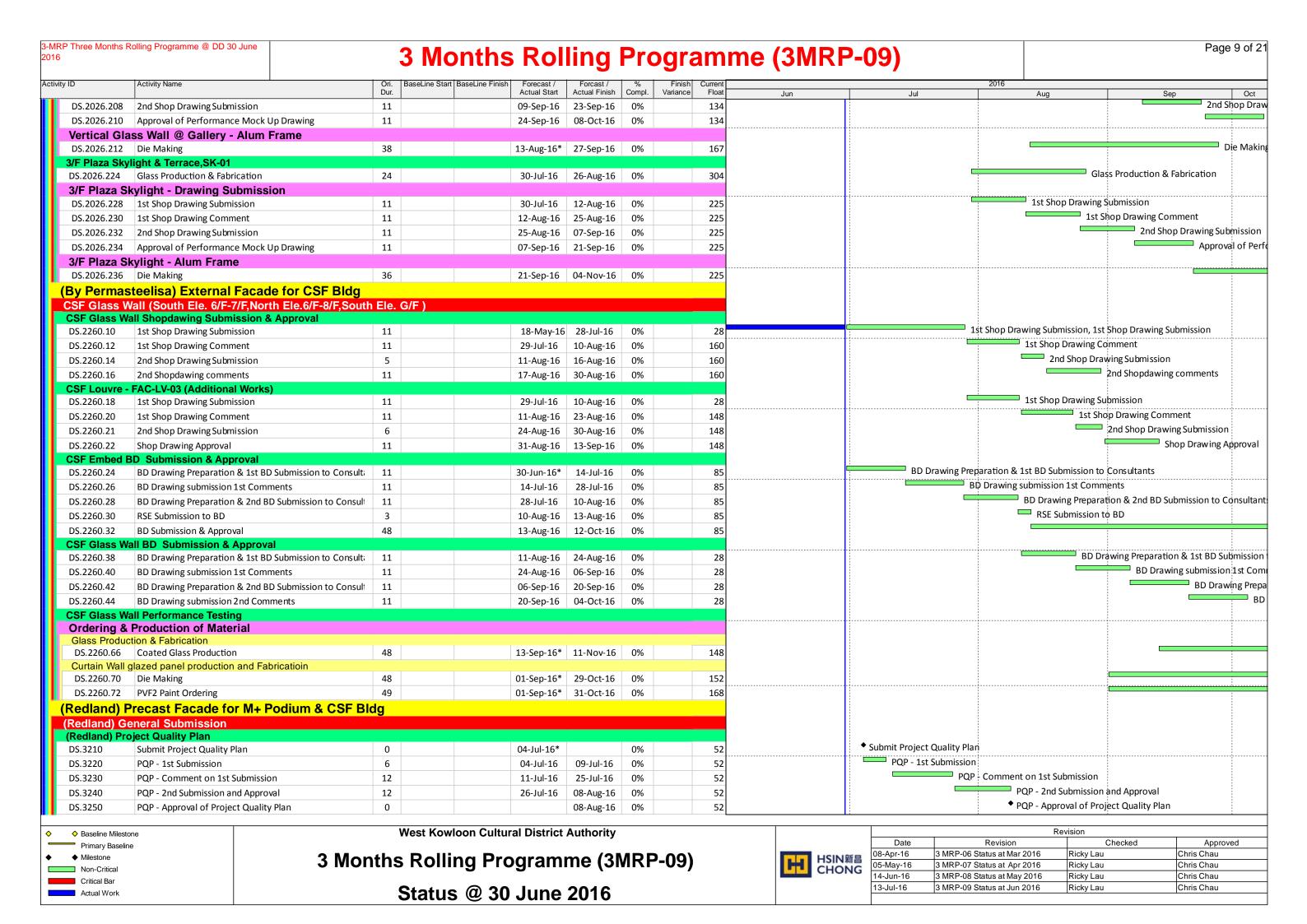


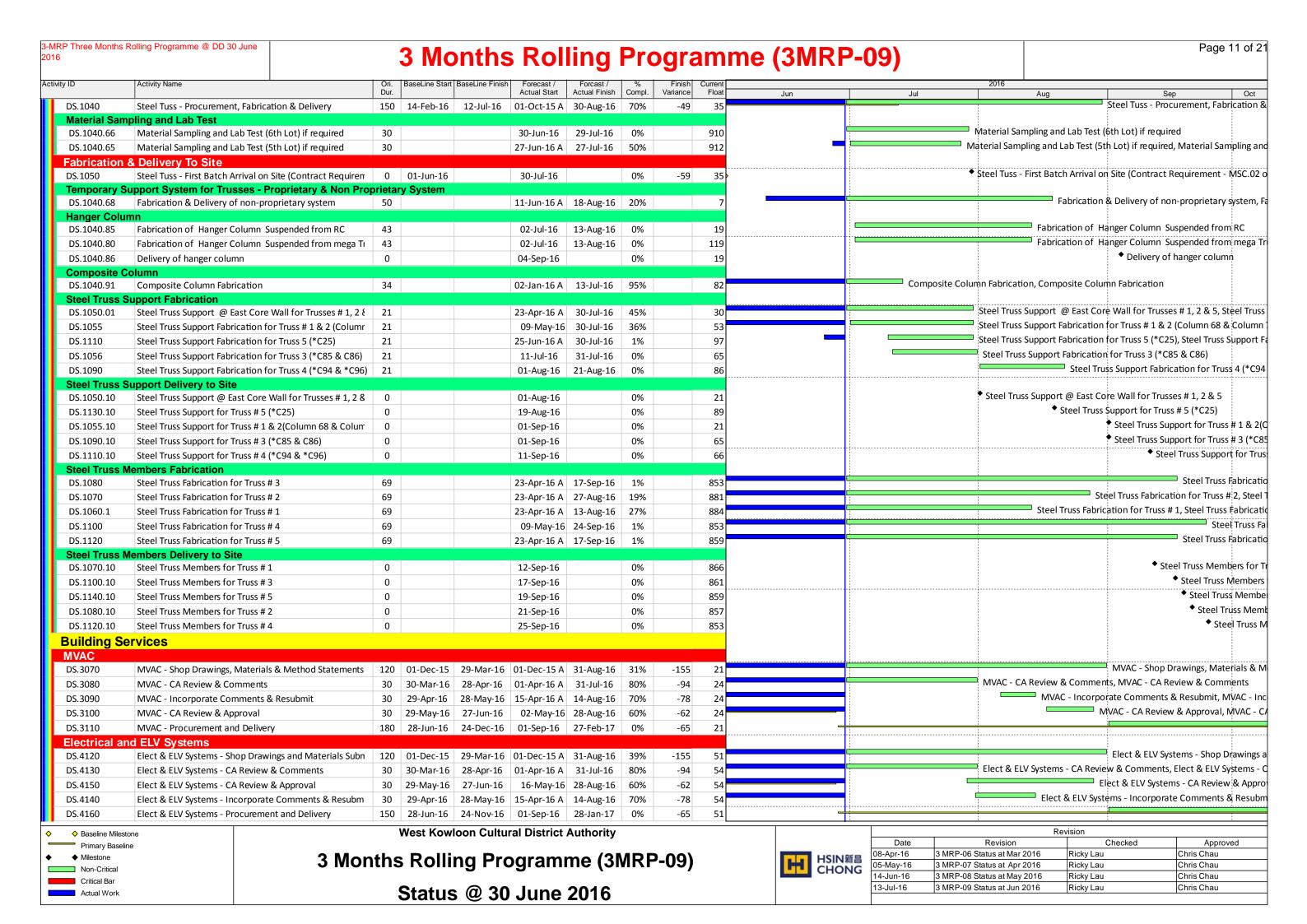


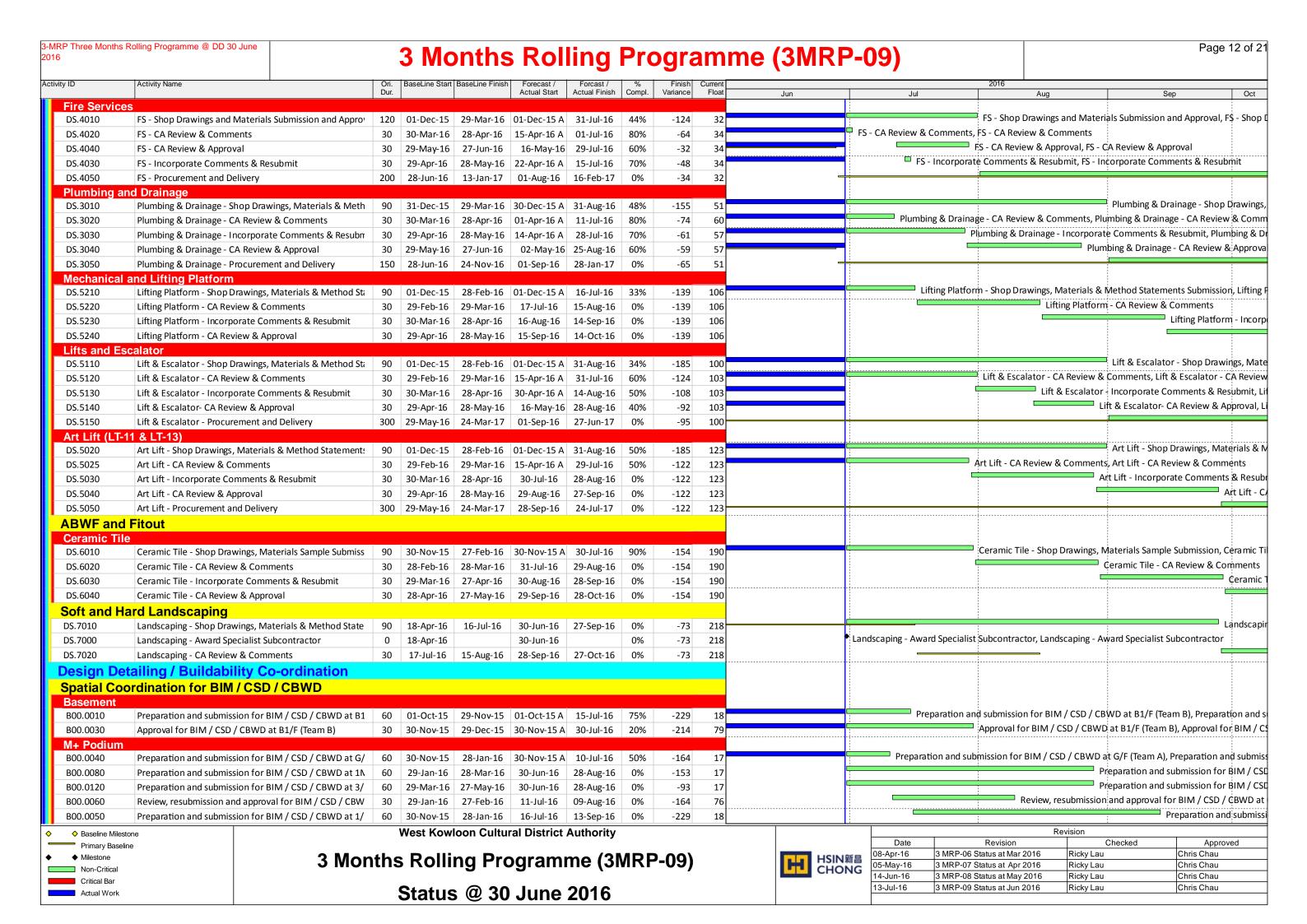


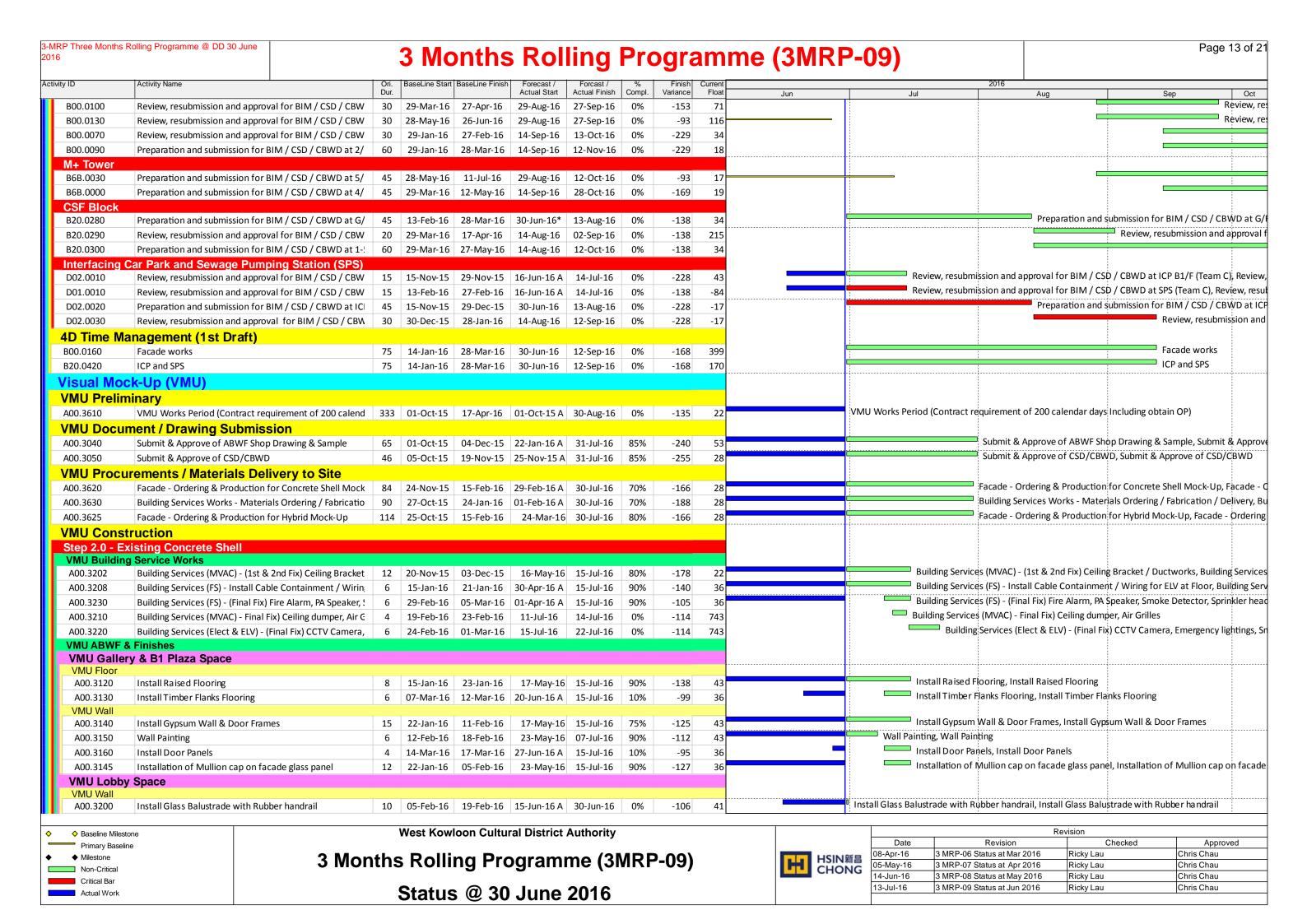


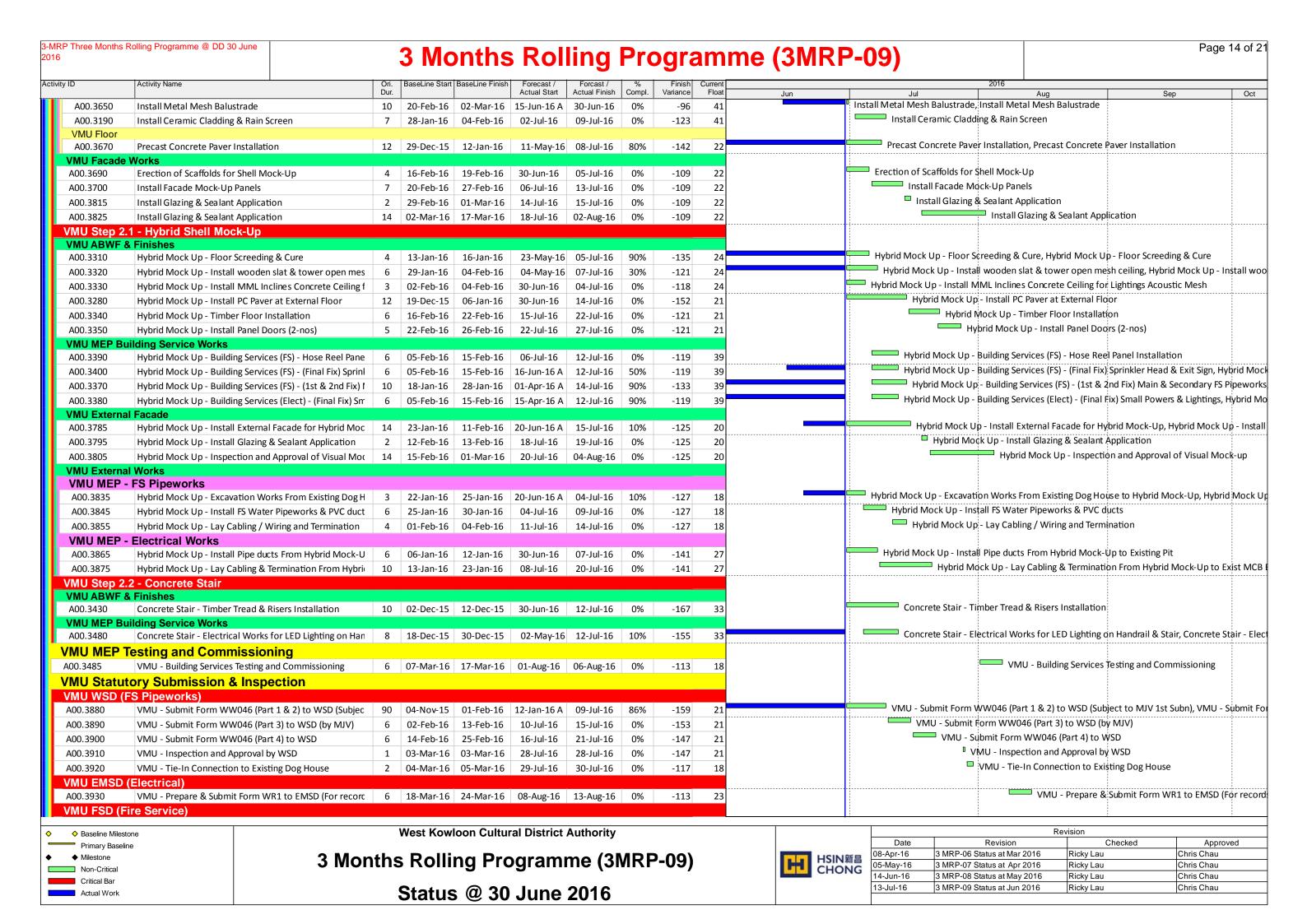


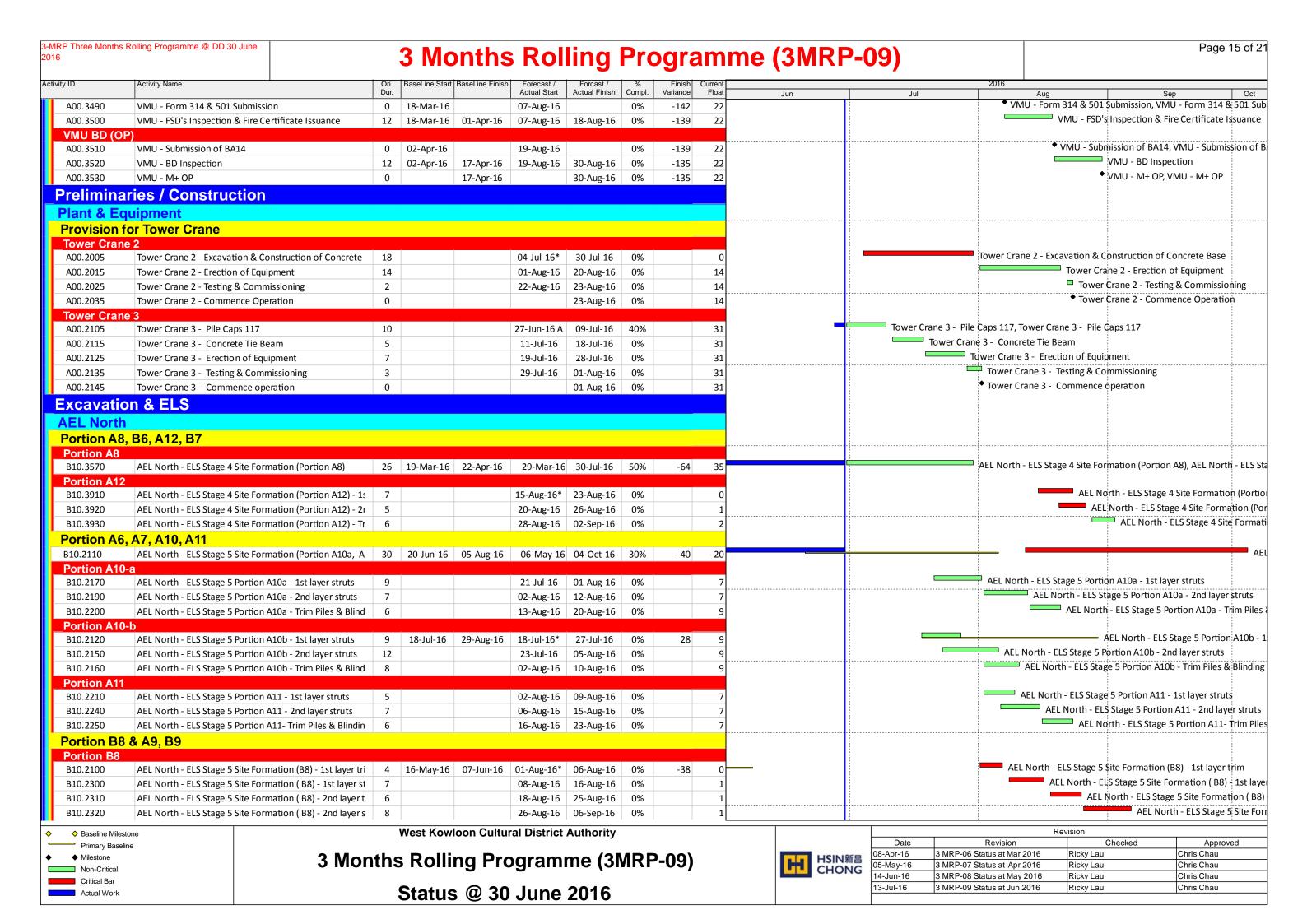


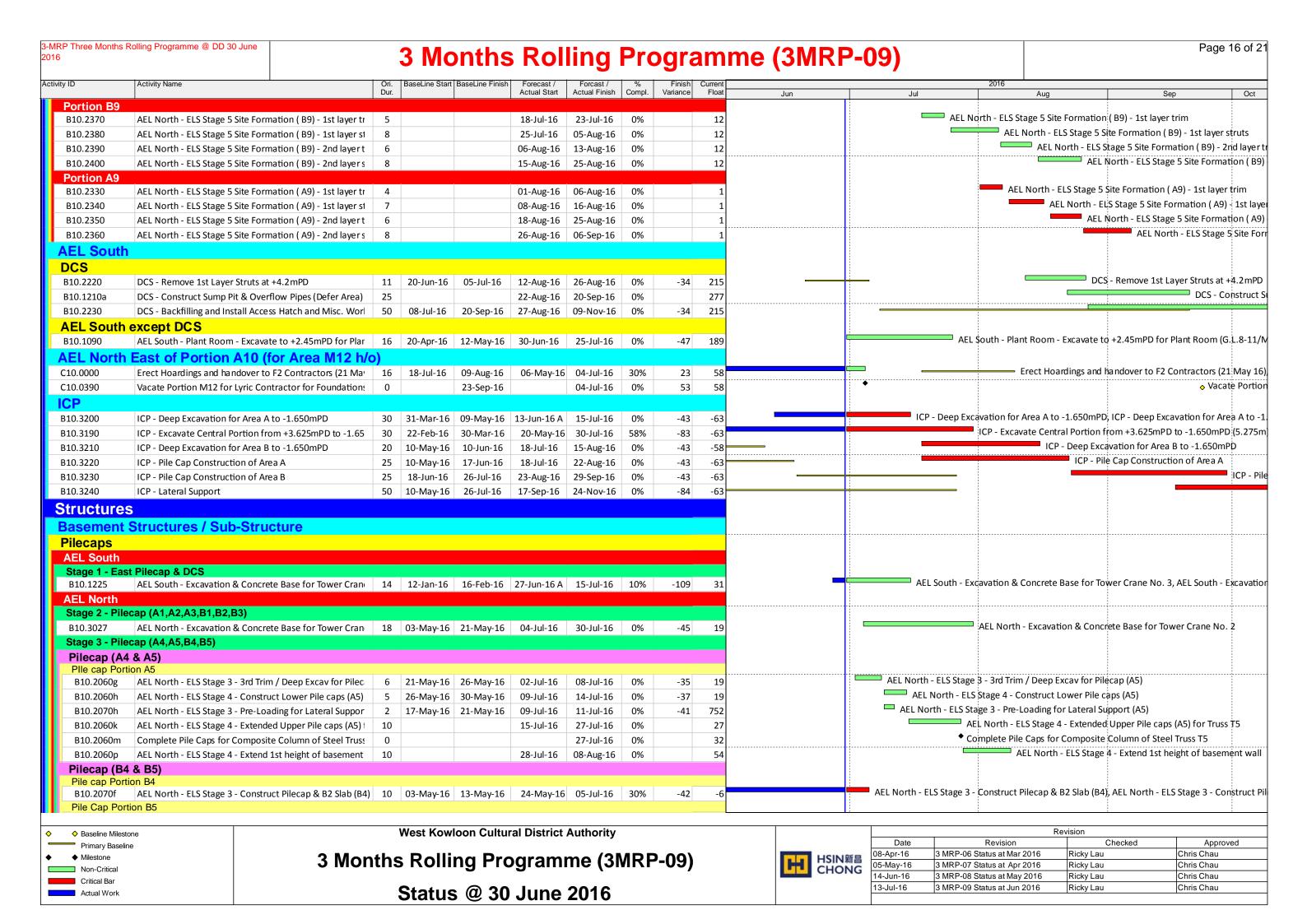


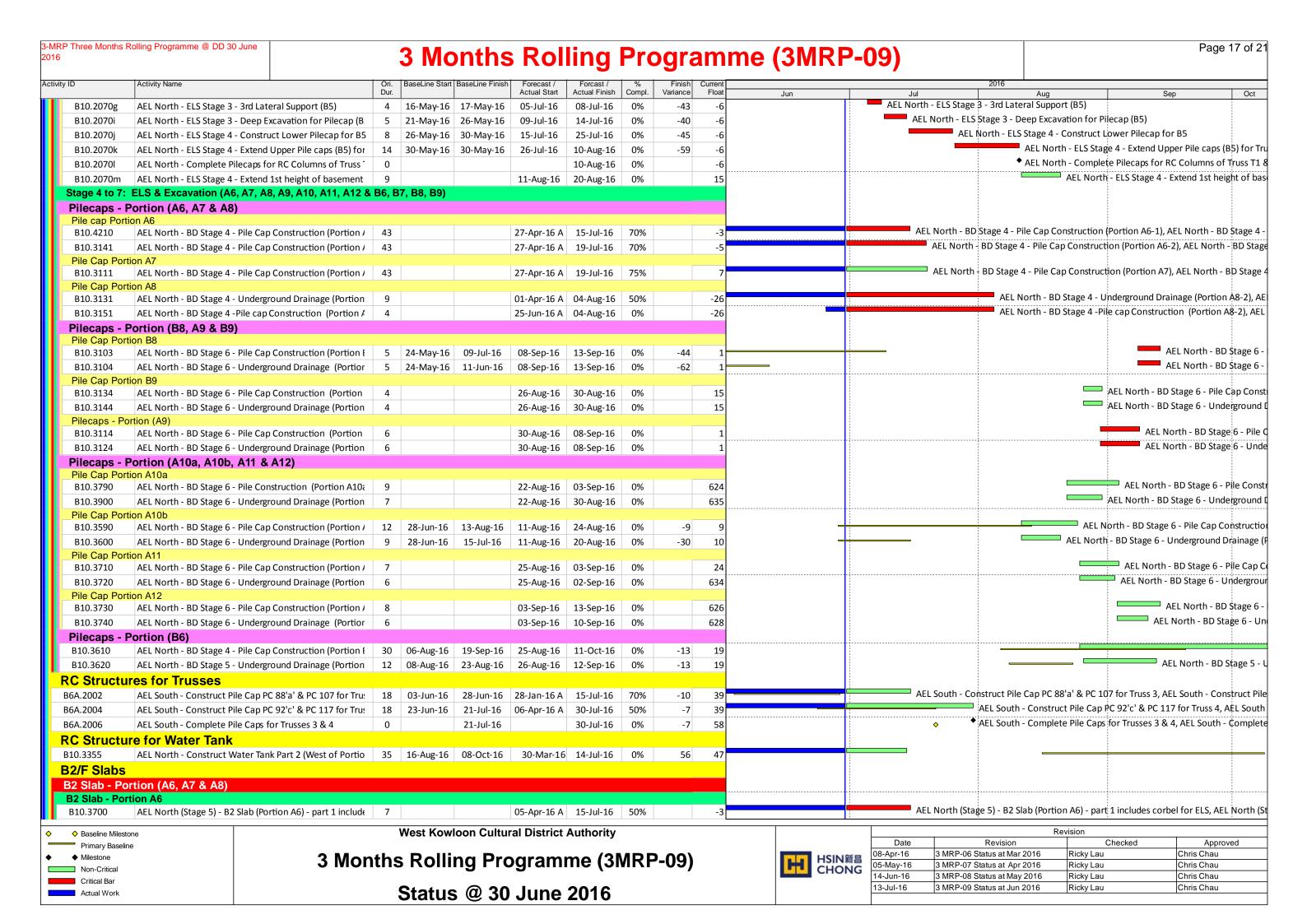


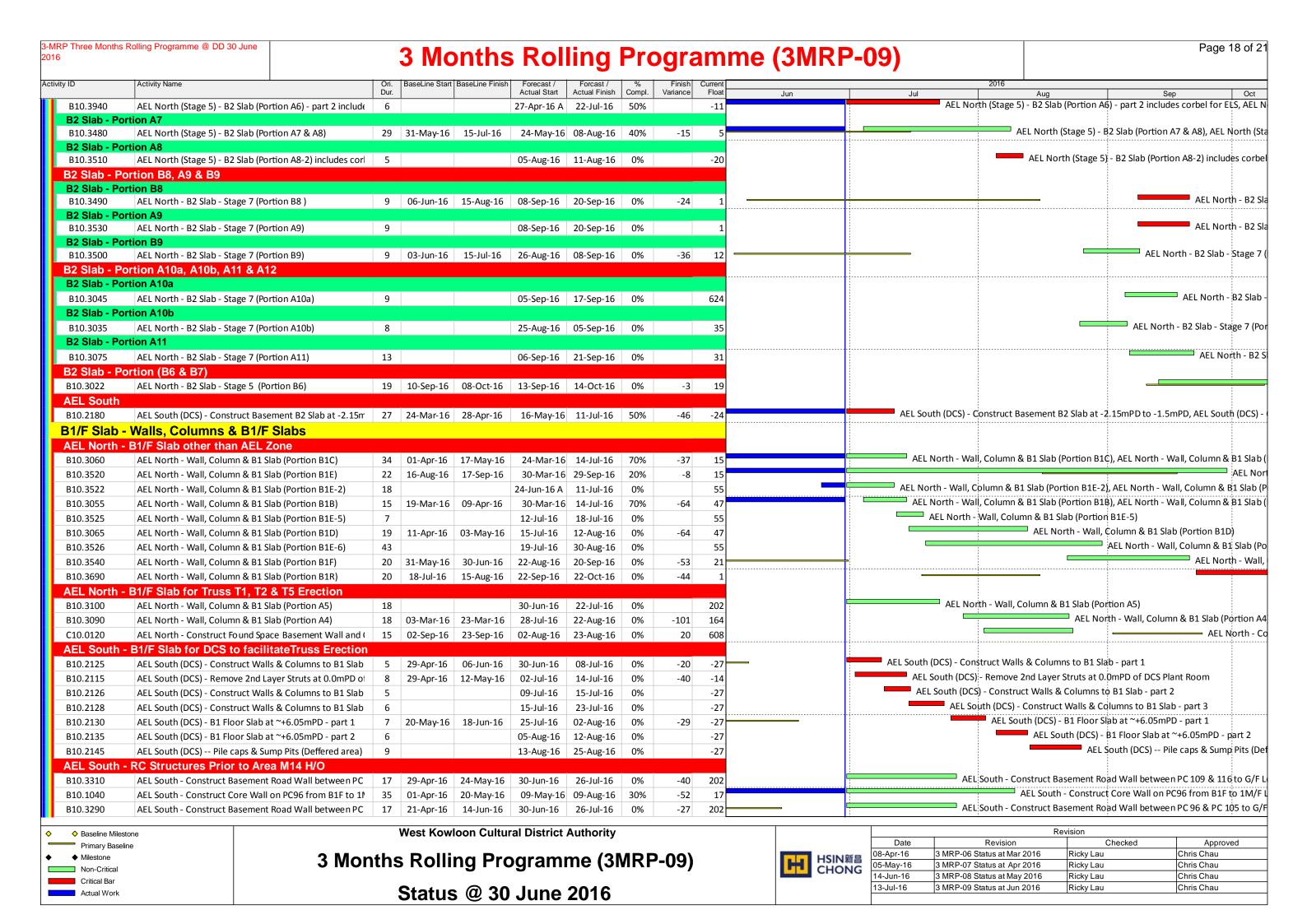


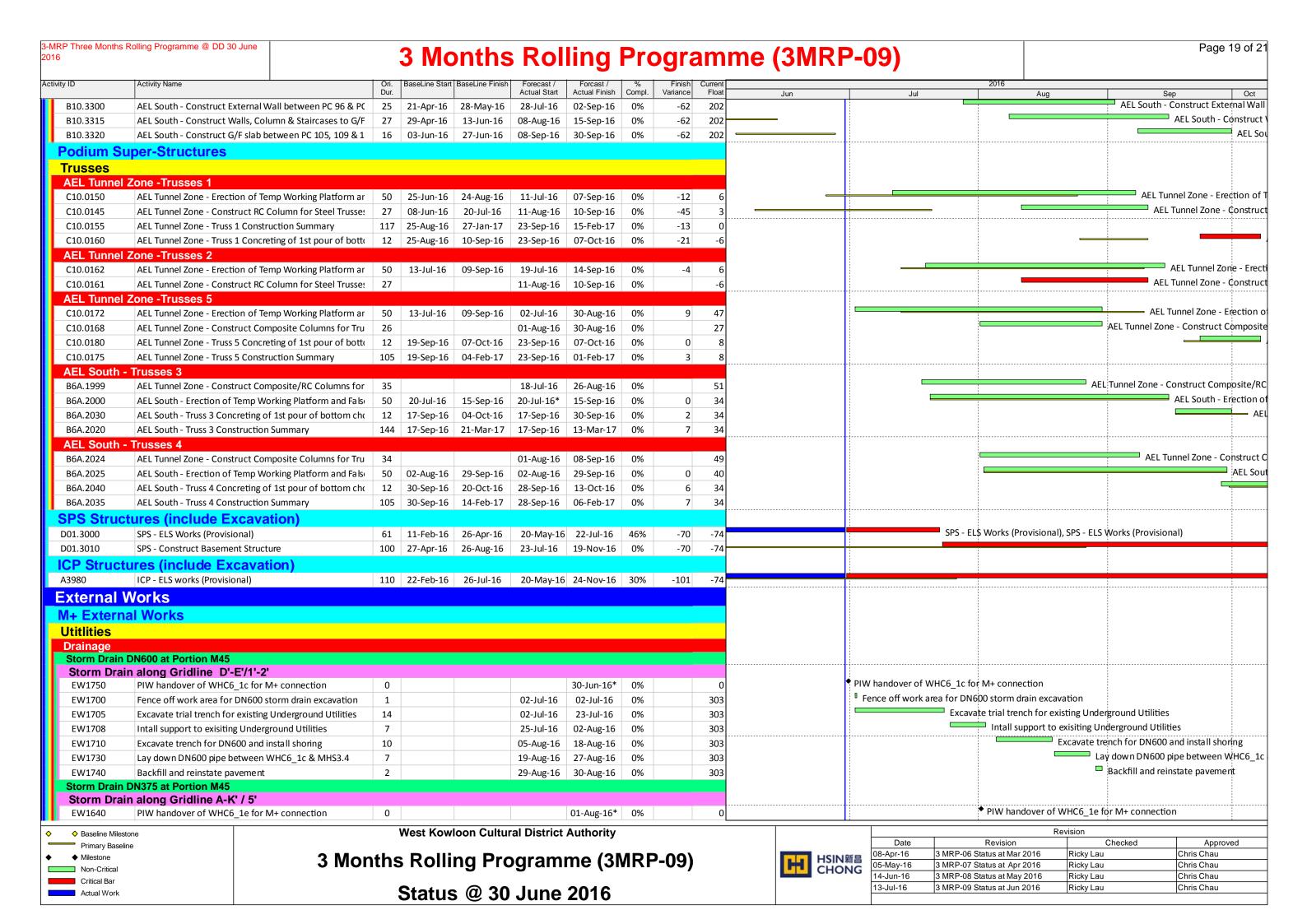




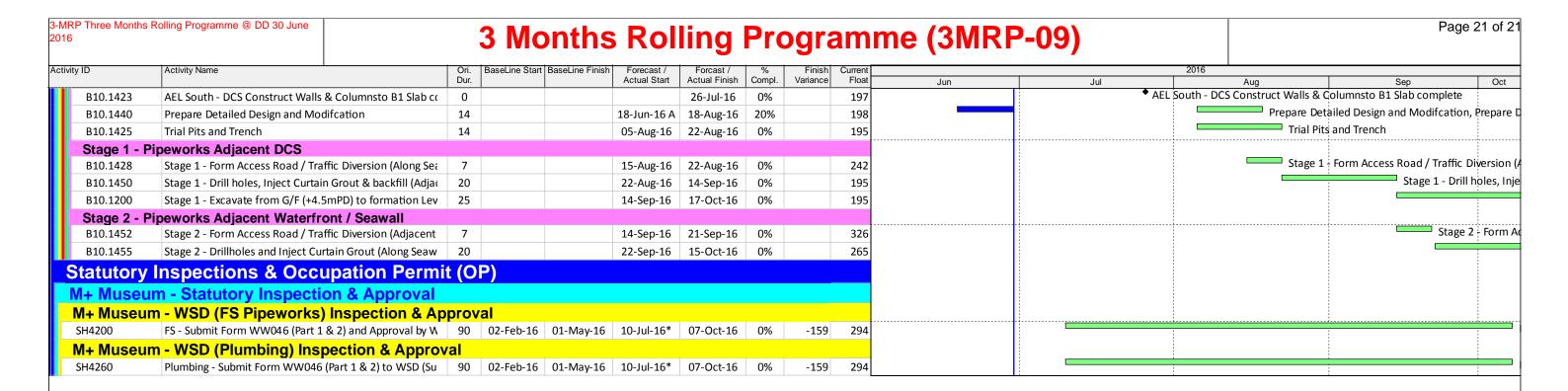








3-MRP Three Month 2016	s Rolling Programme @ DD 30 June			3 Mc	onth	s Rol	ling	Pro	ogr	am	me (3MRP-	09)			Page 20 of
Activity ID	Activity Name		Ori.	BaseLine Start	BaseLine Finish		Forcast /	%	Finish	Current			2016		
	•		Dur.			Actual Start	Actual Finish	<u>'</u>	Variance	-	Jun	Jul	Aug		Sep Oc
EW6110	Fence off Work area for DN375		1			02-Aug-16				342			* Fence off Wor	k area for DN375 sto	i i
EW1615	Excavate Trial Trench for existin		14			02-Aug-16				342				Excavate Trial	Trench for existing Undergrou
EW1618	Install support to exisiting under	rground Utilities	14			23-Aug-16	12-Sep-16	0%		342					Install support to exisit
EW6120	Excavate trench for DN375 and	install shoring	15			13-Sep-16	07-Oct-16	0%		342					
	n DN150 at Portion M45														
Storm Dra	ain along Gridline A / 5' - 6'							_	,						
EW1900	PIW handover of WHC6_1f for I	M+ connection	0				11-Aug-16*	0%		0			1	nandover of WHC6_1	!
EW1910	Fence off work area for DN150	storm drain excavation	1			11-Aug-16	11-Aug-16	0%		355			□ Fence	1	N150 storm drain excavation
EW1915	Excavate Trial Trench fo exisiting	g Underground Utilities	14			12-Aug-16	30-Aug-16	0%		355				Excava	ite Trial Trench fo exisiting Un
