

The Hong Kong Jockey
Club

**Main Arena of the 2008
Olympic Equestrian
Event**

Quarterly EM&A
Summary Report -
August to October 2006

The Hong Kong Jockey
Club

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Olympic Equestrian
Event**

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Summary Report -
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November 2006

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It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 24469



INDEPENDENT ENVIRONMENTAL CHECKER CHECK CERTIFICATE

**Independent Environmental Checker for
Main Arena of the 2008 Olympic Equestrian Event
Quarterly EM&A Summary Report – August to October 2006 (Final)**

We confirm having used reasonable skill and care in the preparation of the Quarterly EM&A Summary Report and we certify that we can verify the report.

Signed:



Independent Environmental Checker
H. J. Cochrane
Director and IEC

Date:

12/10/06

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Executive Summary

This is the first quarterly environmental monitoring and audit (EM&A) report presenting the progress of environmental monitoring and audit works for the period between August and October 2006, including noise monitoring and landscape and visual audit. Noise was measured in terms of $L_{eq(30min)}$ with L_{10} and L_{90} measurements for reference. Environmental audit works included the weekly environmental audit and the bi-weekly landscape & visual monitoring and audit.

Noise measurements were conducted at three locations during the reporting period. The highest noise level of 68.0dB(A) was recorded at the roof of Racecourse Villa (NM2) on 7 September 2006 while the lowest noise level of 56.6dB(A) was recorded at the podium outside Block 1 of Ravana Garden (NM3) on 24 August 2006.

There was no exceedance of noise A/L Level recorded during the reporting period.

A total of 6 landscape and visual monitoring and audits had been carried out in the reporting period by a Registered Landscape Architect (RLA). The RLA had the following observations:

- The Contractor is required to implement measures for better tree protection; and
- More frequent watering especially for newly transplanted trees is recommended in the coming dry season

A total of 0.12 tonnes of Construction & Demolition (C&D) waste and 17.2 tonnes of C&D materials were disposed of at Landfill and Public Fill Area respectively during the reporting period. No chemical waste was disposed of during the reporting period.

One environmental complaint was received during the reporting period.

No exceedance of noise monitoring action/limit levels was recorded during the reporting period.

No notification of summon and prosecution was received during the reporting period.

One Construction Noise Permit was granted during the reporting period.

1 Introduction

1.1 Project Background

Having considered the advantage of established international equine import and export protocols as well as the supporting facilities already in place, the International Olympic Committee (IOC) has accepted the Beijing Organising Committee for the Games of the 29th Olympiad (BOCOG)'s proposal of staging the 2008 Olympic and Paralympic Equestrian Events in Hong Kong.

Given the very tight schedule of the project, Hong Kong Sports Institute (HKSI) in Shatin will be temporarily converted into the core competition venues for the Olympic Equestrian Event. Facilities to be provided on the core venues include:

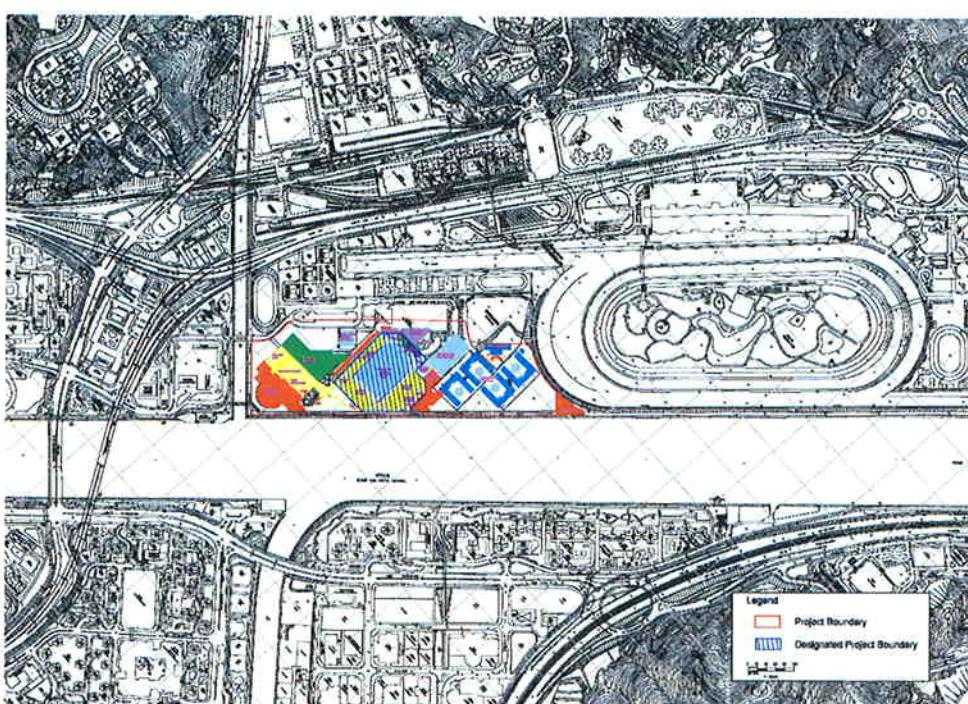
- Main Competition Arena for 20,000 spectators
- Stable Complex
- Training Arenas
- Logistic Compound
- Spectator Entry & Broadcast Compound
- Food & Merchandise

The venues will be in operation for approximately one month during the Olympic event, with the competition expected to last from between 10 to 14 days. 14 days after the Olympic Events, the Paralympic competition will be staged, which will last for a few days.

One year before the 2008 Olympic Event, the site will be occupied for the Test Event, which is used by all divisions of the Olympic Organising Committee to test their organisational capabilities for the Games and Event Management to trial the equine facilities and the footing (riding surface) of the Main Arena, Stables and Training Facilities. These mock up events are known as the 'Test Event Mode', and limited public access will be given.

Figure 1-1 shows the site location plan of the project.

Figure 1-1: Location plan of the project



The implementation of the Project is scheduled from July 2006 to December 2008. Table 1-1 gives the tentative project timetable and phasing.

Table 1-1: Timetable and phasing for the Project

Task	Start	Finish
Pre- Test Event Construction	July 2006	June 2007
Test Event	August 2007 (2 weeks)	
Post Test Event Construction	September 2007	June 2008
Olympic Event	August 2008 (2 weeks)	
Paralympic Event	September 2008 (1 week)	
Reinstatement of HKSI	October 2008	December 2008

The Main Arena of the 2008 Olympic Equestrian Event is classified as a Designated Project (DP) under item O7, Part 1, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) – an outdoor sporting facility with a capacity to accommodate more than 10,000 persons.

In accordance with the requirements of Section 5(1) of the EIAO, a project profile (No. PP-266/2005) was submitted to Environmental Protection Department (EPD) for the application of an EIA Study Brief on 17 October 2005. Pursuant to Section 5(7)(a) of the EIAO, EPD issued to The Hong Kong Jockey Club (HKJC) a study brief (ref: EIA Study Brief No: ESB-136/2005 dated 7 November 2005) to carry out an EIA study.

The EIA Report for the Project (EIA-118/2005) was approved and an Environmental Permit (EP) (EP-236/2006) granted by EPD on 24th and 25th March 2006 respectively.

1.2 Project Organisation

The Project Proponent is the Hong Kong Jockey Club (HKJC); the Engineer's Representative (ER) is Ove Arup & Partners Hong Kong Ltd (Arup); the Contractor is China State Construction Engrg (HK) Ltd; the Independent Environmental Checker (IEC) is Meinhardt Infrastructure and Environment Ltd; the Environmental Team (ET) is Arup.

1.3 Scope of Impact EM&A

The impact environmental monitoring and audit for the Project included noise monitoring, landscape and visual audit, and environmental site audit.

1.4 Purpose of the Report

The purpose of this quarterly EM&A summary report is to provide information on monitoring methodology, monitoring results, environmental permit status, recommendations and conclusions of the EM&A of the project.

This is the first quarterly EM&A summary report prepared by Arup for the submission to the HKJC summarising the implementation of the EM&A programme from 27 July to 31 October 2006.

2 Scope of Construction Works

2.1 Construction Programme

The construction works was commenced on 15 August 2006. An up-to-date construction programme is attached in **Appendix A**.

2.2 Construction Activities of the Reporting Period

Major construction activities carried out by the Contractor between August and October 2006 include:

- Site clearance;
- Construction of site offices;
- Erection of site hoardings;
- Tree transplantation;
- Excavation;
- Drainage works;
- Construction of Main Stables; and
- Construction of retaining wall.

