



Development at West Kowloon Cultural District

Monthly Environmental Monitoring and Audit
(EM&A) Report for July 2018

August 2018

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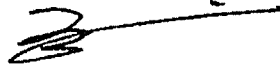
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This Monthly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

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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 including the Foundation Works (Contract No.: CC/2015/3A/014) and L1 Contract (Contract No. CC/2017/3A/030) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCD). 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/B (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 Lyric Theatre Complex conducted from 1 July to 31 July 2018.

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 5, 12, 19 and 26 July 2018 for M+ Museum and 4, 11, 18, and 25 July 2018 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.

Record of Complaints

No environmental complaint was recorded in the reporting month.

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:

- M+ Main Works (Podium) construction of:
 - 16F Columns, Walls & RF Slab (M1)
 - Columns and walls from 14/F to 15/F slab (M2);

- Columns and walls from 13/F to 14/F slab (M3);
- RDE Building Construction of:
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)
 - Columns, Walls & RF & Slab and Sunshade from 5/F to 6/F (Zone A & C)
- CSF Building (Zone A & B) Construction of:
 - Columns, Walls & RF & Slab from 7/F to 8/F (Zone A)
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)

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

- Excavation and lateral support works at main cofferdam
- King post installation and extension;
- Bulk excavation;
- Operation of barge;
- Construction of manhole (PIW); and
- Extended basement structure construction of Area 06

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 including the Foundation Works (Contract No.: CC/2015/3A/014) and L1 Contract (Contract No. CC/2017/3A/030) 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/B (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/B. This Monthly EM&A Report presents the monitoring works at both the main works of M+ Museum and Lyric Theatre Complex conducted from 1 July to 31 July 2018. 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**.

1.3 Environmental Status in the Reporting Period

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

- M+ Main Works (Podium) construction of Columns, Walls & Slab
- RDE Building Construction of: Columns, Walls & Slab Slab (Zone A, B, C)

- CSF Building (Zone A & B) Construction of Columns, Walls & Slab

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

- Excavation and lateral support works at main cofferdam
- King post installation and extension;
- Bulk excavation;
- Operation of barge;
- Construction of manhole (PIW); and
- Extended basement structure construction of Area 06

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	AM2A – Austin Road West opposite to The Harbourside Tower 1	At least once every 6 days
	1-Hour TSP	AM2A – Austin Road West opposite to The Harbourside Tower 1	At least 3 times every 6 days
Noise	Leq, 30 minutes	NM1A- 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

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. However, the electricity supply at AM2 was suspended from 31 August

2016 and was no longer available. In order to have a more secure electricity supply, an alternative air monitoring location (AM2A) was identified at Austin Road West opposite to The Harbourside Tower 1, which is close to Lyric Theatre Complex site entrance. This alternative air monitoring location was approved by EPD on 28 September 2016. 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 AM2A 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)
AM2A	Austin Road West opposite to 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-5R (Serial No.: 841723 and 841724)

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.

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

Monitoring Station	Equipment Model	
	Integrating Sound Level Meter	Calibrator
NM1A	Rion NL-52 (Serial No. 00331805)	Rion NC-73 (Serial No. 10486660)

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} , L_{10} and L_{90} 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**.

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 AM2A 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

Monitoring Station	Monitoring Date	Start Time	1-hour TSP ($\mu\text{g}/\text{m}^3$)			Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Result	2nd Result	3rd Result			
AM1	03-Jul-18	8:12	37	42	40	33-51	273.7	500
	09-Jul-18	8:12	47	51	50			
	13-Jul-18	8:10	41	38	35			
	19-Jul-18	8:12	36	41	39			
	25-Jul-18	8:15	36	35	40			
	31-Jul-18	8:10	33	39	37			
AM2A	03-Jul-18	8:24	60	48	55	41-62	274.2	500
	09-Jul-18	8:25	60	49	55			
	13-Jul-18	8:22	45	52	50			
	19-Jul-18	8:24	62	49	42			
	25-Jul-18	8:27	50	46	41			
	31-Jul-18	8:22	60	49	52			

3.2.2 24-hour TSP

Results of 24-hour TSP at the monitoring location AM1 and AM2A 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 Station	Monitoring Date	Start Time	Monitoring Results ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AM1	03-Jul-18	08:10	37	26-44	143.6	260
	09-Jul-18	08:10	44			
	13-Jul-18	08:08	39			
	19-Jul-18	08:10	29			
	25-Jul-18	08:13	30			
	31-Jul-18	09:00	26			
AM2A	03-Jul-18	08:22	44	33-60	151.1	260
	09-Jul-18	08:23	60			
	13-Jul-18	08:20	46			

Monitoring Station	Monitoring Date	Start Time	Monitoring Results ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
	19-Jul-18	08:02	33			
	25-Jul-18	08:25	48			
	31-Jul-18	08:20	44			

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	Leq (30 mins)*, dB(A)	Limit Level for Leq (dB(A))
03-Jul-18	10:32	11:02	69	
09-Jul-18	10:33	11:03	68	
19-Jul-18	10:00	10:30	68	75
25-Jul-18	10:25	10:55	68	
31-Jul-18	08:55	09:25	69	

Remarks:

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

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 8, 15, 22 and 29 July 2018. In accordance with the EM&A Manual, additional monitoring was carried out during the restricted hours on 8, 15, 22 and 29 July 2018. All the L_{eq} (5 mins) is in the range of 58-60 dB(A). Major noise source includes traffic. Construction Noise Permits for the works carried out during restricted hours were 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 5 and 19 July 2018 for M+ Museum and 4 and 18 July 2018 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.

The landscape and visual mitigation measures were implemented during the reporting period. The summary of implementation status of the environmental mitigation measures are provided in **Appendix J**.

4 Environmental Site Inspection

4.1 Site Inspection

4.1.1 M+ Museum

Construction phase weekly site inspections were carried out on 5, 12, 19 and 26 July 2018. The joint site inspection with IEC, ET, ER and Contractor was held on 26 July 2018. 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	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
28 Jun 2018	Air Quality	Cement bags without proper cover were observed at B2. The contractor was reminded to cover them with impervious sheeting to reduce dust impact.	The contractor has removed the previously uncovered cement bags at B2.	4 Jul 2018
5 Jul 2018	Air Quality	The contractor was reminded to properly cover the stockpile at external area near old CSC with impervious sheeting, if it is not in use.	The contractor has removed the stockpile previously without proper cover off site	12 Jul 2018
5 Jul 2018	Water Quality	Effluent quality at wetsep no.2 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A
12 Jul 2018	Waste Management	Chemicals without drip tray were found on G/F. The contractor was reminded to provide drip tray for the chemicals.	The contractor has removed the chemicals previously observed without drip tray.	18 Jul 2018
12 Jul 2018	Water Quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution. The pH was found marginally low (pH 6.11), although it was within the pH range required by the discharge license (pH 6-9), the contractor was reminded to closely monitor the wetsep and check the chemical dosage to ensure the pH of the effluent within the required pH range.	The pH meter of wetsep no. 1 has been found within proper pH range.	19 Jul 2018
19 Jul 2018	Water Quality	No pump was found near DG store. The contractor was reminded to provide pump to pump out site runoff and review the mitigation measures for preventing overflow of site runoff.	On 26 July 2018, the contractor is preparing concrete blocks at seafront for flood prevention. They were reminded to implement sufficient mitigation measures to prevent surface runoff to the sea. (in-progress) On 30 July 2018, the contractor has provided concrete blocks at	30 Jul 2018

Inspection Date	Parameter	Observation / Recommendation	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
			seafront to prevent surface runoff to the sea.	
19 Jul 2018	Water Quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A
26 Jul 2018	Air Quality	Cement bags without proper cover were found. The contractor was reminded to properly cover them with impervious sheeting to reduce dust impact.	The contractor has covered the cement bags with impervious sheeting.	27 Jul 2018
26 Jul 2018	Waste Management	Chemicals were found without drip tray. The contractor was reminded to provide drip tray for the chemicals.	The contractor has removed the chemicals previously observed without drip tray.	27 Jul 2018
26 Jul 2018	Water Quality	Effluent quality at wetsep no.1 was checked. It was found visually clear when comparing with standard solution and within proper pH range.	N/A	N/A

4.1.2 Lyric Theatre Complex

Construction phase weekly site inspections were carried out on 4, 11, 18, and 25 July 2018. The joint site inspection with IEC, ET, ER and Contractor was held on 25 July 2018. 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	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
27 Jun 2018	Waste management	Contractor was reminded to provide drip tray to store chemicals in order to avoid leakage.	Contractor had provided drip tray to store chemicals in order to avoid leakage.	4 Jul 2018
04 Jul 2018	Air quality	Contractor was reminded to cover/ remove the consumed cement bags.	Contractor had removed the consumed cement bags.	05 Jul 2018
04 Jul 2018	Water quality	Turbid water was observed at wetsep #2. Contractor was reminded to clear the suspended solid in order to keep good quality of discharge water.	Contractor had cleared the suspended solid at wetsep #2 in order to keep good quality of discharge water.	05 Jul 2018
11 Jul 2018	Water quality	Turbid water was observed at wetsep #3. The contractor was reminded to clear the suspended solid in order to keep good quality of discharge water.	Contractor had cleared the suspended solid at wetsep #3 in order to keep good quality of discharge water.	11 Jul 2018
11 Jul 2018	Air quality	Discoloured NRMM label was found. The contractor was reminded to replace the discolour NRMM label.	Contractor had replaced the discolour NRMM label.	18 Jul 2018
18 Jul 2018	Water quality	Turbid water was observed at wetsep #3. The contractor was reminded to clear the suspended solid in order to keep good quality of discharge water.	Contractor had washed the wetsep #3 and cleared the suspended solid in order to keep good quality of discharge water.	25 Jul 2018
25 Jul 2018	Water quality	Turbid water was observed at wetsep #1. The contractor was	Follow-up status will be provided in the next reporting month.	On-going

Inspection Date	Parameter	Observation / Recommendation	Contractor's Responses / Action(s) Undertaken	Close-out (Date)
		reminded to clear the suspended solid in order to keep good quality of discharge water.		

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, 292.05 tonnes and 354.02 tonnes 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 277.6 tonnes of general refuse were disposed of at SENT landfill. 15.2 tonnes of metals, 0.4 tonne of paper/cardboard packaging, 0 tonne of plastic and 100.0 tonnes of timber were collected by recycling contractors in the reporting month. 0 tonne of inert C&D materials was reused on site. 0 tonne of inert C&D materials were reused in other projects and 299.4 tonnes of inert C&D materials were disposed to sorting facility. 0 tonne of chemical waste 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, 1,340.58 tonnes and 3,243.83 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38, while 41.3 tonnes of general refuse were disposed of at SENT landfill. 114.6 tonne of metals, 0 tonne of paper/cardboard packaging, 0 tonne of plastic and 0 tonne of timber were collected by recycling contractors in the reporting month. 0 tonne of inert C&D materials was reused on site. 165.1 tonnes of fill materials were imported for use at site and 85,017.0 tonnes of inert C&D materials were reused in other projects. 0 tonne of chemical waste 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 4.3-4.4**.

4.3.1 M+ Museum

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

Permit / License No. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
Chemical Waste Producer Registration				
5213-217-H2913-45	05-Nov-15	--	Valid	--
Billing Account Construction Waste Disposal				
7023393	13-Oct-15	--	Account Active	--
Construction Noise Permit				
GW-RE0214-18	2-Apr-18	30-Sep-18	Valid	
Wastewater Discharge License				

Permit / License No. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
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. / Notification / Reference No.	Valid Period		Status	Remarks
	From	To		
Chemical Waste Producer Registration				
5213-217-G2347-39	17-Feb-16	--	Valid	--
Billing Account Construction Waste Disposal				
7029925	22-Jan-18	--	Account Active	--
Construction Noise Permit				
GW-RE0439-18	27-Jun-18	24-Dec-18	Valid	
Wastewater Discharge License				
WT-00030694-2018	6-Apr-18	30-Apr-23	Valid	
Notification under Air Pollution Control (Construction Dust) Regulation				
429708	16-Jan-18	--	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

- Drip trays of proper size should be provided for all chemicals.

Air Quality

- Maintain high standard of housekeeping to prevent emission of fugitive dust.
- Cement bags and stockpiles of dusty materials should be well covered by impervious sheeting to reduce dust impact.

Water Quality

- Regular checking and maintenance should be provided to all wetsep units to ensure the treatment performance.
- Sufficient mitigation measures should be provided at seafront area to avoid overflow of surface runoff to the sea.

4.4.2 Lyric Theatre Complex

Water Quality

- Regular checking and maintenance should be provided to all wetsep units to ensure the treatment performance.

Air Quality

- Debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three side.
- Proper approval/ exemption labels should be provided to all NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation.

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 2018	13 July 2018

6 Report in 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

No environmental complaint was recorded in the 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:

- M+ Main Works (Podium) construction of:
 - 16F Columns, Walls & RF Slab (M1)
 - Columns and walls from 14/F to 15/F slab (M2);
 - Columns and walls from 13/F to 14/F slab (M3);
- RDE Building Construction of:
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)
 - Columns, Walls & RF & Slab and Sunshade from 5/F to 6/F (Zone A & C)
- CSF Building (Zone A & B) Construction of:
 - Columns, Walls & RF & Slab from 7/F to 8/F (Zone A)
 - Columns & Walls & Slab and Beam from 6/F to 7MF (Zone B)

7.1.2 Lyric Theatre Complex

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

- Excavation and lateral support works at main cofferdam
- King post installation and extension;
- Bulk excavation;
- Operation of barge;
- Construction of manhole (PIW); and
- Extended basement structure construction of Area 06

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.

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 Theatre Complex 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.

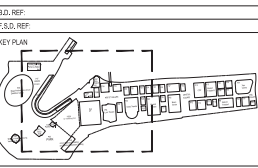
No environmental complaint, notifications of summons or successful prosecution were received during the reporting month.

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.

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.

Figure 1 Site Layout Plan and Monitoring Stations



- NOTES:
- WKCD BOUNDARY
 - M+ MUSEUM BOUNDARY
 - LYRIC THEATRE BOUNDARY
 - BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD
 - CONSTRUCTION AIR/NOISE MONITORING STATION

REV.	DATE	DESCRIPTION	INITIAL

JOB TITLE: **M+ MUSEUM FOR VISUAL CULTURE (MAIN CONTRACT WORKS) & LYRIC THEATRE COMPLEX**

DRAWING TITLE: **PROPOSED LOCATIONS OF CONSTRUCTION AIR/NOISE MONITORING STATIONS**

SCALE	1:100	PRINTED	A1
CHECKED		DATE	
APPROVED		DATE	
DRAWN	TY	DATE	16-10-2015

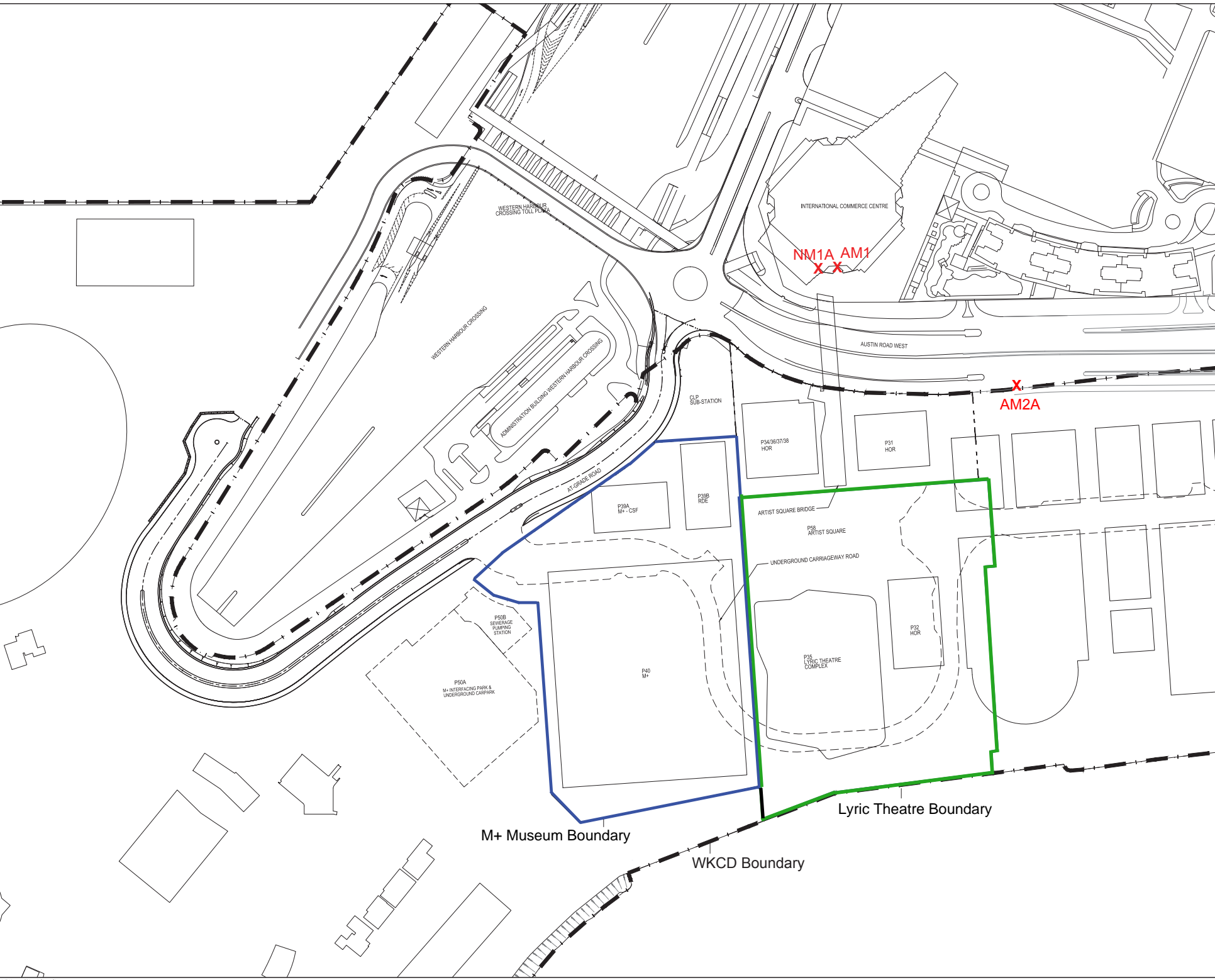
CONTRACT NO.

DRAWING NO.	FIGURE 1	REV.	XA
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CAD REF NAME: XXXXX\AUT-PMS-DWG-POU\000000-XXX.dwg

AUTHORITY

westKowloon
西九文化區



Appendices

- A. Project Organisation
- B. Tentative Construction Programme
- C. Action and Limit Levels for Construction Phase
- D. Event and Action Plan for Air Quality, Noise, Landscape and Visual Impact
- E. Monitoring Schedule
- F. Calibration Certifications
- G. Graphical Plots of the Monitoring Results
- H. Meteorological Data Extracted from Hong Kong Observatory
- I. Waste Flow table
- J. Environmental Mitigation Measures – Implementation Status
- K. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

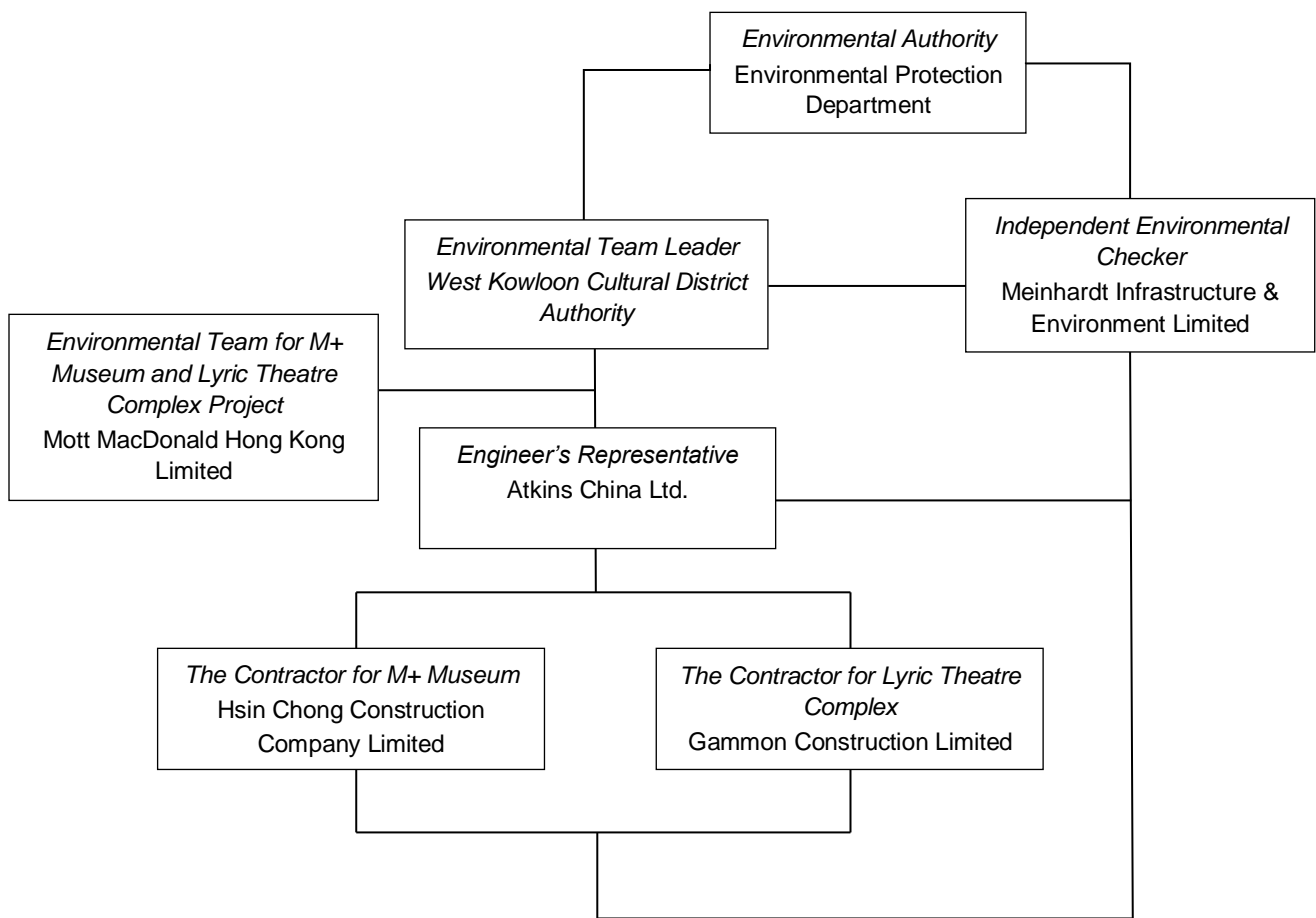


Table A-1: Contact information

Company Name	Role	Name	Telephone
Atkins China Ltd.	Assistant Resident Engineer	Ms. Gloria Lui	5506 6361
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Mr. Fredrick Leong	2859 1739
Hsin Chong Construction Company Limited	Environmental Manager	Mr. Andy Leung	9016 2503
Gammon Construction Limited	Environmental Manager	Ms. Sammie Chan	9864 4296
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

B. Tentative Construction Programme

M+ Museum

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September					
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23
3MRP-33 Three Months Rolling Programme at 30 Jun 2018																									
M+ Podium & Tower FACADE Preliminaries																									
BD SUBMISSIONS FACADE SYSTEM & EMBEDS																									
BD Submission - Garden Gallery Ceramic Cladding System & Embed																									
A51790	Garden Gallery Ceramic - Consent	24	10-Nov-17	20-Nov-17	01-Jul-18	25-Jul-18	100%																		
BD Submission - Glass Wall with Ceramic/Precast Concrete Mullion, Concrete Tube & Perforated Cladding																									
A52010	Glass Wall with Ceramic & Precast Concrete Mullion - BD Approval	48	01-Nov-17	21-Nov-17	13-Jun-18 A	07-Aug-18	100%																		
A52020	Glass Wall with Ceramic & Precast Concrete Mullion - Consent	24	21-Nov-17	01-Dec-17	08-Aug-18	31-Aug-18	100%																		
A52000	Glass Wall with Ceramic & Precast Concrete Mullion - Submission to BD	0		01-Nov-17		06-Jun-18 A	100%																		
SHOPDRAWING SUBMISSIONS - FACADE DOORS																									
Facade Doors Package #1 - Glazed door between Ceramic Concrete Mullion - Total No. of Doors = 53																									
A52130	1st Shopdrawing Submission - Review & Approval	17	30-Oct-17	06-Nov-17	21-Jul-18	07-Aug-18	100%																		
Facade Doors Package #2 - Sliding door at L3 Storefront - Total No. of Doors = 4																									
A52200	2nd Shopdrawing Submission - Review & Approval	17	12-Nov-17	19-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #3 - Swing Door at L3 Cafe- Total No. of Doors = 1																									
A52250	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #4 - Swing Door mounted in GW with T Mullion - Total No. of Doors = 29																									
A52290	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #5 - Large double door at B1 Transformer Room - Total No. of Doors = 1																									
A52340	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #6 - B1 Exit Door - Total No. of Doors = 7 (7 x Manual)																									
A52380	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #7 - Garden Gallery Door - Total No. of Doors = 2 (2 x Manual)																									
A52430	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #8 - Doors located in Metal Cladding - Total No. of Doors = 20 (20 x Manual)																									
A52470	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #9 - GF Lobby Access Door in Ceramic Tube - Total No. of Doors = 8																									
A52520	2nd Shopdrawing Submission - Review & Approval	17	11-Nov-17	18-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #10 - B1 Carriageway Access Panel & Doors - Total No. of Doors = 24																									
A52560	2nd Shopdrawing Submission - Review & Approval	17	21-Nov-17	28-Nov-17	04-Jul-18	20-Jul-18	100%																		
Facade Doors Package #12 - B1 Smoke Vent Panel - Total No. of Doors = 1																									
A52610	2nd Shopdrawing Submission - Review & Approval	17	07-Dec-17	14-Dec-17	04-Jul-18	20-Jul-18	100%																		
PERFORMANCE TEST - SHOPDRAWING SUBMISSION, FABRICATION, INSTALLATION & TEST																									
PMU SHOPDRAWING SUBMISSION & TEST - Podium Facade Precast Panel																									
A54680	Perf MU - Testing & Report Submission of Podium Facade PC+CW	14	31-Oct-17	06-Nov-17	02-Jul-18	17-Jul-18	100%																		
PMU SHOPDRAWING SUBMISSION & TEST - Kinked Glass with T Mullion																									
A54730	Perf MU - Testing & Report Submission of GW with T Mullion + Reflective Glass	14	29-Nov-17	05-Dec-17	06-Jun-18 A	10-Jul-18	100%																		
PMU SHOPDRAWING SUBMISSION & TEST - Glass Wall with Ceramic Mullions at GF																									
A54750	Perf MU - GW with Ceramic Mullion G/F Installation	22	26-Nov-17	05-Dec-17	15-Jul-18	06-Aug-18	100%																		
A54760	Perf MU - Commence Testing of GW with Ceramic Mullion G/F	0	05-Dec-17		06-Aug-18		100%																		
A54770	Perf MU - Testing & Report Submission of GW with Ceramic Mullion G/F	12	05-Dec-17	10-Dec-17	06-Aug-18	18-Aug-18	100%																		
PMU SHOPDRAWING SUBMISSION & TEST - Vertical Glass Wall at Skylight Gallery																									
A54850	Perf MU - Testing & Report Submission of Vertical Glass Wall Skylight Gallery	10	25-Nov-17	29-Nov-17	06-Jun-18 A	06-Jul-18	100%																		
PMU SHOPDRAWING SUBMISSION & TEST - Plaza Skylight 3/F Terrace																									
A54800	Perf MU - Commence Testing of Plaza Skylight 3/F Terrace	0	09-Nov-17		29-Jun-18		100%																		
A54810	Perf MU - Testing & Report Submission of Plaza Skylight 3/F Terrace	10	09-Nov-17	13-Nov-17	29-Jun-18	08-Jul-18	100%																		
A54790	Perf MU - Plaza Skylight 3/F Terrace Installation	24	30-Oct-17	09-Nov-17	20-Jun-18 A	20-Jun-18 A	100%																		
PRODUCTION MOCK UP & INSPECTION																									
Prod MU - Kinked Glass with T Mullion																									
A55400	GW with T Mullion (Kinked & Straight) Prod MU	48	05-Dec-17	25-Dec-17	29-Jun-18	15-Aug-18	100%																		
A55410	Inspection (Prod MU) - GW with T Mullion (Kinked & Straight)	0	25-Dec-17		18-Aug-18		100%																		
Prod MU - Glass Wall with Ceramic Mullions at GF																									
A55420	GW with Ceramic Mullion Prod MU	48	10-Dec-17	30-Dec-17	25-Sep-18	12-Nov-18	100%																		
Prod MU - Vertical Glass Wall at Skylight Gallery																									
A55440	Vertical GW with Skylight Gallery Prod MU	48	29-Nov-17	19-Dec-17	04-Jul-18	21-Aug-18	100%																		
A55450	Inspection (Prod MU) - Vertical GW with Skylight Gallery	0	19-Dec-17		29-Aug-18		100%																		
Prod MU - Plaza Skylight 3/F Terrace																									
A55460	Plaza Skylight Prod MU	48	13-Nov-17	03-Dec-17	12-Jul-18	29-Aug-18	100%																		
A55470	Inspection (Prod MU) - Plaza Skylight	0	03-Dec-17		29-Aug-18		100%																		
FABRICATION & DELIVERY OF M+ TOWER & PODIUM FACADE SYSTEM																									
01A Tower Facade PC+CW (Bulk)																									

■ Remaining Level of Effort
■ Actual Level of Effort
◆ Milestone
◆ Critical Milestone
■ Actual Work
■ Remaining Work
◆ Critical Remaining Work
◆ Actual Milestone
— Project Baseline
— Project LoE Baseline
◆ Baseline Milestone

West Kowloon Cultural District Authority
M+ Contractor's Main Works Programme CMWP -
(Rev. 0 - Draft 8)



Date	Revision	Che...	Approved
28-F...	3MRP-Mth2...	Rob...	Chris Chau / Ricky Lau
31-M...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
30-A...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
31-M...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau
30-J...	3MRP-Mth3...	Rob...	Chris Chau / Ricky Lau