EW1930	Install support to exisiting Unde	rground Utilities	8			02-Sep-16	12-Sep-16	0%		355					Install support to exisit
EW1920	Excavate trench for DN150 and	install shoring	6			13-Sep-16	22-Sep-16	0%		355					Excavate tre
EW1940	Lay down DN150 and connect to	o WHC6 1f	9			23-Sep-16	07-Oct-16	0%		355					
Storm Drain	n DN300 along Gridline G-M/14														
EW1945	DCS Plant Room RC Structure co		0				06-Sep-16	0%		304				•	DCS Plant Room RC Structure
EW1955	Prepare / Submit Temp Works E		14			08-Sep-16	-			304					Prepare
EW1960	Excavate Trial Trench for existin		14			15-Sep-16	· · · · · ·			304					
Strom Drain		<u> </u>				15 CCP 10	07 000 10	0,0		36.					
EW8605	Completion of B1 Slab (Portion		0				06-Sep-16	0%		197				•	Completion of B1 Slab (Porti
EW8610	Excavate Trial Trench for existin		14			08-Sen-16	27-Sep-16			197					Excava
EW8620	Install support on existing under		14			· · · · · ·	21-Oct-16			197					
	mstan support on existing under	igiouna atilities	14			29-3ep-10	21-001-10	070		197					
Gas EW1025	Construct the branch gas main f	For Mu	ΕO	01 Jun 16	20 Jul 16	11-Aug-16	20 Cap 16	09/	-71	709					Cons
	at Portion M45	OT IVI+	50	01-1011-10	20-Jul-16	11-Aug-16	29-3ep-16	0%	-/1	709					Cons
	along Gridline E' - I' / 1'														
EW1035	Take Possession date of M45 (M	M5 IS Annondiv D1 31 Iu	0			31-Jul-16*		0%		0			◆ Take Possession	date of M45 (M45 IS	Appendix D1, 31 July 16)
WSD	Take 1 033e33i011 date 01 1VI43 (IV	145 15 Appendix D1, 51 Ju				31-341-10		070					Tune i discissioni		ppe://dix 2 2/ 0 2 0 0 1 / 2 0 /
	Works at Portion M45														