3 Summary of EM&A Requirements

3.1 Construction Noise

3.1.1 Monitoring Parameters

Construction noise is measured in terms of A-weighted equivalent continuous sound pressure level (L_{eq}). L_{10} and L_{90} were also recorded as supplementary reference information for data auditing.

3.1.2 Monitoring Frequency

Noise monitoring was performed on a weekly basis in accordance with the EM&A Manual. The monitoring time periods, parameters and frequency are summarised in Table 3-1.

Table 3-1: Construction noise monitoring parameters and frequency

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of Measurements for Each Monitoring	
Between 0700-1900 hours on normal weekdays	$L_{eq}(30\text{ min})$	Once per week	1	
Between 1900-2300 hours on normal weekdays	$L_{eq}(5\text{ min})^*$		3 (consecutive)	
Between 2300-0700 hours of next day				
Between 0700-1900 hours on holidays				

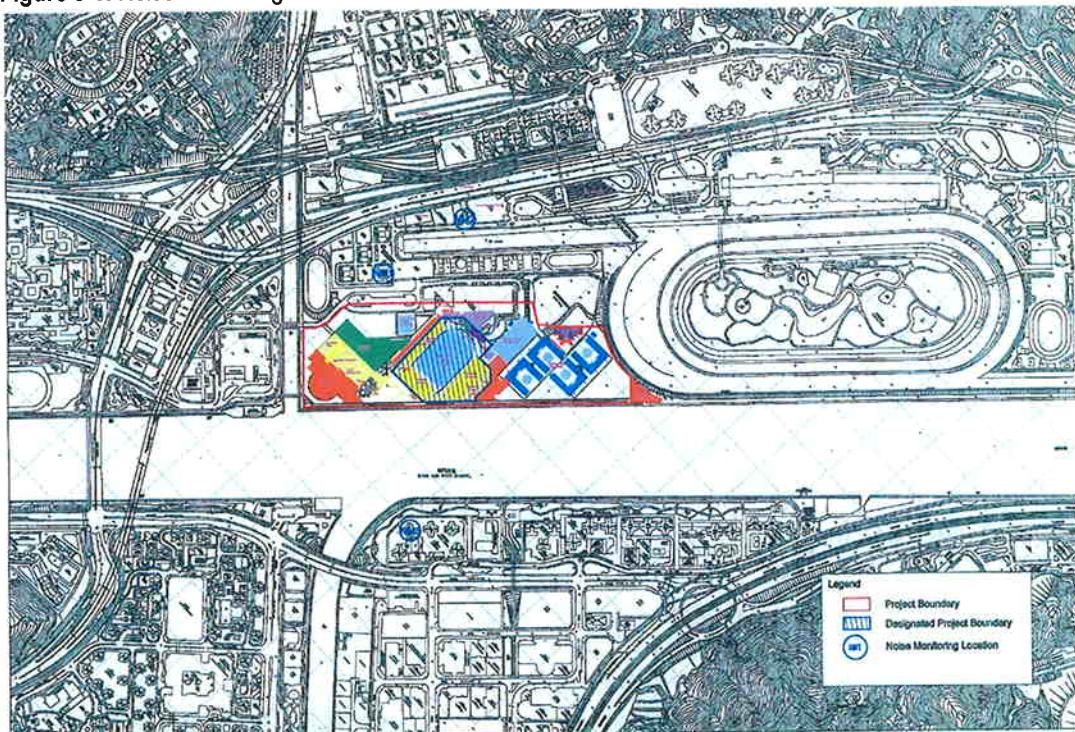
*The $L_{eq(5\text{ min})}$ will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

3.1.3 Monitoring Locations

A total of three locations were specified for the noise monitoring as shown in Table 3-2 and Figure 3-1. Measurements are conducted at a position 1.2m above ground and kept away from reflective surface.

Table 3-2: Construction noise monitoring locations

Monitoring Station ID	Location	Monitoring Point
NM1	Chung Cheung Court, HKJC Staff Quarters	On the roof, 1 meter from façade, facing the main works area
NM2	Racecourse Villa	On the roof, 1meter from façade, facing the main works area
NM3	Ravana Garden	On the podium outside Block 1, 1 meter from façade, facing the main works area.

Figure 3-1: Noise Monitoring Location

3.2 Landscape and Visual

3.2.1 Audit Parameters

All landscape and visual mitigation measures implemented by both the Contractor Team (CT) and the Landscape Contractor during the construction phase and the first year of the operational phase will be audited by a landscape auditor, to ensure compliance with the intended aims of the mitigation measures.

3.2.2 Audit Frequency

The landscape and visual monitoring and audit will be undertaken once every two weeks throughout the construction, operation and reinstatement phases.

3.2.3 Audit Location

The landscape and visual monitoring and audit will be conducted throughout the entire site area.

3.3 Performance Limits and Event-Action Plans

The monitoring results will be checked against appropriate standards and requirements. A two-tier system performance limits have been established in the Project specific EM&A Manual. The "Action Level" and the "Limit Level" (A/L) are established according to the EPD requirements. The ET, ER, IEC, and CT will take corresponding action in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

3.3.1 Construction Noise

The A/L Levels for construction noise have been established in accordance with TM-EIAO as summarised in Table 3-3.

Table 3-3: Action and Limit Levels for construction noise

Time Period	Action Level	Limit Level
0700 – 1900 hours on any day not being a Sunday or public holiday	When one documented complaint is received	75 dB(A)

The action required to be taken by different parties in the case of occurrence of exceedance of A/L Levels are summarised in the Event and Action Plan in Table 3-4.

Table 3-4: Event and Action Plan for construction noise exceedance

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC, ER and the Contractor within 24 hours of identification of the exceedance. 2. Carry out investigation. 3. Report the results of investigation to IEC, ER and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation measures. 	<ol style="list-style-type: none"> 1. Review with analysed results submitted by ET. 2. Review the proposed remedial measures by the Contractor and advise ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to ER and IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify the source. 2. Notify IEC, ER, EPD and the Contractor within 24 hours of identification of the exceedance. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform IEC, ER, and EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 8. If exceedance stops, cease additional monitoring 9. Report the results of investigation to the IEC, EPD and ER. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

3.4 Site Inspection and Environmental Complaint Handling

3.4.1 Site Inspection Frequency and Areas Covered

Regular site inspections will be carried out on a weekly basis. The areas of inspection cover the different environmental impacts, such as air quality, noise, water quality and waste, and their pollution controls and mitigation measures for both within and outside the site area. Site inspection for landscape and visual impact shall be carried out on a bi-weekly basis.

Ad hoc site inspection will be carried out if significant environmental non-compliance is identified. Inspections may also be carried out subsequent to receipt of any environmental complaints, or as part of the investigation work, as specified in the Event and Action Plans.

3.4.2 Site Inspection Procedures

- (a) The CT and/or ER will advise the Environmental Auditor (EA) of ET for all information on any environmental related aspects.
- (b) The EA will discuss with the CT and/or ER to forecast any potential environmental impact.
- (c) The EA will conduct a site walk with the CT and/or ER, particularly the areas with extensive construction works.
- (d) The EA will conduct inspection for the main environmental facilities and measures such as wheel washing facilities located at site exits, water spraying truck, temporary noise barrier, and internal noise-reducing measures of heavy equipment etc, to ensure that these environmental facilities operate normally and effectively.
- (e) The EA will fill up a site inspection checklist during the site inspection for recording any special observations.
- (f) The EA will conduct post-discussion with the CT and/or ER for the establishment of additional/special measures if any non-conformance is found. The completion date for such additional measures will be confirmed during the post-discussion.
- (g) The EA will propose a reasonable timeframe together with the CT and/or ER, for preparation of the proposal for remediation of environmental non-compliance.
- (h) The completed site inspection checklist will be signed by the EA, the CT and/or ER, for reference and for taking action in accordance with the agreed procedures, reporting systems and time frame.

3.4.3 Environmental Complaints

In accordance with the EM&A Manual, environmental complaints will be referred to the ET for initiation of the complaint investigation procedures. The ET will undertake the following procedures upon receipt of complaints:

- a) The ET will record the details of the complaint and the date of receipt into the complaint database, and inform ER immediately.
- b) The ET will perform complaint investigation to determine its validity and to assess whether the source of the problem is due to work activities.
- c) The ER will instruct the CT to identify mitigation measures in consultation with the ET, if the complaint is valid and due to works.
- d) The ET will liaise with the CT on their mitigation measure proposals and implementation, if required.
- e) The ET will conduct review of the CT's response on the identified mitigation measures, and of the updated situation.
- f) The ET will submit interim report to EPD if the complaint is received via EPD. The interim report will clearly state the status of the complaint investigation and the follow-up action within the time frame assigned by EPD.
- g) The ET will undertake additional monitoring and audit to verify the situation if necessary, and ensure that any valid reason for complaint does not recur.
- h) The ET will report on the investigation results and the subsequent actions to the source of complaint for responding to the complainant. If the source of complaint is via EPD, the results will be reported within the time frame assigned by EPD.
- i) The ET will record the details of the complaint, investigation, subsequent actions and results in the monthly EM&A report.