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September				
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16
Terracotta Production																								
Tower Tiles TE501 Production																								
A64330	TE501-L02-08 (13F & 14F)	50	28-Nov-17	19-Dec-17	06-Jun-18 A	18-Aug-18	100%																	
A64340	TE501-L02-09 (15F & 16F)	50	19-Dec-17	09-Jan-18	18-Aug-18	07-Oct-18	100%																	
Tower Tiles TE502 Production																								
A64440	TE502-L02-09 (15F & 16F)	50	17-Dec-17	07-Jan-18	06-Jun-18 A	18-Aug-18	100%																	
A64360	TE502-L02-01 (West)	14	07-Jan-18	13-Jan-18	18-Aug-18	01-Sep-18	100%																	
A64370	TE502-L02-02 (East)	14	13-Jan-18	19-Jan-18	01-Sep-18	16-Sep-18	100%																	
A64450	TE502-L02-10 (Roof)	14	19-Jan-18	25-Jan-18	16-Sep-18	30-Sep-18	100%																	
Tower Tiles TE505 Production																								
A64560	TE505-L02-01 (West)	14	01-Dec-17	07-Dec-17	13-Jul-18	27-Jul-18	100%																	
A64570	TE505-L02-02 (East)	14	07-Dec-17	13-Dec-17	27-Jul-18	11-Aug-18	100%																	
02 Podium Facade PC + CW (Bulk)																								
A54480	1st Delivery to Site - Precast Panel for Podium	0	27-Dec-17		25-Jul-18		100%																	
Precast Concrete Facade																								
A10140	Inspection, Packing & Delivery to Site - Podium Facade	93	09-Apr-18	07-Aug-18	29-Jun-18	29-Sep-18	66.75%																	
A10150	Precast Panel 1st Delivery to Site - Podium	0	27-Dec-17		25-Jul-18		100%																	
03 GW with T Mullion (Kinked & Straight B1F to GF) (Bulk)																								
A54490	Production & Fabrication - GW with T Mullion (Kinked & Straight B1F to GF)	151	12-Nov-17	14-Jan-18	18-Aug-18	16-Jan-19	100%																	
Glass Production & Fabrication																								
A10190	Coated Glass Production	84	13-Nov-17	24-Feb-18	18-Aug-18	28-Nov-18	100%																	
A10200	Fabrication of Insulated Glass Panel	67	26-Feb-18	19-May-18	25-Aug-18	15-Nov-18	100%																	
A10300	Delivery of Glass Panel to Site	46	28-Mar-18	28-May-18	25-Aug-18	22-Oct-18	100%																	
Alum Section Production & Fabrication																								
A10240	Fabrication & Assemble of Curtain Wall Unit	35	04-Apr-18	17-May-18	09-Jul-18	18-Aug-18	100%																	
T Painted GMS Mullion, Transom & Brackets																								
A10260	Painting	88	13-Feb-18	06-Jun-18	29-Jun-18	12-Oct-18	100%																	
A10270	Packing & Delivery	81	13-Mar-18	23-Jun-18	25-Jul-18	31-Oct-18	100%																	
A10280	1st Delivery T-Mullion B1	0	20-Mar-18		31-Jul-18		100%																	
04A GW with PC Mullion at 2F Courtyard (Bulk)																								
A54530	1st Delivery to Site - GW with PC Mullion at 2F Courtyard	0	30-Jan-18		29-Jun-18		100%																	
Glass Production & Fabrication																								
A10320	Fabrication of Insulated Glass Panel	19	19-Mar-18	11-Apr-18	25-Aug-18	13-Sep-18	100%																	
A10330	Delivery of Glass Panel to Site	2	12-Apr-18	13-Apr-18	13-Sep-18	15-Sep-18	100%																	
04B GW with Ceramic Mullion (GF & 1F) (Bulk)																								
Glass Production & Fabrication																								
A10470	Fabrication of Insulated Glass Panel	110	11-Jan-18	29-May-18	18-Sep-18	31-Jan-19	100%																	
Terracotta Production																								
A10570	Application of PVF2 Coating	67	09-Feb-18	08-May-18	29-Jun-18	15-Sep-18	100%																	
Precast Concrete Facade Die Making																								
A10600	Curing of 1st Lot	5	06-Mar-18	12-Mar-18	21-Jul-18	27-Jul-18	100%																	
Precast Concrete Facade																								
A10530	Delivery of Precast Concrete to Site	112	11-Jun-18	25-Oct-18	29-Jun-18	10-Nov-18	12.8%																	
05 Ceramic Concrete Tubes & Perforated Cladding (Bulk)																								
A54610	1st Delivery to Site - Ceramic Concrete Tubes & Perforated Cladding	0	26-Feb-18		11-Sep-18		100%																	
Alum Frame Production & Fabrication																								
A10660	Application of PVF2 Coating	5	19-Mar-18	24-Mar-18	01-Aug-18	06-Aug-18	100%																	
A10670	Fabrication of Aluminium Frame to Site	46	24-Mar-18	24-May-18	07-Aug-18	29-Sep-18	100%																	
Terracotta Production																								
A10690	Terracotta Production (Bulk)	67	13-Jan-18	09-Apr-18	14-Jun-18 A	15-Sep-18	100%																	
Precast Concrete Facade Die Making																								
A10720	Concreting of Precast Concrete	88	05-Jan-18	25-Apr-18	24-Jul-18	07-Nov-18	100%																	
A10730	Curing of 1st Lot	6	11-Jan-18	18-Jan-18	24-Jul-18	31-Jul-18	100%																	
A10740	Assemble of Brackets to Ceramic Concrete Tubes	97	02-Feb-18	06-Jun-18	22-Aug-18	17-Dec-18	100%																	
A10750	1st Delivery to Site - Ceramic Concrete Tubes	0	26-Feb-18		11-Sep-18*		100%																	
06A Plaza Skylight 3F (Bulk)																								
Alum Frame Production & Fabrication																								
A18780	Aluminium Extrusion Production	32	02-Feb-18	14-Mar-18	01-Aug-18	07-Sep-18	100%																	
A18790	Application of PVF2 Coating	9	15-Mar-18	24-Mar-18	07-Sep-18	18-Sep-18	100%																	
A18800	Fabrication of Frame Members	32	26-Mar-18	07-May-18	18-Sep-18	29-Oct-18	100%																	
06B STrip CW Skylight Gallery 3F (Bulk)																								
Glass Production & Fabrication																								
A19160	Fabrication of Insulated Glass Panel	25	07-Mar-18	09-Apr-18	14-Sep-18	16-Oct-18	100%																	
Alum Frame Production & Fabrication																								
A18840	Aluminium Extrusion Production	22	07-Feb-18	08-Mar-18	31-Jul-18	24-Aug-18	100%																	
A18850	Application of PVF2 Coating	11	08-Mar-18	21-Mar-18	25-Aug-18	06-Sep-18	100%																	
A18860	Fabrication of Frame Members	36	21-Mar-18	08-May-18	07-Sep-18	22-Oct-18	100%																	
07 L3 Storefront (Bulk)																								

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June					July					August				September				
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23	
Podium Facade Panel (2/F External)																										
A22465	Bracket Installation & Embed Remedial 2/F @ GL 7-8/M	4	23-Nov-17	28-Nov-17	05-Jul-18	09-Jul-18	100%																			
Zone C & D																										
Podium Facade Panel (1M/F External)																										
A47070	Handover Zone C & D - 1M/F Working Area	0		22-Feb-18		09-Jul-18	100%																			
A47075	Bracket Installation & Embed Remedial @ GL 1-7/M	8	23-Feb-18	03-Mar-18	10-Jul-18	18-Jul-18	100%																			
A47805	Bracket Installation & Embed Remedial @ GL 1/H-M	8	14-Mar-18	22-Mar-18	13-Jul-18	21-Jul-18	100%																			
Podium Facade Panel (2/F External)																										
A47220	Handover Zone C & D - 2/F Working Area	0		22-Feb-18		29-Jun-18	100%																			
A47225	Bracket Installation & Embed Remedial @ GL 1-7/M	8	05-Mar-18	13-Mar-18	10-Jul-18	18-Jul-18	100%																			
A47235	Bracket Installation & Embed Remedial @ GL 1/H-M	8	23-Mar-18	04-Apr-18	13-Jul-18	21-Jul-18	100%																			
M+ Podium Lift & Escalator Installation																										
Art Lift (LT11) @ Zone M																										
LT10475	Builders' Work for LT11 Lift Shaft & M/C Room	11	18-May-18	31-May-18	28-Jul-18	10-Aug-18	100%																			
LT10470	Available of lift Shaft LT11 (w/ Tower A Weathertight)	0	18-May-18		28-Jul-18		100%																			
LT10490	Lift M/C Room Installation @ B2/F (LT11)	23	01-Jun-18	28-Jun-18	10-Aug-18	06-Sep-18	100%																			
LT10480	Commence LT11 Lift M/C Room Installation	0	31-May-18		10-Aug-18		100%																			
LT10500	Lift Car Installation (LT11)	80	29-Jun-18	03-Oct-18	06-Sep-18	12-Dec-18	0%																			
Art Lift (LT13) @ Zone A1																										
LT10560	Lift Car Installation (LT13)	80	05-Mar-18	13-Jun-18	26-Jun-18 A	03-Oct-18	100%																			
LT10535	Builders' Work for LT13 Lift Shaft & M/C Room	11	20-Jan-18	02-Feb-18	13-Jun-18 A	06-Jul-18	100%																			
LT10530	Available of lift Shaft LT13 (w/ Zone A1 Temporary watertight)	0	20-Jan-18		04-Jul-18		100%																			
LT10540	Commence LT13 Lift M/C Room Installation	0	02-Feb-18		06-Jul-18		100%																			
LT10550	Lift M/C Room Installation @ B2/F (LT13)	23	02-Feb-18	05-Mar-18	06-Jul-18	02-Aug-18	100%																			
Passenger Lift, FS & Disable Lift (LT12) @ Zone A1																										
LT10590	Available of lift Shaft LT12 (w/ Zone A1 Temporary watertight)	0	21-Dec-17		04-Jul-18		100%																			
LT10600	Builders' Work for LT12 Lift Shaft	23	22-Dec-17	20-Jan-18	04-Jul-18	01-Aug-18	100%																			
LT10610	Lift Car Installation (LT12)	54	22-Jan-18	28-Mar-18	02-Aug-18	05-Oct-18	100%																			
Passenger Lift, FS & Disable Lift (LT14) @ Zone A4																										
LT10640	Available of lift Shaft LT14 (w/ Zone A4 Temporary watertight)	0	21-Dec-17		04-Jul-18		100%																			
LT10650	Builders' Work for LT14 Lift Shaft	23	22-Dec-17	20-Jan-18	04-Jul-18	01-Aug-18	100%																			
LT10660	Lift Car Installation (LT14)	54	22-Jan-18	28-Mar-18	02-Aug-18	05-Oct-18	100%																			
Passenger Lift, Diable Lift (LT15, LT16 & LT17) @ Zone A4																										
LT10700	Builders' Work for LT15, LT16 & LT17 Lift Shafts	23	20-Jan-18	20-Feb-18	30-May-18 A	17-Jul-18	100%																			
LT10690	Available of lift Shaft LT15 (w/ Zone A4 Temporary watertight)	0	20-Jan-18		13-Jun-18 A		100%																			
Passenger Lift, FS Lift (LT21 & LT22) @ Zone E																										
LT10830	Builders' Work for LT21 & LT22 Lift Shaft	23	15-Nov-17	11-Dec-17	16-Jul-18	10-Aug-18	100%																			
LT10840	Lifts Car Installation (LT21 & LT22)	54	12-Dec-17	15-Feb-18	11-Aug-18	15-Oct-18	100%																			
Escalators (ES01 & ES02) @ Zone E																										
LT11130	Available of Escalator Pit ES01 & ES02 at Zone E	0				15-Aug-18	0%																			
LT11140	Escalators ES01 & ES02 Installation	0			15-Aug-18	19-Oct-18	0%																			
Escalators (ES03 & ES04) @ Zone A B1F to GF																										
LT11170	Available of Escalator Pit ES03 & ES04 at Zone A	0			15-Aug-18		0%																			
LT11180	Escalators ES03 & ES04 Installation	0			15-Aug-18	20-Oct-18	0%																			
Escalators (ES13 & ES14) @ Zone G 1F to 3F																										
LT11290	Available of Escalator Pit ES13 & ES14 at Zone E	0			06-Aug-18		0%																			
LT11300	Escalators ES13 & ES14 Installation	0			06-Aug-18	26-Oct-18	0%																			
M+ Basement & Podium ABWF & Building Services																										
B2/F																										
1. CSF/RDE Zone																										
General Areas /BOH/ Corridor																										
Corridor/Lift Lobby																										
BS-B2-1C	MEP- 2nd Fix (Cabling)/Install AC equipment & connection	50	01-Feb-18	09-Apr-18	17-Aug-18	16-Oct-18	100%																			
BOH Office/Storages Rooms (GL C' to J')																										
BS-B2-1C	MEP- 2nd Fix- Cabling/AC Equipment Installation/connection	50	06-Mar-18	09-May-18	17-Aug-18	16-Oct-18	100%																			
Loading & Unloading Area Including Loading Bay																										
BS-B2-10'	MEP 2nd Fix Installation-Cabling	54	06-Mar-18	14-May-18	20-Jun-18 A	30-Aug-18	100%																			
AW-B2-1'	HC-Construction Logistic/Temporary Site Storage Period	187	15-Jan-18	03-Sep-18	24-Jul-18	09-Mar-19	70.41%																			
Cappark EAF Room (B2-1-005)																										
BS-B2-10'	MEP 1st / 2nd Fix	27	16-Dec-17	20-Jan-18	18-Jul-18*	18-Aug-18	100%																			
BS-B2-11'	MEP Fan / LMCP Installation	54	20-Jan-18	28-Mar-18	18-Aug-18	24-Oct-18	100%																			
BS-B2-11'	MEP - AC equipment on site	0	20-Jan-18		18-Aug-18		100%																			
PAU Room (B2-1-807M & B2-1-808M)																										
AW-B2-1'	ABWF-Wet Trade (Plastering/Floor Screeding/1st coat painting/Sealer) -Ceiling/Wall/Floor	19	13-Nov-17	04-Dec-17	29-Jun-18	21-Jul-18	100%																			
BS-B2-10'	MEP 1st / 2nd	27	05-Dec-17	08-Jan-18	23-Jul-18*	22-Aug-18	100%																			
BS-B2-11'	MEP - PAU equipment on site	0	09-Jan-18		23-Aug-18*		100%																			
BS-B2-11'	MEP PAU / LMCP Installation	54	09-Jan-18	15-Mar-18	23-Aug-18	27-Oct-18	100%																			
Staircase Press (B2-1-801M) at GL D'-E' 4																										

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Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Zone D1, D2, N, L, K, H																							
MAF / SEF Room (B1-1-800C, 802C, 803C)																							
AW-B1-1	General Builder's Works	7	07-Mar-18	15-Mar-18	02-Aug-18	10-Aug-18	100%																
AS-B1-1C	Access for ABWF / MEP Installation	0	07-Mar-18		02-Aug-18		100%																
AW-B1-1	ABWF - Ceiling / Wall / floor - 1st Coat	19	15-Mar-18	11-Apr-18	10-Aug-18	01-Sep-18	100%																
BS-B1-1C	MEP 1st / 2nd Fix	54	03-Apr-18	08-Jun-18	24-Aug-18	30-Oct-18	100%																
BS-B1-1C	MEP-SEF Equipment On Site	0	15-Feb-18		25-Aug-18*		100%																
3. Zone A_M_E_N																							
General Area - BOH/Office/Storage/Corridor/Toilets/Lobby																							
Corridors/Lobbys																							
AW-B1-1	ABWF-Soffit Sealer	7	18-Dec-17	28-Dec-17	29-Jun-18	07-Jul-18	100%																
AW-B1-1	ABWF-Ceiling Frame (FS Ceiling)	13	28-May-18	12-Jun-18	12-Jun-18 A	14-Jul-18	100%																
AW-B1-1	ABWF- FS Ceiling Close up	13	28-Jun-18	13-Jul-18	29-Jun-18	14-Jul-18	7.69%																
BS-B1-11	MEP-Ceiling Final Fix	13	14-Jul-18	28-Jul-18	16-Jul-18	30-Jul-18	0%																
AW-B1-1	ABWF-Wall Final Paint/Corner Protection	13	14-Jul-18	28-Jul-18	16-Jul-18	30-Jul-18	0%																
AW-B1-1	ABWF-Door/Ironmongeries	13	30-Jul-18	13-Aug-18	31-Jul-18	14-Aug-18	0%																
BOH Workshop, Office and Facilities Rooms																							
AW-B1-1	ABWF-Ceiling Frame/Grid (Office Ceiling Area)	13	28-May-18	12-Jun-18	26-Jul-18	10-Aug-18	100%																
BS-B1-11	MEP- FS/Lighting/A/C Dropper (Office Ceiling Area)	27	12-Jun-18	16-Jul-18	10-Aug-18	11-Sep-18	49.79%																
AW-B1-1	ABWF-Ceiling Close Up (Office Ceiling Area)	27	16-Jul-18	16-Aug-18	11-Sep-18	15-Oct-18	0%																
BS-B1-11	MEP-Ceiling/Wall Final Fix	54	16-Jul-18	17-Sep-18	11-Sep-18	16-Nov-18	0%																
Toilets & Toilet Lobby																							
Public Toilet at GL 6,D																							
AW-B1-1	ABWF-Ceiling Close up/Ceiling Finish	7	23-May-18	31-May-18	03-Jul-18	11-Jul-18	100%																
AW-B1-1	ABWF-Waterproofing/Water Test	7	16-Apr-18	24-Apr-18	09-Jul-18	17-Jul-18	100%																
AW-B1-1	ABWF-Cubic Partition	7	31-May-18	08-Jun-18	11-Jul-18	19-Jul-18	100%																
AW-B1-1	ABWF-Floor screeding/Wall Plastering/Tiling/Counter Steel Frame	13	24-Apr-18	10-May-18	17-Jul-18	01-Aug-18	100%																
AW-B1-1	ABWF-Final Fix-Sanitaryware/Sink/Door	7	08-Jun-18	16-Jun-18	19-Jul-18	27-Jul-18	100%																
BS-B1-1	MEP Final Fix	7	16-Jun-18	26-Jun-18	27-Jul-18	04-Aug-18	100%																
AW-B1-1	ABWF-Ceiling Grid/Ceiling Panel with Service Openings	7	10-May-18	18-May-18	01-Aug-18	09-Aug-18	100%																
AS-B1-1	ABWF/MEP Installation Completed	0		26-Jun-18		04-Aug-18	100%																
Transformer Room 1 & 2 (B1-1-700 & B1-1-702)																							
BS-B1-11	Tx Rm 1 & 2 Power On by CLP	0		24-Mar-18		29-Jun-18	100%																
LV Main Switchroom 1 & 2 (B1-1-704 & B1-1-703)																							
AW-B1-1C	ABWF - Door frame & panels & ironmongeries installation	7	11-Jan-18	18-Jan-18	29-Jun-18	07-Jul-18	100%																
BS-B1-10	Installation Completed and Ready for Power On	0		14-Mar-18		22-Jun-18 A	100%																
Main IT Room (B1-1-954)																							
AW-B1-1	ABWF-Wet Trade (Up to 1st coat painting) - Ceiling / Wall / Floor	19	08-Dec-17	03-Jan-18	29-Jun-18	21-Jul-18	100%																
AW-B1-1	ABWF-Ceiling Frame w/ service panels	7	25-Jan-18	02-Feb-18	20-Jul-18	27-Jul-18	100%																
AW-B1-1	ABWF-Raised Floor Setting out/Padestal/Grid/Door	7	02-Feb-18	10-Feb-18	28-Jul-18	04-Aug-18	100%																
BS-B1-11	MEP-H/L Dropper	3	02-Feb-18	06-Feb-18	28-Jul-18	31-Jul-18	100%																
AW-B1-1	Ceiling close up	3	06-Feb-18	09-Feb-18	01-Aug-18	03-Aug-18	100%																
BS-B1-11	MEP Wall & Ceiling Final Fix	5	24-Feb-18	02-Mar-18	04-Aug-18	09-Aug-18	100%																
AW-B1-1	ABWF-Raised Floor Panel Close-up	3	14-Feb-18	21-Feb-18	06-Aug-18	08-Aug-18	100%																
AW-B1-1	ABWF/MEP Installation Completed (Ready for FS T&C)	0		02-Mar-18		10-Aug-18	100%																
BS-B1-11	ELV- Equipment Rack Installation	13	02-Mar-18	17-Mar-18	10-Aug-18	24-Aug-18	100%																
BS-B1-11	ELV- Backbone Cabling From Various Floors	107	02-Mar-18	14-Jul-18	10-Aug-18	26-Nov-18	88.58%																
Central Control Centre & Central Control Centre Equip. Rm & Network Operation Centre (G.L. 6-12/A)																							
AW-B1-1C	ABWF/MEP Installation in Central Control Equipment Rm(Detail refer to Main IT Room)	63	10-Apr-18	26-Jun-18	04-Jul-18	14-Sep-18	100%																
AW-B1-1C	ABWF/MEP Installation in Network Operation Centre (Detail refer to Main IT Room)	63	18-Apr-18	04-Jul-18	11-Jul-18	22-Sep-18	93.65%																
AS-B1-10	Ready for DC access	0		05-Jul-18		22-Sep-18	0%																
Cafe kitchen (B1-1-044) GL 10-12/A-E & Catering Kitchen (G.L. 10 / B)																							
BS-B1-11	MEP- Install Floor Drain/Wall Concealed Pipework	7	25-Apr-18	04-May-18	19-Jul-18	27-Jul-18	100%																
AW-B1-1C	ABWF-Waterproofing & floor screeding/Rendering/Tile	25	04-May-18	04-Jun-18	27-Jul-18	25-Aug-18	100%																
BS-B1-10	KIT-Installation Kitchen Equipment	38	04-Jun-18	20-Jul-18	25-Aug-18	11-Oct-18	53.8%																
BS-B1-11	MEP-2nd fix-connection to Kitchen Equipment/Cabling	38	20-Jun-18	03-Aug-18	08-Sep-18	26-Oct-18	21.05%																
5. Zone C_D1																							
BOH Corridor along G.L.J																							
AS-B1-10	Access for ABWF/MEP Installation	0	07-Mar-18		02-Aug-18		100%																
AW-B1-1	ABWF-Sealer paint	3	07-Mar-18	10-Mar-18	02-Aug-18	06-Aug-18	100%																
BS-B1-11	MEP 1stFix-Main Chilled Water Header Installation/Connection to Risers	54	10-Mar-18	18-May-18	06-Aug-18	10-Oct-18	100%																
ICT Riser Room																							
AS-B1-10	Access for ABWF/MEP Installation	0	07-Mar-18		02-Aug-18		100%																
AW-B1-1	ABWF-Sealer paint	3	07-Mar-18	10-Mar-18	02-Aug-18	06-Aug-18	100%																
BS-B1-11	MEP 1st/2nd Fix	13	10-Mar-18	26-Mar-18	06-Aug-18	21-Aug-18	100%																
AW-B1-1	ABWF-Door/Ironmongeries	3	26-Mar-18	29-Mar-18	21-Aug-18	24-Aug-18	100%																
AS-B1-10	Ready for DC Access	0		29-Mar-18		24-Aug-18	100%																
ELV Room																							

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

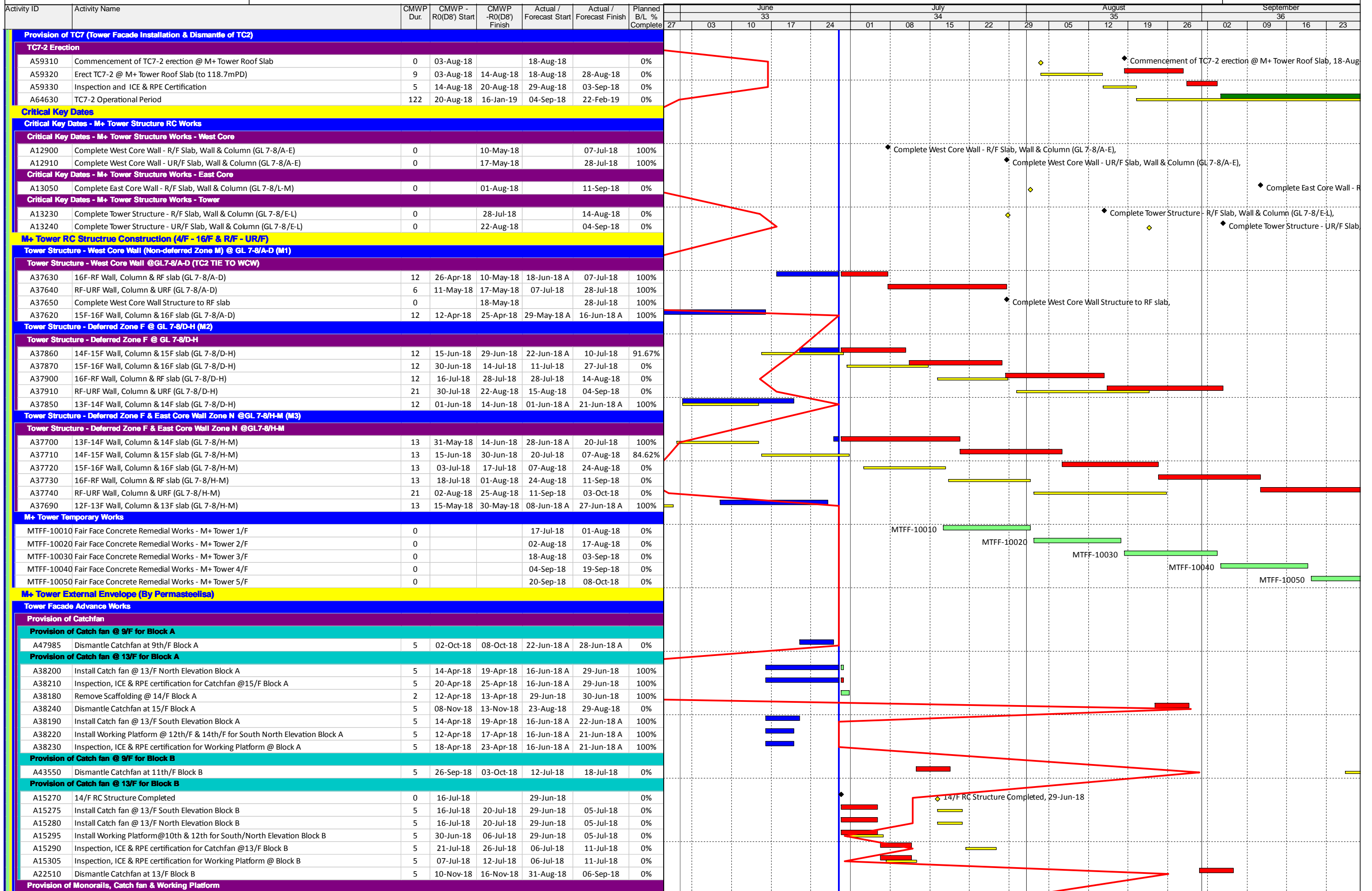
Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June					July					August				September				
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23	
Zone E, P (GL 8-11)																										
AS-GF-1C	Access for ABWF / MEP / Fit-out Installation- Link from Zone P Slab Cast	0	04-Apr-18		17-Jul-18		100%	♦ Access for ABWF / MEP / Fit-out Installation- Link from Zone P Slab Cast, 17-Jul-18																		
AW-GF-1	RC-Defect Rectification	13	04-Apr-18	20-Apr-18	17-Jul-18	31-Jul-18	100%																			
AW-GF-1	PISA-Install Ceramic Tube/Mullion/Glass Wall	43	20-Apr-18	12-Jun-18	01-Aug-18	19-Sep-18	100%																			
AW-GF-1	ABWF- Ceiling Sealer	7	20-Apr-18	28-Apr-18	01-Aug-18	08-Aug-18	100%																			
BS-GF-1C	MEP- Erect Escalator Truss (ES01, 02)- From GF to B2	13	28-Apr-18	15-May-18	09-Aug-18	23-Aug-18	100%																			
BS-GF-1C	MEP 1st/2nd Fix (Around Columnn)/H/L 2nd Fix (Lighting Wiring) / AC equipment	25	28-Apr-18	30-May-18	09-Aug-18	06-Sep-18	100%																			
BS-GF-1C	MEP-Escalator Installation/T&C	54	15-May-18	20-Jul-18	24-Aug-18	29-Oct-18	67.28%																			
AW-GF-1	PISA-Install Ceramic Tube/Mullion/Glass Wall (GL D-H, 11 and D-E, 11-12)	27	15-Jun-18	18-Jul-18	24-Aug-18	24-Sep-18	40.74%																			
BS-GF-1C	MEP-H/L Final Fix	13	30-May-18	14-Jun-18	07-Sep-18	21-Sep-18	100%																			
AW-GF-1	ABWF-Install FS/Security Shutter	19	12-Jun-18	06-Jul-18	20-Sep-18	13-Oct-18	70.18%																			
Zone L & K Toilets & Toilet Lobbies GL J/9-10																										
AS-GF-1C	Access for ABWF and MEP Installation (Link from Zone E1/E2)	0	04-Apr-18		17-Jul-18		100%	♦ Access for ABWF and MEP Installation (Link from Zone E1/E2), 17-Jul-18																		
AW-GF-1	ABWF/MEP Installation (detail sequence please "B2 Toilet")	107	04-Apr-18	13-Aug-18	17-Jul-18	21-Nov-18	64.8%																			
3. Zone G																										
150-Seat lecture theatre/Workshop / Multi-purpose Lounge/Storage/Lobby																										
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	24-Apr-18		14-Aug-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Aug-18																		
AW-GF-1C	ABWF-Isolated floor on structure floor slab at the 150-seat lecture theatre	19	24-Apr-18	17-May-18	14-Aug-18	05-Sep-18	100%																			
AW-GF-11	ABWF-Patching up the tie-bolt hole	9	24-Apr-18	05-May-18	14-Aug-18	24-Aug-18	100%																			
BS-GF-10	MEP 1st / 2nd fix HL	25	17-May-18	16-Jun-18	05-Sep-18	06-Oct-18	100%																			
AW-GF-1C	ABWF-dry wall installation	25	17-May-18	16-Jun-18	05-Sep-18	06-Oct-18	100%																			
Learning Centre GL 10/C-D																										
AW-GF-11	ABWF-Patching up the tie-bolt hole	10	12-Jun-18	25-Jun-18	14-Aug-18	25-Aug-18	100%																			
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	12-Jun-18		14-Aug-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Aug-18																		
AW-GF-11	ABWF-Isolated floor on structure floor slab at the 150-seat lecture theatre	19	12-Jun-18	06-Jul-18	14-Aug-18	05-Sep-18	69.59%																			
AW-GF-11	ABWF-dry wall frame & shutter installation	13	06-Jul-18	21-Jul-18	14-Aug-18	29-Aug-18	0%																			
BS-GF-10I	MEP H/L 1st Fix	25	19-Jul-18	17-Aug-18	17-Aug-18	15-Sep-18	0%																			
BS-GF-10I	MEP 2nd fix AC equipment /Cabling/Connection	19	17-Aug-18	08-Sep-18	15-Sep-18	10-Oct-18	0%																			
AW-GF-11	PISA - Glass wall installation (GL 9-11/B-E)	32	17-Aug-18	24-Sep-18	15-Sep-18	26-Oct-18	0%																			
4. Zone C, D1, D2 and N																										
Zone D, N - Lift Lobby / Corridor / Concourse (GL 5 and 7)																										
AS-GF-10	Access for ABWF / MEP / Fit-out Installation	0	03-Feb-18		14-Jul-18		100%	♦ Access for ABWF / MEP / Fit-out Installation, 14-Jul-18																		
AW-GF-1C	ABWF - Wet trade - rendering / ceiling / wall 1st coat	13	03-Feb-18	22-Feb-18	14-Jul-18	28-Jul-18	100%																			
BS-GF-10I	MEP Installation H/L 1st & 2nd Fix / riser	40	22-Feb-18	14-Apr-18	30-Jul-18	13-Sep-18	100%																			
BS-GF-10I	MEP - 2nd fix cabling & wiring	27	14-Apr-18	17-May-18	14-Sep-18	18-Oct-18	100%																			
Fire Control Room (G-1-057)																										
AS-GF-10	Access for ABWF/MEP Installation	0	22-Dec-17		14-Jul-18		100%	♦ Access for ABWF/MEP Installation, 14-Jul-18																		
AW-GF-1C	General Builder's Works	13	22-Dec-17	10-Jan-18	14-Jul-18	28-Jul-18	100%																			
AW-GF-1C	ABWF - Ceiling / Wall / floor - 1st Coat	13	10-Jan-18	25-Jan-18	30-Jul-18	13-Aug-18	100%																			
BS-GF-10	MEP Installation H/L 1st & 2nd Fix	19	17-Jan-18	08-Feb-18	06-Aug-18	28-Aug-18	100%																			
BS-GF-10	MEP Cabling & Wiring	7	08-Feb-18	20-Feb-18	27-Aug-18	04-Sep-18	100%																			
AW-GF-1C	ABWF - Door frame & panels & ironmongeries installation	7	20-Feb-18	28-Feb-18	04-Sep-18	12-Sep-18	100%																			
AW-GF-1C	ABWF final touch up	7	03-Mar-18	12-Mar-18	17-Sep-18	26-Sep-18	100%																			
BS-GF-10I	MEP-Fire Control System Installation/Connection	80	12-Mar-18	21-Jun-18	26-Sep-18	03-Jan-19	100%																			
Museum shop / Other Area																										
AD-GF-10	Access for ABWF / MEP / Fit-out Installation	0	09-May-18		13-Sep-18		100%	♦ Access for ABWF / MEP																		
AW-GF-1C	ABWF-Ceiling/Wall Sealer	7	09-May-18	17-May-18	13-Sep-18	20-Sep-18	100%																			
BS-GF-10	MEP 1st/2nd Fix -Containment/A/C/duct/FS Pipe/ Riser	25	17-May-18	16-Jun-18	21-Sep-18	23-Oct-18	100%																			
AD-GF-10	PISA-Glass Wall/Ceramic Mullion	23	17-May-18	14-Jun-18	21-Sep-18	20-Oct-18	100%																			
5. Pedestrian Pavement Works (Around M+ Podium)																										
PW-M-101	Access for ABWF / MEP Installation (GL A, 1-7)	0	03-Feb-18		14-Jul-18		100%	♦ Access for ABWF / MEP Installation (GL A, 1-7), 14-Jul-18																		
PW-M-101	Waterproofing / test / insulation layer / screeding (GL A,1-7)	19	03-Feb-18	01-Mar-18	14-Jul-18	04-Aug-18	100%																			
PW-M-101	MEP P/D & ELE / ELV 1st & 2nd fix (GL A,1-7)	13	01-Mar-18	16-Mar-18	06-Aug-18	20-Aug-18	100%																			
PW-M-101	Concrete bedding & precast concrete bench (GL A, 1-7)	19	16-Mar-18	12-Apr-18	21-Aug-18	11-Sep-18	100%																			
PW-M-102	Pavement Work (GL A-E, 1-3)- (Detail Sequence refer to Act PW-GF10100 to 10130)	32	12-Apr-18	21-May-18	12-Sep-18	22-Oct-18	100%																			
6. EVA																										
Zone A1, A2, A3 & M (GL 7-7/A)																										
EVA-M-1C	Access for ABWF / MEP Installation (GL 7'-7/A)	0	20-Aug-18		20-Aug-18*		0%	♦ Access for ABWF / MEP Installation (GL 7'-7/A), 20-Aug-18*																		
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 1)	16	20-Aug-18	06-Sep-18	20-Aug-18	06-Sep-18	0%																			
EVA-M-1C	Road Finishes (Part 1)	16	07-Sep-18	26-Sep-18	07-Sep-18	26-Sep-18	0%																			
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 2)	16	27-Sep-18	16-Oct-18	27-Sep-18	16-Oct-18	0%																			
Zone D & N (GL 7-7/M)																										
EVA-M-1C	Access for ABWF / MEP Installation (GL 7'-7/M)	0	27-Sep-18		27-Sep-18		0%																			
EVA-M-1C	Waterproofing / Test / Insulation layer / screeding (Part 1)	16	27-Sep-18	16-Oct-18	27-Sep-18	16-Oct-18	0%																			
1/F																										
Zone G																										
Courtyard																										
AW-MIC-	ABWF - Erection of scaffolding / working platform	7	31-May-18	07-Jun-18	06-Aug-18	14-Aug-18	100%																			