EW1147	Watermain (FH-CH250) interfac	e · M+Planned date (1 Ju	0			30-Jun-16*		0%		-29	◆ Wa	atermain (FH-CH250) i	nterface : M+Planned da	te (1 Jun16)	
EW1150	PIW Contractor Handover Porti		0			31-Jul-16*		0%		0		(i	i i	5 to HCC (IS Appendix D1, iter
			14				20-Aug-16			77			- Trw Contractor I		hoarding fixed to Sheet bile
EW1160	Remove existing hoarding fixed	•	7			01-Aug-16				77					a new hoarding with 500mm
EW1170	Install a new hoarding with 500		- ·				30-Aug-16							Ilistali	•
EW1180	Excavate Trench to expose water	•	7			02-Sep-16	· · · · · ·			77					Excavate Trench to expo
EW1190	Cut down sheet piles for water	• •	7			12-Sep-16	· ·	_		77					Cut down sh
EW1510	Construct Incoming Water Mair	ns (1- DN100 salt water)	21			23-Sep-16	13-Oct-16	0%		103					
EW1500	Construct Incoming Water Mair	ns (2- DN150 Fresh Water	21			23-Sep-16	13-Oct-16	0%		103					
_Telecom															
EW1080	Lay Telecom FTNS duct and con	nplete pits connection	72	27-Jun-16	18-Oct-16	05-Sep-16	10-Dec-16	0%	-44	292	- 		i		
CLP								_							
EW1090	Excavate trench in footway for	the 11kV direct buried ca	12	02-Jun-16	18-Jun-16	11-Aug-16	26-Aug-16	0%	-45	511				Excavate t	rench in footway for the 11kV
EW1100	Lay 11kV power cable by CLP (b	y others)	25	20-Jun-16	28-Jul-16	27-Aug-16	04-Oct-16	0%	-45	511			_		
Sea Water	r Drainage Pipe														
	Drainage Pipe														
	ntake and Outfall Pipeworks														
EW8960	Take Possession of M38 & M39	(Appendix D2. 31Aug16)	0			31-Aug-16*		0%		0				◆ Take F	Possession of M38 & M39 (Ap
Seawater	outfall pipeworks undergro			tarting from	m Ch108)										
EW3080	Trial Pits and trenches for expos		_			02-Sep-16	01-Nov-16	0%		177					i