During the complaint investigation work undertaken by the ET, CT and ER should cooperate with the ET on providing all the necessary information and assistance for completion of the investigation. If mitigation measures are identified as necessary after the investigation, the CT should promptly carry out the required mitigation to the satisfaction of ET. The ER should ensure that the CT has carried out such identified measures.

3.5 Environmental Mitigation Measures

Environmental mitigation measures as recommended in the EIA report were stipulated in the EM&A Manual for the Contractor to adopt. A list of mitigation measures and their implementation status are given in **Appendix B**.

4 Noise Monitoring

4.1 Weather Conditions and Other Factors

No adverse weather conditions, in particular adverse wind speed & wind direction and fog & rain that may significantly affect or invalidate the collected noise monitoring data, were recorded during the reporting period.

Neither unusual operation of the construction site nor abnormal noise source was observed during the reporting period.

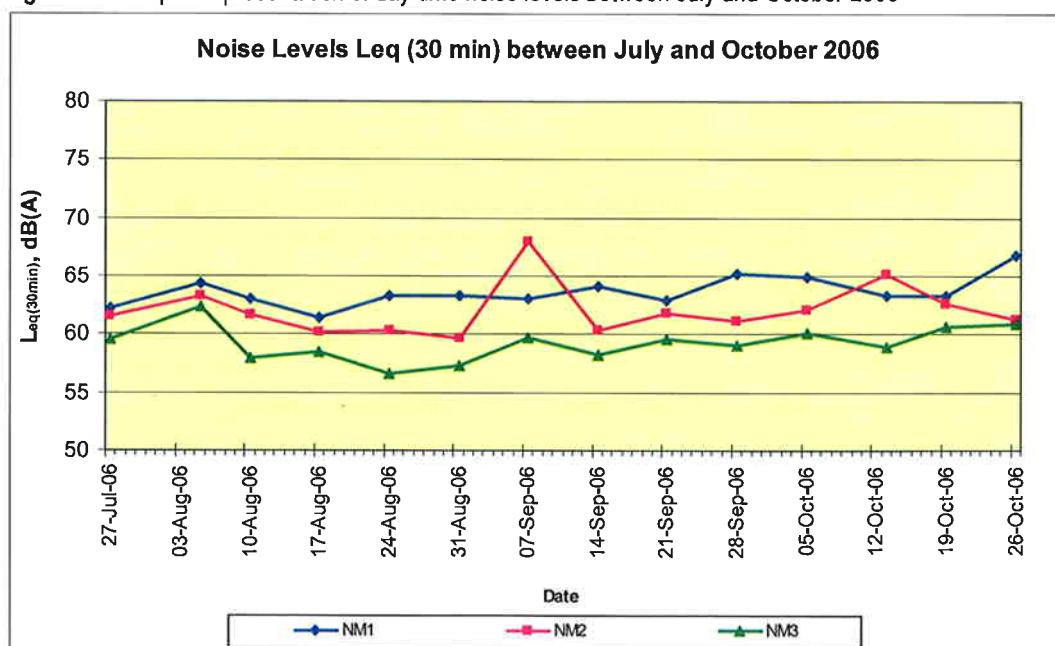
4.2 Summary of Results

A total of 14 sets of daytime (0700 – 1900 hours) noise monitoring was conducted during the reporting period.

The highest noise level of 68.0dB(A) was recorded at the roof of Racecourse Villa (NM2) on 7 September 2006 while the lowest noise level of 56.6dB(A) was recorded at the podium outside Block 1 of Ravana Garden (NM3) on 24 August 2006. There was no exceedance of noise A/L Levels recorded during the reporting period.

Graphical presentation of the noise levels at each monitoring location is illustrated in Figure 5-1.

Figure 5-1: Graphical presentation of day-time noise levels between July and October 2006



5 Landscape and Visual Monitoring and Audit

A total of 6 landscape and visual monitoring and audits had been carried out in the reporting period by a Registered Landscape Architect (RLA). The RLA has recommended the following:

- The Contractor is required to implement measures for better tree protection; and
- More frequent watering especially for newly transplanted trees is recommended in the coming dry season.

6 Quarterly Summary of Waste Disposal, Environmental Complaints, Environmental Licenses and Non-compliance Records

6.1 Waste Disposal

Disposal of waste material during the reporting period generally complied with the corresponding waste disposal requirements. The waste disposal quantity during the reporting period is summarised in Table 6-1.

Table 6-1: Waste disposal quantity between August and October 2006

Type of waste or material	Disposal at	No. of loads or quantities	
C&D waste	SENT Landfill	0.12 tonnes	
C&D material	Public Filling Area in TKO 137	17.2 tonnes	
Chemical waste	Spent lube oil	Collected by licensed collector	0 L

6.2 Complaint Record

One environmental complaint on discharge of muddy water was referred by EPD on 28 August 2006. The Contractor replied to EPD on 30 August 2006. EPD was satisfied with the current site drainage system after conducting a site inspection on 1 September 2006. No rectification was required and the case was closed. However, contractor had carried out the following measures to prevent any further discharge of muddy water from the subject site areas:

- a. Keep closely checking on the performance of the wastewater treatment system;
- b. Closely monitoring of the discharge outlet at Shing Mun River and tracing of the source origin immediately if muddy water was observed;
- c. Made use of the shallow ground areas on site to temporary trap stormwater inside the site to prevent any direct discharge;
- d. Construction of temporary drainage channel and use of water pump to properly divert the trapped stormwater to the temporary sump pit;
- e. Control pumping of all muddy water collected from the sump pit to the wastewater treatment plant within its treatment capacity before discharging.

A log record on the environmental complaint is given in **Appendix C**.

6.3 Summary of Exceedance

There were no exceedances for noise monitoring during the reporting period.

6.4 Notification of Summons and Successful Prosecution

No notification of summon and prosecution was received during the reporting period.

6.5 Environmental Licenses

One new Construction Noise Permit (CNP) was granted in the reporting period. A summary of the valid environmental licenses is given in Table 6-2.

Table 6-2: Summary of valid environmental licenses

Type of Licence	Reference No.	Valid from	Valid to	Remarks
Environmental Permit	EP-236/2006	25 March 2006	--	-
Construction Noise Permit	GW-RN0433-06	4 September 2006	3 March 2007	General Earth Works in HKSI Area.
Registration of Waste Producer	WPN: 5213-753-C3317-11	1 Nov 2006	--	-
Site Effluent Discharge Licence	Licence No: 3448	1 Nov 2006	30 Nov 2011	-

6.6 Contacts and Hotline

Contractor: China State Construction Engrg (HK) Ltd

Contact Person: Michael Tsang

Contact Number: 9277 4956

7 Comments, Recommendations and Conclusion

7.1 Comments and Recommendations

Construction activities have been carried out in accordance with the EIA Report and EP requirements. Mitigation measures being implemented on site were effective in general. Upon advised by the ET, remedial measures had been taken to mitigate the environmental impacts caused by the construction activities. The environmental performance of the Contractor during the reporting period was in general satisfactory. According to the environmental site inspections performed during the reporting period, the following recommendations were provided:

- Mosquito control measures were reminded, preferably drying/levelling of the ponding area;
- Water should be sprayed regularly on unpaved areas;
- Sand/silt at wheel washing facility should be cleared regularly; and
- Proper classification and disposal of waste was required;

The monitoring work in the first four months of the project is proving effective and the monitoring data confirmed that the works complied with the corresponding environmental standards.

The environmental monitoring methodologies and procedures were regularly reviewed by the ET. No modification to the existing EM&A programme was recommended.

7.2 Conclusion

Construction phase impact monitoring and audit was conducted in the reporting period. Monitoring and audit programme included construction noise monitoring, landscape and visual monitoring and audit, and weekly site inspection.

Daytime noise levels were monitored at 3 monitoring locations during the reporting period. No exceedance of Limit Level was recorded.

Weekly site inspections were conducted in the reporting period. Some mitigation measures were still being set up. Remedial measures were advised for those deficiencies observed for the Contractor to follow up.

One Construction Noise Permit was obtained in the reporting period.

One environmental complaint was received during the reporting period.

There was neither notification of summons nor prosecution received during the reporting period.