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	Gantt Chart																									
								June			July			August			September																
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23								
RC-MIC-1	RC defects rectifications	13	08-Jun-18	23-Jun-18	14-Aug-18	29-Aug-18	100%	[Gantt bars for RC-MIC-1]																									
AW-MIC-1	ABWF - Ceiling sealer application	7	25-Jun-18	03-Jul-18	29-Aug-18	06-Sep-18	57.14%	[Gantt bars for AW-MIC-1]																									
BS-MIC-1	MEP - H/L1st / 2nd fix Installation under soffit	13	04-Jul-18	18-Jul-18	06-Sep-18	21-Sep-18	0%	[Gantt bars for BS-MIC-1]																									
BS-MIC-1	MEP - H/L1st / 2nd fix Installation under soffit (Garden Gallery 2)	13	25-Jul-18	08-Aug-18	28-Sep-18	15-Oct-18	0%	[Gantt bars for BS-MIC-1]																									
Escalator to Roof Terrence																																	
AS-MIC-1	Access date for Escalator MEP installation (Link from activity A17300 - escalator structure cor	0	31-May-18		06-Aug-18		100%	[Gantt bars for AS-MIC-1]																									
BS-MIC-1	MEP - Escalator truss installation	13	31-May-18	14-Jun-18	06-Aug-18	21-Aug-18	100%	[Gantt bars for BS-MIC-1]																									
BS-MIC-1	MEP - FS sprinkler pipe / head installation in the escalator structures	7	15-Jun-18	23-Jun-18	21-Aug-18	29-Aug-18	100%	[Gantt bars for BS-MIC-1]																									
RC-MIC-1	Construction of RC canopy cover	25	25-Jun-18	24-Jul-18	29-Aug-18	28-Sep-18	16%	[Gantt bars for RC-MIC-1]																									
BS-MIC-1	MEP - FS sprinkler pipe / head installation in the canopy cover	13	25-Jul-18	08-Aug-18	28-Sep-18	15-Oct-18	0%	[Gantt bars for BS-MIC-1]																									
Learning Centre																																	
BaP-1F-1C	ABWF / MEP - Competed for FS inspection (refer ro G/F learning centre)	156	12-Jun-18	17-Dec-18	14-Aug-18	30-Nov-18	8.48%	[Gantt bars for BaP-1F-1C]																									
Zone C & D (Shop / office / Lobby)																																	
BaP-1F-10I	ABWF / MEP - Competed for FS inspection (refer ro G/F Museum shop / other areas)	121	09-May-18	03-Oct-18	13-Sep-18	11-Feb-19	34.53%	[Gantt bars for BaP-1F-10I]																									
1M/F																																	
1. Zone A,C,E,M																																	
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment-AHU/Fan/LMCP/Cat	54	16-Dec-17	23-Feb-18	13-Jun-18 A	27-Aug-18	100%	[Gantt bars for BS-1M-10I]																									
BS-1M-10I	MEP-Equipment Connection	54	24-Feb-18	03-May-18	27-Aug-18	01-Nov-18	100%	[Gantt bars for BS-1M-10I]																									
BS-1M-10I	MEP-Floor Power On (Partial)	0		24-Feb-18		27-Aug-18	100%	[Gantt bars for BS-1M-10I]																									
ELV Room/ICT Riser Room @ GL B,4																																	
BS-1M-1C	MEP- 1st/2nd Fix	19	18-Jan-18	08-Feb-18	27-Jun-18 A	21-Jul-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Equipment Rack	7	09-Feb-18	20-Feb-18	21-Jul-18	30-Jul-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Cabbling/Wiring	80	27-Mar-18	06-Jul-18	17-Sep-18*	21-Dec-18	92.5%	[Gantt bars for BS-1M-1C]																									
2. Zone D1, D2																																	
AW-1M-1C	BW-MEP Plinths/Ceiling Paint (Sealer)	13	29-Jan-18	13-Feb-18	28-Jun-18 A	14-Jul-18	100%	[Gantt bars for AW-1M-1C]																									
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment position	80	13-Feb-18	28-May-18	14-Jul-18	19-Oct-18	100%	[Gantt bars for BS-1M-10I]																									
AS-1M-10I	Access for ABWF/MEP Installation (Linked from L3 Slab Cast/deprop date)	0	29-Jan-18		30-May-18 A		100%	[Gantt bars for AS-1M-10I]																									
ELV Room/ICT Riser Room @ GL K,4																																	
AW-1M-1	ABWF-Erect Block Wall, Wall/Ceiling/Floor Finish/Door Frame/Door	25	29-Jan-18	02-Mar-18	14-Jul-18	13-Aug-18	100%	[Gantt bars for AW-1M-1]																									
BS-1M-1C	MEP- 1st/2nd Fix	19	02-Mar-18	24-Mar-18	13-Aug-18	04-Sep-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Equipment Rack	5	24-Mar-18	03-Apr-18	04-Sep-18	10-Sep-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Cabbling/Wiring	72	03-Apr-18	30-Jun-18	10-Sep-18*	06-Dec-18	98.3%	[Gantt bars for BS-1M-1C]																									
3. Zone G																																	
AS-1M-10I	Access for ABWF/MEP Installation (Linked from L3 Slab Cast/deprop date)	0	26-Apr-18		29-Jun-18		100%	[Gantt bars for AS-1M-10I]																									
AW-1M-1C	BW-MEP Plinths/Ceiling Paint (Sealer)	13	26-Apr-18	11-May-18	10-Jul-18	25-Jul-18	100%	[Gantt bars for AW-1M-1C]																									
BS-1M-10I	MEP SEF equipment on site	0	15-Feb-18		26-Jul-18*		100%	[Gantt bars for BS-1M-10I]																									
BS-1M-10I	MEP - Equipment Installation	54	15-Feb-18	26-Apr-18	26-Jul-18	27-Sep-18	100%	[Gantt bars for BS-1M-10I]																									
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment-AHU/Fan/LMCP/Cor	80	26-Apr-18	01-Aug-18	31-Aug-18	06-Dec-18	65%	[Gantt bars for BS-1M-10I]																									
4. Zone L, K, H, J																																	
AS-1M-10I	Access for ABWF/MEP Installation	0	17-May-18		01-Jul-18		100%	[Gantt bars for AS-1M-10I]																									
AW-1M-1C	BW-MEP Plinths/Ceiling Paint (Sealer)	45	17-May-18	12-Jul-18	03-Jul-18	02-Aug-18	76.79%	[Gantt bars for AW-1M-1C]																									
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment Position	95	17-May-18	08-Sep-18	03-Jul-18	05-Oct-18	36.37%	[Gantt bars for BS-1M-10I]																									
ELV Room/ICT Riser Room @ GL J,14																																	
AW-1M-1	ABWF-Erect Block Wall, Wall/Ceiling/Floor Finish/Door Frame/Door	25	17-May-18	16-Jun-18	03-Jul-18	31-Jul-18	100%	[Gantt bars for AW-1M-1]																									
BS-1M-1C	MEP- 1st/2nd Fix	19	16-Jun-18	11-Jul-18	01-Aug-18	22-Aug-18	50.29%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Equipment Rack	5	11-Jul-18	17-Jul-18	23-Aug-18	28-Aug-18	0%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Cabbling/Wiring	72	17-Jul-18	11-Oct-18	29-Aug-18*	23-Nov-18	0%	[Gantt bars for BS-1M-1C]																									
5. Zone B,Q,F,N																																	
AS-1M-10I	Access for ABWF/MEP Installation (Linked from L3 Slab Cast/deprop date)	0	03-Mar-18		13-Sep-18		100%	[Gantt bars for AS-1M-10I]																									
AW-1M-1C	BW-MEP Plinths/Ceiling Paint (Sealer)	27	03-Mar-18	09-Apr-18	13-Sep-18	16-Oct-18	100%	[Gantt bars for AW-1M-1C]																									
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment Position	80	17-May-18	22-Aug-18	13-Sep-18	18-Dec-18	43.19%	[Gantt bars for BS-1M-10I]																									
6. Zone P, E1																																	
AS-1M-10I	Access for ABWF/MEP Installation (Linked from L3 Slab Cast/deprop date)	0	09-Feb-18		29-Jun-18		100%	[Gantt bars for AS-1M-10I]																									
AW-1M-1C	BW-MEP Plinths/Ceiling Paint (Sealer)	19	09-Feb-18	07-Mar-18	29-Jun-18	21-Jul-18	100%	[Gantt bars for AW-1M-1C]																									
BS-1M-10I	MEP 1st/2nd Fix Installation- Containment/Pipe/Duct/MEP Equipment Position	80	09-Feb-18	24-May-18	29-Jun-18 A	03-Oct-18	100%	[Gantt bars for BS-1M-10I]																									
ELV Room																																	
AW-1M-1	ABWF-Erect Block Wall, Wall/Ceiling/Floor Finish/Door Frame/Door	25	09-Feb-18	14-Mar-18	29-Jun-18	28-Jul-18	100%	[Gantt bars for AW-1M-1]																									
BS-1M-1C	MEP- 1st/2nd Fix	19	14-Mar-18	10-Apr-18	30-Jul-18	20-Aug-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Equipment Rack	5	10-Apr-18	16-Apr-18	21-Aug-18	25-Aug-18	100%	[Gantt bars for BS-1M-1C]																									
BS-1M-1C	ELV-Cabbling/Wiring	72	16-Apr-18	13-Jul-18	27-Aug-18*	21-Nov-18	84.26%	[Gantt bars for BS-1M-1C]																									
2/F																																	
1. Zone A, E, M																																	
Zone A- Temporary Exhibition, Gallery 5 & 6 and Tall Gallery 1 & 2/BOH Area																																	
AW-2F-1C	BW-Floor screeding	19	20-Jan-18	12-Feb-18	06-Jul-18	28-Jul-18	100%	[Gantt bars for AW-2F-1C]																									
AW-2F-1C	ABWF-Drywall stud/1side broad/MEP conceal/Drywall close up	38	05-Feb-18	23-Mar-18	13-Jul-18	27-Aug-18	100%	[Gantt bars for AW-2F-1C]																									
BS-2F-10I	MEP/ELV Cabling & Wiring	19	16-Mar-18	12-Apr-18	28-Jul-18	20-Aug-18	100%	[Gantt bars for BS-2F-10I]																									
AW-2F-1C	ABWF Wall Plastering/Wall Under/1st Coat	13	24-Mar-18	12-Apr-18	27-Aug-18	11-Sep-18	100%	[Gantt bars for AW-2F-1C]																									
AS-2F-10I	Facade completed and Weathertight (Link from L2 Facade Installation)	0		30-Jun-18		27-Aug-18*	0%	[Gantt bars for AS-2F-10I]																									

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
AS-MC-1C	Access for ABWF/MEP Installation	0	28-Apr-18		29-Jun-18		100%	Access for ABWF/MEP Installation, 29-Jun-18															
AW-MC-1	ABWF-Wet Trade-Block Wall/Rendering/1st Coat	27	28-Apr-18	01-Jun-18	29-Jun-18	31-Jul-18	100%																
BS-MC-1C	MEP- Install Main CHW Header along GL K-L, 12-8 (linked to Pri Sys Flushing)	32	04-May-18	12-Jun-18	31-Aug-18	10-Oct-18	100%																
BS-MC-1C	MEP-1st Fix/2nd Fix-AC/Elect/PD/FS	27	28-May-18	29-Jun-18	22-Sep-18	27-Oct-18	98.35%																
G/F																							
Main Auditorium / Open Cinema (G/F - 2/F) (2-1-053)																							
AS-Aud-1	Access for ABWF / MEP installation (Link from A60290 Auditorium clab curing)	0	15-Jun-18		31-Aug-18		100%	Access for ABWF / MEP installation:(Link from															
RC-Aud-1	Steel truss construction	27	15-Jun-18	19-Jul-18	31-Aug-18	04-Oct-18	39.09%																
AW-Aud-1	Bamboo scaffolding erection	13	19-Jul-18	03-Aug-18	26-Sep-18	12-Oct-18	0%																
All Levels Works																							
Risers																							
1. Zone A & M																							
BS-ALL-1C	Zone A(GLH)- MEP Riser Installation-1st/2nd Fix Installation	54	01-Mar-18	09-May-18	12-Jul-18	13-Sep-18	100%																
BS-ALL-1C	Zone M-MEP Riser Installation-Cabling	54	30-May-18	03-Aug-18	14-Aug-18	19-Oct-18	45.68%																
BS-ALL-1C	Zone A(GLB & E)-MEP Riser Installation-Cabling	54	07-Apr-18	12-Jun-18	29-Aug-18	03-Nov-18	100%																
BS-ALL-1C	Zone A(GLH)-MEP Riser Installation-Cabling	54	09-May-18	14-Jul-18	13-Sep-18	19-Nov-18	76.75%																
2. Zone N																							
BS-ALL-1C	Zone N- MEP Riser Installation-1st/2nd Fix Installation	41	24-Apr-18	13-Jun-18	29-Aug-18	19-Oct-18	100%																
3. Zone G																							
BS-ALL-1C	Zone G- MEP Riser Installation-1st/2nd Fix Installation	41	17-May-18	07-Jul-18	14-Jul-18	31-Aug-18	84.01%																
BS-ALL-1C	Zone G-MEP Riser Installation-Cabling	54	07-Jul-18	08-Sep-18	31-Aug-18	06-Nov-18	0%																
4. Zone D1																							
BS-ALL-1C	Zone D1- MEP Riser Installation-1st/2nd Fix Installation	41	02-Mar-18	24-Apr-18	12-Jul-18	29-Aug-18	100%																
BS-ALL-1C	Zone D1-MEP Riser Installation-Cabling	54	24-Apr-18	29-Jun-18	29-Aug-18	03-Nov-18	98.97%																
5. Zone H																							
BS-ALL-1C	Zone H- MEP Riser Installation-1st/2nd Fix Installation	27	14-May-18	15-Jun-18	14-Jul-18	15-Aug-18	100%																
BS-ALL-1C	Zone H-MEP Riser Installation-Cabling	27	15-Jun-18	19-Jul-18	15-Aug-18	15-Sep-18	37.86%																
6. Zone E																							
BS-ALL-1C	Zone E- MEP Riser Installation-1st/2nd Fix Installation	41	11-Dec-17	31-Jan-18	27-Jun-18 A	15-Aug-18	100%																
BS-ALL-1C	Zone E-MEP Riser Installation-Cabling	54	31-Jan-18	12-Apr-18	15-Aug-18	20-Oct-18	100%																
Staircases																							
M+																							
Stair cores @ GL B-C/3 (Zone A)																							
Staircase B2/F - G/F Staircase ST-04B																							
AS-ALL-1	Access Date for ST-04B	0	07-Dec-17		14-Jul-18		100%	Access Date for ST-04B, 14-Jul-18															
BS-ALL-1	MEP 1st /2nd Fix, FS Riser / Containment	7	07-Dec-17	14-Dec-17	14-Jul-18	21-Jul-18	100%																
AW-ALL-1	ABWF-Metal Work- Hand rail, balustrade (7 days)	7	15-Dec-17	22-Dec-17	23-Jul-18	30-Jul-18	100%																
AW-ALL-1	ABWF-Wet Trade, Floor/Wall/Ceiling	19	23-Dec-17	17-Jan-18	31-Jul-18	21-Aug-18	100%																
BS-ALL-1	MEP Final Fix (7days)	7	18-Jan-18	25-Jan-18	22-Aug-18	29-Aug-18	100%																
AW-ALL-1	ABWF-Door/Ironmongeries	7	26-Jan-18	02-Feb-18	30-Aug-18	06-Sep-18	100%																
Staircase G/F/ - 3/F Staircase ST-04																							
AS-ALL-1	Access Date for ST-04	0	03-Feb-18		07-Sep-18		100%	Access Date for ST-04, 07-Sep-18															
BS-ALL-1	MEP 1st /2nd Fix, FS Riser / Containment	13	03-Feb-18	21-Feb-18	07-Sep-18	21-Sep-18	100%																
AW-ALL-1	ABWF-Metal Work- Hand rail, balustrade (7 days)	13	22-Feb-18	08-Mar-18	22-Sep-18	09-Oct-18	100%																
Stair cores @ A-B/7-8 (Zone M)																							
Staircase B1/F - G/F Staircase ST-01B																							
AS-ALL-1	Access Date for ST-01B	0	07-Dec-17		14-Jul-18		100%	Access Date for ST-01B, 14-Jul-18															
BS-ALL-1	MEP 1st /2nd Fix, FS Riser / Containment	7	07-Dec-17	14-Dec-17	14-Jul-18	21-Jul-18	100%																
AW-ALL-1	ABWF-Metal Work- Hand rail, balustrade	7	15-Dec-17	22-Dec-17	23-Jul-18	30-Jul-18	100%																
AW-ALL-1	ABWF-Wet Trade, Floor/Wall/Ceiling	19	23-Dec-17	17-Jan-18	31-Jul-18	21-Aug-18	100%																
BS-ALL-1	MEP Final Fix	7	18-Jan-18	25-Jan-18	22-Aug-18	29-Aug-18	100%																
AW-ALL-1	ABWF-Door/Ironmongeries	7	22-Jan-18	30-Jan-18	25-Aug-18	03-Sep-18	100%																
Staircase G/F/ - 3/F Staircase ST-01																							
AS-ALL-1	Access Date for ST-03	0	10-Apr-18		03-Sep-18		100%	Access Date for ST-03, 03-Sep-18															
BS-ALL-1	MEP 1st /2nd Fix, FS Riser / Containment	13	10-Apr-18	25-Apr-18	03-Sep-18	18-Sep-18	100%																
AW-ALL-1	ABWF-Metal Work- Hand rail, balustrade	13	25-Apr-18	11-May-18	18-Sep-18	05-Oct-18	100%																
M+ Basement & Podium Testing & Commissioning																							
MEP System T&C																							
Electrical																							
M+ Podium																							
EL-CLP-10	TX Room A CLP power on (M+ & CSF)	0		24-Mar-18		05-Jul-18	100%	TX Room A CLP power on (M+ & CSF),															
EL-CLP-10	TX Room B CLP power on (M+ & CSF)	0		24-Mar-18		05-Jul-18	100%	TX Room B CLP power on (M+ & CSF),															
EL-CLP-10	TX Room C CLP power on (DCS)	0		30-Apr-18		18-Jul-18	100%	TX Room C CLP power on (DCS),															
HVAC																							
BS-BaP-TC	T&C for Seawater Side	13	03-Feb-18	22-Feb-18	29-Jun-18	14-Jul-18	100%																
BS-BaP-TC	CHW pumping system Inc MCC self test (DCS)	13	11-May-18	26-May-18	27-Sep-18	13-Oct-18	100%																
M+ Tower																							
Tower Crane Provision																							



Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June							July							August				September		
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23			
Provision of Monorail @ 8/F																												
Monorail-Block A (8/F)																												
A14900	Dismantle Monorails at 8/F @ Block A	5	31-Aug-18	06-Sep-18	16-Jun-18 A	20-Jun-18 A	0%																					
Monorail-Block B (8/F)																												
A15000	Dismantle Monorails at 8/F @ Block B	5	20-Jul-18	25-Jul-18	16-Jun-18 A	30-Jun-18	0%																					
Provision of Monorails @ 12/F																												
Monorail-Block A (12/F)																												
A14910	14/F Structure Complete	0	12-Apr-18		29-Jun-18		100%																					
A14930	Monorail Operation Period@12/F Block A	160	02-May-18	10-Nov-18	20-Jun-18 A	18-Aug-18	30.08%																					
A14940	Dismantle Monorails at 12/F @ Block A	5	10-Nov-18	16-Nov-18	18-Aug-18	24-Aug-18	0%																					
A14920	Install/ICE Inspect monorails at 12/F slab @ Block A	16	12-Apr-18	30-Apr-18	16-Jun-18 A	20-Jun-18 A	100%																					
Monorail-Block B (12/F)																												
A15020	Install/ICE Inspect monorails at 12/F slab @ Block B	16	30-Jun-18	19-Jul-18	16-Jun-18 A	16-Jul-18	0%																					
A15030	Monorail Operation Period	95	20-Jul-18	10-Nov-18	16-Jul-18	18-Aug-18	0%																					
A15010	14/F Structure Completed	0	30-Jun-18		20-Jul-18		0%																					
A15040	Dismantle Monorails at 12/F @ Block B	5	10-Nov-18	16-Nov-18	18-Aug-18	24-Aug-18	0%																					
Facade Installation by TC6-2, TC2, TC7-2 & Monorail																												
Preparation Works																												
A59820	Survey, Setup & Bracket Installation for 1st Installation - Staircase Zone	22	16-Nov-17	11-Dec-17	06-Jul-18	01-Aug-18	100%																					
Monorail @8/F - North & South Elevation 4/F to 8/F (Weathertight Zone)																												
Block A																												
A59740	M+ Tower 5/F - External Facade 2nd Fix -Remaining	5	20-Aug-18	25-Aug-18	25-Jun-18 A	05-Jul-18	0%																					
A60080	M+ Tower 6/F - External Facade 2nd Fix -Remaining	5	25-Aug-18	31-Aug-18	05-Jul-18	11-Jul-18	0%																					
Block B																												
A59720	M+ Tower 5/F - External Facade 2nd Fix	10	01-Sep-18	13-Sep-18	25-Jun-18 A	29-Jun-18	0%																					
A59730	M+ Tower 6/F - External Facade 2nd Fix	10	13-Sep-18	26-Sep-18	29-Jun-18	12-Jul-18	0%																					
Monorail @12/F - North & South Elevation 7/F to 10/F (Weathertight Zone)																												
Block A																												
A64840	M+ Tower 7/F - External Facade 2nd Fix	5	06-Sep-18	12-Sep-18	29-Jun-18	05-Jul-18	0%																					
A64850	M+ Tower 8/F - External Facade 2nd Fix	5	12-Sep-18	18-Sep-18	06-Jul-18	11-Jul-18	0%																					
A64860	M+ Tower 9/F - External Facade 2nd Fix	5	18-Sep-18	24-Sep-18	12-Jul-18	17-Jul-18	0%																					
A64870	M+ Tower 10/F - External Facade 2nd Fix	5	24-Sep-18	02-Oct-18	18-Jul-18	23-Jul-18	0%																					
A64890	M+ Tower - Monorail Installed and Operated @ 12/F	0	06-Sep-18		29-Jun-18 A		0%																					
Block B																												
A64900	M+ Tower - Monorail Installed and Operated @ 12/F	0	26-Jul-18		30-Jun-18		0%																					
A59620	M+ Tower 7/F - External Facade 2nd Fix	7	26-Sep-18	05-Oct-18	12-Jul-18	21-Jul-18	0%																					
A59630	M+ Tower 8/F - External Facade 2nd Fix	7	08-Oct-18	16-Oct-18	21-Jul-18	31-Jul-18	0%																					
A59640	M+ Tower 9/F - External Facade 2nd Fix	7	16-Oct-18	25-Oct-18	31-Jul-18	09-Aug-18	0%																					
A59650	M+ Tower 10/F - External Facade 2nd Fix	7	25-Oct-18	02-Nov-18	09-Aug-18	18-Aug-18	0%																					
Tower Crane - North & South Elevation 11/F to R/F (Weathertight Zone)																												
A59660	M+ Tower 11/F - External Facade 2nd Fix (88 panels)	7	02-Nov-18	10-Nov-18	18-Aug-18	31-Aug-18	0%																					
A59750	M+ Tower 12/F - External Facade 2nd Fix (88 panels)	6	15-Nov-18	22-Nov-18	31-Aug-18	13-Sep-18	0%																					
A59760	M+ Tower 13/F - External Facade 2nd Fix (88 panels)	6	22-Nov-18	29-Nov-18	13-Sep-18	27-Sep-18	0%																					
A59770	M+ Tower 14/F - External Facade 2nd Fix (88 panels)	6	29-Nov-18	06-Dec-18	27-Sep-18	11-Oct-18	0%																					
Final Fix - North & South Elevation																												
A59340	M+ Tower 4/F - External Facade Final Fix	6	01-Sep-18	08-Sep-18	07-Jul-18	14-Jul-18	0%																					
A59350	M+ Tower 5/F - External Facade Final Fix	6	13-Sep-18	20-Sep-18	14-Jul-18	21-Jul-18	0%																					
A59360	M+ Tower 6/F - External Facade Final Fix	6	26-Sep-18	04-Oct-18	21-Jul-18	28-Jul-18	0%																					
A59370	M+ Tower 7/F - External Facade Final Fix	6	05-Oct-18	12-Oct-18	28-Jul-18	04-Aug-18	0%																					
A59380	M+ Tower 8/F - External Facade Final Fix	6	16-Oct-18	24-Oct-18	04-Aug-18	11-Aug-18	0%																					
A59390	M+ Tower 9/F - External Facade Final Fix	6	25-Oct-18	01-Nov-18	11-Aug-18	18-Aug-18	0%																					
A59400	M+ Tower 10/F - External Facade Final Fix	6	02-Nov-18	09-Nov-18	18-Aug-18	25-Aug-18	0%																					
A59410	M+ Tower 11/F - External Facade Final Fix	6	10-Nov-18	17-Nov-18	31-Aug-18	07-Sep-18	0%																					
A59420	M+ Tower 12/F - External Facade Final Fix	6	22-Nov-18	29-Nov-18	13-Sep-18	20-Sep-18	0%																					
A59430	M+ Tower 13/F - External Facade Final Fix	6	29-Nov-18	06-Dec-18	27-Sep-18	05-Oct-18	0%																					
M+ Tower Lift Installation																												
Service Lifts (LT01 & 02)																												
LT10010	Commence Lift LT01 & LT02 M/C Room Installation @ Roof	0	18-May-18		28-Jul-18		100%																					
LT10000	Available of lift pit at B2F, LT01 & LT02	0	18-May-18		28-Jul-18		100%																					
LT10020	Builders' Work & Lift M/C Room Installation @ R/F (LT01 & 02)	19	18-May-18	09-Jun-18	28-Jul-18	20-Aug-18	100%																					
LT10030	Lift Car Installation (LT01 & 02)	54	11-Jun-18	14-Aug-18	20-Aug-18	25-Oct-18	27.78%																					
Public Lifts (LT05, LT06, LT07 & LT08, 4nos, pit in B2F)																												
LT10360	Lift Shaft Builders' Work (LT08)	16	18-May-18	06-Jun-18	25-Jun-18 A	06-Jul-18	100%																					
LT10255	Builders' Work for Lift Shaft & M/C Room	23	18-May-18	14-Jun-18	25-Jun-18 A	14-Jul-18	100%																					
LT10370	Lift car Installation (LT08)	54	07-Jun-18	10-Aug-18	06-Jul-18	07-Sep-18	33.33%																					
LT10260	Commence LT05, LT06 & LT07 Lift M/C Room Installation	0		14-Jun-18		14-Jul-18	100%																					
LT10280	Lift M/C Room Installation @ R/F (LT05 & LT06)	23	15-Jun-18	13-Jul-18	14-Jul-18	10-Aug-18	47.83%																					
LT10320	Lift M/C Room Installation @ 4F/5F/6F (LT07)	23	15-Jun-18	13-Jul-18	14-Jul-18	10-Aug-18	47.83%																					