EW3090	Detailed design for trench latera		14				04-Oct-16	_		177					
•	-	ar support und undergrou	1-4			15 5cp 10	04 000 10	070		177					
	Chiller Mains														
	ntake and Chilled Water Pipotake Pipeworks	Deworks													
Setting-of	ut / Preparation Works										J.				
♦ Baseline Mile	estone			West Kow	loon Cultu	ral District	Authority							Revision	
Primary Bas	seline						•				1 <u>2000000000000000000000000000000000000</u>	Date	Revision	Checke	
◆ Milestone		3 Mon	th	s Rolli	na Pro	ogram	me (3)	MRF	2-0 <u>9</u>)	HSIN新昌 CHONG	05.14 40 0.14	RP-06 Status at Mar 2016 RP-07 Status at Apr 2016	Ricky Lau Ricky Lau	Chris Chau Chris Chau
Non-Critical			•	• • • • • • • • • • • • • • • • •	- J · · ·	- J. J	(5	**		7	CHONG	03-Way-10 3 Wi	RP-08 Status at May 2016	Ricky Lau	Chris Chau
Critical Bar	,			Ctatur	. @ 20) luna	2016						RP-09 Status at Jun 2016	Ricky Lau	Chris Chau
Actual Work				Status	ડ હ્યુ ડા) June	∠ U16						-		•



◆ Baseline Milestone
Primary Baseline

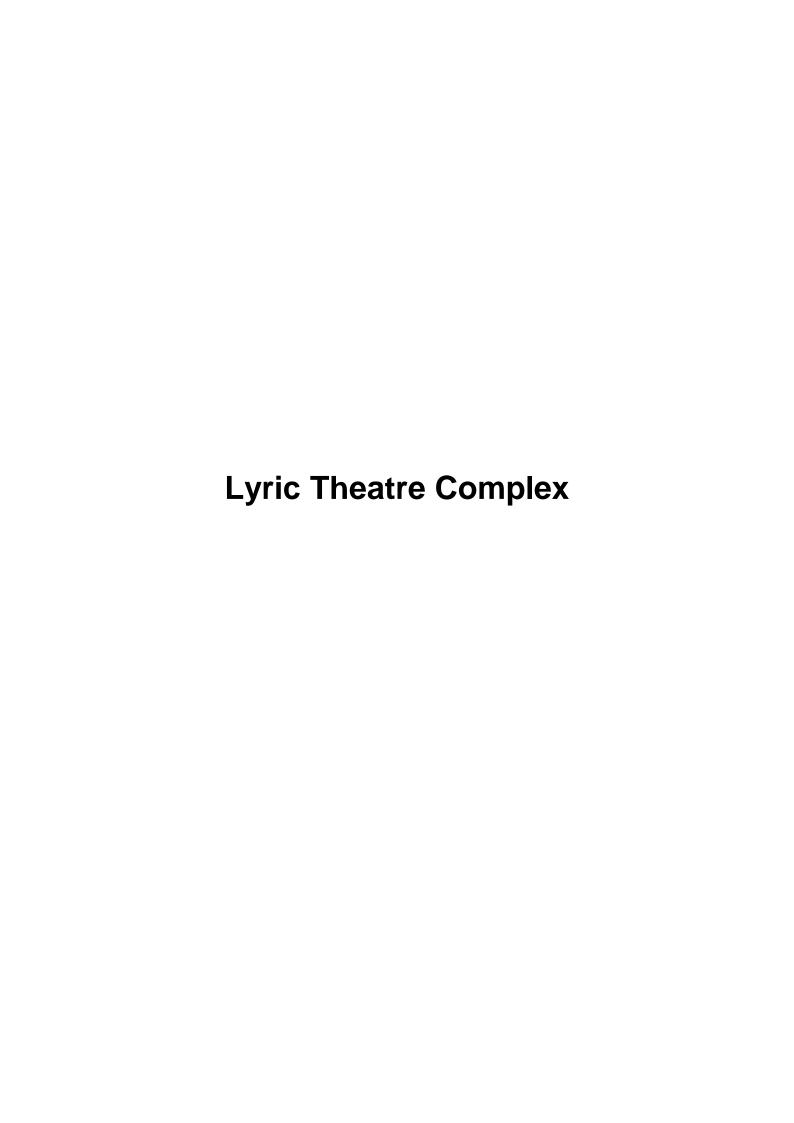
◆ Milestone
Non-Critical
Critical Bar
Actual Work

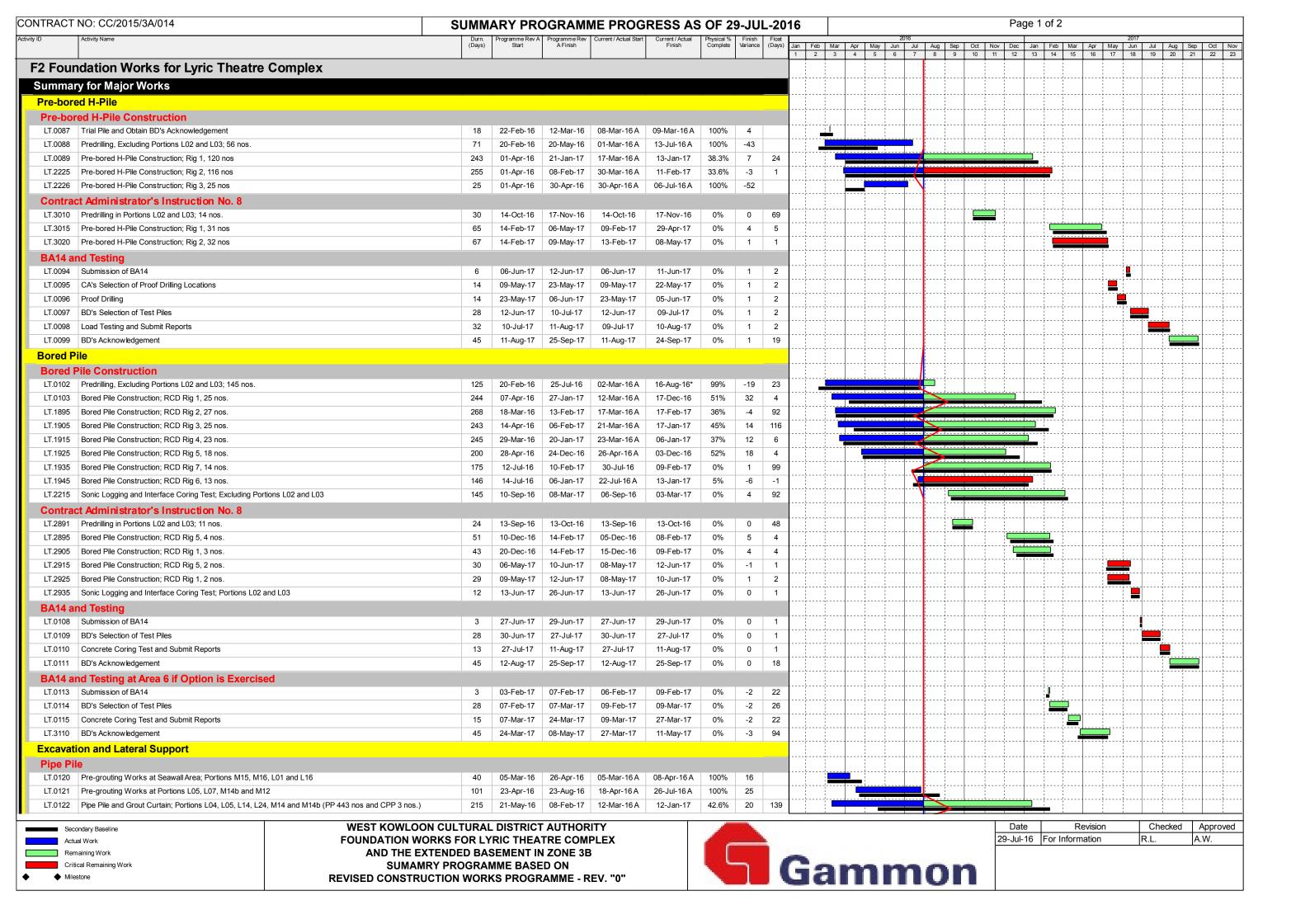
West Kowloon Cultural District Authority

3 Months Rolling Programme (3MRP-09)
Status @ 30 June 2016

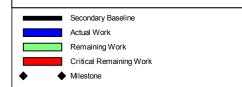


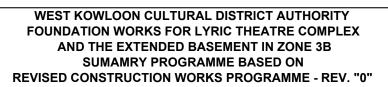
Revision								
Date	Revision	Checked	Approved					
08-Apr-16	3 MRP-06 Status at Mar 2016	Ricky Lau	Chris Chau					
05-May-16	3 MRP-07 Status at Apr 2016	Ricky Lau	Chris Chau					
14-Jun-16	3 MRP-08 Status at May 2016	Ricky Lau	Chris Chau					
13-Jul-16	3 MRP-09 Status at Jun 2016	Ricky Lau	Chris Chau					