Appendix A
Construction
Programme

Activity ID	Activity Description		Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006		2007																	
								NOV		OCT																	
								DEC		JAN																	
Preliminaries																											
Submissions/Approvals/Procurements																											
Submissions/Approvals																											
Method Statement/Shopdrawing Submission																											
20165	MS + Shopdrawing- Steel			18	2	20-SEP-06A	12-OCT-06	MS + Shopdrawing- Steel																			
20170	MS + Shopdrawing - Roof Cladding			18	1	20-SEP-06A	11-OCT-06	MS + Shopdrawing - Roof Cladding																			
20200	MS+Shopdwg - ceiling works			18	2	20-SEP-06A	12-OCT-06	MS+Shopdwg - ceiling works																			
Procurement, Fabrication and Delivery																											
20245	Structural Steel mats for Main Stable			64	64	2	11-OCT-06	23-DEC-06	Structural Steel mats for Main Stable																		
20255	Structural Steel mats for Vet Stable			54	54	2	11-OCT-06	12-DEC-06	Structural Steel mats for Vet Stable																		
20260	Steel sheet roofing/cladding- Main Stable			72	52	2	15-SEP-06A	09-DEC-06	Steel sheet roofing/cladding- Main Stable																		
20270	Steel sheet roofing/cladding- Vet Stable			72	52	2	15-SEP-06A	09-DEC-06	Steel sheet roofing/cladding- Vet Stable																		
Mock Up																											
Fair Face Concrete Mock Up																											
M1-20515	Construct wall			4	0	2	30-AUG-06A	12-SEP-06A	Precast panel fabrication																		
M1-20520	Precast panel fabrication			5	3	2	19-SEP-06A	13-OCT-06	Final Inspection																		
M1-20525	Final Inspection			1	1	2	14-OCT-06	14-OCT-06	Approval (fixing system)																		
M1-20530	Approval (fixing system)			1	1	2	16-OCT-06	16-OCT-06																			
External Wall Finish System Mock Up																											
M2-20525	Material submissions/approval			16	1	2	20-SEP-06A	11-OCT-06	Material submissions/approval																		
M2-20530	Des/Ship dwg submission/approval			16	1	2	20-SEP-06A	11-OCT-06	Des/Ship dwg submission/approval																		
M2-20535	Method Statement submissions/approval			16	1	2	20-SEP-06A	11-OCT-06	Method Statement submissions/approval																		
M2-20540	Material procurement: ext wall finish mock up			48	32	2	20-SEP-06A	16-NOV-06	Material procurement: ext wall finish mock up																		
M2-20545	Mock Up: External Wall finish system-construct			12	12	2	17-NOV-06	30-NOV-06	Mock Up: External Wall finish system-construct																		
M2-20550	Mock Up: External Wall finish system-vis inspect			1	1	2	01-DEC-06	01-DEC-06	Mock Up: External Wall finish system-vis inspect																		
Section KD-1 (Portion HKSI-1 to HKSI-2)																											
Portion HKSI-1																											
Chiller Plant Room																											
Retaining Wall No. 3																											
50055	Sheet pile installation			12	0	2	12-SEP-06A	21-SEP-06A	Current Bar																		
50061	RW3 - Sheet pile driving			12	0	2	14-SEP-06A	21-SEP-06A	Progress Bar																		
50063	RW3 - excavation			3	0	2	21-SEP-06A	03-OCT-06A	Critical Activity																		
50065	Base slab			12	12	2	14-OCT-06*	27-OCT-06	Base slab																		
50075	Wall			12	12	2	21-OCT-06	03-NOV-06	Wall																		
China State Const. Eng. (H.K) Ltd.																											
Core Venue Main Construction Contract																											
(Package CV-2B & CV-2C)																											
FL-71 Three Months Rolling Programme																											
20 Sept 2006 to 20 Dec 2006																											

Activity ID	Activity Description	Start Date	End Date	Duration	Resource ID	Start Date	End Date	Duration	Resource ID	Start Date	End Date
2006				2007							
JAN		FEB		MARCH		APRIL		MAY		JUN	
50085	Drainage and backfill	6	6	2	04-NOV-06	10-NOV-06	OCT	6	6	2	04-NOV-06
50095	Extract sheet pile	6	6	2	11-NOV-06	17-NOV-06	OCT	6	6	2	11-NOV-06
Foundation and Superstructure Works											
50115	Footings / Base slab	10	10	2	04-NOV-06	15-NOV-06	OCT	6	6	2	04-NOV-06
50125	RC Walls and Water Tanks	12	12	2	16-NOV-06	29-NOV-06	OCT	6	6	2	16-NOV-06
50135	Roof deck	12	12	2	29-NOV-06	12-DEC-06	OCT	6	6	2	29-NOV-06
50140	Structural steel works	12	12	2	30-NOV-06	13-DEC-06	OCT	6	6	2	30-NOV-06
Finishes											
50145	Chiller Plant - internal finishes	12	12	2	14-DEC-06	28-DEC-06	OCT	6	6	2	14-DEC-06
50155	Chiller Plant - M&E doors and windows	12	12	2	29-DEC-06	12-JAN-07	OCT	6	6	2	29-DEC-06
M&E Services											
50128	Chiller Plant -M&E Access	0	0	2	06-JAN-07*	09-MAR-07	OCT	6	6	2	06-JAN-07*
50130	Chiller Plant - M&E Installation	48	48	2	06-JAN-07	09-MAR-07	OCT	6	6	2	06-JAN-07
Veterinary Stables											
Foundation and Superstructure Works											
Plant Rooms @ Grid Level, Grid A-H/1-5		2	0	2	20-SEP-06A	21-SEP-06A	OCT	6	0	2	20-SEP-06A
VS-190	Excavation to storm drain	6	0	2	22-SEP-06A	03-OCT-06A	OCT	6	0	2	22-SEP-06A
VS-195	DN 100 storm drain laying + Manholes	10	0	2	25-AUG-06A	26-SEP-06A	OCT	6	0	2	25-AUG-06A
VS-200	Tie beam /footing/+ CLP cable trench	4	4	2	11-OCT-06	14-OCT-06	OCT	6	4	2	11-OCT-06
VS-205	Backfill/subbase, Grid E-H	6	6	2	16-OCT-06	21-OCT-06	OCT	6	6	2	16-OCT-06
VS-210	Grade slab, + 6.7, Grid E-H	18	10	2	27-SEP-06A	21-OCT-06	OCT	6	10	2	27-SEP-06A
VS-215	FS Tank (G/F, +6.7 to +9.5)	18	18	2	11-OCT-06	31-OCT-06	OCT	6	18	2	11-OCT-06
VS-215A	Wall (G/F, +6.7 to +9.5)	18	10	2	27-SEP-06A	21-OCT-06	OCT	6	18	2	27-SEP-06A
VS-217	Internal concrete partition walls	12	12	2	01-NOV-06	14-NOV-06	OCT	6	12	2	01-NOV-06
VS-220	Steel Truss + lower roof +12.6/7.4	11	11	2	15-NOV-06	27-NOV-06	OCT	6	11	2	15-NOV-06
VS-225	Steel Upper Roof + 13.39	12	12	2	28-NOV-06	11-DEC-06	OCT	6	12	2	28-NOV-06
VS-230	Steel sheet roofing/cladding, +12.6->+13.3	12	12	2	12-DEC-06	26-DEC-06	OCT	6	12	2	12-DEC-06
VS-235	Ceiling installation	0	0	2	11-DEC-06	11-DEC-06	OCT	6	0	2	11-DEC-06
VS-240	Handover (Tx Rm, LVSR Rm) to ABWF	6	6	2	28-DEC-06	04-JAN-07	OCT	6	6	2	28-DEC-06
VS-245	Cast Remaining Wall Opening(after eqpt delivery)	0	0	2	12-OCT-06	12-OCT-06	OCT	6	0	2	12-OCT-06
Grd Level, H-L-1-1 & 1/F Plant Room											
VS-265	Tie beam /footing/upstand wall	0	0	2	01-SEP-06A	15-SEP-06A	OCT	6	1	2	01-SEP-06A
VS-270	Install underground foul drains/FS pipes/plumbing	6	1	2	20-SEP-06A	11-OCT-06	OCT	6	1	2	20-SEP-06A
VS-275	WWO Inspection of FS/plumbing pipes	1	1	1	12-OCT-06	12-OCT-06	OCT	6	1	1	12-OCT-06
China State Const. Eng. (H.K) Ltd.											
Core Venue Main Construction Contract											
(Package CV-2B & CV-2C)											
FL-71 Three Months Rolling Programme											
20 Sept 2006 to 20 Dec 2006											
Prepared by William C Revision						Checked T LoT Wong					
Approved D Lau											
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Progra © Primavera Systems, Inc.						Date 11-OCT-06 Extracted from Master Programme Version A. Activities for coming 3 months					
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Progra © Primavera Systems, Inc.						Date NOV 2006 Remaining Wall Opening(after eqpt delivery) Remaining Wall Opening(after eqpt delivery) Remaining Wall Opening(after eqpt delivery)					
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Progra © Primavera Systems, Inc.						Date DEC 2006 Handover (Tx Rm, LVSR Rm) to ABWF Handover (Tx Rm, LVSR Rm) to ABWF Handover (Tx Rm, LVSR Rm) to ABWF					
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Progra © Primavera Systems, Inc.						Date NOV 2006 Cast Remaining Wall Opening(after eqpt delivery) Cast Remaining Wall Opening(after eqpt delivery) Cast Remaining Wall Opening(after eqpt delivery)					