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June					July					August				September					
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23		
AW-MP-1	ABWF-Door / Ironmongeries	3	05-May-18	09-May-18	19-Jul-18	21-Jul-18	100%																				
BS-MP-10	MEP - ELV- Equipment Ract / Connection	27	09-May-18	11-Jun-18	23-Jul-18	22-Aug-18	100%																				
MEP (EL) Room (5-1-806M) & (5-1-800M) @ GL 7-8/A-B																											
AS-MP-1C	Access for ABWF/MEP Installation	0	21-Feb-18		29-Jun-18		100%																				
AW-MP-1	ABWF-Ceiling/Wall Sealer	5	21-Feb-18	26-Feb-18	29-Jun-18	05-Jul-18	100%																				
BS-MP-10	MEP - 1st Fix	25	27-Feb-18	27-Mar-18	06-Jul-18	03-Aug-18	100%																				
BS-MP-10	MEP - 2nd & Final Fix	54	28-Mar-18	05-Jun-18	04-Aug-18	08-Oct-18	100%																				
11F-16F																											
MP-10080	13/F - ABWF / MEP Insatallation (Similar working procedures as 1/F) before watertight	72	14-Aug-18	09-Nov-18	26-Jul-18	22-Oct-18	0%																				
MP-10100	15/F - ABWF / MEP Insatallation (Similar working procedures as 1/F) before watertight	63	07-Sep-18	23-Nov-18	21-Aug-18	05-Nov-18	0%																				
MP-10090	14/F - ABWF / MEP Insatallation (Similar working procedures as 1/F) before watertight	63	07-Sep-18	23-Nov-18	23-Aug-18	05-Nov-18	0%																				
11/F																											
Lift Lobby / Plant Rooms																											
AS-MP-1C	Access for ABWF & MEP Installation (Linked from TR/F Slab Cast date)	0	14-Jul-18		18-Aug-18		0%																				
AW-MP-1	ABWF-Wet Trade Block Wall / Rendering	19	14-Jul-18	06-Aug-18	18-Aug-18	10-Sep-18	0%																				
BS-MP-10	MEP-1st & 2nd & Fix	19	06-Aug-18	28-Aug-18	10-Sep-18	04-Oct-18	0%																				
FOH																											
AS-MP-1C	Access for ABWF & MEP Installation (Linked from TR/F Slab Cast date)	0	14-Jul-18		18-Aug-18		0%																				
AW-MP-1	ABWF - Wet Trade Block Wall / Rendering	19	14-Jul-18	06-Aug-18	18-Aug-18	10-Sep-18	0%																				
BS-MP-10	MEP - 1st & 2nd & Fix	19	06-Aug-18	28-Aug-18	10-Sep-18	04-Oct-18	0%																				
Roof and Upper Roof																											
Upper Roof																											
RC-MP-10I	RC Structure Completed	0	23-Aug-18		05-Sep-18		0%																				
AW-MP-11	Construct RC Plinth	13	23-Aug-18	06-Sep-18	05-Sep-18	19-Sep-18	0%																				
AW-MP-11	Waterproof/Test/Screeding (GL A-M)	27	07-Sep-18	10-Oct-18	20-Sep-18	24-Oct-18	0%																				
All Level																											
Riser (GL B for ELV & MEP Room)																											
4/F - 10/F																											
AS-MP-1C	Access for MEP Installation (Linked from 14/F Slab Cast date)	0	28-Jun-18		01-Aug-18		100%																				
MEP Riser (GL L-M)																											
4/F - 10/F																											
AS-MP-11	BW - Temporary waterproofing & protection barroer installation on 11/F	13	28-Jun-18	14-Jul-18	01-Aug-18	16-Aug-18	2.56%																				
AS-MP-1C	Access for MEP Installation (Linked from 14/F Slab Cast date)	0	28-Jun-18		01-Aug-18		100%																				
BS-MP-10	MEP Riser Installation-1st/2nd Fix Installation	27	14-Jul-18	15-Aug-18	16-Aug-18	17-Sep-18	0%																				
M+ Tower Testing & Comissioning (4/F - 16/F & R/F - UR/F)																											
MEP System T&C																											
Electrical																											
EL-CLP-10I	TX Room A CLP power on (M+ & CSF)	0		24-Mar-18		10-Jul-18	100%																				
EL-CLP-10I	TX Room B CLP power on (M+ & CSF)	0		24-Mar-18		10-Jul-18	100%																				
CSF Tower																											
CSF Tower RC Structure Construction (G/F - 8/F & R/F)																											
CSF Super-Structure RC Works																											
CSF Building																											
CSF Structure @ Portion - T (G/F to 8/F)																											
Grid Line B' to F' / 4' to 6'																											
A65450	CSF - 7/F to 8/F Construction - Zone A	0			12-Jun-18 A	17-Jul-18	0%																				
A50790	CSF - 7/F to 8/F Construction - Zone B	14	29-Jan-18	13-Feb-18	03-Jul-18	24-Jul-18	100%																				
A65460	CSF - 8/F to +61.13/62.0 Construction - Zone A	0			17-Jul-18	14-Aug-18	0%																				
A50795	CSF - 8/F to +61.13/62.0 Construction - Zone B	14	14-Feb-18	05-Mar-18	24-Jul-18	21-Aug-18	100%																				
A65470	CSF - 8/F to R/F Construction - Zone A	0			14-Aug-18	16-Oct-18	0%																				
A50800	CSF - 8/F to R/F Construction - Zone B	36	06-Mar-18	20-Apr-18	21-Aug-18	23-Oct-18	100%																				
CSF Building Temporary Works																											
CFFF-10030	Fair Face Concrete Remedial Works - CSF 2/F	0			29-Jun-18	16-Jul-18	0%																				
CFFF-10040	Fair Face Concrete Remedial Works - CSF 3/F	0			17-Jul-18	01-Aug-18	0%																				
CFFF-10050	Fair Face Concrete Remedial Works - CSF 4/F	0			02-Aug-18	17-Aug-18	0%																				
CFFF-10060	Fair Face Concrete Remedial Works - CSF 5/F	0			18-Aug-18	03-Sep-18	0%																				
CFFF-10070	Fair Face Concrete Remedial Works - CSF 6/F	0			04-Sep-18	19-Sep-18	0%																				
CFFF-10080	Fair Face Concrete Remedial Works - CSF 7/F	0			20-Sep-18	08-Oct-18	0%																				
CSF Building FACADE Preliminaries																											
ENGINEERING & APPROVAL - CSF																											
SHOPDRAWING - Facade Doors Package #11 - CSF Doors - Total No. = 2																											
A19300	1st Shopdrawing Submission - Review & Approval	19	02-Feb-18	27-Feb-18	30-Aug-18	21-Sep-18	100%																				
A19310	2nd Shopdrawing Submission	13	28-Feb-18	14-Mar-18	21-Sep-18	09-Oct-18	100%																				
PERFORMANCE TEST - SHOPDRAWING SUBMISSION, FABRICATION, INSTALLATION & TEST																											
PERFORMANCE TEST & MOCK UP - CSF																											
A19460	Installation Performance Mock up	37	13-Mar-18	30-Apr-18	29-Jun-18	11-Aug-18	100%																				
A19470	Handover CSF Roof Louvre Wall Working Areas, Provide Access, Storage Space with Reference	0		30-Apr-18		11-Aug-18	100%																				
PMU SHOPDRAWING SUBMISSION & TEST - CSF Building																											

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Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June												July				August				September			
								33												34				35				36			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23						
AW-RDE-1	ABWF-FR Ceiling Close-up	13	02-May-18	16-May-18	30-Aug-18	13-Sep-18	100%																								
AW-RDE-1	ABWF-Wall Final Finishing	5	17-May-18	23-May-18	14-Sep-18	19-Sep-18	100%																								
AW-RDE-1	ABWF-Door Ironmogaries	5	17-May-18	23-May-18	14-Sep-18	19-Sep-18	100%																								
BS-RDE-11	MEP-Final Fix	7	17-May-18	25-May-18	14-Sep-18	21-Sep-18	100%																								
AS-RDE-10	Ready for T&C (FS)	0		26-May-18		22-Sep-18	100%																								
5F																															
RDE-10240	Toilets (5F) at GL2'-3'/H' (similar working procedures as 2/F)	84	19-Apr-18	30-Jul-18	13-Aug-18	22-Nov-18	69.05%																								
RDE-10250	ELE Room (5F) at GL2'-3'/H' (similar working procedures as 2/F)	58	19-Apr-18	28-Jun-18	13-Aug-18	23-Oct-18	100%																								
RDE-10260	ELV Room (5F) at GL3'/A'-B' (similar working procedures as 2/F)	45	19-Apr-18	12-Jun-18	13-Aug-18	06-Oct-18	100%																								
RDE-10290	FS Lift Lobby & Corridor (5F) at GL4'/G' (similar working procedures as 2/F)	63	19-Apr-18	05-Jul-18	13-Aug-18	29-Oct-18	92.06%																								
FOH (GL 1'-2'/G'-H', 1'-2'/G'-J, 5'-6' & 2'-5'/H'-J) (including lobby)																															
AS-RDE-10	Access for ABWF / MEP / Fit-out Installation (Linked from 8/F Slab Cast date)	0	19-Apr-18		13-Aug-18		100%																								
BS-RDE-10	MEP Installation H/L 1st Fix	19	19-Apr-18	11-May-18	13-Aug-18	04-Sep-18	100%																								
BS-RDE-10	MEP - 2nd fix include cabling and wiring	19	28-Apr-18	23-May-18	23-Aug-18	14-Sep-18	100%																								
AW-RDE-1	ABWF - Ceiling Frame	13	23-May-18	07-Jun-18	14-Sep-18	02-Oct-18	100%																								
AW-RDE-1	Facde Completion and watertight	0		23-May-18		14-Sep-18	100%																								
ICP & SPS Construction																															
Key Dates																															
A31610	Practical Completion of ICP & Obtain OP	0		09-Nov-18		31-Aug-18	0%																								
A31590	SPS and ICP (Portion A & B) - Full Access to Park Contractor	0		06-Apr-18		11-Sep-18	100%																								
SPS WORKS (Sewerage Pumping Station)																															
SPS - External Envelope																															
A56570	SPS - Final Fix & Facade Final Cleaning	4	02-Nov-17	07-Nov-17	05-Jul-18	10-Jul-18	100%																								
ICP WORKS (Interfacing Car Park)																															
M+ ICP Accelerated Works Programme																															
M+ ICP KD & MS																															
ICP-M01	Obtain OP for works within the ICP (TOP)	0				29-Jun-18*	0%																								
A1020	Practical Completion	0				31-Aug-18	0%																								
ICP-M02	Achieve Practical Completion of all Works within the ICP	0				31-Aug-18*	0%																								
A2180	BA 14 Certificate / Acknowledgement by BD (for ICP)	0			08-Sep-18	30-Sep-18*	0%																								
Civil Works																															
A2150	BA14 Submission for Retaining Walls & Drainage	0				18-Jul-18	0%																								
Builders works - Level B1																															
Major Plant Room & Tank																															
A1230	Cleaning and protections	0			03-Jul-18	11-Jul-18	0%																								
Builders works - Level B2																															
Area D - GLEa - Ka																															
A1370	Floor Screeding + Protection	0			30-May-18 A	20-Jun-18 A	0%																								
Building Services																															
MEP Installation - 2nd fix																															
B2/F																															
A2060	MEP 2nd Fix_ Storage Room (5A)	0			30-May-18 A	03-Jul-18	0%																								
ICP Statutory Approval																															
A2170	Direct Link Complete (By PCCW)	0				29-Jun-18*	0%																								
EMSD																															
A1620	LES Submission	0				01-Jul-18	0%																								
A1630	Issue of use permit	0			01-Jul-18*	18-Jul-18	0%																								
FSD																															
TOP (excluding Roof Landscaping Works)																															
A2090	FSD inspection	0			11-Jun-18 A	04-Jul-18	0%																								
A2130	Issuance of FS Certificate	0				04-Jul-18	0%																								
A2120	Submission of Form FS501 for FSD inspection	0			30-May-18 A		0%																								
OP																															
A1677	Submission of Form FS501 for FSD inspection	0			09-Jul-18*		0%																								
A1680	FSD inspection	0			21-Jul-18	06-Aug-18	0%																								
A1685	Issuance of FS Certificate	0				06-Aug-18	0%																								
WSD																															
Portable Water																															
A1760	WWO46 Part V Submission (Portable Water)	0				11-Jul-18	0%																								
FS Water																															
A1800	Issue Water Sample Report (FS Water)	0			29-Jun-18	14-Jul-18	0%																								
A1810	WWO46 Part V Submission (FS Water)	0				30-Jul-18	0%																								
A1820	Complete meter installation & water main connection (FS Water)	0			30-Jul-18	21-Aug-18*	0%																								
BD submission																															
A1690	OP Inspection	0			12-Aug-18	31-Aug-18*	0%																								
A2080	Achieve OP Certificate and Practical Completion of all works within the ICP	0				31-Aug-18*	0%																								
A1688	BA14 Submission	0			06-Sep-18		0%																								
IPA Area Completion and Handover Programme																															

Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP -R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June				July				August				September			
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09
Milestone Dates																							
IPA.MS.02	IPA-02 Complete HCC scope and Ready for Handover to SFK - Area A	0				24-Jul-18*	0%	◆ IPA-02 Complete HCC scope and Ready for Handover to SFK - Area A,															
IPA.MS.03	IPA-03 Complete HCC scope and Ready for Handover to SFK - Area C	0				08-Aug-18*	0%	◆ IPA-03 Complete HCC scope and Ready for Handover to SFK - Area C,															
IPA Area A - Earthwork																							
Construction of IPA works																							
IPA.AA.390	Construct fencing	0			29-Jun-18	23-Jul-18	0%	[Red bar: 29-Jun-18 to 23-Jul-18]															
IPA.AA.330	Construct Root Barriers	0			29-Jun-18	05-Jul-18	0%	[Red bar: 29-Jun-18 to 05-Jul-18]															
IPA.AA.360	Construct irrigation system	0			11-Jun-18 A	23-Jul-18	0%	[Red bar: 11-Jun-18 to 23-Jul-18]															
IPA.AA.370	Construct main path & secondary path	0			30-Jun-18	24-Jul-18	0%	[Red bar: 30-Jun-18 to 24-Jul-18]															
IPA.AA.420	Complete HCC scope and Ready for Handover of Area A to Park Contractor	0				24-Jul-18	0%	◆ Complete HCC scope and Ready for Handover of Area A to Park Contractor,															
IPA Area B - Earthwork																							
Clear up & water proofing ICP & use as facade yard (High level - South)																							
IPA.AB.90	Clear up Area B	0			29-Jun-18	05-Jul-18	0%	IPA.AB.90 [Green bar: 29-Jun-18 to 05-Jul-18]															
Construction of UU																							
IPA.AB.130	Construct drainage, catch pits & UC	0			23-Jul-18	23-Aug-18	0%	[Red bar: 23-Jul-18 to 23-Aug-18]															
IPA.AB.140	Construct district wide CLP Cable ducts & Draw pits	0			16-Aug-18	17-Sep-18	0%	[Red bar: 16-Aug-18 to 17-Sep-18]															
IPA.AB.150	Construct light ducts & pole footings	0			30-Aug-18	22-Sep-18	0%	[Red bar: 30-Aug-18 to 22-Sep-18]															
IPA.AB.160	Construct CLP cable ducts & Draw pits Southside	0			24-Sep-18	19-Oct-18	0%	[Red bar: 24-Sep-18 to 19-Oct-18]															
IPA Area C - Earthwork																							
Backfill of soil as per temp profile																							
IPA.AC.230	Backfill to design profile (deferred area)	0			18-Jul-18	28-Jul-18	0%	[Red bar: 18-Jul-18 to 28-Jul-18]															
Construction of Storm Drain																							
Between SE2.7 - DM52C (~39m)																							
IPA.AC.1	Testing	0			04-Jul-18	04-Jul-18	0%	IPA.AC.100 [Green bar: 04-Jul-18 to 04-Jul-18]															
Construction of Sewer Drain																							
Between F2.1E - SM19																							
IPA.AC.1	Install sheet piles	0			29-Jun-18	04-Jul-18	0%	[Red bar: 29-Jun-18 to 04-Jul-18]															
IPA.AC.1	Excavate & install ELS (1st layer)	0			05-Jul-18	07-Jul-18	0%	[Red bar: 05-Jul-18 to 07-Jul-18]															
IPA.AC.1	Excavate to formation & SRT & blinding	0			09-Jul-18	10-Jul-18	0%	[Red bar: 09-Jul-18 to 10-Jul-18]															
IPA.AC.1	Install 300DI pipes	0			11-Jul-18	12-Jul-18	0%	[Red bar: 11-Jul-18 to 12-Jul-18]															
IPA.AC.2	Testing	0			13-Jul-18	13-Jul-18	0%	[Red bar: 13-Jul-18 to 13-Jul-18]															
IPA.AC.2	Plug off manhole F2.1E & SM19	0			14-Jul-18	14-Jul-18	0%	[Red bar: 14-Jul-18 to 14-Jul-18]															
IPA.AC.2	Backfill & SRT & remove ELS	0			16-Jul-18	17-Jul-18	0%	[Red bar: 16-Jul-18 to 17-Jul-18]															
Construction of remaining UU																							
IPA.AC.240	Construct drainage, catch pits & UC	0			30-Jul-18	17-Aug-18	0%	[Red bar: 30-Jul-18 to 17-Aug-18]															
Construct district wide CLP ducts																							
IPA.AC.3	Lay ducts	0			10-Jul-18	13-Jul-18	0%	[Red bar: 10-Jul-18 to 13-Jul-18]															
IPA.AC.3	Backfill & SRT	0			14-Jul-18	19-Jul-18	0%	[Red bar: 14-Jul-18 to 19-Jul-18]															
Construct light ducts & pole footings																							
IPA.AC.2	Excavate to formation & SRT & blinding	0			30-Jul-18	31-Jul-18	0%	[Red bar: 30-Jul-18 to 31-Jul-18]															
IPA.AC.2	Install ducts & backfill	0			01-Aug-18	04-Aug-18	0%	[Red bar: 01-Aug-18 to 04-Aug-18]															
Lighting cable ducts																							
IPA.AC.2	Excavate to formation & SRT & blinding	0			01-Aug-18	01-Aug-18	0%	[Red bar: 01-Aug-18 to 01-Aug-18]															
IPA.AC.3	Install ducts & backfill	0			02-Aug-18	06-Aug-18	0%	[Red bar: 02-Aug-18 to 06-Aug-18]															
IPA.AC.3	Construct lighting base	0			07-Aug-18	10-Aug-18	0%	[Red bar: 07-Aug-18 to 10-Aug-18]															
Construction of EVA																							
South side																							
IPA.AC.2	Prepare formation and SRT	0			30-Jul-18	01-Aug-18	0%	[Red bar: 30-Jul-18 to 01-Aug-18]															
IPA.AC.2	Lay kerbs	0			02-Aug-18	11-Aug-18	0%	[Red bar: 02-Aug-18 to 11-Aug-18]															
IPA.AC.2	Lay path base	0			07-Aug-18	17-Aug-18	0%	[Red bar: 07-Aug-18 to 17-Aug-18]															
IPA.AC.2	Lay path surface	0			13-Aug-18	23-Aug-18*	0%	[Red bar: 13-Aug-18 to 23-Aug-18]															
Construction of remaining paths & EVA																							
IPA.AC.360	Open cut to formation & SRT & blinding	0			14-Jul-18	17-Jul-18	0%	[Red bar: 14-Jul-18 to 17-Jul-18]															
IPA.AC.380	Lay kerbs	0			18-Jul-18	23-Jul-18	0%	[Red bar: 18-Jul-18 to 23-Jul-18]															
IPA.AC.390	Lay path base	0			24-Jul-18	30-Jul-18	0%	[Red bar: 24-Jul-18 to 30-Jul-18]															
IPA.AC.400	Lay path surface	0			31-Jul-18	07-Aug-18	0%	[Red bar: 31-Jul-18 to 07-Aug-18]															
IPA.AC.410	Complete HCC scope and Ready for Handover of Area C to Park Contractor	0			08-Aug-18		0%	◆ Complete HCC scope and Ready for Handover of Area C to Park Contractor, 08-Aug-															
DCS Plant Feeding CHW to Park Freespace Building																							
KD & MS																							
DCS-03	Commission DCS System and complete all works necessary to provide Chilled Water to Park	0				14-Sep-18*	0%	◆ Commission DCS Syst															
DCS-02	Energise Transformer Room TX C	0				20-Sep-18*	0%	◆ Energise Tra															
DCS-01	Complete Installation of Cable Ducts for CLP Inspection	0				20-Jun-18 A	0%	◆ Complete Installation of Cable Ducts for CLP Inspection,															
Construction																							
DCS.170	Cable Laying (by CLP)	0			06-Aug-18	01-Sep-18	0%	[Red bar: 06-Aug-18 to 01-Sep-18]															
DCS.220	Power On	0			03-Sep-18	20-Sep-18	0%	[Red bar: 03-Sep-18 to 20-Sep-18]															
U/G chilled water pipes																							
DCS.110	Pipe Flushing incl. Testing and Commissioning	0			21-Jul-18*	14-Sep-18*	0%	[Red bar: 21-Jul-18 to 14-Sep-18]															
DCS.200	Ready for final connection by Park	0				14-Sep-18	0%	◆ Ready for final connec															


























Three Months Rolling Programme (3MRP) - Mth 33 30 June 2018

Activity ID	Activity Name	CMWP Dur.	CMWP - R0(D8) Start	CMWP - R0(D8) Finish	Actual / Forecast Start	Actual / Forecast Finish	Planned B/L % Complete	June					July					August				September					
								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23		
PC-MTSA-	Carpet, linoleum & mats	216	14-Nov-17	09-Aug-18	03-Jul-18	18-Mar-19	83.85%																				
Procurement																											
Long Lead Items																											
Doors																											
PC-MTPR	Priority Doors (for Mechanical Rooms)	80	03-Nov-17	08-Feb-18	05-Sep-18	11-Dec-18	100%																				
Ironmongeries																											
PC-MTPR	Priority Door Ironmongeries (for Mechanical Rooms)	80	03-Nov-17	08-Feb-18	29-Aug-18	04-Dec-18	100%																				
Tiling Works																											
PC-MTPR	Other Tiling Areas	107	30-Jan-18	14-Jun-18	22-Aug-18	29-Dec-18	100%																				
Other Long Lead Items																											
PC-MTPR	FF&E Items (seating/ cushion, curtain, blinds, etc)	107	27-Oct-18	08-Mar-19	14-Jul-18	19-Nov-18	0%	PC-MTPR-1130																			
PC-MTPR	Fixed & loose furniture	149	13-Dec-18	19-Jun-19	14-Jul-18	27-Dec-18	0%																				
PC-MTPR	Metal ceiling	80	29-Mar-18	09-Jul-18	13-Aug-18	17-Nov-18	90%																				
PC-MTPR	Security Shutters (Top mounted)	107	30-Jan-18	14-Jun-18	22-Aug-18	29-Dec-18	100%																				
PC-MTPR	Security shutters (Lateral sliding type)	80	23-Feb-18	04-Jun-18	12-Sep-18	18-Dec-18	100%																				
PC-MTPR	Glazing works	107	06-Apr-18	13-Aug-18	12-Sep-18	22-Jan-19	64.49%																				
PC-MTPR	Fire shutters	54	06-Mar-18	12-May-18	21-Sep-18	27-Nov-18	100%																				
PC-MTPR	Smoke curtain	54	06-Mar-18	12-May-18	21-Sep-18	27-Nov-18	100%																				
Construction																											
Seawater Outfall Pipe																											
Construction at CH0+86 to CH0+108																											
Construct Cofferdam & Pipe works for Lead In (CH0+102 to CH0+108)																											
A26880	Pressure Test	6	11-Jan-18	17-Jan-18	29-Jun-18	06-Jul-18	100%																				
A26890	Back Filling to Ground Level	2	18-Jan-18	19-Jan-18	07-Jul-18	13-Jul-18	100%																				
Construction at CH0+0 to CH66																											
Trench Excavation & Pipe works CH0+0 to CH0+32																											
A27180	Pressure Test	6	26-Mar-18	04-Apr-18	29-Jun-18	06-Jul-18	100%																				
A27160	Construct Bend Blocks	9	15-Mar-18	24-Mar-18	05-Jul-18	23-Jul-18	100%																				
A27190	Back Filling to 1st layer Struts	1	06-Apr-18	06-Apr-18	07-Jul-18	07-Jul-18	100%																				
A27200	Dismantle 1st Layer Struts & Walling	6	07-Apr-18	13-Apr-18	09-Jul-18	14-Jul-18	100%																				
A27210	Back Filling to GL	1	14-Apr-18	14-Apr-18	16-Jul-18	16-Jul-18	100%																				
DCS Box (Portion M15&M16)																											
A27300	DCS Box complete	0		31-Oct-17		17-Jul-18	100%	◆ DCS Box complete,																			
Seawater Pump Cell																											
BME																											
A58670	Install electrical & Control	56	11-Nov-17	19-Jan-18	20-Jun-18 A	28-Aug-18	100%																				
A58680	Install Pump motor	29	04-Dec-17	10-Jan-18	12-Jul-18	15-Aug-18	100%																				
A58690	Hydraulic Test of DI pipe	11	20-Mar-18	04-Apr-18	28-Aug-18	10-Sep-18	100%																				
A58700	T&C of Sea water Pump	27	06-Apr-18	08-May-18	10-Sep-18	13-Oct-18	100%																				
Plumbing & Drainage																											
A58780	Install Sump Pump Panels	10	19-May-18	31-May-18	30-May-18 A	09-Jul-18	100%																				
A58740	Install Sump Pumps	25	23-Oct-17	21-Nov-17	29-Jun-18	13-Jul-18	100%																				
A58790	Hydraulic Test (Cleansing Pipes)	6	01-Jun-18	07-Jun-18	09-Jul-18	16-Jul-18	100%																				
A58800	T&C of Sump Pumps	13	08-Jun-18	23-Jun-18	16-Jul-18	31-Jul-18	100%																				
Electrical Works																											
A58880	Install MCB Board	10	14-Jul-18	25-Jul-18	30-May-18 A	05-Jul-18	0%																				
A58900	T&C of Electrical Works	8	26-Jul-18	03-Aug-18	05-Jul-18	14-Jul-18	0%																				
Fire Service Works																											
A58930	T&C of heat detection system	4	09-Aug-18	13-Aug-18	03-Jul-18	07-Jul-18	0%																				
Sewerage																											
Sewerage at Portion M01, Gridline A / 3-14																											
A27940	HCC grant access to Park Contractor for SM100 construction	0	22-Nov-17		11-Sep-18		100%	◆ HCC grant access to Park Co																			
MH F2.1E to MH F2.1D																											
A28160	Construct Manholes F2.1E	6	08-Nov-17	14-Nov-17	25-Jul-18	17-Aug-18	100%																				
A28170	Lay Sewerage Pipe between MH F2.1E to F2.1D (DN375mm) (Approx. 25m)	6	08-Nov-17	14-Nov-17	25-Jul-18	31-Aug-18	100%																				
A28180	Pressure Test	3	15-Nov-17	17-Nov-17	01-Sep-18	05-Sep-18	100%																				
A28190	Backfill to ground level	3	18-Nov-17	21-Nov-17	06-Sep-18	10-Sep-18	100%																				
Storm Drainage																											
Storm Drain DN1050 along Gridline A/14 (MH S2.8 to S2.9a to SE2.7)																											
A28650	Lay DN1050 pipe from Manholes S2.8 to S2.9a to SE2.7 (Approx. 37m)	7	20-Jan-18	29-Jan-18	30-May-18 A	04-Jul-18	100%																				
A28660	Pressure Test	3	29-Jan-18	01-Feb-18	04-Jul-18	07-Jul-18	100%																				
A28670	Backfill to existing ground level	5	01-Feb-18	07-Feb-18	07-Jul-18	13-Jul-18	100%																				
A28640	Construct Manhole S2.9a & SE2.7	11	08-Jan-18	20-Jan-18	30-May-18 A	06-Jun-18 A	100%																				
Storm Drain at Gridline M/13																											
A28880	Excavate and lay 225 U-Channel Drain with Gully Trap	3	07-Nov-17	10-Nov-17	29-Jun-18	03-Jul-18	100%																				
A28890	Excavate trench and lay 150DN Pipe from Gully Trap to MH S2.13	5	10-Nov-17	16-Nov-17	04-Jul-18	09-Jul-18	100%																				
A28900	Backfill to existing ground level	1	16-Nov-17	17-Nov-17	10-Jul-18	10-Jul-18	100%																				
Storm Drain DN750 along Gridline A-B/14 (MH S2.9c to S2.9b to S2.9a)																											

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								27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16
Cable Laying & Testing (By Telco)																								
A30990	Cable Laying & Testing (By Telco) @ GL M/14-12	2	30-Apr-18	03-May-18	14-Aug-18	15-Aug-18	100%																	
A30980	Cable Laying & Testing (By Telco) @ GL A-M/14	11	20-Apr-18	04-May-18	23-Aug-18	04-Sep-18	100%																	
Backfilling and EVA																								
Backfilling																								
A31080	Backfilling to +12.70mPD	16	04-Dec-17	21-Dec-17	14-Jul-18	02-Aug-18	100%																	
Construction of EVA																								
A31090	Construct EVA South of ICP (+5.00mPD)	8	24-May-18	02-Jun-18	09-Jul-18	18-Jul-18	100%																	
A31100	Construct EVA (+8.50mPD)	8	04-May-18	14-May-18	18-Sep-18	27-Sep-18	100%																	
A31110	Construct EVA (+10.50mPD)	9	14-May-18	25-May-18	28-Sep-18	09-Oct-18	100%																	
Fuel Tank																								
A31250	Excavate to Base Slab & Wall of Fuel Tank	11	20-Oct-17	02-Nov-17	29-Jun-18	12-Jul-18	100%																	
A31260	Construct Bottom Level of Fuel Oil Storage Tank	11	03-Nov-17	15-Nov-17	13-Jul-18	25-Jul-18	100%																	
A31270	Mechanical Fitting	16	16-Nov-17	04-Dec-17	26-Jul-18	13-Aug-18	100%																	
A38020	T&C of Fuel Oil Storage Tank	6	05-Dec-17	11-Dec-17	14-Aug-18	20-Aug-18	100%																	
A31280	Construct Top Level of Fuel Oil Storage Tank	13	12-Dec-17	28-Dec-17	21-Aug-18	04-Sep-18	100%																	
A31290	Backfill	11	29-Dec-17	11-Jan-18	05-Sep-18	17-Sep-18	100%																	
M+ ABWF & MEP																								
RC Structure Completion & De-propping Date																								
M+ Basement & Podium																								
B2/F																								
Scheduled De-propping																								
AS-B2-10	Scheduled De-propping - Zone A4-A5 - B2F	11	25-Oct-17	07-Nov-17	29-Jun-18	13-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone D1 - B2F	11	22-Jan-18	02-Feb-18	03-Jul-18	14-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone U - RDE - B2F	11	20-Oct-17	02-Nov-17	05-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone C - B2F	11	11-Nov-17	24-Nov-17	06-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone H - B2F	11	04-Nov-17	16-Nov-17	06-Jul-18	19-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone Q - B2F	11	22-Jan-18	02-Feb-18	19-Jul-18	31-Jul-18	100%																	
AS-B2-10	Scheduled De-propping - Zone B - B2F	11	09-Feb-18	24-Feb-18	01-Sep-18	13-Sep-18	100%																	
B1/F																								
RC Completion																								
AS-B1-10	RC Completion - Zone A4-A5 - B1F (GL 2-7/D-H)	0		25-Oct-17		29-Jun-18	100%	◆ RC Completion - Zone A4-A5 - B1F (GL 2-7/D-H)																
AS-B1-10	RC Completion - Zone D1 - B1F @ GL 7'-4/K-M	0		22-Jan-18		03-Jul-18	100%	◆ RC Completion - Zone D1 - B1F @ GL 7'-4/K-M																
AS-B1-10	RC Completion - Zone H - B1F @ GL 11-14/K-M	0		04-Nov-17		06-Jul-18	100%	◆ RC Completion - Zone H - B1F @ GL 11-14/K-M																
AS-B1-10	RC Completion - Zone J - B1F @ GL 12-14/G-H	0		23-May-18		17-Jul-18	100%	◆ RC Completion - Zone J - B1F @ GL 12-14/G-H																
AS-B1-10	RC Completion - Zone Q - B1F @ GL 6-7/E-F	0		22-Jan-18		18-Jul-18	100%	◆ RC Completion - Zone Q - B1F @ GL 6-7/E-F																
AS-B1-10	(no B1) RC Completion - Zone B - B1F @ GL 6-7/E-J	0		03-Jan-18		25-Jul-18	100%	◆ (no B1) RC Completion - Zone B - B1F @ GL 6-7/E-J																
AS-B1-10	RC Completion - Zone K & L - B1F @ GL 8-10/H-K, GL 12/G-H	0		28-Apr-18		02-Aug-18	100%	◆ RC Completion - Zone K & L - B1F @ GL 8-10/H-K, GL 12/G-H																
Scheduled De-propping																								
AS-B1-10	Scheduled De-propping - Zone U - RDE - B1F (GL 1'-6'/F'-J')	11	01-Nov-17	14-Nov-17	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone T - CSF - B1F (GL 1'-6'/A'-F')	11	20-Oct-17	02-Nov-17	29-Jun-18	06-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone E1 - B1F (GL 8-11/C-D)	11	16-Mar-18	29-Mar-18	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone E - B1F (GL 8-11/A-C)	11	28-Nov-17	11-Dec-17	29-Jun-18	12-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone S - B1F	11	18-Nov-17	01-Dec-17	29-Jun-18	13-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone H - B1F (GL 11-14/K-M)	11	05-Dec-17	16-Dec-17	06-Jul-18	19-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone A4-A5 - B1F	11	25-Nov-17	08-Dec-17	12-Jul-18	26-Jul-18	100%																	
AS-B1-10	Scheduled De-propping - Zone D1 - B1F GL (7'-4/K-M)	11	23-Feb-18	07-Mar-18	20-Jul-18	02-Aug-18	100%																	
AS-B1-10	(no B1) Scheduled De-propping - Zone B - B1F (GL 5-7/E-J)	11	03-Jan-18	15-Jan-18	26-Jul-18	07-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone G - B1F (GL 11-14/A-H)	11	28-May-18	08-Jun-18	02-Aug-18	15-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone Q - B1F (GL 5-7/D-F)	11	09-Feb-18	24-Feb-18	07-Aug-18	18-Aug-18	100%																	
AS-B1-10	Scheduled De-propping - Zone J - B1F (GL 12-14/G-H)	11	28-Jun-18	12-Jul-18	18-Aug-18	30-Aug-18	1.04%																	
AS-B1-10	Scheduled De-propping - Zone F - B1F	11	01-Jun-18	13-Jun-18	10-Sep-18	22-Sep-18	100%																	
AS-B1-10	Scheduled De-propping - Zone A1-A3 - B1F (GL 2-7/A-D)	11	03-Nov-17	16-Nov-17	13-Sep-18	27-Sep-18	100%																	
AS-B1-10	Scheduled De-propping - Zone K & L - B1F (GL 8-10/H-K, GL 12/G-H)	11	11-Jul-18	23-Jul-18	22-Sep-18	08-Oct-18	0%																	
LG/F																								
Scheduled De-propping																								
AS-LG-10	Scheduled De-propping - CSF - LGF (GL 1'-6'/D'-J')	11	02-Nov-17	15-Nov-17	29-Jun-18	12-Jul-18	100%																	
AS-LG-10	Scheduled De-propping - RDE - LGF (GL 1'-6'/F'-J')	11	02-Jan-18	15-Jan-18	29-Jun-18	12-Jul-18	100%																	
G/F																								
RC Completion																								
AS-GF-10	RC Completion - Zone A5 GF (3F GL 4-6/E-H)	0		30-Oct-17		12-Jul-18	100%	◆ RC Completion - Zone A5 GF (3F GL 4-6/E-H)																
AS-GF-10	RC Completion - Zone D1 GF (3F GL 1-5/K-M)	0		23-Feb-18		20-Jul-18	100%	◆ RC Completion - Zone D1 GF (3F GL 1-5/K-M)																
AS-GF-10	RC Completion - Zone S and R (EVA Area)	0		29-Mar-18		01-Aug-18	100%	◆ RC Completion - Zone S and R (EVA Area)																
AS-GF-10	RC Completion - Zone G - GF (GL 11-14/A-H)	0		28-May-18		02-Aug-18	100%	◆ RC Completion - Zone G - GF (GL 11-14/A-H)																
AS-GF-10	RC Completion - Zone C GF (GL 1-5/H-K)	0		26-Feb-18		06-Aug-18	100%	◆ RC Completion - Zone C GF (GL 1-5/H-K)																
AS-GF-10	RC Completion - Zone Q - GF	0		09-Feb-18		06-Aug-18	100%	◆ RC Completion - Zone Q - GF																
AS-GF-10	RC Completion - Zone J GF (3F GL 11-14/H-F)	0		28-Jun-18		17-Aug-18	100%	◆ RC Completion - Zone J GF (3F GL 11-14/H-F)																
AS-GF-10	RC Completion - Zone F - GF	0		01-Jun-18		10-Sep-18	100%	◆ RC Completion - Zone F - GF																