CONTRACT	NO: CC/2015/3A/014	SUMM	ARY PR	OGRAMI	ME PROG	RESS AS	OF 2	9-JUI	L-20	16							Pa	age 2	of 2					
Activity ID	Activity Name	Durn.	Programme Rev A	Programme Rev	Current / Actual Start	Current / Actual	Physical %	Finish	Float	İ.,		 	2	2016		 		I			 2017		 	
		(Days)	Start	A Finish		Finish	Complete	Variance	(Days)				ay Jun	Jul 7		Oct N 10 1	ov Dec 1 12			Mar Apr 15 16		ul Aug 9 20		Nov 23
LT.3030	Clutched Pipe Pile and Grout Curtain; Portions M14a, L16 and L01 (CPP 82 nos.)	89	25-Jun-16	12-Oct-16	07-Jul-16 A	31-Oct-16	12%	-17	74								-			- 1				<u> </u>
Sheet P	iles																							
LT.0124	Sheet Piles Installation in Portion L06; 1,472m2	32	21-Jun-16	28-Jul-16	07-Jun-16 A	25-Jul-16 A	100%	4								 		-						
LT.2945	Sheet Piles Installation in Portions L07 and M12; 1,640m2	35	29-Jul-16	07-Sep-16	04-Jul-16 A	31-Aug-16	20%	6	96	1						 							 	
LT.2950	Instrument Installation for Instrumental Sheet Pile	15	28-May-16	15-Jun-16	21-May-16 A	31-May-16 A	100%	13		1 :					/	 							 	
LT.2955	Drive Instrumental Sheet Pile and Report Submission	10	08-Jun-16	20-Jun-16	01-Jun-16 A	16-Jun-16 A	100%	4																
Contrac	t Administrator's Instruction No. 8																							
LT.3050	Pre-grouting Works adjacent Seawall Portion L03	21	17-Sep-16	13-Oct-16	17-Sep-16	13-Oct-16	0%	0	89					1										
LT.3060	Pipe Pile and Grout Curtain; Portion L02 (PP 21nos.)	20	13-Sep-16	07-Oct-16	03-Oct-16	26-Oct-16	0%	-15	78	1														
LT.3070	Clutched Pipe Pile and Grout Curtain; Portion L03 (CPP 104 nos. and PP 4 nos)	125	14-Oct-16	15-Mar-17	01-Nov-16	01-Apr-17	0%	-15	74															
BA14																		1	: :					
LT.0126	Submission of BA14 for Stage 1 ELS Sheet Piling Works at Area 6	2	08-Sep-16	09-Sep-16	01-Sep-16	02-Sep-16	0%	6	96					1	,									
LT.0127	BD's Acknowledgement	14	09-Sep-16	23-Sep-16	02-Sep-16	16-Sep-16	0%	7	118						Ţ									
LT.0128	Submission of BA14 for Stage 1 ELS Piling Works at Area 1 to 5	2	16-Mar-17	17-Mar-17	03-Apr-17	04-Apr-17	0%	-15	74	1										• 0				
LT.0129	BD's Acknowledgement	14	17-Mar-17	31-Mar-17	04-Apr-17	18-Apr-17	0%	-18	96	I														
Pumpin	g Test																							
LT.0131	Install Area 1 to Area 5 Pumping Test Instrumentation & Wells (16 PW + 32 OW) and Submission of Initial Reading	22	13-Jun-17	08-Jul-17	13-Jun-17	08-Jul-17	0%	0	12	1	-					 			:					
LT.0132	Carry Out Pumping Test in Area 1 to Area 5 and Submission to BD	20	09-Jul-17	28-Jul-17	09-Jul-17	28-Jul-17	0%	0	15	T									:					
LT.0133	Obtain BD's Acknowledgement of Area 1 to 5 Pumping Test Results	45	29-Jul-17	11-Sep-17	29-Jul-17	11-Sep-17	0%	0	32							 			:					
LT.0134	Install Area 6 Pumping Test Instrumentation & Wells (3 PW + 6 OW) and Submission of Initial Readings	21	07-Dec-16	04-Jan-17	14-Dec-16	11-Jan-17	0%	-6	2	T								#	:					
LT.0135	Carry Out Pumping Test in Area 6 and submission to BD	16	11-Jan-17	26-Jan-17	14-Jan-17	29-Jan-17	0%	-4	-1										:					
LT.0136	Obtain BD's Acknowledgement of Area 6 Pumping Test Results	45	26-Jan-17	12-Mar-17	30-Jan-17	15-Mar-17	0%	-4	-1	I										,				
Option	Stage 2 ELS and Excavation Works at Area 6																	1 1 1						
LT.0138	Bulk Excavation and Installation of Struts	102	25-Apr-17	26-Aug-17	27-Apr-17	29-Aug-17	0%	-3	-2	1						 			:					
LT.0139	Trim Pile Head and Clearance	27	26-Aug-17	27-Sep-17	29-Aug-17	29-Sep-17	0%	-3	10	T			[
LT.3075	Submission of BA8 and BA10 for Bulk Excavation Works	35	14-Mar-17	18-Apr-17	18-Mar-17	21-Apr-17	0%	-4	-1															
LT.3080	Installation of Temporary Platform	22	18-Apr-17	16-May-17	21-Apr-17	19-May-17	0%	-4	-1				[
BA14 fo	r Option Stage 2 ELS and Excavation Works at Area 6										1]					
LT.0141	Submission of BA14 for Stage 2 ELS and Excavation Works at Area 6	2	26-Aug-17	29-Aug-17	29-Aug-17	31-Aug-17	0%	-3	-2													, l		
LT.0142	BD's Acknowledgement	45	28-Aug-17	12-Oct-17	01-Sep-17	15-Oct-17	0%	-4	-2	T												I	•	







Date	Revision	Checked	Approved
29-Jul-16	For Information	R.L.	A.W.
•		Date Revision 29-Jul-16 For Information	

Development at West Kowloon Cultural District

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Appendix C. Action and Limit Levels for Construction Phase

Air Quality

The Action and Limit Levels for 1-hour and 24-hour TSP for the monitoring station are presented in following tables:

Table C-1: Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level (µg/m3)	Limit Level (µg/m3)
AM1	273.7	500
AM2	274.2	500

Table C-2: Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level (μg/m3)	Limit Level (μg/m3)
AM1	143.6	260
AM2	151.1	260

<u>Noise</u>

The Action and Limit Levels for Noise for the monitoring stations are presented in following table:

Table C-3: Action and Limit Levels for Construction Noise

Time Period & Monitoring Locations	Action Level	Limit Level
NM1		
0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)

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Appendix D. Event and Action Plan for Air Quality, Noise, Landscape and Visual Impact

Air Quality

In case the Action and Limit Levels are not complied during construction stage, the following Event and Action Plan should be followed:

Table D-1: Event and Action Plan for Air Quality

1. 200	nt and Action Plan for Air Action	<u> </u>		
Action Lovel	ET	IEC	WKCDA	Contractor
Action Level 1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and WKCDA; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	Check monitoring data submitted by ET; Check Contractor's working method.	1. Notify Contractor	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and WKCDA; 3. Advise the WKCDA on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and WKCDA; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to WKCDA within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform WKCDA, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the WKCDA on the effectiveness of the proposed remedial measures; Monitor the implementation of 	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented.	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate.

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

Construction Noise

In case the Action and Limit Levels are not complied during construction stage, the following Event and Action Plan should be followed:

Table D-2: Event and Action Plan for Construction Noise

1 4510 5 2.	Event and Action Flamfor C			
	Action			
Event	ET Leader	IEC	WKCDA	Contractor
Action Level	 Notify WKCDA, IEC and Contractor; Carry out investigation; Report the results of investigation to the IEC, WKCDA and Contractor; Discuss with the IEC and Contractor on remedial measures required; Increase monitoring frequency to check mitigation effectiveness. 	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the WKCDA accordingly; 3. Advise the WKCDA on the effectiveness of the proposed remedial measures.	 Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; Supervise the implementation of remedial measures. 	 Submit noise mitigation proposals to IEC and WKCDA; Implement noise mitigation proposals.
Limit Level	1. Inform IEC, WKCDA, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and WKCDA on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCDA informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst WKCDA, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the WKCDA accordingly.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and WKCDA within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the WKCDA until the exceedance is abated.

Landscape and Visual Impact

In case of non-compliance of landscape and visual impacts, procedures in accordance with the Event and Action Plan should be followed:

Table D-3: Event and Action Plan for Landscape and Visual Impact

	Action			
Event	ET Leader	IEC	WKCDA	Contractor
Design Check	 Design check to make sure the design complies with all the proposed mitigation measures in the EIA report; Prepare and submit report. 	 Check report submitted by ET; Recommend remedial design if necessary. 	Undertake remedial design if necessary.	-
Non- conformity on one occasion	 Identify source of non-conformity; Report to IEC and WKCDA; Discuss remedial actions with IEC, WKCDA and Contractor; Monitor remedial actions until rectification has been completed. 	 Check and verify source of non-conformity; Discuss remedial actions with ET and Contractor; Advise WKCDA on effectiveness of proposed remedial actions; Check implementation of remedial actions. 	Notify Contractor; Ensure remedial actions are properly implemented.	 Amend working method as necessary; Rectify damage and undertake necessary replacement and remedial actions.
Repeated non- conformity	1. Identify source of non-conformity; 2. Report to IEC and WKCDA; 3. Increase monitoring frequency; 4. Discuss remedial actions with IEC, WKCDA and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity rectified, reduce monitoring frequency back to normal.	1. Check and verify source of non-conformity; 2. Check Contractor's working method; 3. Discuss remedial actions with ET and Contractor; 4. Advise WKCDA on effectiveness of proposed remedial actions; 5. Supervise implementation of remedial actions.	Notify Contractor; Ensure remedial actions are properly implemented.	1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.

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Appendix E. Monitoring Schedule

JULY 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			,		1	2
3	4	5	6 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	7	8	9
10	11	12 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	13	14	15	16
17	18 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	19	20	21	22 AM1, AM2 - 24hrTSP, 1hr TSP x3	23
24	25	26	27	28 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	29	30
31		Notes: AM1 - International Commerce Centre (ICC) AM2 - The Harbourside Tower 1 NM1A - International Commerce Centre (ICC)				

AUGUST 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	4	5	6
7	8	9 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	10	11	12	13
14	15 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	16	17	18	19 AM1, AM2 - 24hrTSP, 1hr TSP x3	20
21	22	23	24	25 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	26	27
28	29	30	31 AM1, AM2 - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring			
		Notes: AM1 - International Commerc AM2 - The Harbourside Towe NM1A - International Comme	r 1			

Development at West Kowloon Cultural District Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016



Appendix F. Calibration Certifications

<u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

Location : AM1(ICC)
Calibrated by : K.T.Ho
Date : 16/06/2016

Sampler

Model : TE-5170 Serial Number : S/N 0767

Calibration Orfice and Standard Calibration Relationship

Serial Number : 2454

 Service Date
 :
 14 Mar 2016

 Slope (m)
 :
 2.09532

 Intercept (b)
 :
 -0.03812

 Correlation Coefficient(r)
 :
 0.99994

Standard Condition

Pstd (hpa) : 1013 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1008 Ta(K) : 304

Resi	istance Plate	dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)	(chart)	(corrected)
1	18 holes	10.0	3.118	1.514	58	57.19
2	13 holes	8.0	2.789	1.358	50	49.30
3	10 holes	5.8	2.375	1.161	40	39.44
4	7 holes	4.0	1.972	0.969	32	31.55
5	5 holes	2.2	1.462	0.727	20	19.72

 $Notes: Z = SQRT\{dH(Pa/Pstd)(Tstd/Ta)\}, X = Z/m-b, Y(Corrected Flow) = IC*\{SQRT(Pa/Pstd)(Tstd/Ta)\}$

Sampler Calibration Relationship

Slope(m):47.189 Intercept(b): -14.634 Correlation Coefficient(r): 0.9995

Checked by: Date: 22/06/2016

Magnum Fan

<u>High-Volume TSP Sampler</u> <u>5-Point Calibration Record</u>

Location : AM2 (Harbourside)

Calibrated by : K.T.Ho
Date : 16/06/2016

Sampler

Model : TE-5170 Serial Number : S/N 8919

Calibration Orfice and Standard Calibration Relationship

 Serial Number
 : 2454

 Service Date
 : 14 Mar 2016

 Slope (m)
 : 2.10326

 Intercept (b)
 : -0.06696

 Correlation Coefficient(r)
 : 0.99989

Standard Condition

Pstd (hpa) : 1013 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1008 Ta(K) : 304

Resi	istance Plate	dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)	(chart)	(corrected)
1	18 holes	12.0	3.416	1.656	58	57.19
2	13 holes	9.0	2.958	1.438	50	49.30
3	10 holes	7.0	2.609	1.272	42	41.41
4	7 holes	4.4	2.068	1.015	32	31.55
5	5 holes	2.4	1.528	0.758	20	19.72

Notes:Z=SQRT{dH(Pa/Pstd)(Tstd/Ta)}, X=Z/m-b, Y(Corrected Flow)=IC*{SQRT(Pa/Pstd)(Tstd/Ta)}

Sampler Calibration Relationship

Magnum Fan

Slope(m): <u>41.792</u>	Intercept(b):-11.482	Correlation Coefficient(r): 0.9992	
Checked by:		Date: 22/06/2016	



SIBATA SCIENTIFIC TECHNOLOGY LTD.

1-1-62, Nakane, Soka, Saitama, 340-0005 Japan

TEL: 048-933-1582 FAX: 048-933-1591

CALIBRATION CERTIFICATE

Date: October 7, 2015

Equipment Name : Digital Dust Indicator, Model LD-3B

Code No. : 080000-42

Quantity : 1 unit Serial No. : 245834

Sensitivity : 0.001 mg/m3

Sensitivity Adjustment : 710CPM

Scale Setting : October 2, 2015

We hereby certify that the avobe mentioned instrment has been calibrated satisfactory.

· Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Shintara Ckamura

Shintaro Okamura

Overseas Sales Division

TEST CERTIFICATE

CUSTOMER: INNOTECH INSTRUMENTATION CO.LTD.

Report No. 15-1461

SIBATA SCIENTIFIC TECHNOLOGY LTD.

DATE 05/October /2015

APPROVE DY VERIFIED BY ISSUED BY

PRODUCT NAME	NA	ME	 Digital	Dust	Digital Dust Indicator
MODEL NUMBER	NUM	3ER	 LD-3B		
AL	NUMBER	3ER	 245834		
ALIBRAT	ZOL	CALIBRATION DATE	 02-October - 2015	ober2	2015

		Inspection chart	D. C V. 11 (C)	Mererence value(5)	MGO 012		Test atmosphere	Temperature Humidity	23 °C 60 %		.,,	
		Correction		% 9.0	-1.4 %	+0.4 %	1.1 %					
Judgment OK		Reading of this	Instrument	792 CPM	20.40 CPM	1042 CPM	538 CPM			OK		Good
1		Reading of	Master	797 CPM	2068 CPM	1038 CPM	532 CPM					
Judging Standard	Switch, Display, Wiring will nomally function	Count is +2% accurate to the master by the	standard calibration particle		Count is ±10% accurate to the master under	the 3 different concentration.		The maximum value of the sensitivity adjustment	scale setting value of the machine and the difference with minimum value are within 5%	compared with the maximum value. (The measurement is repeated three times for one minute.)		Synthetic Judgment
Testing Category	Function Test	Sensitivity	Calibration		Dust Concentration	Measuring		Stability				



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

perator	Tisch	Rootsmeter Orifice I.1	D ========	0438320 2454 =======	Ta (K) - Pa (mm) -	295 745.49
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA	NA NA NA NA	1.00 1.00 1.00 1.00	1.4020 1.0060 0.9010 0.8590 0.7090	3.2 6.4 7.9 8.8 12.8	2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9866 0.9824 0.9803 0.9792 0.9738	0.7037 0.9765 1.0880 1.1399 1.3735	1.4078 1.9909 2.2259 2.3345 2.8155	0.9957 0.9914 0.9893 0.9882 0.9828	0.7102 0.9855 1.0980 1.1504 1.3862	0.8896 1.2581 1.4066 1.4753 1.7792
Qstd slop intercept coefficie 	t (b) = ent (r) =	2.10326 -0.06696 0.99989 	Qa slope intercept coefficients	e (m) = t (b) =	1.31703 -0.04232 0.99989

CALCULATIONS

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

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

For subsequent flow rate calculations:

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



Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No.: C162665

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號: IC16-1067)

Date of Receipt / 收件日期: 12 May 2016

Description / 儀器名稱

Sound Level Meter

Manufacturer / 製造商

Model No./型號 Serial No. / 編號

NL-52 00131627

Supplied By / 委託者

Envirotech Services Co.

Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,

New Territories, Hong Kong

TEST CONDITIONS/測試條件

Temperature / 溫度

Relative Humidity / 相對濕度 :

 $(55 \pm 20)\%$

Line Voltage / 電壓 :

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期

19 May 2016

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification.

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA
- Rohde & Schwarz Laboratory, Germany

Tested By 測試

HT Wong

Technical Officer

Certified By

Date of Issue

20 May 2016

核證

Project Engineer

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 – 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

簽發日期



Sun Creation Engineering Limited

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Certificate of Calibration

校正證書

Certificate No.: C162665

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment:

Equipment ID

Description

Certificate No.

CL280 CL281 40 MHz Arbitrary Waveform Generator Multifunction Acoustic Calibrator C160077 PA160023

5. Test procedure: MA101N.

6. Results:

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

	UUT	Setting		Applie	d Value	UUT	IEC 61672
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Class 1 Spec. (dB)
30 - 130	L _A	A	Fast	94.00	1	93.7	± 1.1

6.1.2 Linearity

	UU	T Setting		Applie	d Value	UUT
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)
30 - 130	L_{A}	A	Fast	94.00 104.00	1	93.7 (Ref.) 103.7
				114.00		113.7

IEC 61672 Class 1 Spec. : \pm 0.6 dB per 10 dB step and \pm 1.1 dB for overall different.

6.2 Time Weighting

	UUT	Setting		Applie	d Value	UUT	IEC 61672
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Class 1 Spec. (dB)
30 - 130	L _A	A	Fast	94.00	1	93.7	Ref.
			Slow			93.7	± 0.3

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Sun Creation Engineering Limited – Calibration & Testing Laboratory c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝飢工程有限公司 – 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓 Tel/電話: 2927 2606 Fax/傳真: 2744 8986

E-mail/電郵: callab(a)suncreation.com

Website/網址: www.suncreation.com



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Certificate No.: C162665

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

	UUT	Setting		Appl	ied Value	UUT	IEC 61672
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.	Reading (dB)	Class 1 Spec.
30 - 130	L_{A}	A	Fast	94.00	63 Hz	67.5	-26.2 ± 1.5
					125 Hz	77.5	-16.1 ± 1.5
					250 Hz	85.0	-8.6 ± 1.4
					500 Hz	90.4	-3.2 ± 1.4
					l kHz	93.7	Ref.
					2 kHz	94.9	$+1.2 \pm 1.6$
					4 kHz	94.7	$+1.0 \pm 1.6$
					8 kHz	92.6	-1.1 (+2.1; -3.1)
					12.5 kHz	89.3	-4.3 (+3.0; -6.0)

6.3.2 C-Weighting

	UUT	Setting		Appl	ied Value	UUT	IEC 61672
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.	Reading (dB)	Class 1 Spec. (dB)
30 - 130	L_{C}	C	Fast	94.00	63 Hz	67.4	-0.8 ± 1.5
					125 Hz	77.5	-0.2 ± 1.5
					250 Hz	85.0	0.0 ± 1.4
					500 Hz	90.4	0.0 ± 1.4
					1 kHz	93.7	Ref.
					2 kHz	94.9	-0.2 ± 1.6
					4 kHz	94.7	-0.8 ± 1.6
					8 kHz	92.6	-3.0 (+2.1; -3.1)
					12.5 kHz	89.3	-6.2 (+3.0; -6.0)

- UUT Microphone Model No. : UC-59 & S/N : 06946

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value: 94 dB : 63 Hz - 125 Hz $: \pm 0.35 \text{ dB}$

250 Hz - 500 Hz : \pm 0.30 dB 1 kHz $: \pm 0.20 \text{ dB}$ 2 kHz - 4 kHz $: \pm 0.35 \text{ dB}$ 8 kHz $: \pm 0.45 \text{ dB}$ 12.5 kHz

 $: \pm 0.70 \text{ dB}$ $: \pm 0.10 \text{ dB (Ref. 94 dB)}$

104 dB: 1 kHz 114 dB: 1 kHz $: \pm 0.10 \text{ dB (Ref. 94 dB)}$

- The uncertainties are for a confidence probability of not less than 95 %.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 – 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C163248

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號: IC16-1307)。

Date of Receipt / 收件日期: 10 June 2016

Description / 儀器名稱

Sound Level Calibrator

Manufacturer / 製造商

Rion

Model No. / 型號

NC-73 10997142

Serial No./編號 Supplied By / 委託者

Envirotech Services Co.

Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,

New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}$ C Relative Humidity / 相對濕度 :

 $(55 \pm 20)\%$

Line Voltage / 電壓 :

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期

15 June 2016

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification.

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By

測試

HT Wong

Technical Officer

Certified By

核證

Lee Project/Engineer Date of Issue

17 June 2016

簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗所 c/o 香港新界屯門興安里一號青山灣機樓四樓

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Website/網址: www.suncreation.com



Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.: C163248

證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment:

Equipment ID CL130 CL281 TST150A

Description Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier

Certificate No. C153519 PA160023 C161175

- 4. Test procedure: MA100N.
- 5. Results:

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec.	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.7	± 0.5	± 0.2

Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	0.985	$1 \text{ kHz} \pm 2 \%$	± 1

Remark: The uncertainties are for a confidence probability of not less than 95 %.

Note:

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Development at West Kowloon Cultural District

Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016

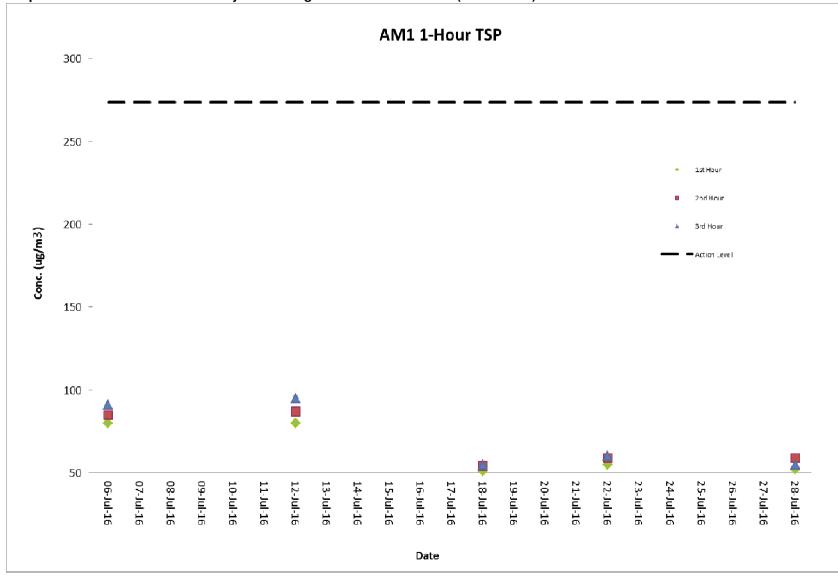


Appendix G. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM1 (1-hour TSP)

				Conc. (µg/m³))	Action	Limit
	Weather					Level	Level
Date	Condition	Time	1 st Hour	2 nd Hour	3 rd Hour	(μg/m³)	$(\mu g/m^3)$
06-Jul-16	Cloudy	14:00 - 17:00	80	85	91	273.7	500
12-Jul-16	Cloudy	10:40 - 16:00	80	87	95	273.7	500
18-Jul-16	Sunny	10:40 - 16:00	51	54	55	273.7	500
22-Jul-16	Sunny	8:00 - 11:00	55	59	60	273.7	500
28-Jul-16	Sunny	10:38 - 16:00	52	59	55	273.7	500

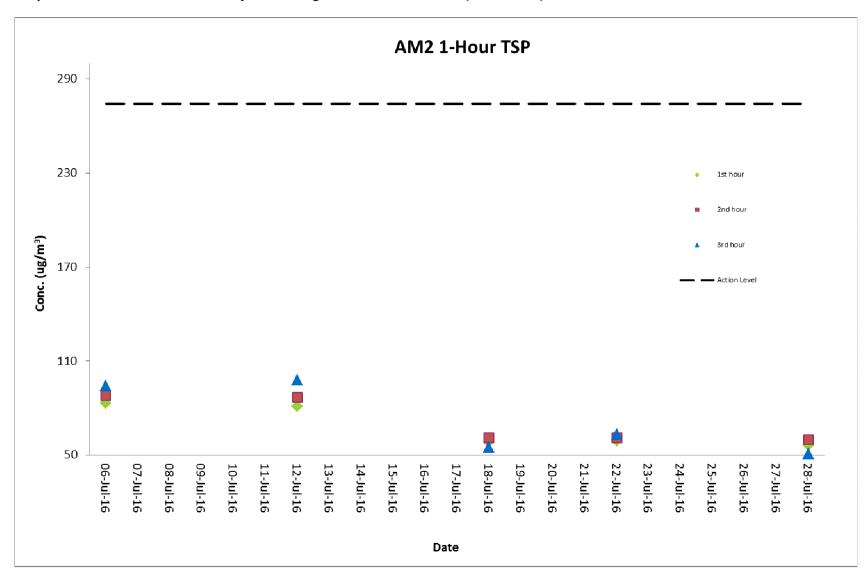
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station AM2 (1-hour TSP)

				Conc. (µg/m³)	Action	Limit	
	Weather					Level	Level
Date	Condition	Time	1 st Hour	2 nd Hour	3 rd Hour	$(\mu g/m^3)$	(μg/m³)
06-Jul-16	Cloudy	14:10 - 17:10	83	88	94	274.2	500
12-Jul-16	Cloudy	10:50 - 16:10	81	87	98	274.2	500
18-Jul-16	Sunny	10:50 - 16:10	58	61	55	274.2	500
22-Jul-16	Sunny	8:12 - 11:12	59	61	63	274.2	500
28-Jul-16	Sunny	10:48 - 16:10	56	60	51	274.2	500

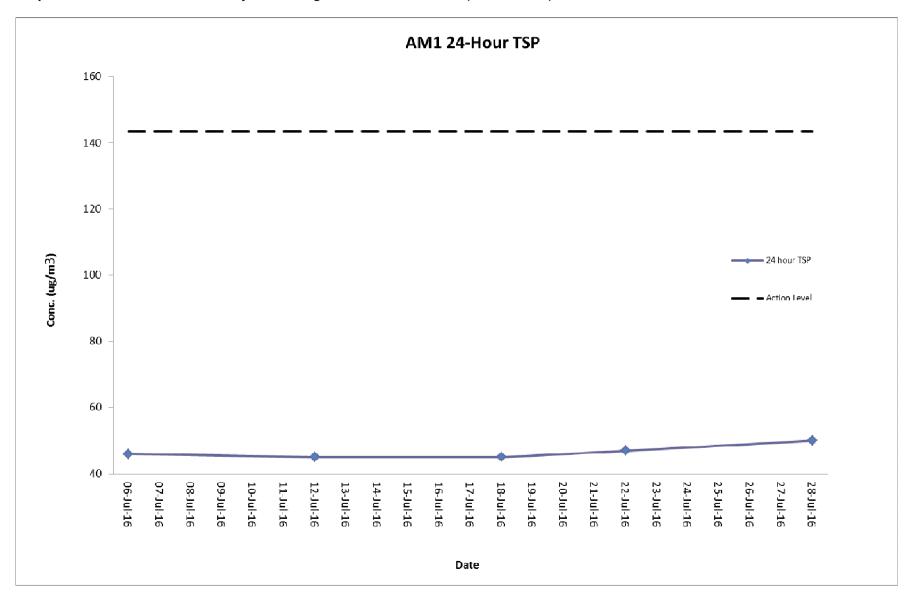
Graphical Presentation of Air Quality Monitoring Result at Station AM2 (1-hour TSP)



Air Quality Monitoring Result at Station AM1 (24-hour TSP)

Sta	rt	Finis	sh	Filter W	eight (g)		Elapsed Time Reading Sampling Flow Rate (m³/min) Conc. Weather		Sampling Flow Rate (m³/min)		Action	Limit			
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(μg/m³)	Condition	Level	Level
06-Jul-16	13:10	07-Jul-16	13:10	2.7846	2.8661	19704.38	19728.38	24	1.24	1.24	1.24	46	Cloudy	143.6	260
12-Jul-16	10:37	13-Jul-16	10:37	2.7919	2.8727	19728.38	19752.38	24	1.24	1.24	1.24	45	Cloudy	143.6	260
18-Jul-16	10:38	19-Jul-16	10:38	2.8011	2.8821	19752.38	19776.38	24	1.24	1.24	1.24	45	Sunny	143.6	260
22-Jul-16	08:02	23-Jul-16	08:02	2.7864	2.87	19776.38	19800.38	24	1.24	1.24	1.24	47	Sunny	143.6	260
28-Jul-16	10:40	29-Jul-16	10:40	2.81	2.9	19800.28	19824.28	24	1.24	1.24	1.24	50	Sunny	143.6	260