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006		2007							
							OCT	NOV	DEC	JAN						
Grid Level, H-L/1-10 & 1/F Plant Room																
VS-280	Backfill/Subbase/Grade slab, + 6.695 Steel (Cols+6.696 to +11.7 (canopy area)	12	6	2	25-SEP-06A	17-OCT-06										
VS-285	Steel beams + 11.7	12	12	2	27-OCT-06*	09-NOV-06										
VS-290	Steel sheet roofing/cladding, +11.7	10	10	2	10-NOV-06	21-NOV-06										
VS-295	Ceiling installation G/F	12	12	2	22-NOV-06	05-DEC-06										
VS-300	Handover to ABWF	12	12	2	06-DEC-06	19-DEC-06										
VS-305	Wall (G/F to 1/F, 11.125)	0	0	2		05-DEC-06										
VS-310	Slab 1/F	10	10	2	18-OCT-06	28-OCT-06										
VS-315	Wall 1/F to +13.9	6	6	2	30-OCT-06	04-NOV-06										
VS-320	Steel cols, braces, beams to Roof +17.48	8	8	2	06-NOV-06	14-NOV-06										
VS-325	Steel sheet roofing/cladding, + 17.4	12	12	2	22-NOV-06	05-DEC-06										
VS-330	Ceiling installation 1/F	12	12	2	06-DEC-06	19-DEC-06										
VS-335	Handover 1F Plant Rm to ABWF	12	12	2	20-DEC-06	04-JAN-07										
VS-340	Handover 1F Plant Rm to ABWF	0	0	2		19-DEC-06										
Other Areas, Grid Level, Grid L-U/1-5																
VS-355	Excavation to storm drain	2	0	2	20-SEP-06A	21-SEP-06A										
VS-370	DN 100 storm drain + Manholes	6	0	2	22-SEP-06A	03-OCT-06A										
VS-375	Tie beam /footing/upstand wall	10	0	2	01-SEP-06A	15-SEP-06A										
VS-380	Install underground foul drains/FS pipe/plumbing	6	1	2	20-SEP-06A	11-OCT-06										
VS-385	WWO Inspection of FS/plumbing pipes	1	1	2	12-OCT-06	12-OCT-06										
VS-390	Backfill/Subbase/Grade slab, + 6.695 Wall (G/F, +6.695 to +9.5)	6	6	2	13-OCT-06	19-OCT-06										
VS-395	Steel Truss + lower roof +12.674	12	12	2	20-OCT-06	02-NOV-06										
VS-400	Steel Upper Roof + 13.39	12	12	2	03-NOV-06	16-NOV-06										
VS-405	Steel sheet roofing/cladding, +12.6->+13.3	12	12	2	17-NOV-06	30-NOV-06										
VS-410	Ceiling installation	12	12	2	06-DEC-06*	19-DEC-06										
VS-415	Handover to ABWF	0	0	2	20-DEC-06	04-JAN-07										
Entrance Gate/Building																
VS-425	Excavation/substructure works	12	12	2	04-NOV-06*	17-NOV-06										
VS-430	Ground slab + RC Wall	12	12	2	18-NOV-06	01-DEC-06										
VS-435	Structural steel works	12	12	2	02-DEC-06	15-DEC-06										
VS-440	Steel sheet roofing/cladding	6	6	2	16-DEC-06	22-DEC-06										
VS-445	Ceiling installation	6	6	2	23-DEC-06	30-DEC-06										
VS-450	Handover to ABWF	0	0	2		30-DEC-06										
Finishes																
VS-470	ABWF Works															
VS-020	Aluminum Louvres & Roller Shutters	21	21	2	26-DEC-06*	19-JAN-07										
VS-025	Horse Stalls (supply by NSC)	21	21	2	26-DEC-06*	19-JAN-07										
Finishes																
VS-475	Aluminum Louvres & Roller Shutters															
VS-480	Horse Stalls (supply by NSC)															
Prepared by William C Revision A																
							Date 11-OCT-06	Extracted from Master Programme	Approved T LoTT Wong D Lau							
							Version A	Activities for coming 3 months								
China State Const. Eng. (H.K.) Ltd. Sheet 3 of 19 Core Venue Main Construction Contract (Package CV-2B & CV-2C) FL-71 Three Months Rolling Programme 20 Sept 2006 to 20 Dec 2006																
							OCT	NOV	DEC	JAN						
							2006									
							2006									

File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling | Layout Name:Three Months Rolling Progai
LAYOUT Name:Three Months Rolling Progai
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Date	Prepared by William C	Checked	Approved
11-OCT-06	Extracted from Master Programme Version A. Activities for coming 3 months	T LoT Wong	D Lau

Sheet 4 of 19
China State Const. Eng. (H.K.) Ltd.
Core Venue Main Construction Contract
(Package CV-2B & CV-2C)
FEL-71 Three Months Rolling Programme
20 Sept 2006 to 20 Dec 2006

Current Bar
Progress Bar
Critical Activity

File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling |
Layout Name:Three Months Rolling Prod
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Activity ID	Activity Description	Rem Dur	Cal Dur	Early Start	Early Finish	2006		2007						
						Oct	Nov	Dec	Jan					
Main Stable Block No. 1														
Foundation and Superstructure Works														
Wing 1: Grid A-R/ 13-16														
MB1-130	Excavation to drains	2	0	31-AUG-06A	14-SEP-06A									
MB1-135	Excavation to manholes	2	0	31-AUG-06A	14-SEP-06A									
MB1-140	DN 100 foul drain laying + Manholes	6	0	05-SEP-06A	14-SEP-06A									
MB1-145	DN 100 storm drain + Manholes	6	0	15-SEP-06A	20-SEP-06A									
MB1-150	Tie beam /footing/upstand wall	10	6	18-SEP-06A	17-OCT-06	Tie beam /footing/upstand wall								
MB1-155	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing								
MB1-160	WVO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WVO Inspection of FS/plumbing pipes								
MB1-165	Backfill/Subbase/Grade slab, + 6.695	6	6	26-OCT-06	01-NOV-06	Backfill/Subbase/Grade slab, + 6.695								
MB1-170	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)								
MB1-175	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674								
MB1-180	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39								
MB1-185	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding								
MB1-190	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F								
MB1-195	Handover to ABWF, Grid A-R/13-16	0	0	0	22-DEC-06	Handover to ABWF, Grid A-R/13-16								
MB1-200	Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	Wall (G/F to 1/F, 11.125)								
MB1-205	Slab 1/F	6	6	23-NOV-06	29-NOV-06	Slab 1/F								
MB1-210	Wall 1/F to +13.85	8	8	30-NOV-06	08-DEC-06	Wall 1/F to +13.85								
MB1-215	Steel cols, braces, beams to Roof +17.48	12	12	09-DEC-06	22-DEC-06	Steel cols, braces, beams to Roof +17.48								
MB1-220	Steel sheet roofing/cladding	12	12	23-DEC-06	08-JAN-07	Steel sheet roofing/cladding								
MB1-225	Ceiling installation, 1/F	12	12	09-JAN-07	22-JAN-07	Ceiling installation, 1/F								
MB1-230	Handover 1F Plant Rm to ABWF	0	0	08-JAN-07		Handover 1F Plant Rm to ABWF								
Wing 2: Grid A-R/1-4														
MB1-245	Excavation to drains	2	0	31-AUG-06A	14-SEP-06A									
MB1-250	Excavation manholes	2	0	31-AUG-06A	14-SEP-06A									
MB1-255	DN 100 foul drain laying + Manholes	6	0	05-SEP-06A	14-SEP-06A									
MB1-260	DN 100 storm drain + Manholes	6	0	15-SEP-06A	20-SEP-06A									
MB1-265	Tie beam /footing/upstand wall	10	6	20-SEP-06A	17-OCT-06	Tie beam /footing/upstand wall								
MB1-270	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing								
MB1-275	WVO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WVO Inspection of FS/plumbing pipes								
MB1-280	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06	Backfill/Subbase/Grade slab, + 6.695								
MB1-285	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)								
MB1-290	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674								
MB1-295	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39								
MB1-300	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding								
MB1-305	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F								
OCT						NOV	2006	DEC	JAN					
China State Const. Eng. (HK) Ltd. Sheet 5 of 19														
Core Venue Main Construction Contract														
(Package CV-2B & CV-2C)														
FL-71 Three Months Rolling Programme														
20 Sept 2006 to 20 Dec 2006														
Legend:					Current Bar	Progress Bar	Critical Activity							
Prepared by William C					Reviewed:									
					Date:	11-OCT-06	Approved:	T Lo/T Wong	D Lau					
					Extracted from Master Programme									
					Version A.									
					Activities for coming 3 months									