Lyric Theatre Complex

Activity ID	Activity Name	Start Date	Finish Date	2018			
				Jul 7	Aug 8	Sep 9	Oct 10
L1 Contract for Lyric Theatre Complex (3MRP)							
Cost Centre B - Excavation and Lateral Support (ELS) Stage 2							
Excavation and ELS Works (Stage 2)							
Area 1							
CB161440	Area 1: Install Waling & Strut Layer S2	30-Jun-18 A	16-Jul-18 A				
CB161450	Area 1: Excavate to -4.2mPD	01-Aug-18	14-Aug-18				
CB161460	Area 1: Install Waling & Strut Layer S3	15-Aug-18	31-Aug-18				
CB161470	Area 1: Excavate to -6.8mPD	01-Sep-18	18-Sep-18				
CB161480	Area 1: Install Waling & Strut Layer S4	19-Sep-18	08-Oct-18*				
Area 2							
CB162430	Area 2: Excavate to +0.5mPD	16-Jun-18 A	12-Jul-18 A				
CB162440	Area 2: Install Waling & Strut Layer S2	13-Jul-18 A	08-Aug-18				
CB162450	Area 2: Excavate to -4.2mPD	09-Aug-18	25-Aug-18				
CB162460	Area 2: Install Waling & Strut Layer S3	27-Aug-18	12-Sep-18				
CB162470	Area 2: Area 2: Excavate to -6.8mPD	13-Sep-18	02-Oct-18				
CB162480	Area 2: Area 2: Excavate to -6.8mPD	03-Oct-18	20-Oct-18*				
Area 3							
CB163430	Area 3: Excavate to +0.5mPD	28-Jun-18 A	02-Aug-18				
CB163440	Area 3: Install Waling & Strut Layer S2	03-Aug-18	16-Aug-18				
CB163450	Area 3: Excavate to -4.2mPD	17-Aug-18	03-Sep-18				
CB163460	Area 3: Install Waling & Strut Layer S3	04-Sep-18	20-Sep-18				
CB163470	Area 3: Excavate to -5.15mPD	21-Sep-18	10-Oct-18				
CB163480	Area 3: Area 3: Install Waling & Strut Layer S4	11-Oct-18	29-Oct-18*				
Area 4							
CB164430	Area 4: Excavate to +0.5mPD	18-Jul-18 A	04-Aug-18				
CB164440	Area 4: Install Waling & Strut Layer S2	06-Aug-18	22-Aug-18				
CB164450	Area 4: Excavate to -4.2mPD	23-Aug-18	08-Sep-18				
CB164460	Area 4: Install Waling & Strut Layer S3	10-Sep-18	27-Sep-18				
CB164470	Area 4: Excavate to -5.15mPD	28-Sep-18	16-Oct-18				
CB164480	Area 4: Install Waling & Strut Layer S4	18-Oct-18	03-Nov-18*				

Activity ID	Activity Name	Start Date	Finish Date	2018			
				Jul	Aug	Sep	Oct
				7	8	9	10
Cost Centre C - Basement							
Cost Centre C1 - Essential Basement Structure (Excl. AET Protection & Box Culvert)							
Area 6							
CC106110	B1-A1a: Pile Cap Treatment / Construct Pile Cap / Slab	12-Jun-18 A	18-Aug-18				
CC106120	B1-A1b: Pile Cap Treatment / Construct Pile Cap / Slab	09-Jul-18 A	18-Aug-18				
CC106210	B1-A2a: Pile Cap Treatment / Construct Pile Cap / Slab	06-Jul-18 A	25-Aug-18				
CC106220	B1-A2b: Pile Cap Treatment / Construct Pile Cap / Slab	20-Aug-18	08-Sep-18				
CC106310	B1-A3: Pile Cap Treatment / Construct Pile Cap / Slab	10-Sep-18	02-Oct-18				
CC106410	B1-A4: Pile Cap Treatment / Construct Pile Cap / Slab	03-Oct-18	24-Oct-18				
CC106510	B1-A5: Pile Cap Treatment / Construct Pile Cap / Slab	25-Oct-18	14-Nov-18*				
Cost Centre D - Public Infrastructure Works (PIW)							
Cost Centre D2 - Austin Road West Lay-by							
MC30-Ch. 150 to MC30-Ch.170 (MH EAR 2.18a to SF_1.4)							
CD201450	MC30 Ch.150-Ch.170: Excavation & ELS	21-Jun-18 A	24-Jul-18 A				
CD201460	MC30 Ch.150-Ch.170: Install Drainage bet. MH EAR_2.18 to SF_1.4)	25-Jul-18 A	04-Aug-18				
CD201470	MC30 Ch.150-Ch.170:Construct Manhole SF_1.4	25-Jul-18 A	11-Aug-18*				
MC30-Ch. 100 to MC30-Ch.150 (MH SF_1.4 to SF_1.3)							
CD201310	MC30 CH100-Ch150: Trail Trench	10-Jul-18 A	24-Jul-18 A				
CD201320	MC30 CH100-Ch150: Install Sheet Pile Wall	10-Jul-18 A	11-Aug-18				
CD201330	MC30 CH100-Ch150:Excavation & ELS	13-Aug-18	08-Sep-18				
CD201340	MC30 CH30-Ch40: Install Drainage Pipe (bet. MH SF_1.4 to MH SF_1.3)	10-Sep-18	22-Sep-18				
CD201350	MC30 CH30-Ch40: Construct Manhole SF_1.3	24-Sep-18	16-Oct-18*				
MC30-Ch. 60 to MC30-Ch.150 (MH SF_1.3 to SF_1.2)							
CD201210	MC30 CH60-Ch100: Excavation for Trail Trench	13-Aug-18	18-Aug-18				
CD201220	MC30 CH60-Ch100: Install Sheet Pile Wall	20-Aug-18	08-Sep-18				
CD201230	MC30 CH60-Ch100: Excavation & ELS	30-Aug-18	19-Sep-18				
CD201240	MC30 CH60-Ch100: Install Drainage Pipe (bet. MH SF_1.3 to MH SF_1.2)	20-Sep-18	02-Oct-18				
CD201250	MC30 CH60-Ch100: Construct Manhole SF_1.2	03-Oct-18	24-Oct-18*				

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 (mg/m ³)	Limit Level (mg/m ³)
AM1	273.7	500
AM2A	274.2	500

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

Monitoring Station	Action Level (µg/m ³)	Limit Level (µg/m ³)
AM1	143.6	260
AM2A	151.1	260

Noise

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
NM1A		
0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)

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

Event	Action			
	ET	IEC	WKCD A	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and WKCD A; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and WKCD A; 3. Advise the WKCD A 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 WKCD A; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial to WKCD A within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform WKCD A, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCD A informed of the results. 	<ol style="list-style-type: none"> 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 WKCD A on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 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. Amend proposal if appropriate.

Event**Action**

2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none">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.	<ol style="list-style-type: none">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.	<ol style="list-style-type: none">1. Confirm receipt of notification of failure in writing;2. Notify Contractor;3. In consolidation with the IEC, agree 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.	<ol style="list-style-type: none">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.
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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

Event	Action			
	ET	IEC	WKCD	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify WKCD, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, WKCD and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the WKCD accordingly; 3. Advise the WKCD on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and WKCD; 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, WKCD, 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 WKCD on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and WKCD informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst WKCD, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the WKCD accordingly. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and WKCD 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 WKCD 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

Event	Action			
	ET	IEC	WKCD A	Contractor
Design Check	<ol style="list-style-type: none"> 1. Design check to make sure the design complies with all the proposed mitigation measures in the EIA report; 2. Prepare and submit report. 	<ol style="list-style-type: none"> 1. Check report submitted by ET; 2. Recommend remedial design if necessary. 	<ol style="list-style-type: none"> 1. Undertake remedial design if necessary. 	-
Non-conformity on one occasion	<ol style="list-style-type: none"> 1. Identify source of non-conformity; 2. Report to IEC and WKCD A; 3. Discuss remedial actions with IEC, WKCD A and Contractor; 4. Monitor remedial actions until rectification has been completed. 	<ol style="list-style-type: none"> 1. Check and verify source of non-conformity; 2. Discuss remedial actions with ET and Contractor; 3. Advise WKCD A on effectiveness of proposed remedial actions; 4. Check implementation of remedial actions. 	<ol style="list-style-type: none"> 1. Notify Contractor; 2. Ensure remedial actions are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.
Repeated conformity	<ol style="list-style-type: none"> 1. Identify source of non-conformity; 2. Report to IEC and WKCD A; 3. Increase monitoring frequency; 4. Discuss remedial actions with IEC, WKCD A and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity rectified, reduce monitoring frequency back to normal. 	<ol style="list-style-type: none"> 1. Check and verify source of non-conformity; 2. Check Contractor's working method; 3. Discuss remedial actions with ET and Contractor; 4. Advise WKCD A on effectiveness of proposed remedial actions; 5. Supervise implementation of remedial actions. 	<ol style="list-style-type: none"> 1. Notify Contractor; 2. Ensure remedial actions are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method as necessary; 2. Rectify damage and undertake necessary replacement and remedial actions.

E. Monitoring Schedule

JULY 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	4	5	6	7
8	9 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	10	11	12	13 AM1, AM2A - 24hrTSP, 1hr TSP x3	14
15	16	17	18	19 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	20	21
22	23	24	25 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	26	27	28
29	30	31 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring				
		Notes: AM1 - International Commerce Centre (ICC) AM2A - Austin Road West (Opposite to The Harbourside) NM1A - International Commerce Centre (ICC)				

AUGUST 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	7	8	9	10 AM1, AM2A - 24hrTSP, 1hr TSP x3	11
12	13	14	15	16 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	17	18
19	20	21	22 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	23	24	25
26	27	28 AM1, AM2A - 24hrTSP, 1hr TSP x3 NM1A - Noise Impact Monitoring	29	30	31	
		Notes: AM1 - International Commerce Centre (ICC) AM2A - Austin Road West (Opposite to The Harbourside) NM1A - International Commerce Centre (ICC)				

F. Calibration Certifications

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM1(ICC)
 Calibrated by : K.T.Ho
 Date : 12/06/2018

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

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

Calibration Condition

Pa (hpa) : 1002
 Ta(K) : 302

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	10.0	3.124	1.529	58	57.30
2 13 holes	6.8	2.576	1.262	48	47.42
3 10 holes	4.8	2.164	1.061	38	37.54
4 7 holes	3.2	1.767	0.868	30	29.64
5 5 holes	2.2	1.465	0.721	20	19.76

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

Sampler Calibration Relationship

Slope(m): 45.752 Intercept(b): -11.452 Correlation Coefficient(r): 0.9954

Checked by: 
 Magnum Fan

Date: 15/06/2018

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM2A (Harbourside)
 Calibrated by : K.T.Ho
 Date : 12/06/2018

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 19 Mar 2018
 Slope (m) : 2.05242
 Intercept (b) : -0.01383
 Correlation Coefficient(r) : 0.99994

Standard Condition

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

Calibration Condition


Pa (hpa) : 1002
 Ta(K) : 302

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.0	3.422	1.674	60	59.28
2	13 holes	8.2	2.829	1.385	50	49.40
3	10 holes	6.0	2.420	1.186	40	39.52
4	7 holes	3.8	1.926	0.945	30	29.64
5	5 holes	2.4	1.531	0.752	20	19.76

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

Sampler Calibration Relationship

Slope(m): 43.056 Intercept(b): -11.656 Correlation Coefficient(r): 0.9976

Checked by: 
 Magnum Fan

Date: 15/06/2018



Certificate of Calibration

Calibration Certification Information			
Cal. Date: March 19, 2018	Rootsmeter S/N: 438320	Ta: 294	°K
Operator: Jim Tisch		Pa: 746.8	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 2454		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4300	3.2	2.00
2	3	4	1	1.0040	6.4	4.00
3	5	6	1	0.9030	7.9	5.00
4	7	8	1	0.8590	8.7	5.50
5	9	10	1	0.7080	12.8	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
0.9917	0.6935	1.4113	0.9957	0.6963	0.8874
0.9874	0.9835	1.9959	0.9914	0.9875	1.2549
0.9854	1.0913	2.2315	0.9894	1.0957	1.4030
0.9843	1.1459	2.3405	0.9883	1.1506	1.4715
0.9789	1.3826	2.8227	0.9829	1.3882	1.7747
QSTD	m=	2.05242	QA	m=	1.28519
	b=	-0.01383		b=	-0.00869
	r=	0.99994		r=	0.99994

Calculations	
Vstd= $\Delta Vol \left(\frac{Pa - \Delta P}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)$	Va= $\Delta Vol \left(\frac{Pa - \Delta P}{Pa} \right)$
Qstd= Vstd/ΔTime	Qa= Va/ΔTime
For subsequent flow rate calculations:	
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H2O)	
ΔP: rootsmeter manometer reading (mm Hg)	
Ta: actual absolute temperature (°K)	
Pa: actual barometric pressure (mm Hg)	
b: intercept	
m: slope	

RECALIBRATION
US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

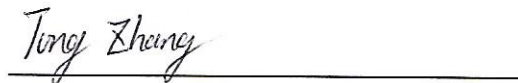
CALIBRATION CERTIFICATE

Date: April 6th, 2018

Equipment Name	:	Digital Dust Indicator, Model LD-5R
Code No.	:	080000-72
Quantity	:	1 unit
Serial No.	:	841723
Sensitivity	:	0.001 mg/m ³
Sensitivity Adjustment	:	615CPM
Scale Setting	:	April 2rd, 2018

We hereby certify that the above mentioned instrument has been calibrated satisfactory.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Tong Zhang

Overseas Sales Division


REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

REPORT NO. : HK180419
PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
DATE OF ISSUE : 2/5/2018

CUSTOMER : Envirotech Services Company
ADDRESS : Rm. 113, 1/F., MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.

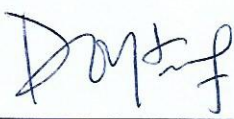
REPORT NO. : HK180419
PROJECT ITEM NO. : HK180419-01
PERFORMANCE CHECK / CALIBRATED EQUIPMENT
TYPE : Digital Dust Indicator
MANUFACTURER : SIBATA
MODEL NO. : LD-5R
SERIAL NO. : 841723
EQUIPMENT NO. : ---
RECEIPT DATE : 27/4/2018
PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

PERFORMANCE CHECK / CALIBRATION Information

CODE	Calibration Parameter	Method Procedure	Reference Method
Dust PC/CAL	Performance Check / Calibration of Dust Meter	CAL003	General Technical Requirements of Environmental Monitoring, Environmental Monitoring & Audit Guidelines for Development Projects in HK

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Approved Signatory



 Wong Po Yan Pauline
 (Assistant Laboratory Manager)

Issue Date: 2/5/2018



REPORT OF PERFORMANCE CHECK / CALIBRATION

PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
 DATE OF ISSUE : 2/5/2018
 REPORT NO. : HK180419

PERFORMANCE CHECK / CALIBRATED EQUIPMENT

TYPE : Digital Dust Indicator
 MANUFACTURER : SIBATA
 MODEL NO. : LD-5R
 SERIAL NO. : 841723
 EQUIPMENT NO. : ---
 SENSITIVITY ADJUSTMENT (CPM) : 615
 PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

STANDARD EQUIPMENT

TYPE : HIGH VOLUME AIR SAMPLER
 MANUFACTURER : TISCH
 MODEL NO. : TE-5170
 EQUIPMENT REF NO. : PTL_HV002
 LAST CALIBRATION DATE : 27/4/2018

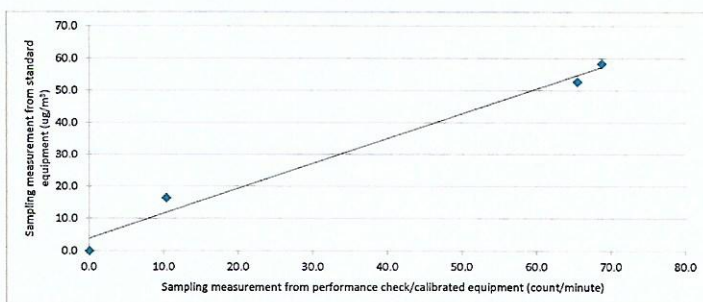
EQUIPMENT PERFORMANCE CHECK / CALIBRATION RESULTS:

Sensitivity Adjustment Scale Setting (Before Performance check / Calibration): 615 CPM
 Sensitivity Adjustment Scale Setting (After Performance check / Calibration): 615 CPM

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard equipment) (Y - Axis)	Total Count ² (Performance Check / Calibrated equipment)	Concentration in Count/Minute ³ (Performance Check / Calibrated equipment) (X - Axis)
Zero Check ¹	28/4/2018,9:50:00 AM	24.9	1015	0	0	0
1	28/4/2018,11:32:00 AM	24.9	1015	53	3926	65
2	28/4/2018,12:38:00 PM	24.9	1015	58	4121	69
3	28/4/2018,1:46:00 PM	24.9	1015	16	618	10

Linear Regression of Y on X

Slope (K- factor) : 0.8
 Correlation Coefficient : 0.9914
 Validity of Performance Check / Calibration Record : 28/4/2019



- Notes : 1. Zero check conducted as per CAL003 SOP and manufacturer's manual as appropriate.
 2. Total Count was measured by Digital Dust Indicator.
 3. Count/minute was calculated by (Total Count/60)
 4. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 5. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Operator: MA Ching Him, Jackey Signature: Date: 28/4/2018

Checked by: Wong Po Yan, Pauline Signature: Date: 2/5/2018

CALIBRATION CERTIFICATE


Date: April 6th, 2018

Equipment Name	:	Digital Dust Indicator, Model LD-5R
Code No.	:	080000-72
Quantity	:	1 unit
Serial No.	:	841724
Sensitivity	:	0.001 mg/m ³
Sensitivity Adjustment	:	618CPM
Scale Setting	:	April 2rd, 2018

We hereby certify that the above mentioned instrument has been calibrated satisfactorily.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.



Tong Zhang

Overseas Sales Division


REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

REPORT NO. : HK180420
PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
DATE OF ISSUE : 2/5/2018

CUSTOMER : Envirotech Services Company
ADDRESS : Rm. 113, 1/F., MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T.

REPORT NO. : HK180420
PROJECT ITEM NO. : HK180420-01

PERFORMANCE CHECK / CALIBRATED EQUIPMENT

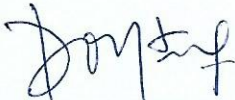
TYPE : Digital Dust Indicator
MANUFACTURER : SIBATA
MODEL NO. : LD-5R
SERIAL NO. : 841724
EQUIPMENT NO. : ---
RECEIPT DATE : 27/4/2018
PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

PERFORMANCE CHECK / CALIBRATION Information

CODE	Calibration Parameter	Method Procedure	Reference Method
Dust PC/CAL	Performance Check / Calibration of Dust Meter	CAL003	General Technical Requirements of Environmental Monitoring, Environmental Monitoring & Audit Guidelines for Development Projects in HK

- Notes : 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Approved Signatory



 Wong Po Yan Pauline
 (Assistant Laboratory Manager)

Issue Date: 2/5/2018


REPORT OF PERFORMANCE CHECK / CALIBRATION

PROJECT NAME : PERFORMANCE CHECK / CALIBRATION OF DUST METER
 DATE OF ISSUE : 2/5/2018
 REPORT NO. : HK180420

PERFORMANCE CHECK / CALIBRATED EQUIPMENT

TYPE : Digital Dust Indicator
 MANUFACTURER : SIBATA
 MODEL NO. : LD-5R
 SERIAL NO. : 841724
 EQUIPMENT NO. : —
 SENSITIVITY ADJUSTMENT (CPM) : 618
 PERFORMANCE CHECK / CALIBRATION DATE : 28/4/2018

STANDARD EQUIPMENT

TYPE : HIGH VOLUME AIR SAMPLER
 MANUFACTURER : TISCH
 MODEL NO. : TE-5170
 EQUIPMENT REF NO. : PTL_HV002
 LAST CALIBRATION DATE : 27/4/2018

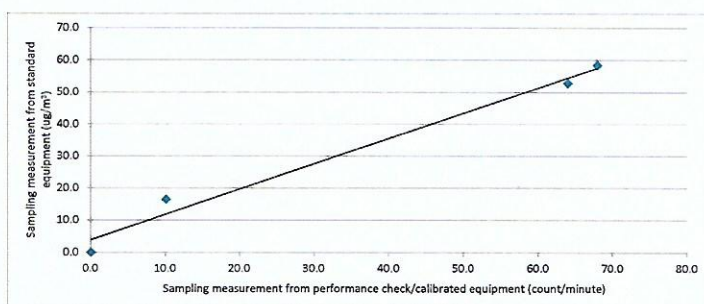
EQUIPMENT PERFORMANCE CHECK / CALIBRATION RESULTS:

Sensitivity Adjustment Scale Setting (Before Performance check / Calibration): 617 CPM
 Sensitivity Adjustment Scale Setting (After Performance check / Calibration): 617 CPM

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard equipment) (Y - Axis)	Total Count ² (Performance Check / Calibrated equipment)	Concentration in Count/Minute ³ (Performance Check / Calibrated equipment) (X - Axis)
Zero Check ¹	28/4/2018,9:50:00 AM	24.9	1015	0	0	0
1	28/4/2018,11:32:00 AM	24.9	1015	53	3840	64
2	28/4/2018,12:38:00 PM	24.9	1015	58	4079	68
3	28/4/2018,1:46:00 PM	24.9	1015	16	604	10

Linear Regression of Y on X

Slope (K- factor) : 0.8
 Correlation Coefficient : 0.9916
 Validity of Performance Check / Calibration Record : 28/4/2019



- Notes : 1. Zero check conducted as per CAL003 SOP and manufacturer's manual as appropriate.
 2. Total Count was measured by Digital Dust Indicator.
 3. Count/minute was calculated by (Total Count/60)
 4. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 5. Performance Check / Calibration result relates to performance check / calibration item(s) as received.

Operator: MA Ching Him, Jackey Signature:  Date: 28/4/2018

Checked by: Wong Po Yan, Pauline Signature:  Date: 2/5/2018



Certificate of Calibration

校正證書

Certificate No. : C183089
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-1132) Date of Receipt / 收件日期 : 31 May 2018
Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00331805
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 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 10 June 2018

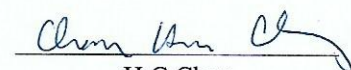
TEST RESULTS / 測試結果

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 : K C Lee
Engineer

Certified By : 
核證 : H C Chan
Engineer

Date of Issue : 14 June 2018
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.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C183089

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 :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C180024
CL281	Multifunction Acoustic Calibrator	PA160023

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.2	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L _A	A	Fast	94.00	1	94.2 (Ref.)
				104.00		104.2
				114.00		114.2

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

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.2	Ref.
			Slow			94.2	± 0.3

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.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C183089

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.9	-26.2 ± 1.5
					125 Hz	78.0	-16.1 ± 1.5
					250 Hz	85.5	-8.6 ± 1.4
					500 Hz	91.0	-3.2 ± 1.4
					1 kHz	94.2	Ref.
					2 kHz	95.4	+1.2 ± 1.6
					4 kHz	95.2	+1.0 ± 1.6
					8 kHz	93.2	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.3	-0.8 ± 1.5
					125 Hz	94.0	-0.2 ± 1.5
					250 Hz	94.2	0.0 ± 1.4
					500 Hz	94.2	0.0 ± 1.4
					1 kHz	94.2	Ref.
					2 kHz	94.1	-0.2 ± 1.6
					4 kHz	93.4	-0.8 ± 1.6
					8 kHz	91.3	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.9	-6.2 (+3.0 ; -6.0)

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 04870

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB :	63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB :	1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB :	1 kHz	: ± 0.10 dB (Ref. 94 dB)

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

Note :

Only the original copy or the laboratory's certified true copy is valid.

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.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C181755

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-0616)

Date of Receipt / 收件日期 : 20 March 2018

Description / 儀器名稱 : Sound Level Calibrator

Manufacturer / 製造商 : Rion

Model No. / 型號 : NC-73

Serial No. / 編號 : 10486660

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 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 5 April 2018

TEST RESULTS / 測試結果

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

The results do not exceed manufacturer's specification.

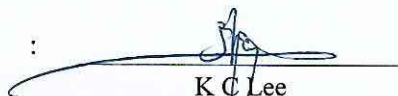
The results are detailed in the subsequent page(s).

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

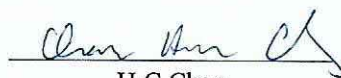
Tested By

測試


K C Lee
Engineer

Certified By

核證


H C Chan
Engineer

Date of Issue

簽發日期

11 April 2018

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, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

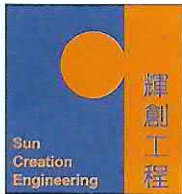
c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C181755

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.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C173864
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C181288

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

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

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.988	1 kHz ± 2 %	± 1

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

Note :

Only the original copy or the laboratory's certified true copy is valid.