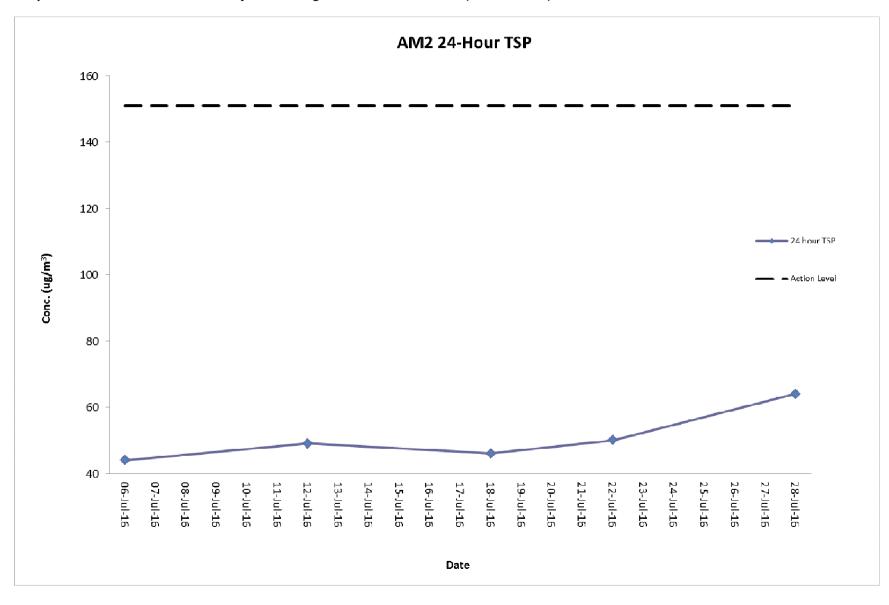
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



Air Quality Monitoring Result at Station AM2 (24-hour TSP)

Sta	rt	Finis	sh	Filter W	eight (g)		Elapsed Time Reading Sampling Flow Rate (m³/min) Conc. Weather		Sampling Flow Rate (m ³ /min)		Action	Limit			
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(μg/m³)	Condition	Level	Level
06-Jul-16	13:20	07-Jul-16	13:20	2.8005	2.8811	15407.59	15431.59	24	1.28	1.28	1.28	44	Cloudy	151.1	260
12-Jul-16	14:40	13-Jul-16	14:40	2.79	2.88	15431.59	15455.59	24	1.28	1.28	1.28	49	Cloudy	151.1	260
18-Jul-16	10:52	19-Jul-16	10:52	2.797	2.8825	15455.59	15479.59	24	1.28	1.28	1.28	46	Sunny	151.1	260
22-Jul-16	08:17	23-Jul-16	08:17	2.7789	2.8719	15479.59	15503.59	24	1.28	1.28	1.28	50	Sunny	151.1	260
28-Jul-16	10:50	29-Jul-16	10:50	2.8216	2.94	15503.59	15527.59	24	1.28	1.28	1.28	64	Sunny	151.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM2 (24-hour TSP)



Noise Monitoring Result at Station NM1A

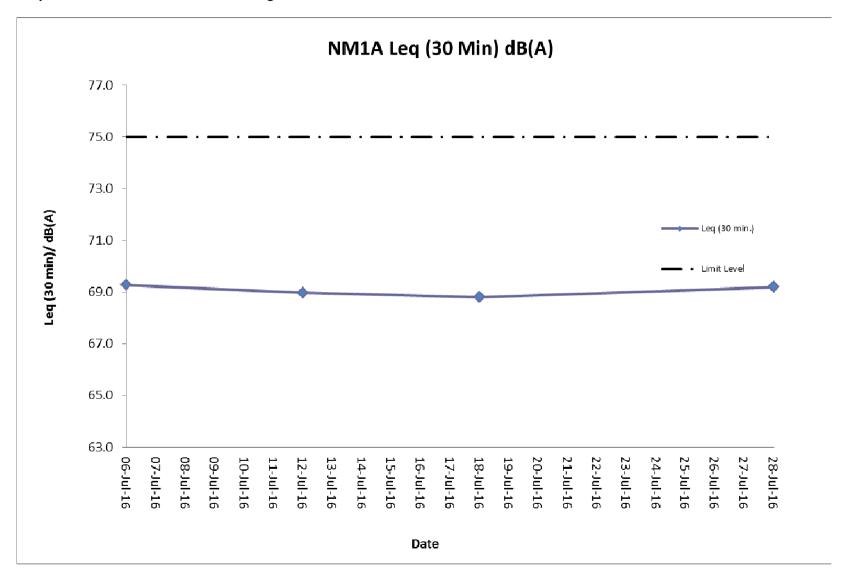
Date	Time	Measured L ₁₀ dB(A)	Measured L ₉₀ dB(A)	L _{eq} (30 min.) dB(A)
06-Jul-16	16:14	66.2	63.7	
06-Jul-16	16:19	68.0	62.9	
06-Jul-16	16:24	68.9	64.1	69.3
06-Jul-16	16:29	67.0	65.0	09.5
06-Jul-16	16:34	68.7	65.5	
06-Jul-16	16:39	69.2	63.7	
12-Jul-16	14:00	67.2	61.1	
12-Jul-16	14:05	68.2	62.2	
12-Jul-16	14:10	68.9	62.9	69.0
12-Jul-16	14:15	67.0	63.1	09.0
12-Jul-16	14:20	68.7	63.4	
12-Jul-16	14:25	67.7	62.8	
18-Jul-16	14:00	68.0	62.0	
18-Jul-16	14:05	67.9	64.1	
18-Jul-16	14:10	67.9	64.7	68.8
18-Jul-16	14:15	68.8	63.9	08.8
18-Jul-16	14:20	66.7	62.8	
18-Jul-16	14:25	67.0	64.7	
28-Jul-16	14:00	68.2	63.1	
28-Jul-16	14:05	69.0	62.7	
28-Jul-16	14:10	67.7	64.0	69.2
28-Jul-16	14:15	67.9	64.2	09.2
28-Jul-16	14:20	68.0	63.9	
28-Jul-16	14:25	67.9	63.6	

Remarks:

⁺³dB (A) correction was applied to free-field measurement.



The station set-up of a free-field measurement at Station NM1A.

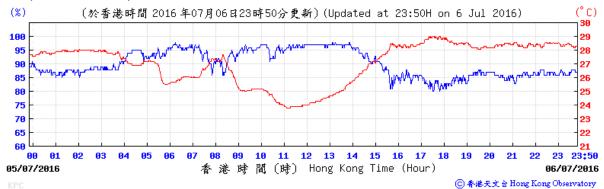


Development at West Kowloon Cultural District Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016



Appendix H. Meteorological Data Extracted from Hong Kong Observatory

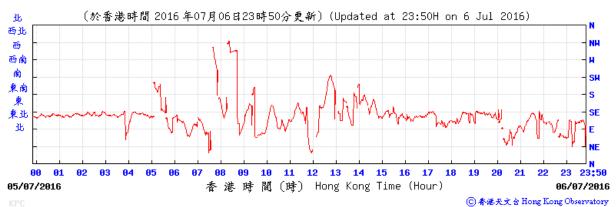
Table H-1: Extract of Meteorological Observations for King's Park Automatic Weather Station, July 2016



Pressure:



Wind Direction:





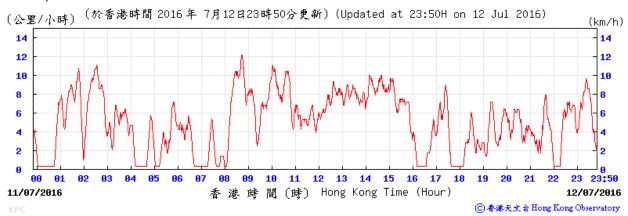


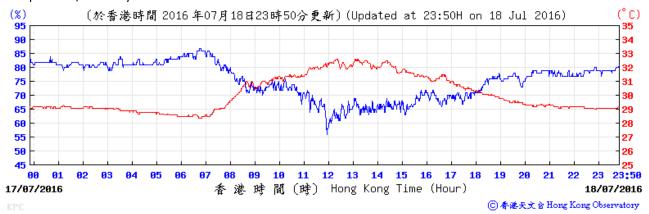
Pressure:



Wind Direction:



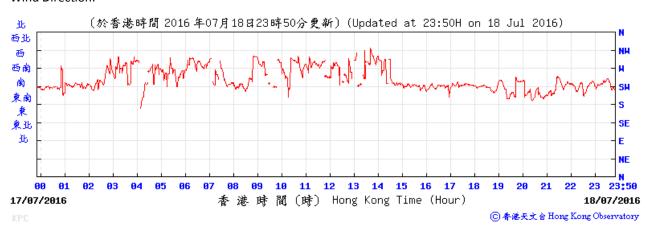


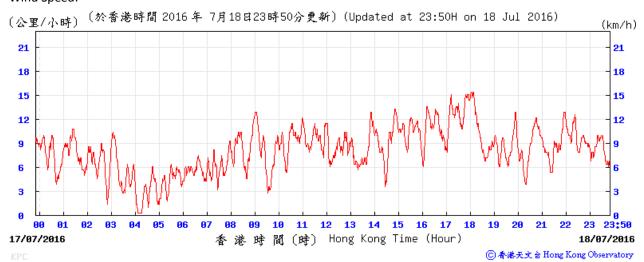


Pressure:



Wind Direction:



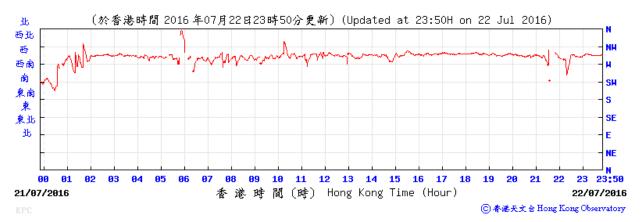


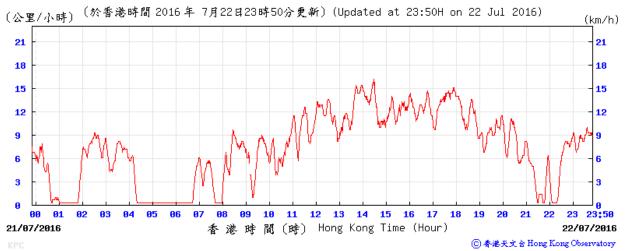


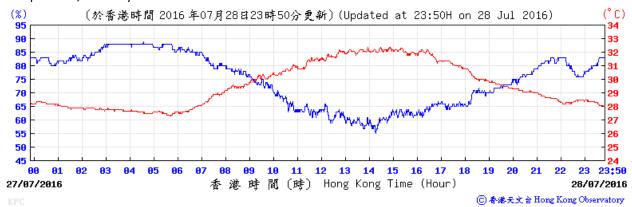
Pressure:



Wind Direction:





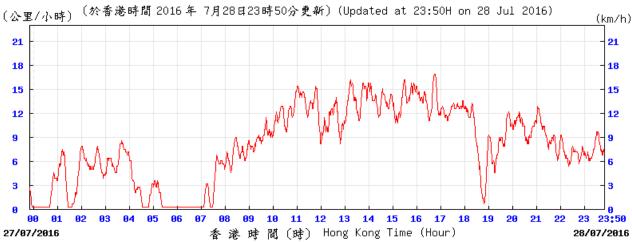


Pressure:



Wind Direction:





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Appendix I. Waste Flow table

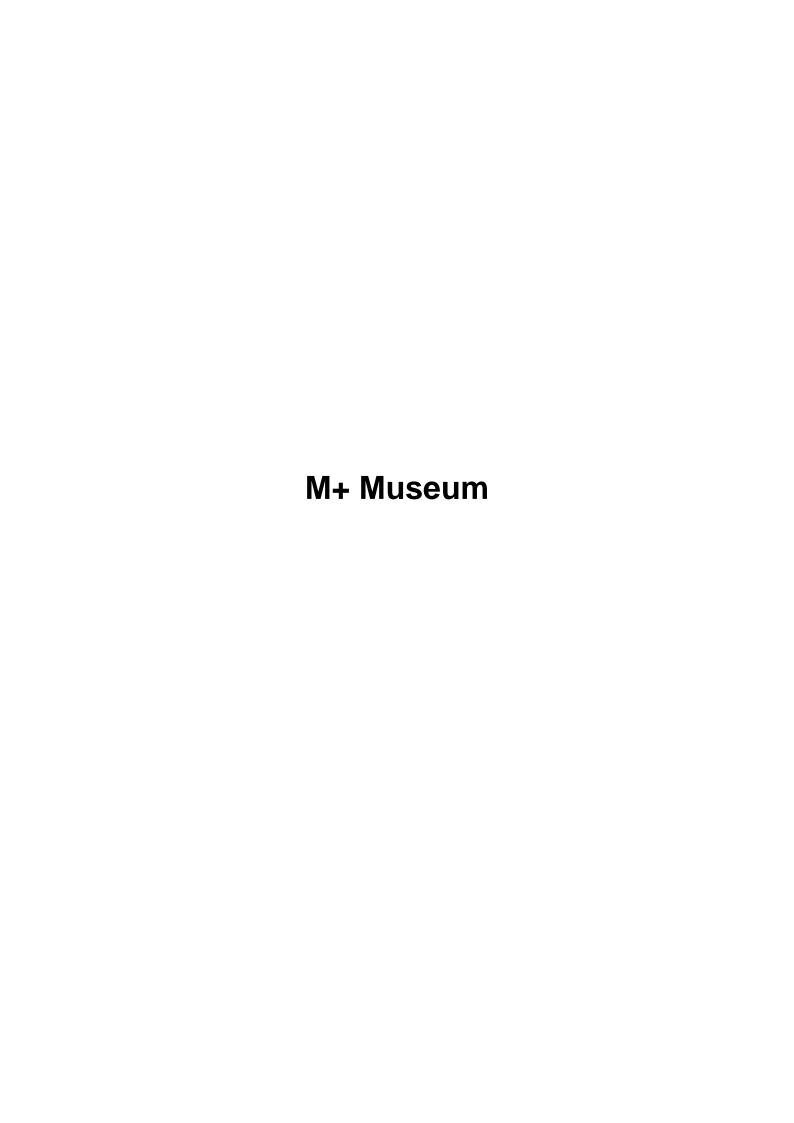


Table I-1: Monthly Waste Flow Table for M+ Museum

	,	Actual Quanti	ities of Inert	C&D Mater	ials Generat	ed Monthly		Act	ual Quantities	of C&D W	astes Gene	rated Month	nly
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2015	-						-	•					
Nov	46607.4	0.0	0.0	8240.0	38367.4	0.0	0.0	76.2	0.0	0.0	0.0	0.0	67.6
Dec	29652.9	0.0	0.0	29621.4	31.5	0.0	0.0	26.3	0.0	0.0	0.0	1.0	66.0
Sub-total (2015)	76260.3	0.0	0.0	37861.4	38398.9	0.0	0.0	102.5	0.0	0.0	0.0	1.0	133.6
2016		•											
Jan	21077.4	0.0	6352.0	14576.0	149.4	0.0	0.0	18.8	0.0	0.0	0.0	0.0	23.2
Feb	7626.2	0.0	3424.0	4048.0	154.2	0.0	0.0	59.8	0.0	0.0	0.0	0.0	20.5
Mar	10442.5	0.0	1600.0	7888.0	954.5	0.0	0.0	29.7	0.0	0.0	0.0	0.0	46.3
Apr	30413.2	0.0	6352.0	23408.0	653.2	0.0	0.0	25.8	0.1	0.0	27.8	0.0	34.5
May	24083.5	0.0	112.0	23216.0	755.5	0.0	0.0	61.5	0.4	0.0	33.6	0.0	62.3
Jun	7880.1	0.0	4736.0	2384.0	760.1	0.0	0.0	106.6	0.1	0.0	14.6	0.0	52.8
Jul	5893.1	0.0	2656.0	2240.0	997.1	0.0	0.0	77.6	0.0	0.0	33.6	0.0	83.1
Aug													
Sep													
Oct													
Nov													
Dec													
Sub-total (2016)	107415.9	0.0	25232.0	77760.0	4423.9	0.0	0.0	379.8	0.6	0.0	109.6	0.0	322.7
Total	183676.2	0.0	25232.0	115621.4	42822.8	0.0	0.0	482.3	0.6	0.0	109.6	1.0	456.3

Note:

^{-291.46} ton and 705.64 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 Public Fill respectively in the reporting month.