Activity ID	Activity Description	2006		2007	
		Oct	Nov	DEC	JAN
		Early Start	Early Finish	Early Start	Early Finish
Wing 2: Grid A-R/1-4					
MB1-310 Handover to ABWF, Grid A-R/1-4	0	0	22-DEC-06		
MB1-315 Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	
MB1-320 Slab 1/F	6	6	23-NOV-06	29-NOV-06	
MB1-325 Wall 1/F to +13.85	8	8	30-NOV-06	08-DEC-06	Wall 1/F to +13.85
MB1-330 Steel cols, braces, beams to Roof +17.48	12	12	09-DEC-06	22-DEC-06	Steel cols, braces, beams to Roof +17.48
MB1-335 Steel sheet roofing/gladding	12	12	23-DEC-06	08-JAN-07	Steel sheet roofing/gladding
MB1-340 Ceiling installation 1/F	12	12	09-JAN-07	22-JAN-07	Ceiling installation 1/F
MB1-345 Handover 1F Plant Rm to ABWF	0	0	08-JAN-07		Handover 1F Plant Rm to ABWF
MB1-350 Cast Remaining Wall Opening (after AHU delivery)	6	6	09-JAN-07	15-JAN-07	Cast Remaining Wall Opening (after AHU delivery)
Center: Ground Level, Grid A-E/5-12					
MB1-360 Excavation to drains	2	0	02-SEP-06A	18-SEP-06A	
MB1-365 Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A	
MB1-370 DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A	
MB1-375 DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A	
MB1-380 Tie beam /footing/upstand wall	10	6	06-OCT-06	17-OCT-06	Tie beam /footing/upstand wall
MB1-385 RC works to wash bay/sand roll	8	8	18-OCT-06	26-OCT-06	RC works to wash bay/sand roll
MB1-390 Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing
MB1-395 WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WWO Inspection of FS/plumbing pipes
MB1-400 Steel columns, +6.695 to+10.2	6	6	20-OCT-06	26-OCT-06	Steel columns, +6.695 to+10.2
MB1-405 Backfill/Subbase/Grade slab, + 6.695	6	6	27-OCT-06	02-NOV-06	Backfill/Subbase/Grade slab, + 6.695
MB1-410 Steel Truss + lower roof +12.674	12	12	03-NOV-06	16-NOV-06	Steel Truss + lower roof +12.674
MB1-415 Steel Upper Roof +13.39	10	10	17-NOV-06	28-NOV-06	Steel Upper Roof +13.39
MB1-417 Blockwork partitions	22	22	29-NOV-06	23-DEC-06	Blockwork partitions
MB1-420 Steel sheet roofing/gladding	9	9	09-JAN-07	18-JAN-07	Steel sheet roofing/gladding
Finishes					
ABWF Works					
MB1-025 Wall Finishes & Claddings	30	30	2	09-JAN-07	19-FEB-07
M&E Services					
M&E Access Dates					
MB1-035 M&E Access: Wing 1, Grid A-R/13-16, Grid Lv1	0	0	09-JAN-07		M&E Access: Wing 1, Grid A-R/13-16, Grid Lv1
MB1-440 M&E Access: Wing 2, Grid A-R/1-4, Grid Lv1	0	0	09-JAN-07		M&E Access: Wing 2, Grid A-R/1-4, Grid Lv1
M&E Installation					
MB1-095 2nd Fix Plumbing and Drainage Installation	61	61	09-JAN-07	27-MAR-07	2nd Fix Plumbing and Drainage Installation
MB1-100 2nd Fix Fire Services Installation	61	61	09-JAN-07	27-MAR-07	2nd Fix Fire Services Installation
MB1-105 2nd Fix HVAC Installation	61	61	09-JAN-07	27-MAR-07	2nd Fix HVAC Installation
MB1-110 2nd Fix Electrical Installation	61	61	09-JAN-07	27-MAR-07	2nd Fix Electrical Installation
MB1-115 Building Management System	61	61	09-JAN-07	27-MAR-07	Building Management System
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rollina Proj © Primavera Systems, Inc.			NOV	DEC	JAN 2007
Prepared by William C			Date 11-OCT-06	Revision Extracted from Master Programme Version A, Activities for coming 3 months	Checked T.L.D. Wong Approved D. Lau
China State Const. Eng. (H.K.) Ltd. Sheet 6 of 19 Core Venue Main Construction Contract (Package CV-2B & CV-2C) FL-71 Three Months Rolling Programme 20 Sept 2006 to 20 Dec 2006					

Activity ID	Activity Description	2006			2007		
		Oct	Nov	Dec	Oct	Nov	Dec
Main Stable Block No. 2	Foundation and Superstructure Works						
Wing 1: Grid A-R/13-16							
MB2-130	Excavation to drains	2	0	04-SEP-06A	17-SEP-06A		
MB2-135	Excavation to manholes	2	0	04-SEP-06A	17-SEP-06A		
MB2-140	DN 100 foul drain laying + Manholes	6	0	06-SEP-06A	14-SEP-06A		
MB2-145	DN 100 storm drain + Manholes	6	0	18-SEP-06A	19-SEP-06A		
MB2-150	Tie beam /footing/upstand wall	10	3	20-SEP-06A	13-OCT-06	Tie beam /footing/upstand wall	
MB2-155	Install underground foul drains/FS pipe/plumbing	6	2	14-OCT-06	20-OCT-06	Install underground foul drains/FS pipe/plumbing	
MB2-160	WWO Inspection of FS/plumbing pipes	1	1	21-OCT-06	21-OCT-06	WWO Inspection of FS/plumbing pipes	
MB2-165	Backfill/Subbase/Grade slab, + 6.695	6	6	23-OCT-06	28-OCT-06	Backfill/Subbase/Grade slab, + 6.695	
MB2-170	Wall (G/F, +6.695 to +9.5)	12	12	30-OCT-06	11-NOV-06	Wall (G/F, +6.695 to +9.5)	
MB2-175	Steel Truss + lower roof +12.674	10	10	13-NOV-06	23-NOV-06	Steel Truss + lower roof +12.674	
MB2-180	Steel Upper Roof + 13.39	10	10	24-NOV-06	05-DEC-06	Steel Upper Roof + 13.39	
MB2-185	Steel sheet roofing/cladding	12	12	06-DEC-06	19-DEC-06	Steel sheet roofing/cladding	
MB2-190	Ceiling installation G/F	12	12	20-DEC-06	04-JAN-07	Ceiling installation G/F	
MB2-195	Handover to ABWF, Grid A-R/13-16	0	0	19-DEC-06	19-DEC-06	Handover to ABWF, Grid A-R/13-16	
MB2-200	Wall (G/F to 1/F, 11.125)	18	18	30-OCT-06	18-NOV-06	Wall (G/F to 1/F, 11.125)	
MB2-205	Slab 1/F	6	6	20-NOV-06	25-NOV-06	Slab 1/F	
MB2-210	Wall 1/F to +13.85	8	8	27-NOV-06	05-DEC-06	Wall 1/F to +13.85	
MB2-215	Steel cols, braces, beams to Roof +17.48	12	12	06-DEC-06	19-DEC-06	Steel cols, braces, beams to Roof +17.48	
MB2-220	Steel sheet roofing/cladding	12	12	20-DEC-06	04-JAN-07	Steel sheet roofing/cladding	
MB2-225	Ceiling installation 1/F	12	12	05-JAN-07	18-JAN-07	Ceiling installation 1/F	
MB2-230	Handover 1F Plant Rm to ABWF	0	0	04-JAN-07	04-JAN-07	Handover 1F Plant Rm to ABWF	
Wing 2: Grid A-R/14							
MB2-245	Excavation to drains	2	0	04-SEP-06A	18-SEP-06A		
MB2-250	Excavation to manholes	2	0	04-SEP-06A	18-SEP-06A		
MB2-255	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A		
MB2-260	DN 100 storm drain + Manholes	6	0	18-SEP-06A	19-SEP-06A		
MB2-265	Tie beam /footing/upstand wall	10	3	23-SEP-06A	13-OCT-06	Tie beam /footing/upstand wall	
MB2-270	Install underground foul drains/FS pipe/plumbing	6	2	14-OCT-06	20-OCT-06	Install underground foul drains/FS pipe/plumbing	
MB2-275	WWO Inspection of FS/plumbing pipes	1	1	21-OCT-06	21-OCT-06	WWO Inspection of FS/plumbing pipes	
MB2-280	Backfill/Subbase/Grade slab, + 6.695	6	6	23-OCT-06	28-OCT-06	Backfill/Subbase/Grade slab, + 6.695	
MB2-285	Wall (G/F, +6.695 to +9.5)	12	12	30-OCT-06	11-NOV-06	Wall (G/F, +6.695 to +9.5)	
MB2-290	Steel Truss + lower roof +12.674	10	10	13-NOV-06	23-NOV-06	Steel Truss + lower roof +12.674	
MB2-295	Steel Upper Roof + 13.39	10	10	24-NOV-06	05-DEC-06	Steel Upper Roof + 13.39	
MB2-300	Steel sheet roofing/cladding	12	12	06-DEC-06	19-DEC-06	Steel sheet roofing/cladding	
MB2-305	Ceiling installation G/F	12	12	20-DEC-06	04-JAN-07	Ceiling installation G/F	
Wing 3: Grid A-R/15-17							