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, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 — 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website 網址: www.suncreation.com

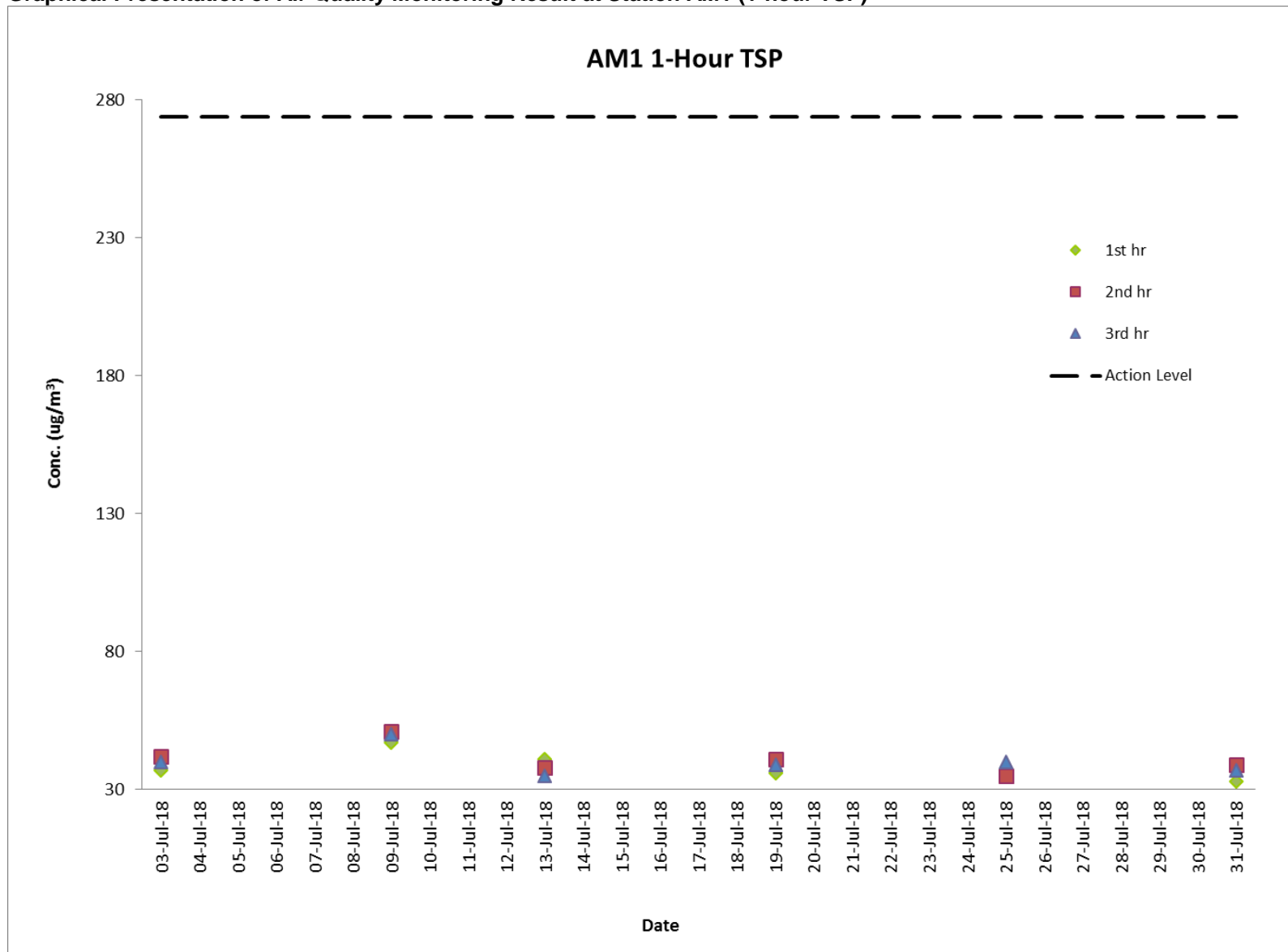
Page 2 of 2

G. Graphical Plots of the Monitoring Results

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

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Hour	2nd Hour	3rd Hour		
03-Jul-18	Cloudy	8:12 - 11:12	37	42	40	273.7	500
09-Jul-18	Fine	8:12 - 11:12	47	51	50	273.7	500
13-Jul-18	Cloudy	8:10 - 11:10	41	38	35	273.7	500
19-Jul-18	Cloudy	8:12 - 11:12	36	41	39	273.7	500
25-Jul-18	Fine	8:15 - 11:15	36	35	40	273.7	500
31-Jul-18	Sunny	8:10 - 11:10	33	39	37	273.7	500

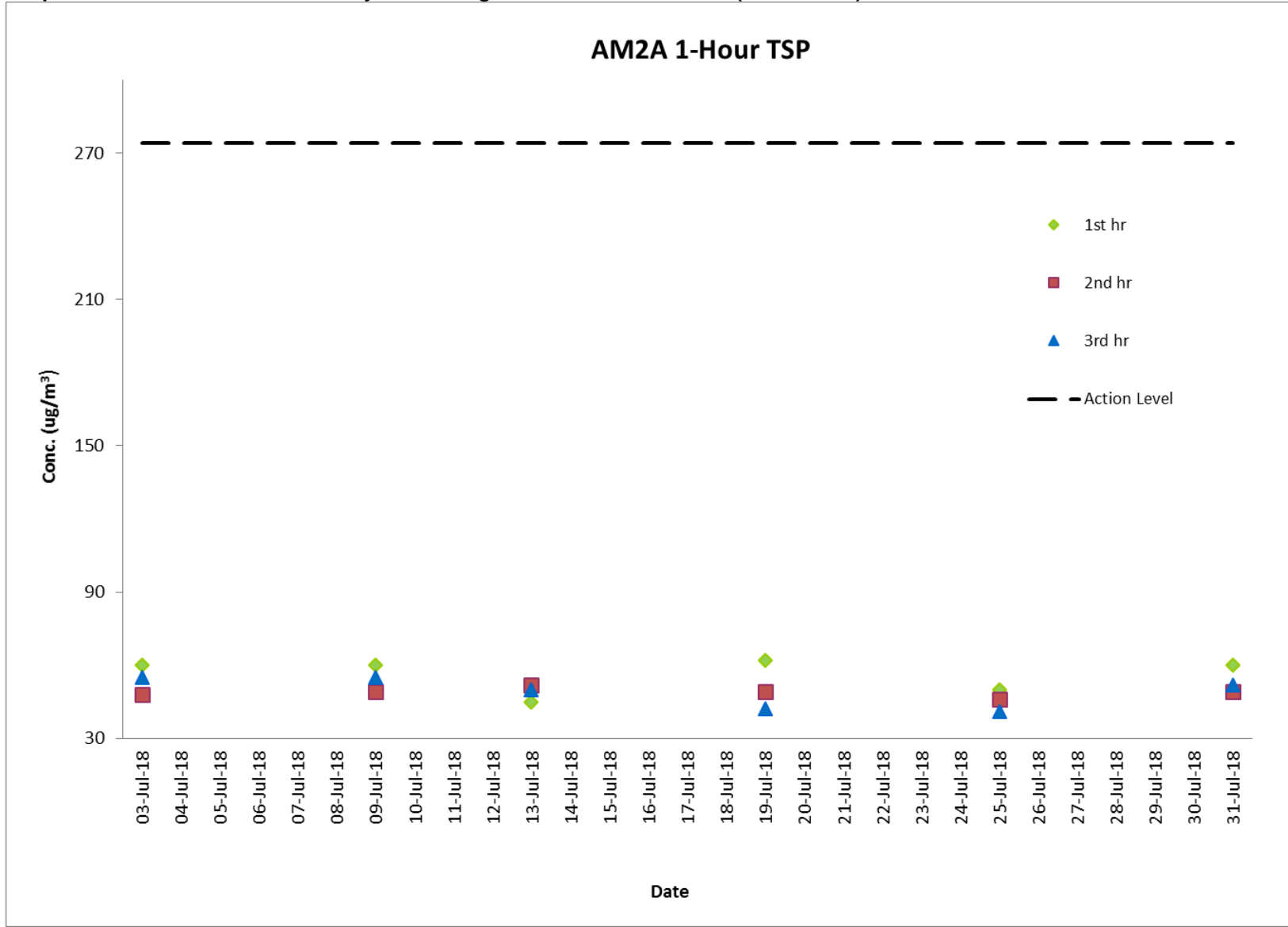
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station AM2A (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1st Hour	2nd Hour	3rd Hour		
03-Jul-18	Cloudy	8:24 - 11:24	60	48	55	274.2	500
09-Jul-18	Fine	8:25 - 11:25	60	49	55	274.2	500
13-Jul-18	Cloudy	8:22 - 11:22	45	52	50	274.2	500
19-Jul-18	Cloudy	8:24 - 11:24	62	49	42	274.2	500
25-Jul-18	Fine	8:27 - 11:27	50	46	41	274.2	500
31-Jul-18	Sunny	8:22 - 11:22	60	49	52	274.2	500

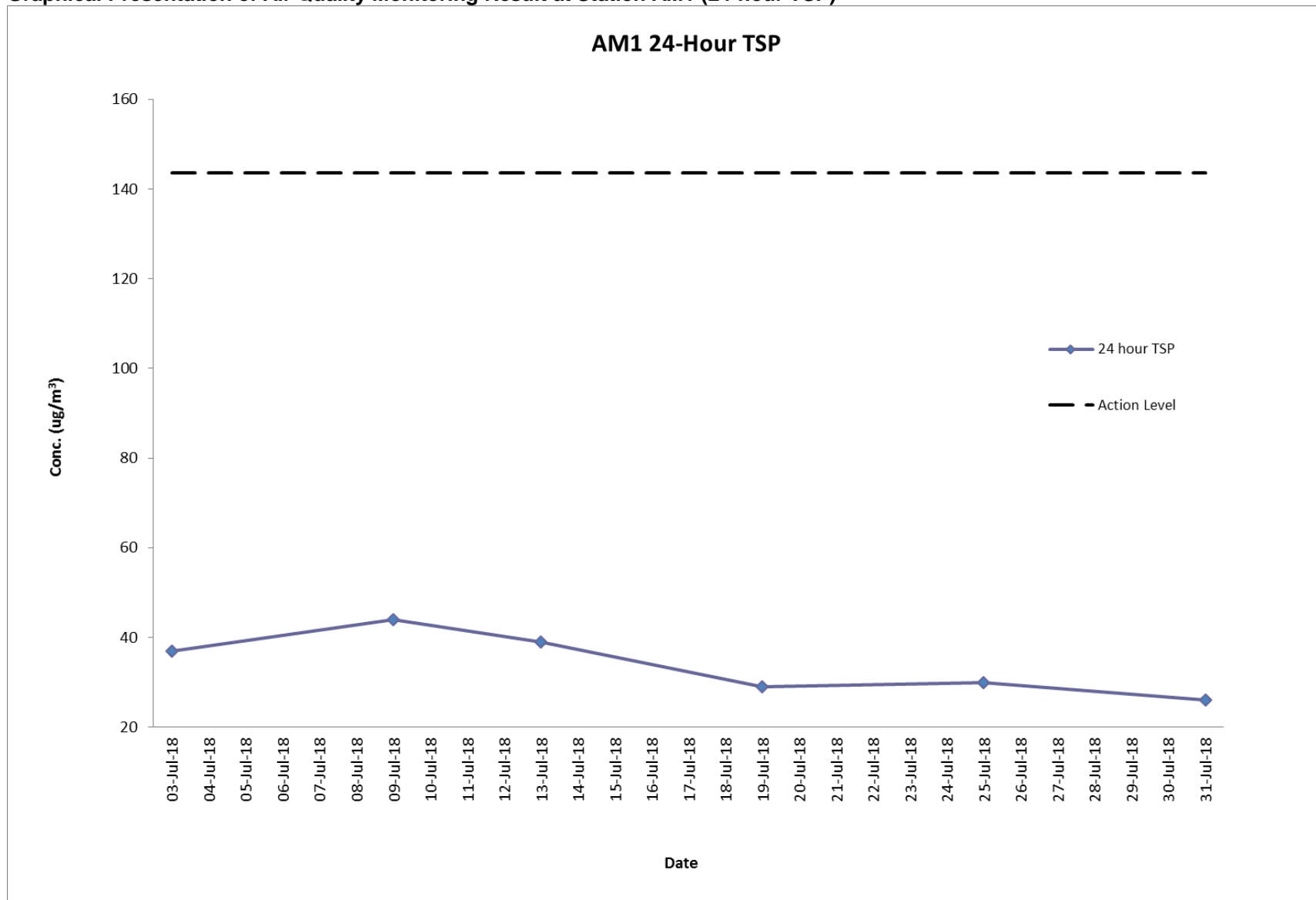
Graphical Presentation of Air Quality Monitoring Result at Station AM2A (1-hour TSP)



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

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m ³ /min)			Conc. (µg/m ³)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
03-Jul-18	08:10	04-Jul-18	08:10	2.5877	2.6507	22848.38	22872.38	24	1.17	1.17	1.17	37	Cloudy	143.6	260
09-Jul-18	08:10	10-Jul-18	08:10	2.6052	2.6792	22872.38	22896.38	24	1.17	1.17	1.17	44	Sunny	143.6	260
13-Jul-18	08:08	14-Jul-18	08:08	2.5982	2.6643	22896.38	22920.38	24	1.17	1.17	1.17	39	Cloudy	143.6	260
19-Jul-18	08:10	20-Jul-18	08:10	2.5923	2.6406	22920.38	22944.38	24	1.17	1.17	1.17	29	Cloudy	143.6	260
25-Jul-18	08:13	26-Jul-18	08:13	2.5881	2.6391	22944.38	22968.38	24	1.17	1.17	1.17	30	Fine	143.6	260
31-Jul-18	09:00	01-Aug-18	09:00	2.5950	2.6395	22968.38	22992.38	24	1.17	1.17	1.17	26	Sunny	143.6	260

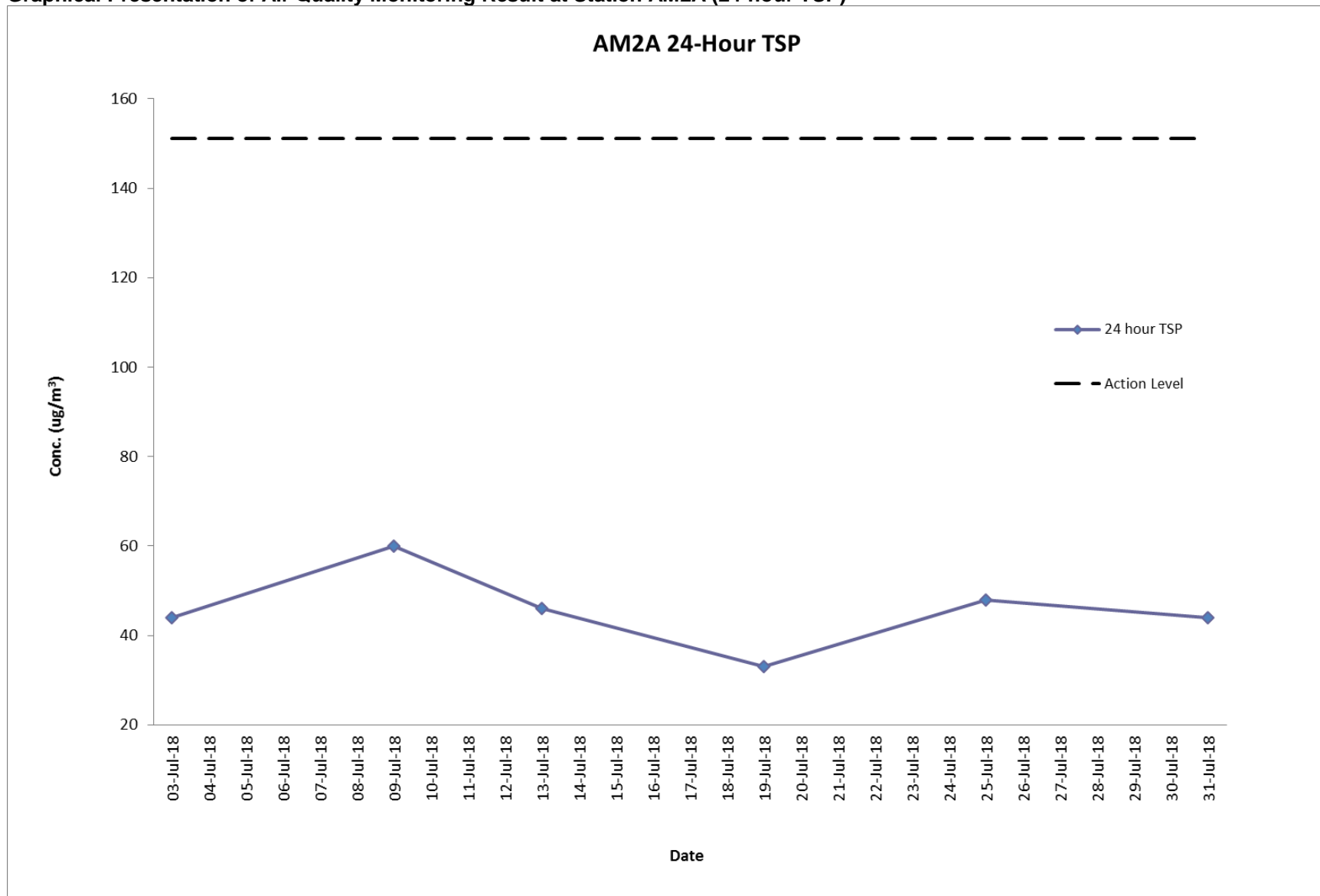
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



Air Quality Monitoring Result at Station AM2A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m3/min)			Conc. (µg/m3)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
03-Jul-18	08:22	04-Jul-18	08:22	2.5955	2.6740	18503.59	18527.59	24	1.25	1.25	1.25	44	Cloudy	151.1	260
09-Jul-18	08:23	10-Jul-18	08:23	2.5885	2.6963	18527.59	18551.59	24	1.25	1.25	1.25	60	Sunny	151.1	260
13-Jul-18	08:20	14-Jul-18	08:20	2.6057	2.6882	18551.59	18575.59	24	1.25	1.25	1.25	46	Cloudy	151.1	260
19-Jul-18	08:02	20-Jul-18	08:02	2.5906	2.6508	18575.59	18599.59	24	1.25	1.25	1.25	33	Cloudy	151.1	260
25-Jul-18	08:25	26-Jul-18	08:25	2.5771	2.6640	18599.59	18623.59	24	1.25	1.25	1.25	48	Fine	151.1	260
31-Jul-18	08:20	01-Aug-18	08:20	2.5947	2.6736	18623.59	18647.59	24	1.25	1.25	1.25	44	Sunny	151.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM2A (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)
03-Jul-18	10:32	66.2	62.4	69
03-Jul-18	10:37	67.0	63.7	
03-Jul-18	10:42	68.4	62.9	
03-Jul-18	10:47	68.9	64.1	
03-Jul-18	10:52	67.4	63.9	
03-Jul-18	10:57	66.7	62.8	
09-Jul-18	10:33	64.9	60.7	68
09-Jul-18	10:38	66.0	62.7	
09-Jul-18	10:43	66.0	61.7	
09-Jul-18	10:48	66.4	62.5	
09-Jul-18	10:53	67.5	63.2	
09-Jul-18	10:58	67.9	63.5	
19-Jul-18	10:00	65.4	61.9	68
19-Jul-18	10:05	67.2	63.7	
19-Jul-18	10:10	66.2	62.7	
19-Jul-18	10:15	66.7	62.5	
19-Jul-18	10:20	68.4	64.7	
19-Jul-18	10:25	66.0	61.8	
25-Jul-18	10:25	67.0	62.7	68
25-Jul-18	10:30	68.4	64.1	
25-Jul-18	10:35	67.9	63.5	
25-Jul-18	10:40	68.0	63.7	
25-Jul-18	10:45	66.4	62.7	
25-Jul-18	10:50	67.5	63.7	
31-Jul-18	08:55	66.5	62.0	69
31-Jul-18	09:00	67.9	63.4	
31-Jul-18	09:05	68.0	63.7	
31-Jul-18	09:10	68.4	64.7	
31-Jul-18	09:15	67.0	62.0	
31-Jul-18	09:20	67.5	63.7	

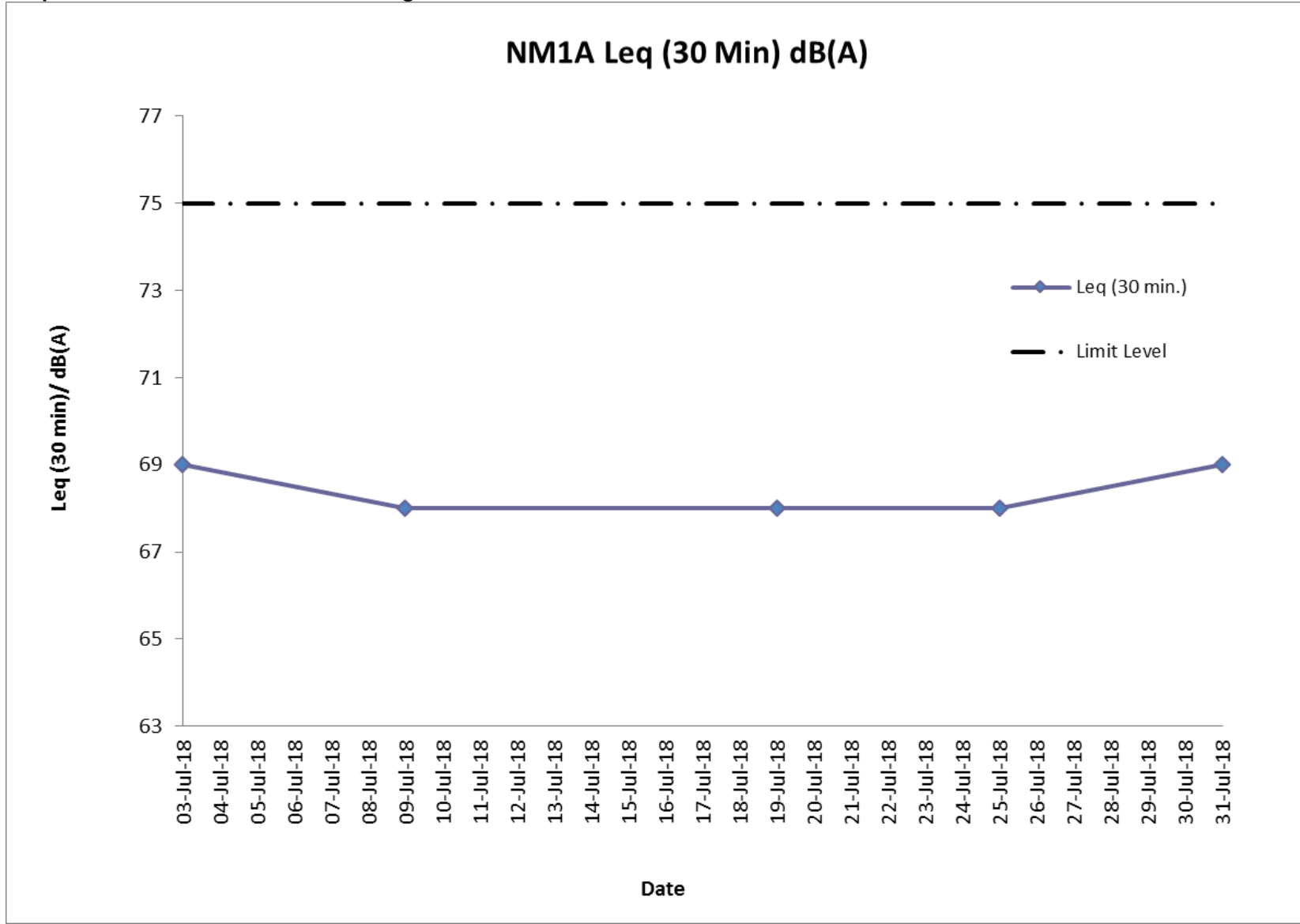
Remarks:

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



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

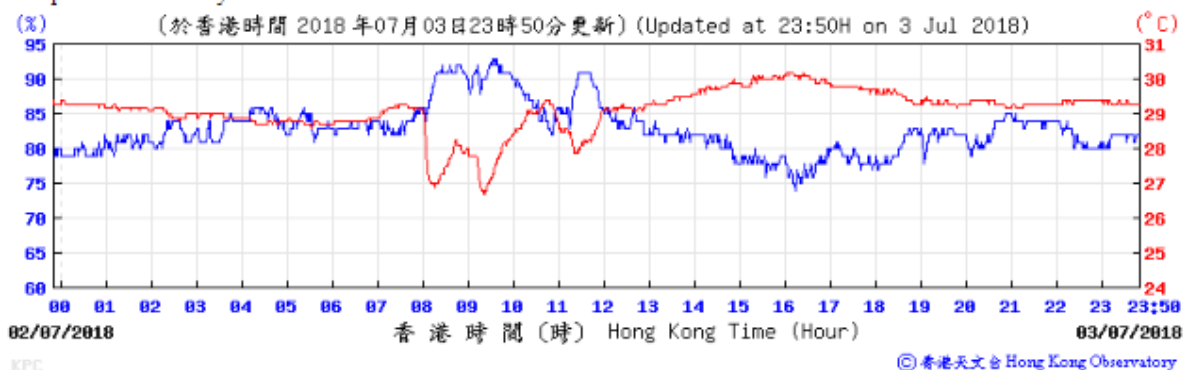
Graphical Presentation Noise Monitoring Result at Station NM1A



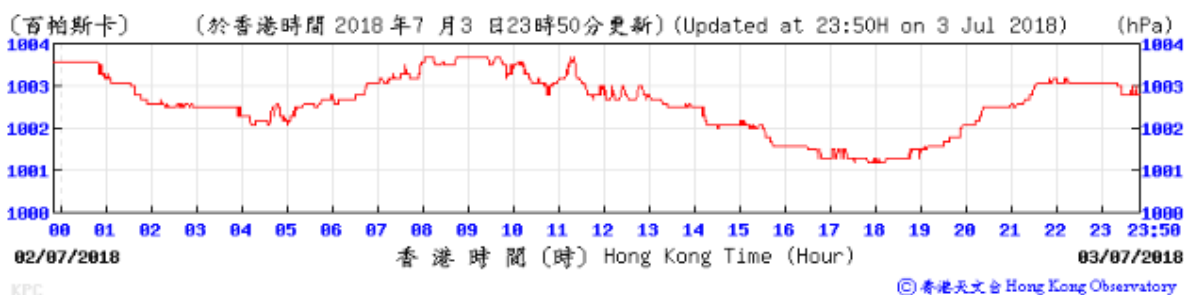
H. Meteorological Data Extracted from Hong Kong Observatory

Extract of Meteorological Observations for King's Park Automatic Weather Station, July 2018

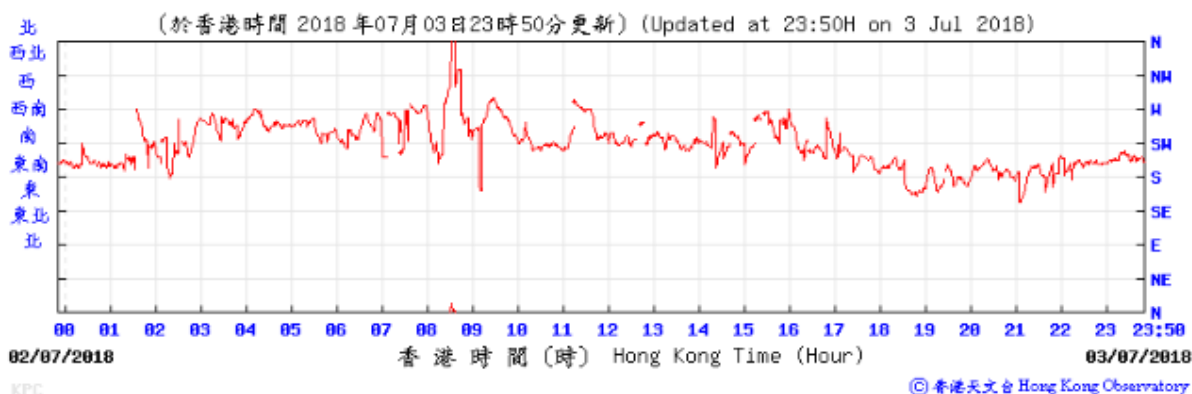
Temperature/Humidity:



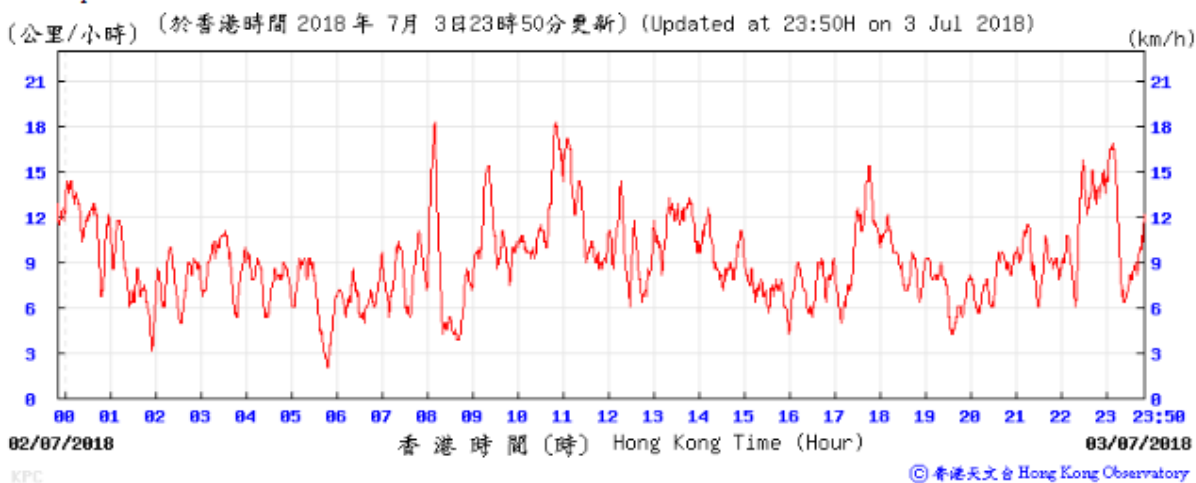
Pressure:



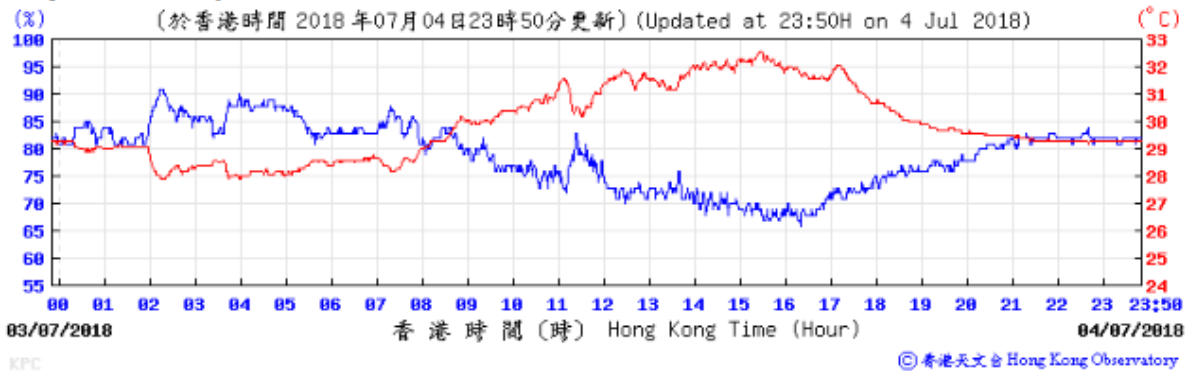
Wind Direction:



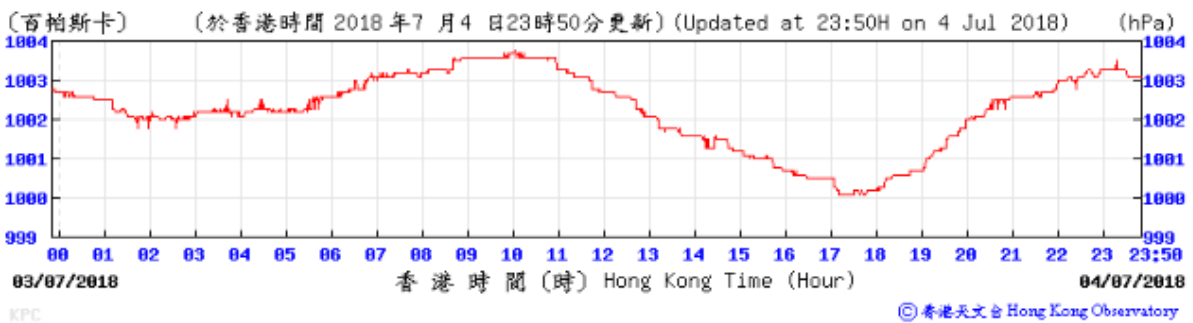
Wind Speed:



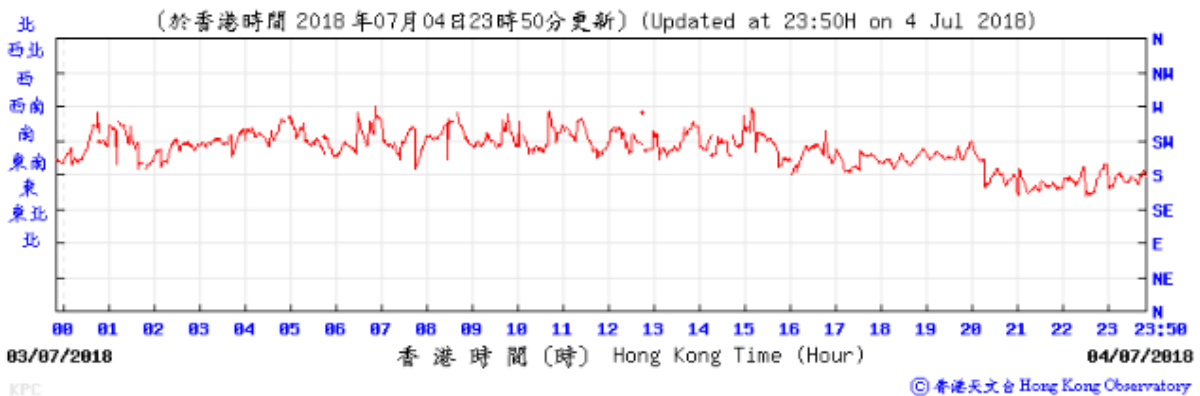
Temperature/Humidity:



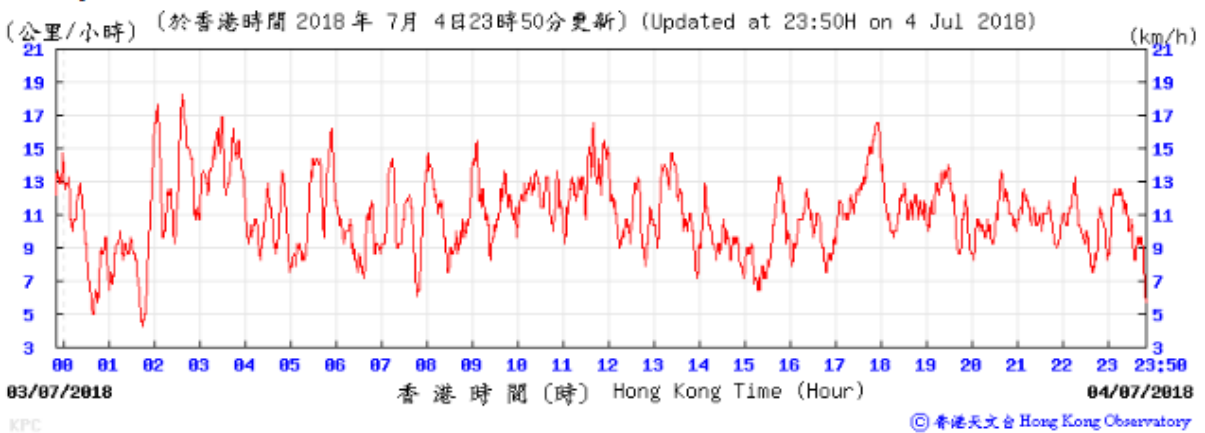
Pressure:



Wind Direction:

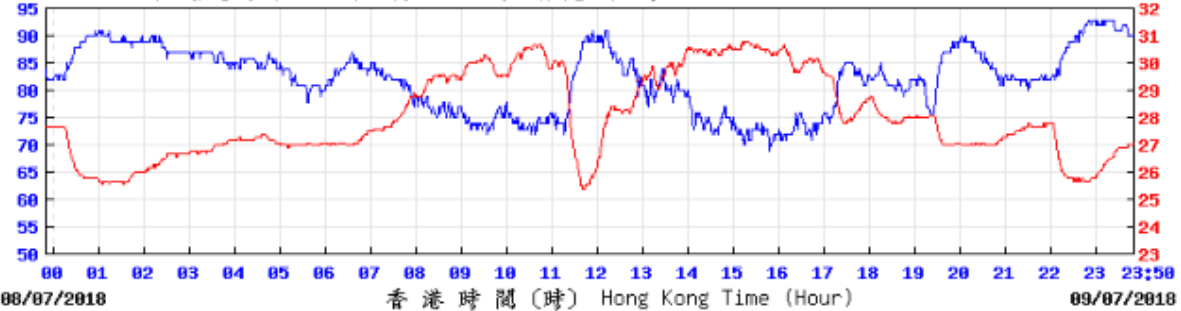


Wind Speed:



Temperature/Humidity:

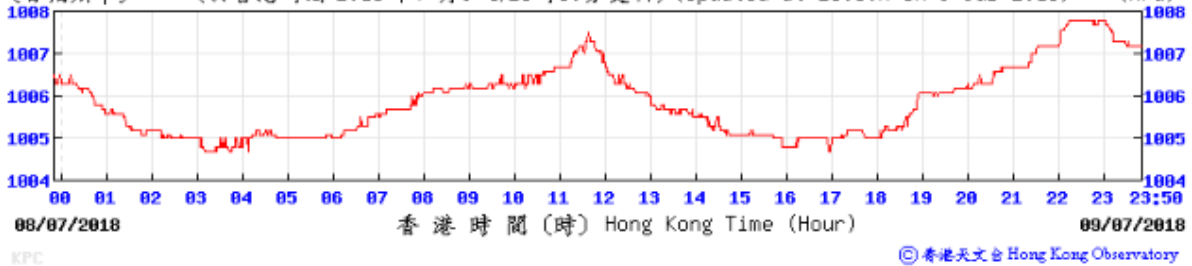
(%) (於香港時間 2018年07月09日23時50分更新) (Updated at 23:50H on 9 Jul 2018) (°C)



KPC

Pressure:

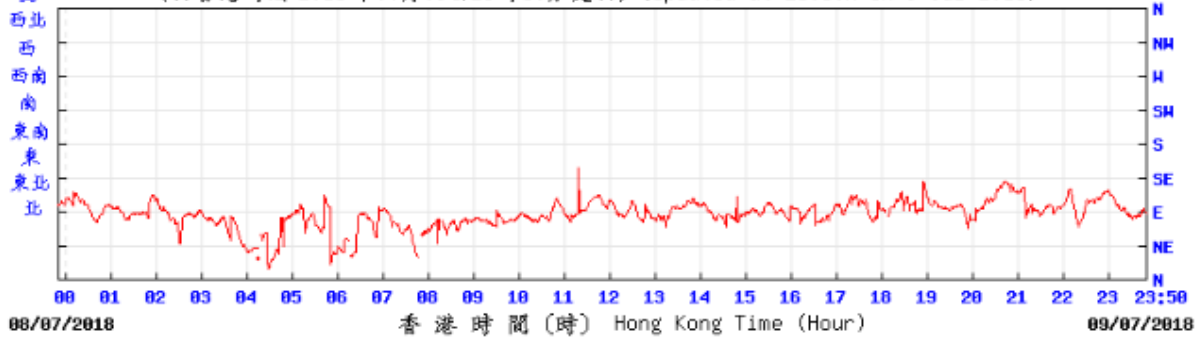
(百帕斯卡) (於香港時間 2018年7月9日23時50分更新) (Updated at 23:50H on 9 Jul 2018) (hPa)



KPC

Wind Direction:

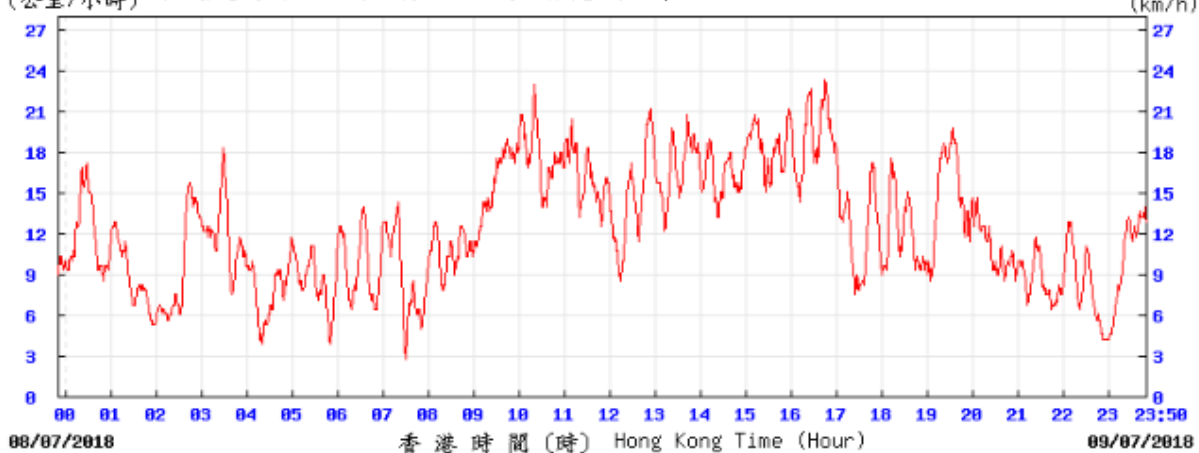
(於香港時間 2018年07月09日23時50分更新) (Updated at 23:50H on 9 Jul 2018)



KPC

Wind Speed:

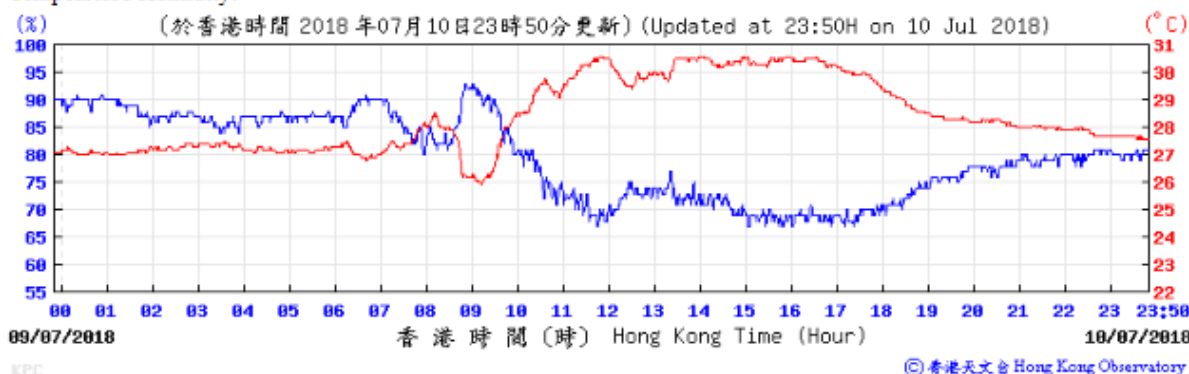
(公里/小時) (於香港時間 2018年7月9日23時50分更新) (Updated at 23:50H on 9 Jul 2018) (km/h)



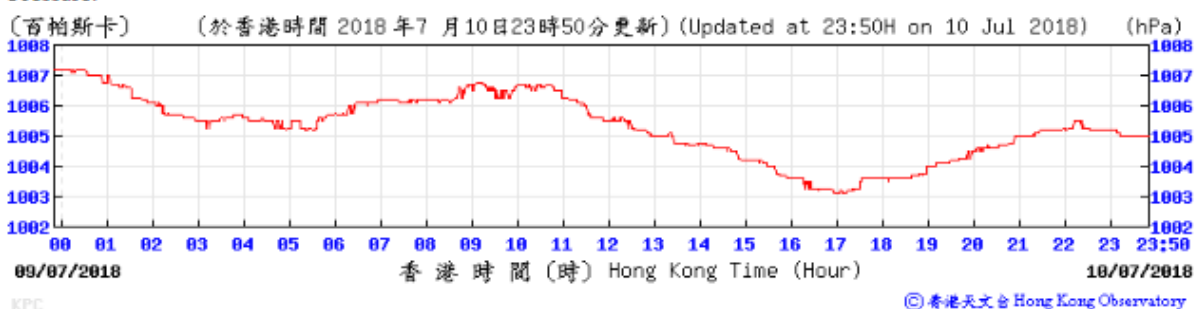
KPC

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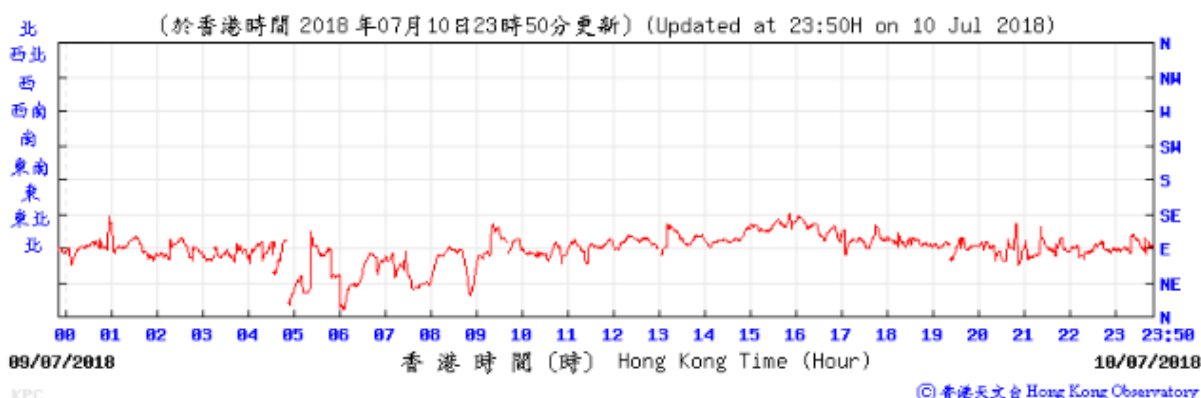
Temperature/Humidity:



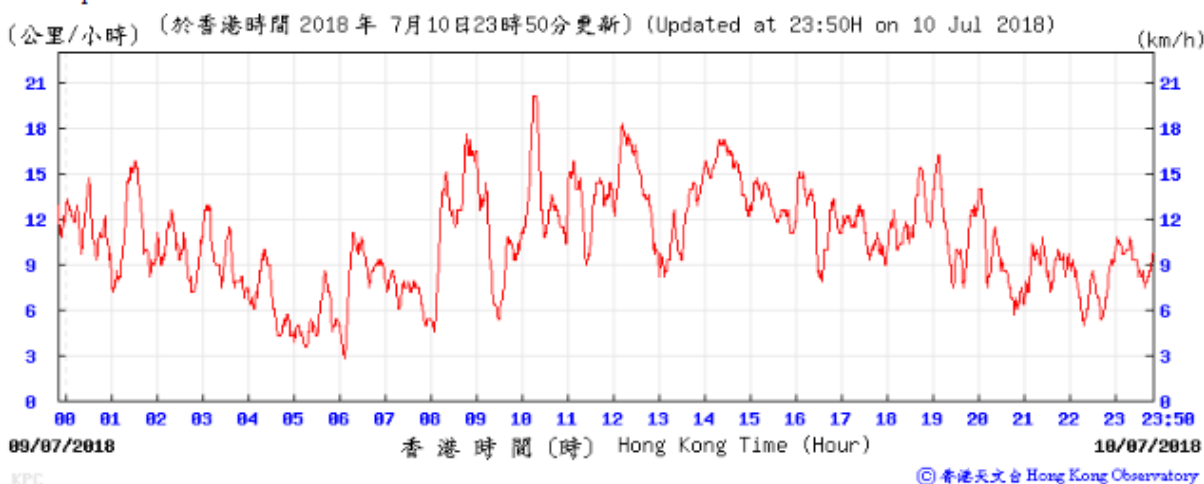
Pressure:



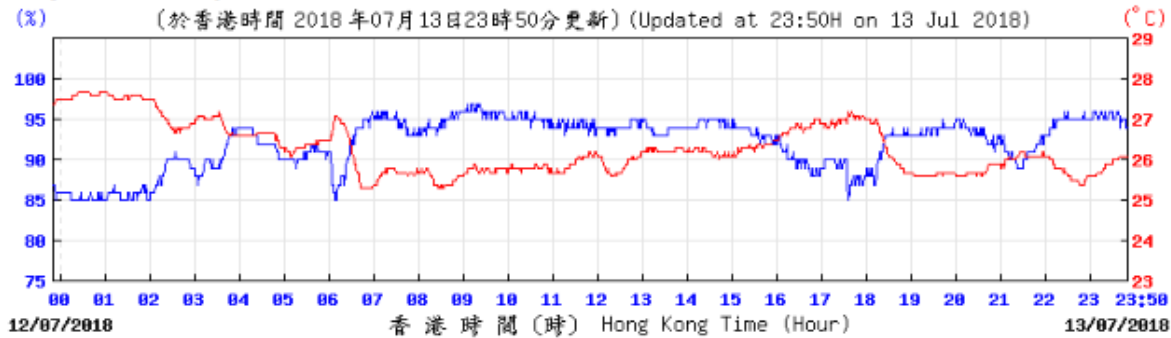
Wind Direction:



Wind Speed:



Temperature/Humidity:



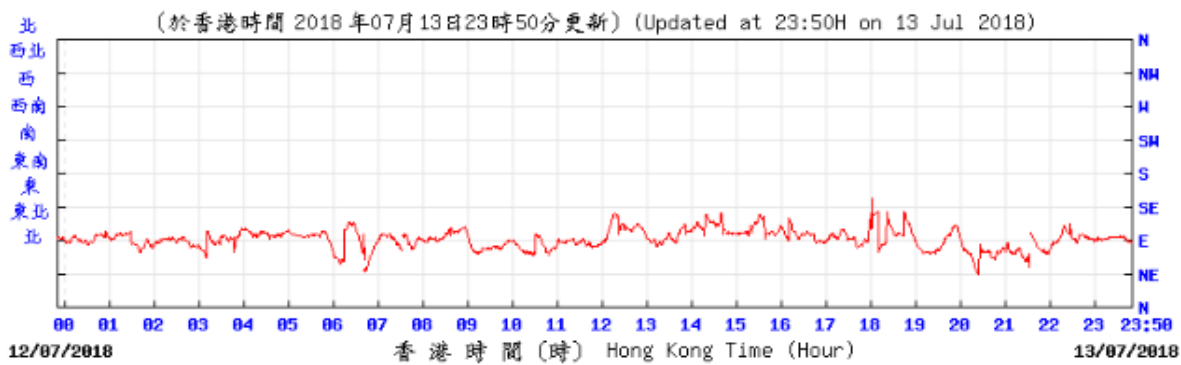
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Pressure:



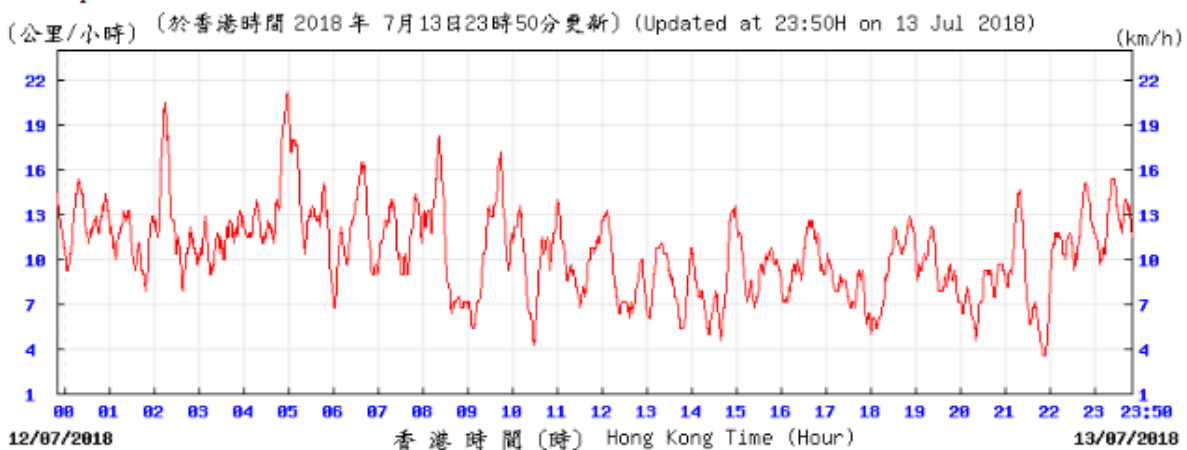
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Wind Direction:



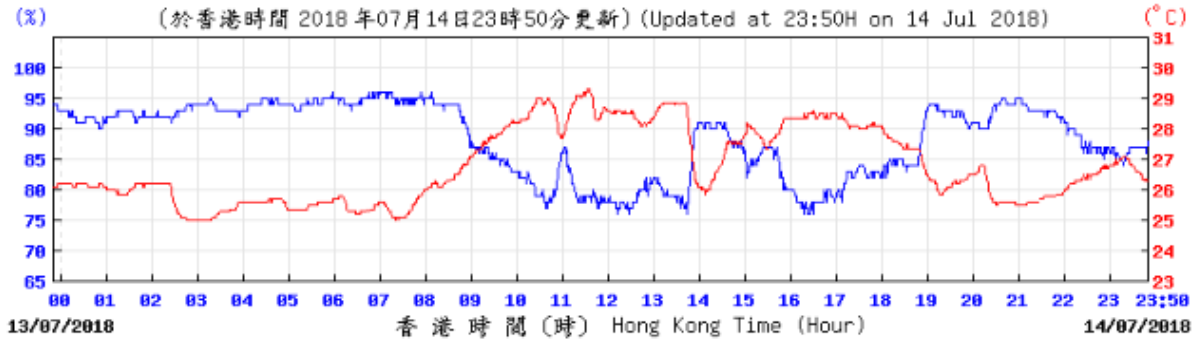
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Wind Speed:



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Temperature/Humidity:



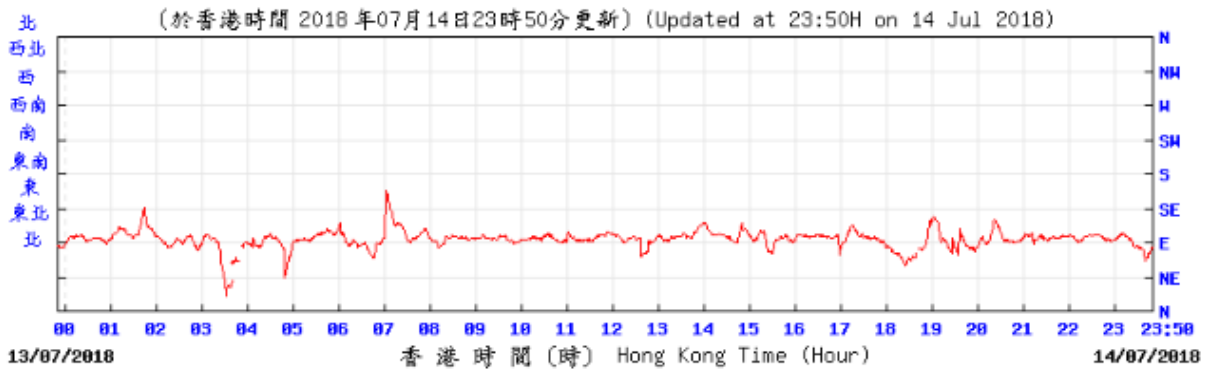
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Pressure:



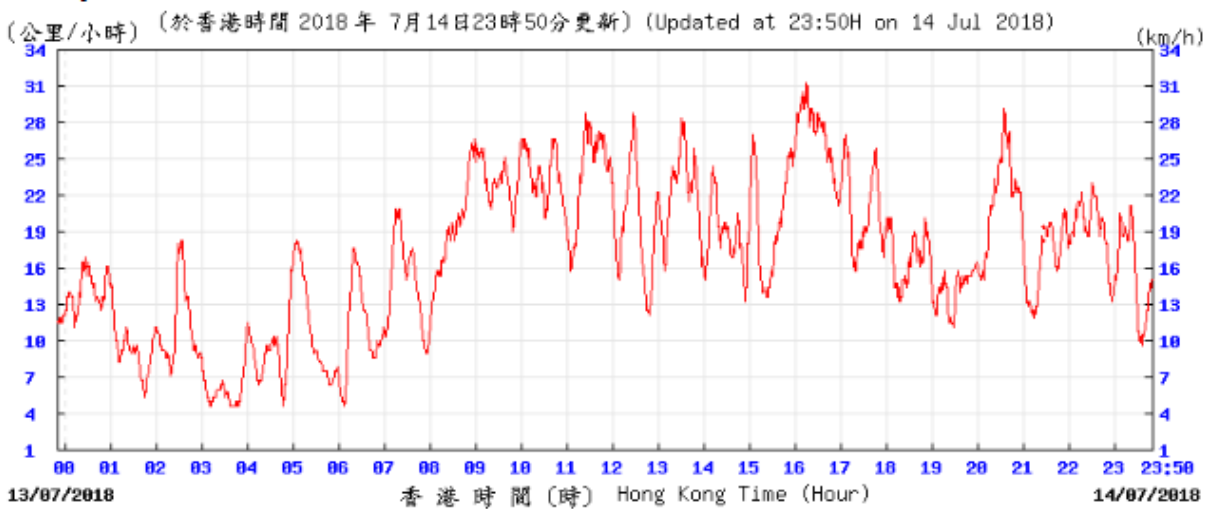
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Wind Direction:



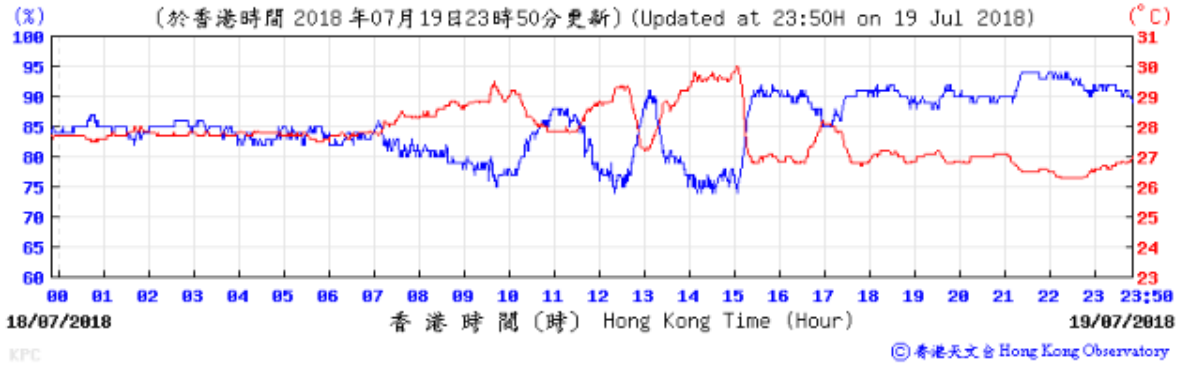
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Wind Speed:

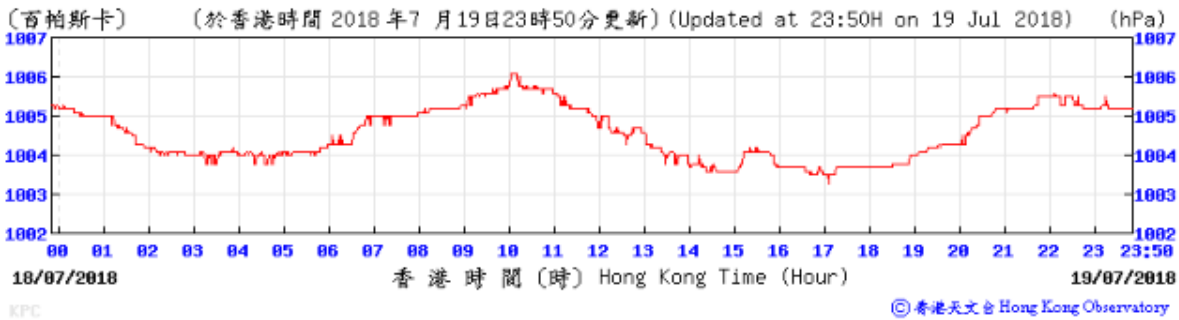


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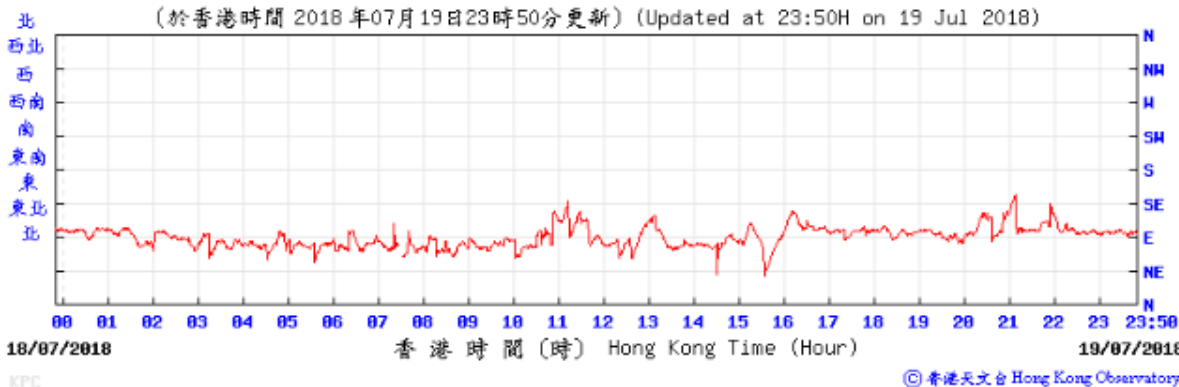
Temperature/Humidity:



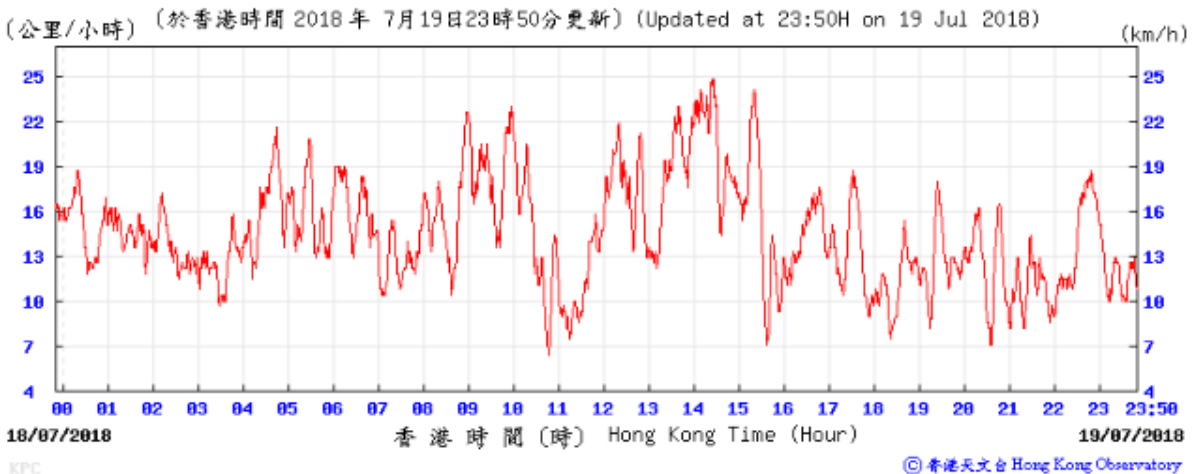
Pressure:



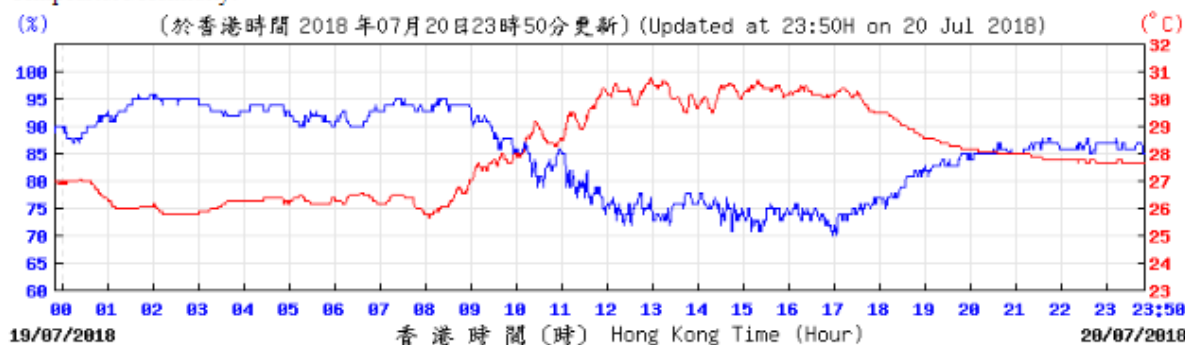
Wind Direction:



Wind Speed:

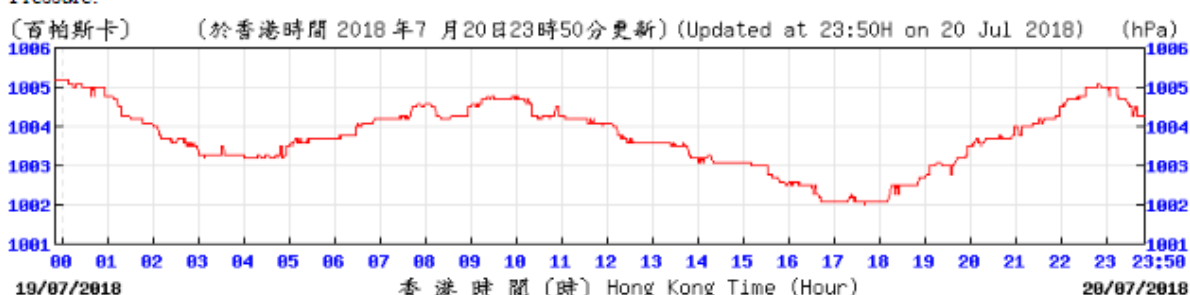


Temperature/Humidity:



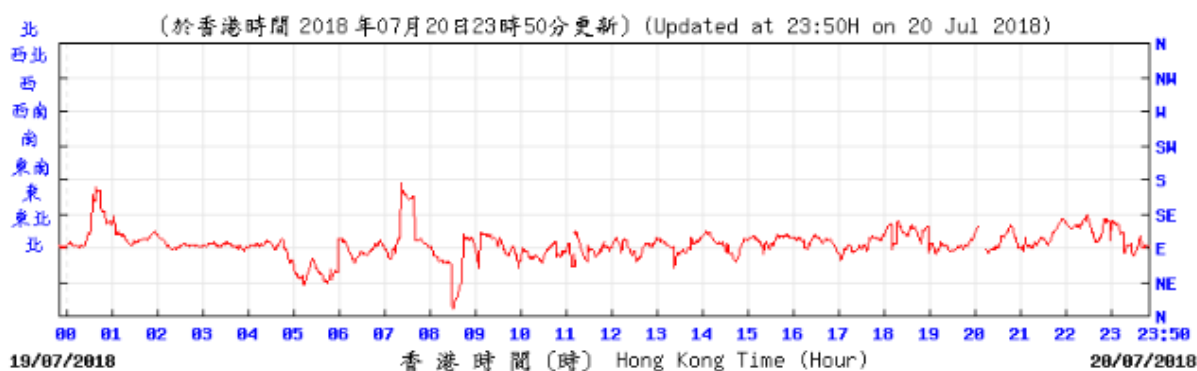
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Pressure:



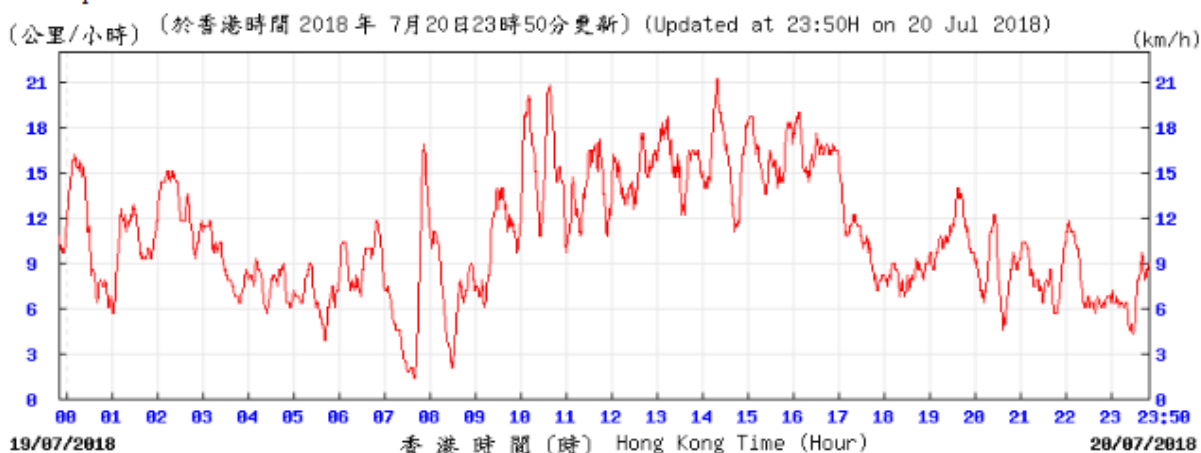
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Wind Direction:



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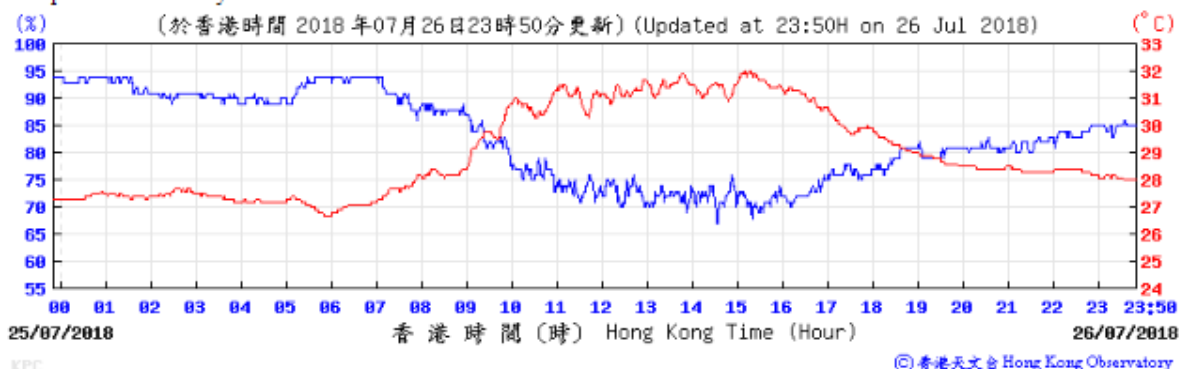
Wind Speed:



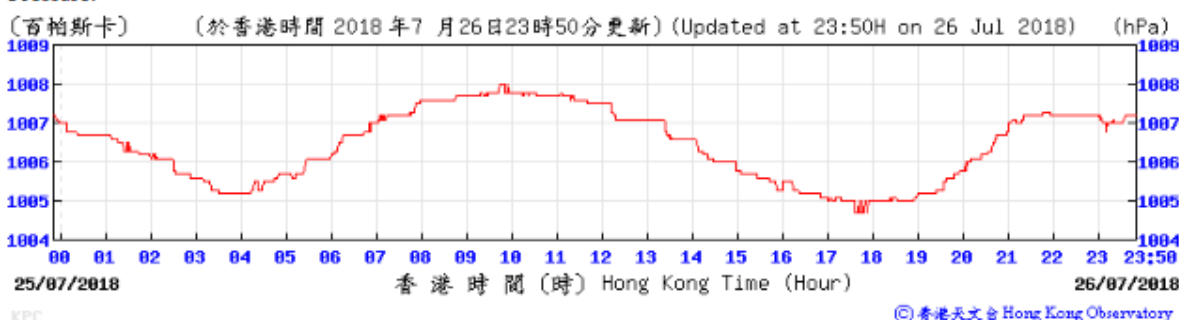
KPC

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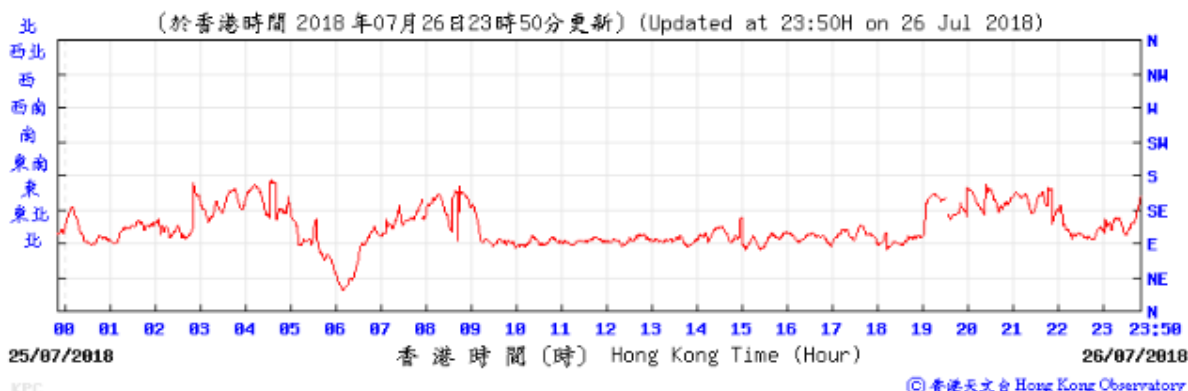
Temperature/Humidity:



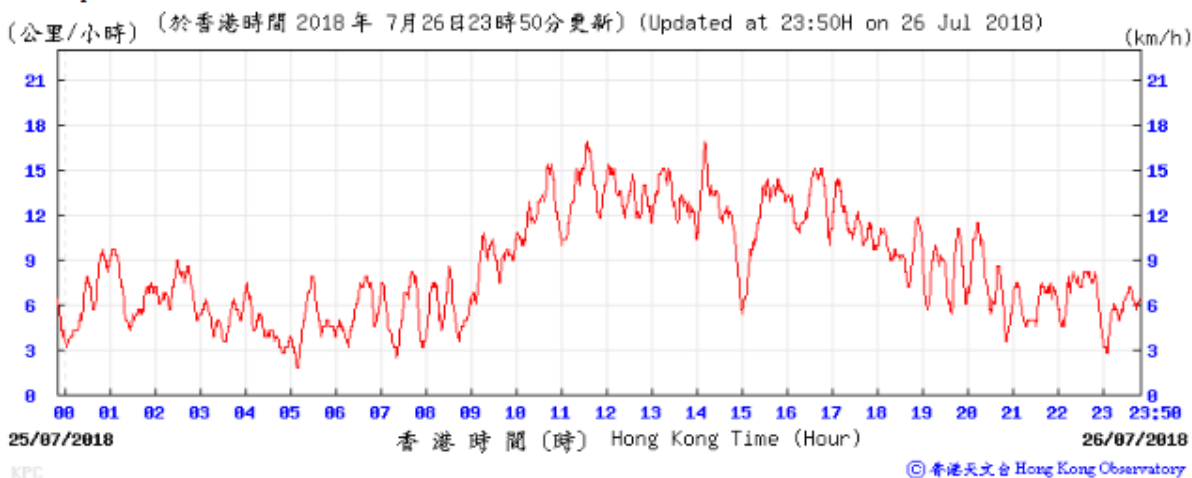
Pressure:



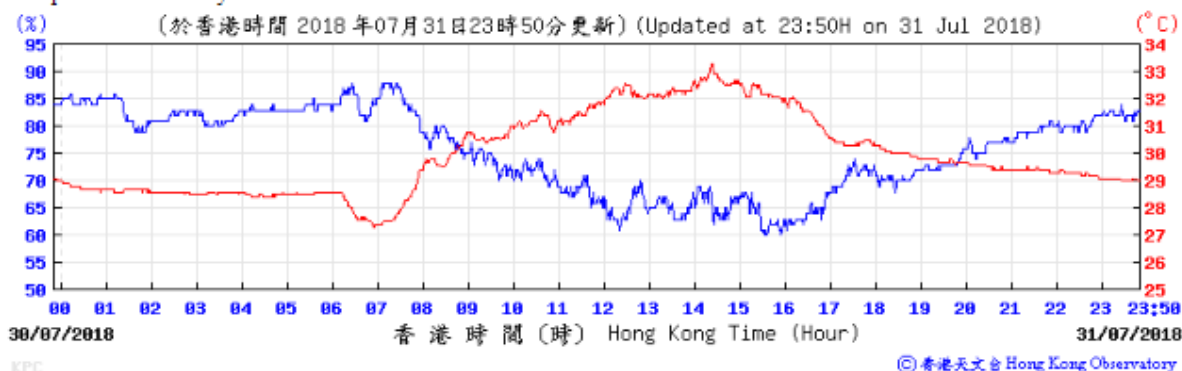
Wind Direction:



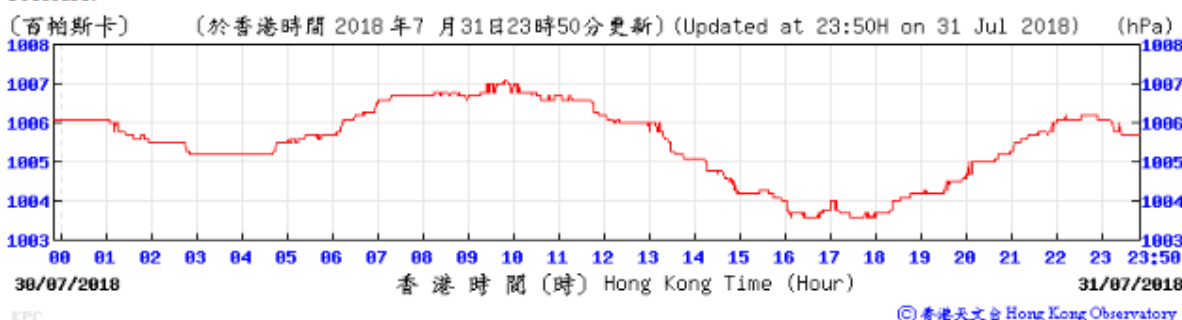
Wind Speed:



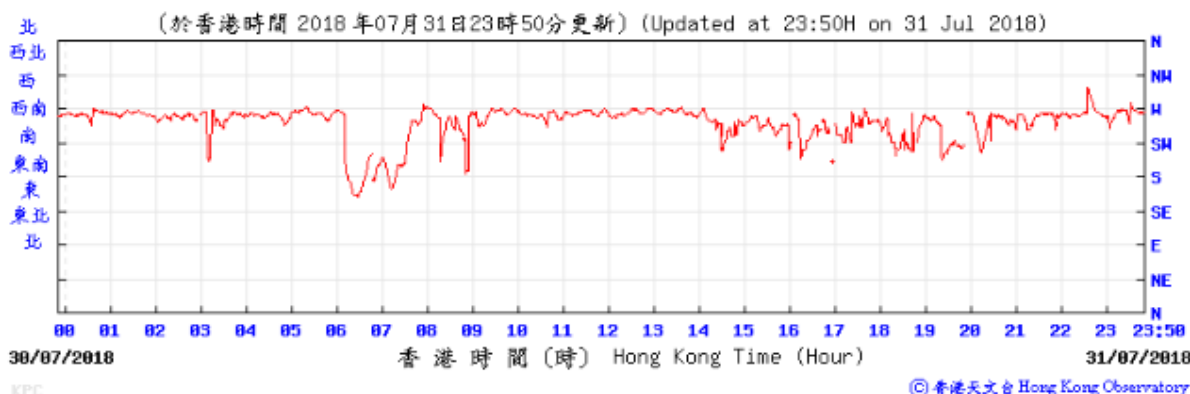
Temperature/Humidity:



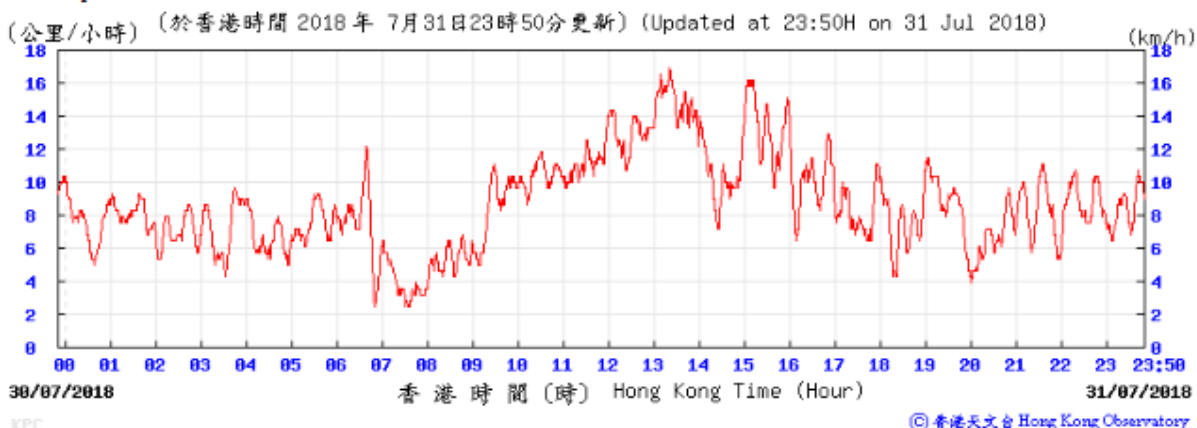
Pressure:



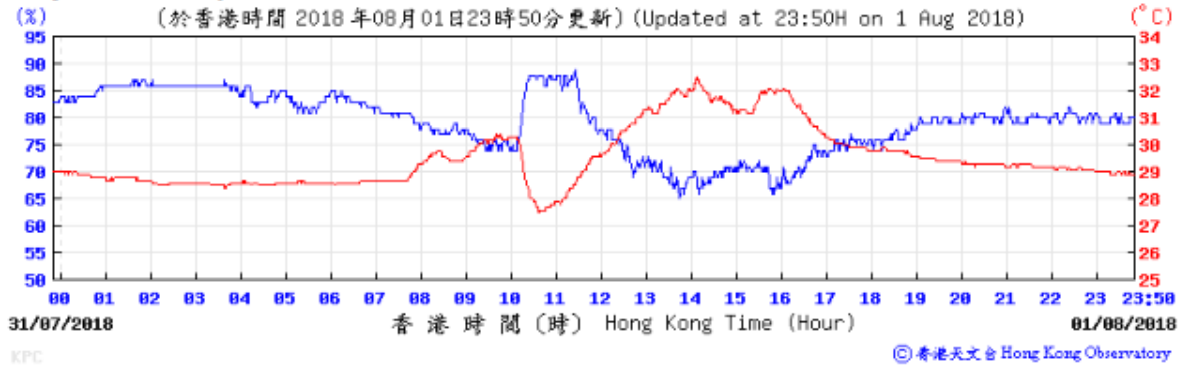
Wind Direction:



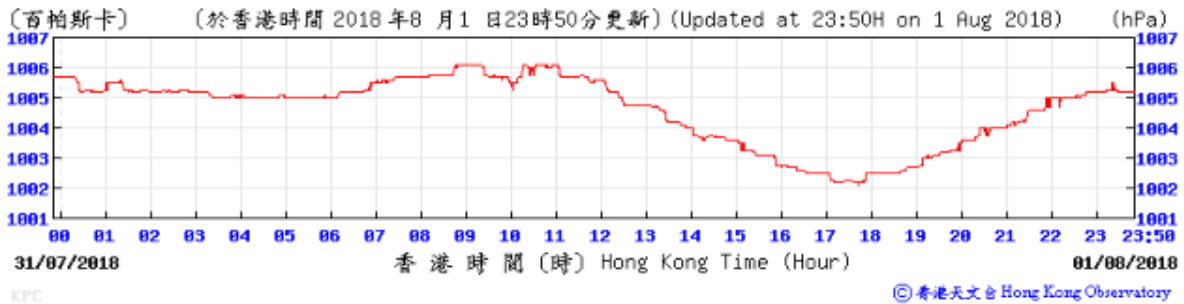
Wind Speed:



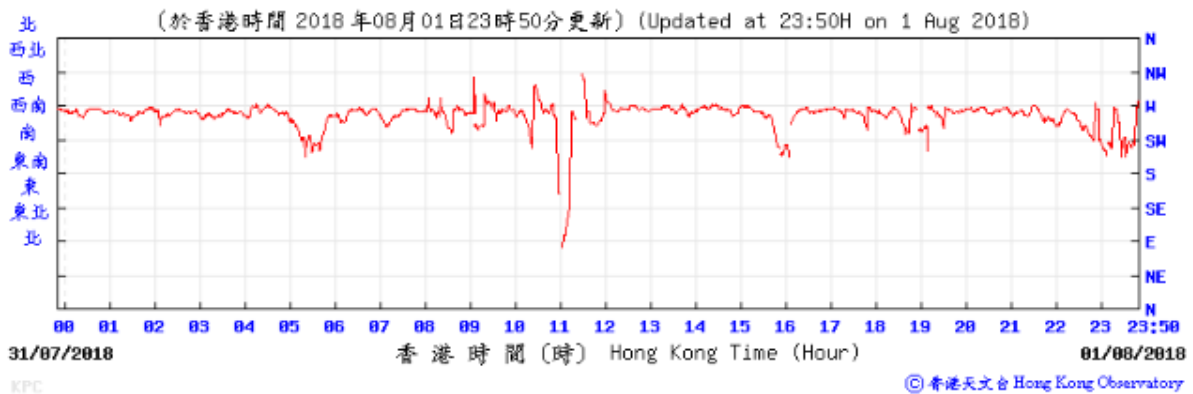
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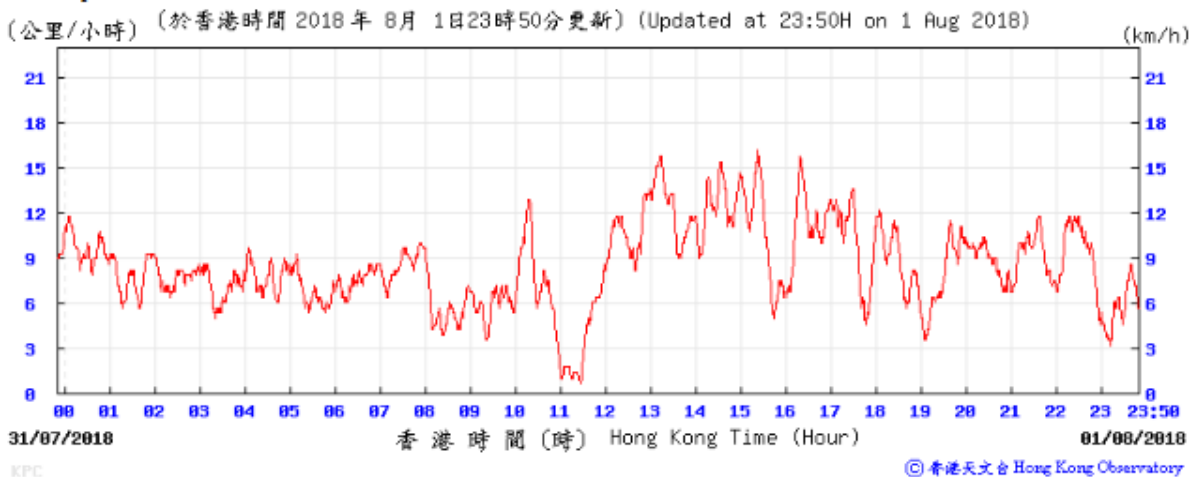
Pressure:



Wind Direction:



Wind Speed:



Remarks: The meteorological observations of 25 July 2018 for King's Park Automatic Weather Station is not available.

I. Waste Flow table

M+ Museum

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

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
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	13709.6	0.0	0.0	12432.0	1277.6	0.0	0.0	111.3	0.2	0.0	38.5	0.0	104.9
Sep	6702.0	0.0	0.0	5648.0	1000.1	53.9	0.0	104.2	0.0	0.0	45.5	0.2	107.9
Oct	2103.6	0.0	0.0	496.0	1595.4	12.2	0.0	83.0	0.4	0.0	73.5	0.0	108.2
Nov	3302.7	0.0	0.0	2384.0	855.5	63.2	0.0	88.4	0.6	0.0	63.0	0.0	129.1
Dec	899.8	0.0	0.0	736.0	126.8	37.0	0.0	48.3	0.6	0.0	70.0	0.0	89.0
Sub-total (2016)	134133.5	0.0	25232.0	99456.0	9279.3	166.3	0.0	814.9	2.3	0.0	400.1	0.2	861.8
2017													
Jan	675.2	0.0	0.0	432.0	237.9	5.3	0.0	79.5	1.0	0.0	70.0	0.0	79.7
Feb	927.7	0.0	0.0	768.0	125.6	34.0	0.0	70.5	0.6	0.0	84.0	0.0	81.4
Mar	1856.7	0.0	0.0	1280.0	466.9	109.8	0.0	62.8	0.4	0.0	98.0	0.0	148.5
Apr	642.4	0.0	0.0	160.0	324.9	157.5	0.0	87.5	0.7	0.0	175.0	0.0	102.5
May	1118.2	0.0	0.0	528.0	416.4	173.7	0.0	118.3	0.0	0.0	280.0	0.0	139.0
Jun	650.0	0.0	0.0	0.0	451.6	198.4	0.0	199.7	1.4	0.0	350.0	0.0	98.7
Jul	1762.0	0.0	0.0	0.0	1466.6	295.4	0.0	36.9	1.2	0.0	244.0	0.0	164.2
Aug	1231.5	0.0	0.0	0.0	867.5	364.0	0.0	50.9	0.9	0.0	59.0	0.0	186.9
Sep	1681.7	0.0	0.0	0.0	1342.0	339.7	0.0	52.3	0.7	0.0	77.0	0.0	265.3
Oct	483.6	0.0	0.0	0.0	242.5	241.1	0.0	374.8	0.6	0.0	24.1	0.0	128.5
Nov	822.8	0.0	0.0	0.0	344.5	478.3	0.0	948.5	0.7	0.0	140.0	0.2	219.1
Dec	601.3	0.0	0.0	0.0	236.2	365.1	0.0	903.6	0.8	0.0	320.0	0.0	241.9

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Sub-total (2017)	12453.0	0.0	0.0	3168.0	6522.6	2762.4	0.0	2985.3	8.9	0.0	1921.1	0.2	1855.5
2018													
Jan	1015.3	0.0	0.0	0.0	574.1	441.2	0.0	773.3	1.5	0.0	100.0	0.0	183.6
Feb	847.6	0.0	0.0	0.0	608.3	239.3	0.0	34.0	1.0	0.0	25.0	0.0	154.9
Mar	1507.0	0.0	0.0	0.0	1102.1	404.9	0.0	39.5	1.5	0.0	120.0	0.0	264.1
Apr	2942.8	0.0	0.0	0.0	2542.4	400.4	0.0	60.1	0.3	0.0	100.0	0.0	252.5
May	2109.2	0.0	0.0	0.0	1593.3	515.9	0.0	37.0	0.4	0.0	70.0	0.0	311.4
Jun	1697.6	0.0	0.0	0.0	1162.4	535.2	0.0	47.0	0.3	0.0	105.0	0.0	188.2
Jul	945.5	0.0	0.0	0.0	646.1	299.4	0.0	15.2	0.4	0.0	100.0	0.0	277.6
Sub-total (2018)	11064.8	0.0	0.0	0.0	8228.6	2836.3	0.0	1006.1	5.4	0.0	620.0	0.0	1632.3
Total	233911.6	0.0	25232.0	140485.4	62429.3	5765.0	0.0	4908.8	16.7	0.0	2941.2	1.4	4483.2

Note:

-292.05 ton and 354.02 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; (7) Foundation Works at Marriot Hotel at Ocean Park.

-Quantities of waste materials generated for the previous reporting months have been updated by Contractor.

Lyric Theatre Complex

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

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
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	0.2	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	14419.9	0.0	0.0	0.0	14419.9	0.0	0.0	43.9	0.0	0.0	0.0	0.0	11.1
Sep	13671.3	0.0	0.0	0.0	13671.3	0.0	0.0	59.8	0.0	0.0	0.0	1.6	12.4
Oct	13088.9	0.0	0.0	0.0	13088.9	0.0	0.0	36.9	0.2	1.5	0.0	0.0	15.2
Nov	12424.7	0.0	0.0	0.0	12424.7	0.0	0.0	74.7	0.0	0.0	0.0	1.4	10.2
Dec	12487.6	0.0	0.0	0.0	12487.6	0.0	0.0	13.9	0.0	0.0	0.0	1.3	9.0
Sub-total (2016)	111138.8	0.0	0.0	0.0	111138.8	0.0	0.0	334.5	0.4	1.5	0.0	7.6	191.6
2017													
Jan	9607.8	0.0	0.0	0.0	9607.8	0.0	0.0	29.5	0.0	0.0	0.0	0.0	7.3
Feb	9108.2	0.0	0.0	0.0	9108.2	0.0	0.0	50.2	0.2	0.0	0.0	0.7	9.8
Mar	11361.7	0.0	0.0	0.0	11361.7	0.0	0.0	16.1	0.0	0.0	0.0	1.4	8.5
Apr	2591.5	0.0	0.0	0.0	2591.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	4.7
May	2579.3	0.0	0.0	99.0	2480.3	0.0	0.0	20.9	0.1	0.0	0.0	0.5	10.0
Jun	476.0	0.0	0.0	341.0	129.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Jul	3419.0	0.0	0.0	804.0	2615.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
Aug	3730.9	0.0	0.0	1377.5	2353.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Sep	2108.2	0.0	0.0	1133.5	974.7	0.0	0.0	34.6	0.2	0.0	0.0	0.0	10.8
Oct	9159.0	0.0	0.0	7868.0	1291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.3
Nov	5095.4	0.0	0.0	4352.0	725.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0	38.8
Dec	3856.2	0.0	0.0	3076.0	780.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	8.4
Sub-total (2017)	63093.1	0.0	0.0	19051.0	44018.7	23.4	0.0	187.1	0.7	0.0	0.0	3.8	137.3

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2018													
Jan	4083.7	0.0	0.0	1455.0	2628.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.004
Mar	6130.8	0.0	0.0	5781.7	349.1	0.0	0.0	0.0	0.0	1.0	0.0	0.6	17.6
Apr	14460.3	0.0	0.0	12484.1	1976.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	7.6
May	59783.7	0.0	0.0	46989.0	12794.7	0.0	0.0	59.3	0.0	0.0	0.0	0.0	9.4
Jun	53645.9	0.0	0.0	38171.2	15474.7	0.0	0.0	51.2	0.2	0.0	0.0	0.0	12.8
Jul	89601.4	0.0	0.0	85017.0	4584.4	0.0	165.1	114.6	0.0	0.0	0.0	0.0	41.3
Sub-total (2018)	227705.9	0.0	0.0	189898.0	37807.9	0.0	165.1	225.1	0.2	1.2	0.0	0.6	91.5
Total	402102.8	0.0	0.0	208949.0	192965.3	23.4	165.1	746.6	1.2	2.7	0.0	11.9	420.4

Note:
-1,340.58 tonnes and 3,243.83 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38 Public Fill respectively in the reporting month.
-Quantities of waste materials generated for the previous reporting months have been updated by Contractor.

J. Environmental Mitigation Measures – Implementation Status

Table J-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
Air Quality Impact (Construction)			
2.1 & 10.3.1	<p>General Dust Control Measures</p> <p>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)</p>	✓	✓
2.1 & 10.3.1	<p>Best Practice For Dust Control</p> <p>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:</p> <p><i>Good Site Management</i></p> <ul style="list-style-type: none"> • 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 by-products 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. <p><i>Disturbed Parts of the Roads</i></p> <ul style="list-style-type: none"> • 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. <p><i>Exposed Earth</i></p> <ul style="list-style-type: none"> • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding 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. <p><i>Loading, Unloading or Transfer of Dusty Materials</i></p> <ul style="list-style-type: none"> • All dusty materials should be sprayed with water immediately prior to any loading or transfer operation 	Rem/ Obs	✓
		✓	✓
		✓	✓
		N/A	N/A
		✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	so as to keep the dusty material wet.		
	<i>Debris Handling</i>		
	<ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. 	✓	Rem
	<ul style="list-style-type: none"> Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	✓	✓
	<i>Transport of Dusty Materials</i>		
	<ul style="list-style-type: none"> 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. 	✓	✓
	<i>Wheel washing</i>		
	<ul style="list-style-type: none"> 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. 	✓	✓
	<i>Use of vehicles</i>		
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓
	<ul style="list-style-type: none"> 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. 	✓	✓
	<i>Site hoarding</i>		
	<ul style="list-style-type: none"> 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 & 10.3.1	<p>Best Practicable Means for Cement Works (Concrete Batching Plant)</p> <p>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:</p> <p>Exhaust from Dust Arrestment Plant</p>		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	<ul style="list-style-type: none"> Wherever possible the final discharge point from particulate matter arrestment plant, where is not 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 	✓	✓
	Emission Limits		
	<ul style="list-style-type: none"> All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	✓	✓
	Engineering Design/Technical Requirements		
	<ul style="list-style-type: none"> 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 	✓	✓
-	<p>Non-Road Mobile Machinery (NRMM):</p> <p>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.</p>	✓	Obs
Noise Impact (Construction)			
3.1 & 10.4.1	<p>Good Site Practice</p> <p>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:</p> <ul style="list-style-type: none"> 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 & 10.4.1	<p>Adoption of Quieter PME</p> <p>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 should be noted that the silenced PME selected for assessment can be found in Hong Kong.</p>	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
3.1 & 10.4.1	Use of Movable Noise Barriers 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.	N/A	✓
3.1 & 10.4.1	Use of Noise Enclosure/ Acoustic Shed 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 & 10.4.1	Scheduling of Construction Works outside School Examination Periods 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 Quality Impact (Construction)			
4.1 & 10.5.1	Construction site runoff and drainage 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: <ul style="list-style-type: none"> 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; 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. All drainage facilities and erosion and sediment control structures should be regularly inspected and 	Obs	✓
		✓	✓
		Obs	Obs

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	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.		
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> 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. 	✓	✓
	<ul style="list-style-type: none"> 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
	<p>Barging facilities and activities</p> <p>Recommendations for good site practices during operation of the proposed barging point include:</p> <ul style="list-style-type: none"> 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 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 	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	materials or polluted water during loading or transportation;	N/A	N/A
	<ul style="list-style-type: none"> All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 	N/A	N/A
		N/A	N/A
4.1 & 10.5.1	Sewage effluent from construction workforce 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 & 10.5.1	General construction activities <ul style="list-style-type: none"> 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. 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. 	✓	✓
		✓	✓
Waste Management Implications (Construction)			
6.1 & 10.7.1	Good Site Practices Recommendations for good site practices during the construction activities include:		
	<ul style="list-style-type: none"> 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 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 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		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
10.7.1	<p>Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> 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 	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>
6.1 & 10.7.1	<p>Inert and Non-inert C&D Materials</p> <p>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.</p> <ul style="list-style-type: none"> 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 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. 	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>
6.1 &	Chemical Waste		

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
10.7.1	<ul style="list-style-type: none"> 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. 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. 	Obs	✓
6.1 & 10.7.1	<p>General Refuse</p> <p>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.</p>	✓	✓
Land Contamination (Construction)			
7.1 & 10.8.1	<p>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.</p> <p>The following measures are proposed for excavation and transportation of contaminated material:</p> <ul style="list-style-type: none"> To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; 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; Stockpiling of contaminated excavated materials on site should be avoided as far as possible; The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; 	N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
	<ul style="list-style-type: none"> Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; Truck bodies and tailgates should be sealed to stop any discharge; 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; Speed control for trucks carrying contaminated materials should be exercised; 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 Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A
		N/A	N/A
Ecological Impact (Construction)			
	No mitigation measure is required.		
Landscape 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 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A
Table 9.1 & 10.8 (CM5)	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

EM&A Ref.	Recommendation Measures	Implementation Stage	
		M+ Museum	Lyric Theatre Complex
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 be 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	✓	✓
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

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) to the end of the reporting month and are summarised 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	0	0	0
From 31 October 2015 to end of the reporting month	4	1	0

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

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of summons	Successful prosecutions
This reporting month	0	0	0
From 1 March 2016 to end of the reporting month	5	0	0