⁻For inert C&D materials reused in other projects, the projects refer to (1) Green Valley; (2) Advance Works for Shek Wu Hui Sewage Treatment Works (3) Design and Construction of Kai Tak Cable Tunnel, CLP; (4) MTR Contract 1002 Whampoa Station and Overrun Tunnel; (5) CEDD Tuen Mun Area 54 Contract No. CV/2015/03; (6) Union Construction Ltd.'s site.

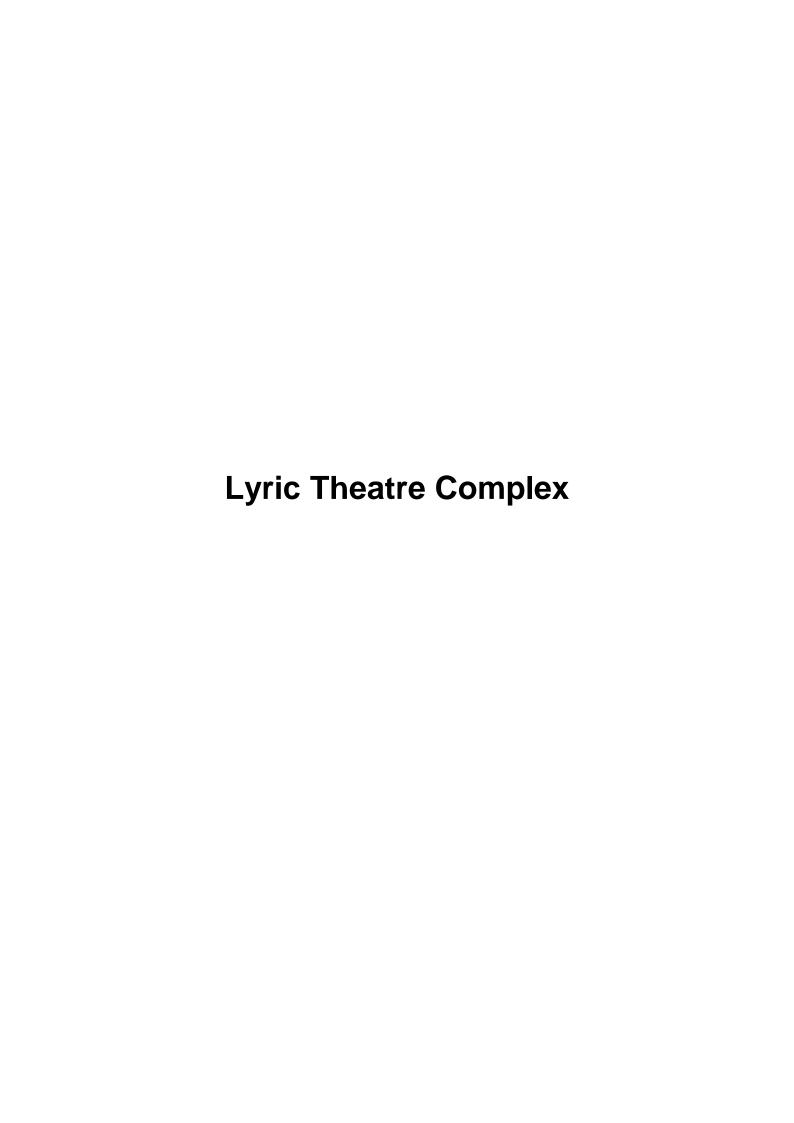


Table I-2: Monthly Waste Flow Table for Lyric Theatre Complex

		Actual Quant	ities of Inert	: C&D Mater	ials Generat	ed Monthly		Act	ual Quantities	of C&D Wa	astes Gene	rated Month	nly
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2016													
Mar	2702.1	0.0	0.0	0.0	2702.1	0.0	0.0	4.5	0.1	0.0	0.0	0.0	30.6
Apr	8631.5	0.0	0.0	0.0	8631.5	0.0	0.0	16.0	0.0	0.0	0.0	0.0	19.2
May	12487.8	0.0	0.0	0.0	12487.8	0.0	0.0	34.0	0.0	0.0	0.0	0.7	60.5
Jun	8600.8	0.0	0.0	0.0	8600.8	0.0	0.0	31.4	0.1	0.0	0.0	0.5	13.5
Jul	12624.2	0.0	0.0	0.0	12624.2	0.0	0.0	19.6	0.0	0.0	0.0	2.0	9.9
Aug	0.0												
Sep	0.0												
Oct	0.0												
Nov	0.0												
Dec	0.0												
Sub-total (2016)	45046.4	0.0	0.0	0.0	45046.4	0.0	0.0	105.4	0.2	0.0	0.0	3.2	133.7
2017	•									,			
Jan	0.0												
Feb	0.0												
Mar	0.0												
Apr	0.0												
May	0.0												
Jun	0.0												
Sub-total (2017)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	45046.4	0.0	0.0	0.0	45046.4	0.0	0.0	105.4	0.2	0.0	0.0	3.2	133.7

Note:

^{-1678.7} ton and 10945.5 ton of inert C&D material were disposed of as public fill to Tuen Mun Area 38 and Tseung Kwan O Area 137 respectively in the reporting month.

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Appendix J. Environmental Mitigation Measures – Implementation Status

Table J-1: Environmental Mitigation Measures Implementation Status

		Impleme	entation Stage
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex
Air Quality I	mpact (Construction)		
2.1 &	General Dust Control Measures		
10.3.1	Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	Obs
2.1 &	Best Practice For Dust Control		
10.3.1	The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:		
	Good Site Management		
	Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or byproducts should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	✓	Obs
	Disturbed Parts of the Roads		
	 Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or 	✓	✓
	 Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. 	✓	✓
	Exposed Earth		
	 Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 	N/A	N/A
	Loading, Unloading or Transfer of Dusty Materials		
	 All dusty materials should be sprayed with water immediately prior to any loading or transfer operation 	✓	✓

		Impleme	entation Stage
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex
	so as to keep the dusty material wet.		
	Debris Handling		
	 Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. 	✓	✓
	 Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	✓	✓
	Transport of Dusty Materials		,
	Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	V	v
	Wheel washing		
	Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓
	Use of vehicles		
	The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.	✓	✓
	Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓
	Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	✓	✓
	Site hoarding		
	Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	✓	✓
2.1 &	Best Practicable Means for Cement Works (Concrete Batching Plant)		
10.3.1	The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:		
	Exhaust from Dust Arrestment Plant		
	 Wherever possible the final discharge point from particulate matter arrestment plant, where is not 	✓	✓

			Implementation Stage	
EM&A Ref.	Recommendation Measures necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection	M+ Museum	Lyric Theatre Complex	
	Emission Limits			
	 All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	✓	✓	
	Engineering Design/Technical Requirements			
	 As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions 	√	√	
-	Non-Road Mobile Machinery (NRMM):			
	All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.	✓	✓	
Noise Impac	et (Construction)			
3.1 & 10.4.1	Good Site Practice Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:			
	 only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; 	✓	✓	
	 machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; 	✓	✓	
	plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;	✓	✓	
	 mobile plant should be sited as far away from NSRs as possible; and 	✓	√	
	 material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	↓	✓	
3.1 &	Adoption of Quieter PME			
10.4.1	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26 in the EIA report. It	N/A	N/A	

		Implementation Stage	
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex
	should be noted that the silenced PME selected for assessment can be found in Hong Kong.		
3.1 &	Use of Movable Noise Barriers		
10.4.1	Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	✓	✓
3.1 &	Use of Noise Enclosure/ Acoustic Shed		
10.4.1	The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No.9/2010.	N/A	N/A
3.1 & 10.4.1	Use of Noise Insulating Fabric Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	√	✓
3.1 &	Scheduling of Construction Works outside School Examination Periods		
10.4.1	During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A	N/A
Water Qualit	ty Impact (Construction)		
4.1 &	Construction site runoff and drainage		
10.5.1	The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:		
	At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction;	Obs	Rem
	Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction.	✓	Obs

	Impleme	Implementation Stage	
EM&A Ref. Recommendation Measures	M+ Museum	Lyric Theatre Complex	
All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	Rem/ Obs	√	
Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities.	✓	✓	
• All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Rem	Rem	
 Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. 	Obs	✓	
Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.	✓	✓	
Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	✓	✓	
Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	N/A	N/A	
Barging facilities and activities			
Recommendations for good site practices during operation of the proposed barging point include:			
 All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel 	N/A	N/A	

			Implementation Stage	
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex	
	movement or propeller wash;			
	 Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; 	N/A N/A	N/A N/A	
	 All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and 	N/A	N/A	
	 Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 			
4.1 &	Sewage effluent from construction workforce			
10.5.1	Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	✓	✓	
4.1 &	General construction activities			
10.5.1	 Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used. 	Obs	✓	
	Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.	Obs	Obs/Rem	
Waste Mana	gement Implications (Construction)			
6.1 &	Good Site Practices			
10.7.1	Recommendations for good site practices during the construction activities include:			
	 Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site 	✓	✓	
	 Training of site personnel in proper waste management and chemical handling procedures 	✓	✓	
	 Provision of sufficient waste disposal points and regular collection of waste 	Obs	· ✓	
	 Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers 	√	✓	
	 Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust 	✓	✓	

		Impleme	ementation Stage	
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex	
	introduction to public roads			
	 Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 	✓	✓	
6.1 &	Waste Reduction Measures			
10.7.1	Recommendations to achieve waste reduction include:			
	 Sort inert C&D material to recover any recyclable portions such as metals 	✓	✓	
	 Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal 	✓	✓	
	 Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force 	✓	✓	
	 Proper site practices to minimise the potential for damage or contamination of inert C&D materials 	,		
	 Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste 	√	√	
6.1 &	Inert and Non-inert C&D Materials			
10.7.1	In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.	✓	✓	
	The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.	✓	✓	
	Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD.	✓	✓	
	The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.	✓	✓	
	 In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No.6/2010 for Trip Ticket System for Disposal of Construction & Demolition 	✓	✓	

		Implementation Stage	
EM&A Ref.	Recommendation Measures Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site.	M+ Museum	Lyric Theatre Complex
6.1 &	Chemical Waste		
10.7.1	If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Obs	Obs/Rem
	 Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended. 	✓	✓
6.1 &	General Refuse		
10.7.1	General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	✓	✓
Land Conta	mination (Construction)		
7.1 & 10.8.1	The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials.		
	The following measures are proposed for excavation and transportation of contaminated material:		
	 To minimize the chance for construction workers to come into contact with any contaminated materials, 		

		Implementation Stage	
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex
	bulk earth-moving excavation equipment should be employed;	N/A	N/A
	 Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; 	N/A	N/A
	 Stockpiling of contaminated excavated materials on site should be avoided as far as possible; 	N/A	N/A
	The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was	N/A N/A	N/A N/A
	carried out;	IN/A	IN/A
	 Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; 	N/A	N/A
	 Truck bodies and tailgates should be sealed to stop any discharge; 	N/A	N/A
	 Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; 	N/A	N/A
	 Speed control for trucks carrying contaminated materials should be exercised; 	N/A	N/A
	 Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and 	N/A	N/A
	 Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A	N/A
Ecological II	mpact (Construction)		
	No mitigation measure is required.		
Landscape a	and Visual Impact (Construction)		
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	N/A	N/A
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A
Table 9.1 &	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to	N/A	N/A

		Implementation Stage	
EM&A Ref.	Recommendation Measures	M+ Museum	Lyric Theatre Complex
10.8 (CM4) Table 9.1 & 10.8 (CM5)	maximize the green coverage and soften the hard architectural and engineering structures and facilities. Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	√	1
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	✓	✓
Table 9.2 & 10.9 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A

N/A - Not Applicable

✓ - Implemented

Obs - Observed Rem - Reminder

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Appendix K. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works (i.e. 31 October 2015 for M+ Museum main works and 1 March 2016 for Lyric Theatre Complex foundation works) to the end of the reporting month and are summarized in the **Table K-1** and **Table K-2** below respectively.

Table K-1: Statistics for complaints, notifications of summons and successful prosecutions for M+ Museum Main Works

Reporting Period	Cumulative Statistics			
	Complaints	Notifications of summons	Successful prosecutions	
This reporting month	1	0	0	
From 31 October 2015 to end of the reporting month	3	0	0	

Table K-2: Statistics for complaints, notifications of summons and successful prosecutions for Lyric Theatre Complex Foundation Works

Reporting Period	Cumulative Statistics			
	Complaints	Notifications of summons	Successful prosecutions	
This reporting month	1	0	0	
From 1 March 2016 to end of the reporting month	2	0	0	