File Name: W13A
Start Date: 11-OCT-06
Finish Date: 27-JUN-07
Filter Name: FL-71 Three Months Rolling | Layout Name: Three Months Rolling |
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Current Bar Progress Bar Critical Activity

Prepared by William C Revision
Extracted from Master Programme
Version A
Activities for coming 3 months

Date: 11-OCT-06
11-OCT-06
T LoTT Wong
D Lau
Approved

Activity ID	Activity Description	2006		2007			
		Oct	Nov	Dec	Jan		
Wing 2: Grid A-R/1-4							
MB2-310 Handover to ABWF, Grid A-R/1-4	0 0 2	19-DEC-06					
MB2-315 Wall (G/F to 1/F, 11.125)	18 2 30-OCT-06	18-NOV-06					
MB2-320 Slab 1/F	6 2 20-NOV-06	25-NOV-06					
MB2-325 Wall 1/F to +13.85	8 2 27-NOV-06	05-DEC-06					
MB2-330 Steel cols, braces, beams to Roof +17.48	12 12 06-DEC-06	19-DEC-06					
MB2-335 Steel sheet roofing/cladding	12 12 20-DEC-06	04-JAN-07					
MB2-340 Ceiling installation 1/F	12 12 05-JAN-07	18-JAN-07					
MB2-345 Handover 1F Plant Rm to ABWF	0 0 2	04-JAN-07					
Center: Ground Level, Grid A-E/5-12							
MB2-360 Excavation to drains	2 0 02-SEP-06A	18-SEP-06A					
MB2-365 Excavation manholes	2 0 02-SEP-06A	18-SEP-06A					
MB2-370 DN 100 foul drain laying + Manholes	6 0 0 19-SEP-06A	28-SEP-06A					
MB2-375 DN 100 storm drain + Manholes	6 0 0 19-SEP-06A	28-SEP-06A					
MB2-380 Tie beam /footing/upstand wall	10 3 0 04-OCT-06A	13-OCT-06					
MB2-385 RC works to wash bay/sand roll	8 2 14-OCT-06	23-OCT-06					
MB2-390 Install underground foul drains/FS pipe/plumbing	6 6 14-OCT-06	20-OCT-06					
MB2-395 WWO Inspection of FS/plumbing pipes	1 1 21-OCT-06	21-OCT-06					
MB2-400 Steel columns, +6.695 to+10.2	6 6 17-OCT-06	23-OCT-06					
MB2-405 Backfill/Subbase/Grade slab, + 6.695	6 6 24-OCT-06	30-OCT-06					
MB2-410 Steel Truss + lower roof +12.674	12 12 31-OCT-06	13-NOV-06					
MB2-415 Steel Upper Roof + 13.39	10 10 2 14-NOV-06	24-NOV-06					
MB2-417 Blockworks wall partitions	22 22 2 25-NOV-06	20-DEC-06					
MB2-420 Steel sheet roofing/cladding	9 9 2 05-JAN-07	15-JAN-07					
Finishes							
ABWF Works							
MB2-025 Wall Finishes & Claddings	30 30 2 05-JAN-07	08-FEB-07					
M&E Services							
M&E Access Dates							
MB2-435 M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0 0 2 05-JAN-07						
MB2-440 M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0 0 2 05-JAN-07						
M&E Installation							
MB2-095 2nd Fix Plumbing and Drainage Installation	61 61 2 05-JAN-07	23-MAR-07					
MB2-100 2nd Fix Fire Services Installation	61 61 2 05-JAN-07	23-MAR-07					
MB2-105 2nd Fix HVAC Installation	61 61 2 05-JAN-07	23-MAR-07					
MB2-110 2nd Fix Electrical Installation	61 61 2 05-JAN-07	23-MAR-07					
MB2-115 Building Management System	61 61 2 05-JAN-07	23-MAR-07					
Prepared by William C							
OCT		NOV	2006				
DEC							
China State Const. Eng. (H.K.) Ltd. Sheet 8 of 19							
Core Venue Main Construction Contract							
(Package CV-2B & CV-2C)							
FL-71 Three Months Rolling Programme							
20 Sept 2006 to 20 Dec 2006							
File Name:W13A							
Start Date:11-OCT-06							
Finish Date:27-JUN-07							
Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Proj							
© Primavera Systems, Inc.							
Current Bar							
Progress Bar							
Critical Activity							
Approved							
D Lau							

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006		2007							
							OCT	NOV	DEC	JAN						
Main Stable Block No. 3																
Foundation and Superstructure Works																
Wing 1: Grid A-R13-16																
MB3-130	Excavation to drains	2	0	02-SEP-06A	19-SEP-06A											
MB3-135	Excavation to manholes	2	0	02-SEP-06A	19-SEP-06A											
MB3-140	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A											
MB3-145	DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A											
MB3-150	Tie beam /footing/upstand wall	10	6	27-SEP-06A	17-OCT-06											
MB3-155	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-160	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-165	Backfill/Subbase/Grade slab, + 6.695	6	6	26-OCT-06	01-NOV-06											
MB3-170	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-175	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-180	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-185	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-190	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
MB3-195	Handover to ABWF, Grid A/R13-16	0	0	2	02-NOV-06	22-NOV-06										
MB3-200	Wall (G/F to 1/F, 11.125)	18	18	2	23-NOV-06	29-NOV-06										
MB3-205	Slab 1/F	6	6	2	30-NOV-06	08-DEC-06										
MB3-210	Wall 1/F to +13.85	8	8	2	09-DEC-06	22-DEC-06										
MB3-215	Steel cols, braces, beams to Roof +17.48	12	12	2	23-DEC-06	08-JAN-07										
MB3-220	Steel sheet roofing/cladding	12	12	2	09-JAN-07	22-JAN-07										
MB3-225	Ceiling installation 1/F	12	12	2	0	08-JAN-07										
MB3-230	Handover 1F Plant Rm to ABWF	0	0	2												
Wing 2: Grid A-R14-14																
MB3-245	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-250	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-255	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-260	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-265	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-270	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-275	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-280	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-285	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-290	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-295	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-300	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-305	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 3: Grid A-R14-14																
MB3-310	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-315	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-320	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-325	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-330	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-335	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-340	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-345	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-350	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-355	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-360	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-365	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-370	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 4: Grid A-R14-14																
MB3-375	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-380	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-385	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-390	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-395	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-400	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-405	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-410	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-415	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-420	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-425	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-430	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-435	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 5: Grid A-R14-14																
MB3-440	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-445	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-450	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-455	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-460	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-465	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-470	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-475	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-480	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-485	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-490	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-495	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-500	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 6: Grid A-R14-14																
MB3-505	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-510	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-515	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-520	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-525	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-530	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-535	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-540	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-545	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-550	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-555	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-560	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-565	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 7: Grid A-R14-14																
MB3-570	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-575	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-580	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-585	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-590	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-595	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-600	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-605	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-610	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-615	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-620	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-625	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-630	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 8: Grid A-R14-14																
MB3-635	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-640	Excavation manholes	2	0	02-SEP-06A	17-SEP-06A											
MB3-645	DN 100 foul drain laying + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-650	DN 100 storm drain + Manholes	4	0	2	18-SEP-06A	27-SEP-06A										
MB3-655	Tie beam /footing/upstand wall	10	6	03-OCT-06A	17-OCT-06											
MB3-660	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06											
MB3-665	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06											
MB3-670	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06											
MB3-675	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06											
MB3-680	Steel Truss + lower roof +12.674	10	10	2	16-NOV-06	27-NOV-06										
MB3-685	Steel Upper Roof + 13.39	10	10	2	28-NOV-06	08-DEC-06										
MB3-690	Steel sheet roofing/cladding	12	12	2	09-DEC-06	22-DEC-06										
MB3-695	Ceiling installation G/F	12	12	2	23-DEC-06	08-JAN-07										
Wing 9: Grid A-R14-16																
MB3-700	Excavation to drains	2	0	02-SEP-06A	17-SEP-06A											
MB3-705	Excavation manholes															

Activity ID	Activity Description			Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006		2007	
		Oct	Nov						Oct	Dec	Jan	
Wing 2: Grid A-R/1-4												
MB3-310	Handover to ABWF, Grid A-R/1-4	0	0	2					22-DEC-06			
MB3-315	Wall (GF to 1/F, 11.125)	18	18	2	02-NOV-06	22-NOV-06						
MB3-320	Slab 1/F	6	6	2	23-NOV-06	29-NOV-06						
MB3-325	Wall 1/F to +13.85	8	8	2	30-NOV-06	08-DEC-06						
MB3-330	Steel coils, braces, beams to Roof +17.48	12	12	2	09-DEC-06	22-DEC-06						
MB3-335	Steel sheet roofing/cladding	12	12	2	23-DEC-06	08-JAN-07						
MB3-340	Ceiling installation 1/F	12	12	2	09-JAN-07	22-JAN-07						
MB3-345	Handover 1F Plant Rm to ABWF	0	0	2			08-JAN-07					
Center: Ground Level, Grid A-E/5-12												
MB3-360	Excavation drains	2	0	2	02-SEP-06A	19-SEP-06A						
MB3-365	Excavation to manholes	2	0	2	02-SEP-06A	19-SEP-06A						
MB3-370	DN 100 foul drain laying + Manholes	6	0	2	20-SEP-06A	29-SEP-06A						
MB3-375	DN 100 storm drain + Upstand wall	6	0	2	20-SEP-06A	29-SEP-06A						
MB3-380	Tie beam /footing/upstand wall	10	10	2	14-OCT-06*	25-OCT-06						
MB3-385	RC works to wash bay/sand roll	8	8	2	26-OCT-06	03-NOV-06						
MB3-390	Install underground foul drains/FS pipe/plumbing	6	6	2	26-OCT-06	01-NOV-06						
MB3-395	WWO Inspection of FS/plumbing pipes	1	1	2	02-NOV-06	02-NOV-06						
MB3-400	Steel columns, +6.695 to+10.2	6	6	2	28-OCT-06	03-NOV-06						
MB3-405	Backfill/Subbase/Grade slab, + 6.695	6	6	2	04-NOV-06	10-NOV-06						
MB3-410	Steel Truss + lower roof +12.674	12	12	2	11-NOV-06	24-NOV-06						
MB3-415	Steel Upper Roof + 13.39	10	10	2	25-NOV-06	06-DEC-06						
MB3-417	Block wall partitions	22	22	2	07-DEC-06	03-JAN-07						
MB3-420	Steel sheet roofing/cladding	9	9	2	09-JAN-07	18-JAN-07						
Finishes												
ABWF Works												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
M&E Access Dates												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-110	2nd Fix Electrical Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-115	Building Management System	54	54	2	03-JAN-07	13-MAR-07						
Finishes												
ABWF Finishes & Claddings												
MB3-025	Wall Finishes & Claddings	30	30	2	02-JAN-07	05-FEB-07						
M&E Services												
MB3-435	M&E Access: Wing 1, Grid A-R/13-16, Grd Lvl	0	0	2	03-JAN-07							
MB3-440	M&E Access: Wing 2, Grid A-R/1-4, Grd Lvl	0	0	2	03-JAN-07							
M&E Installation												
MB3-095	2nd Fix Plumbing and Drainage Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-100	2nd Fix Fire Services Installation	54	54	2	03-JAN-07	13-MAR-07						
MB3-105	2nd Fix HVAC Installation	54	54	2	03-JAN-07	1						

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006			2007								
							OCT	NOV	DEC	OCT	NOV	DEC						
Main Stable Block No. 4																		
Foundation and Superstructure Works																		
Wing 1: Grid A-R/13-16																		
MB4-130	Excavation to drains	2	0	02-SEP-06A	18-SEP-06A													
MB4-135	Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A													
MB4-140	DN 100 foul drain laying + Manholes	6	0	19-SEP-06A	10-OCT-06A	DN 100 foul drain laying + Manholes												
MB4-145	DN 100 storm drain + Manholes	6	0	19-SEP-06A	10-OCT-06A	DN 100 storm drain + Manholes												
MB4-150	Tie beam/footing/upstand wall	10	10	11-OCT-06	21-OCT-06	Tie beam/footing/upstand wall												
MB4-155	Install underground foul drains/FS pipe/plumbing	6	6	23-OCT-06	28-OCT-06	Install underground foul drains/FS pipe/plumbing												
MB4-160	WWO Inspection of FS/plumbing pipes	1	1	30-OCT-06	30-OCT-06	WWO Inspection of FS/plumbing pipes												
MB4-165	Backfill/Subbase/Grade slab, + 6.695	6	6	31-OCT-06	06-NOV-06	Backfill/Subbase/Grade slab, + 6.695												
MB4-170	Wall (G/F +6.695 to +9.5)	12	12	07-NOV-06	20-NOV-06	Wall (G/F +6.695 to +9.5)												
MB4-175	Steel Truss + lower roof +12.674	10	10	21-NOV-06	01-DEC-06	Steel Truss + lower roof +12.674												
MB4-180	Steel Upper Roof + 13.39	10	10	02-DEC-06	13-DEC-06	Steel Upper Roof + 13.39												
MB4-185	Steel sheet roofing/cladding	12	12	14-DEC-06	28-DEC-06	Steel sheet roofing/cladding												
MB4-190	Ceiling installation G/F	12	12	29-DEC-06	12-JAN-07	Ceiling installation G/F												
MB4-195	Handover to ABWF, Grid A-R/13-16	0	0	28-DEC-06	28-DEC-06	Handover to ABWF, Grid A-R/13-16												
MB4-200	Wall (G/F to 1/F, 11.125)	18	18	07-NOV-06	27-NOV-06	Wall (G/F to 1/F, 11.125)												
MB4-205	Slab 1/F	6	6	28-NOV-06	04-DEC-06	Slab 1/F												
MB4-210	Wall 1/F to +13.85	8	8	05-DEC-06	13-DEC-06	Wall 1/F to +13.85												
MB4-215	Steel cols, braces, beams to Roof +17.48	12	12	14-DEC-06	28-DEC-06	Steel cols, braces, beams to Roof +17.48												
MB4-220	Steel sheet roofing/cladding	12	12	29-DEC-06	12-JAN-07	Steel sheet roofing/cladding												
Wing 2: Grid A-R/1-4																		
MB4-245	Excavation to drains	2	0	02-SEP-06A	18-SEP-06A													
MB4-250	Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A													
MB4-255	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-260	DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-265	Tie beam/footing/upstand wall	10	6	29-SEP-06A	17-OCT-06	Tie beam/footing/upstand wall												
MB4-270	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing												
MB4-275	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WWO Inspection of FS/plumbing pipes												
MB4-280	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06	Backfill/Subbase/Grade slab, + 6.695												
MB4-285	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)												
MB4-290	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674												
MB4-295	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39												
MB4-300	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding												
MB4-305	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F												
MB4-310	Handover to ABWF, Grid A-R/1-4	0	0	22-DEC-06	22-NOV-06	Handover to ABWF, Grid A-R/1-4												
MB4-315	Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	Wall (G/F to 1/F, 11.125)												
Wing 3: Grid L-N/1-4																		
MB4-320	Excavation to drains	2	0	02-SEP-06A	18-SEP-06A													
MB4-325	Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A													
MB4-330	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-335	DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-340	Tie beam/footing/upstand wall	10	6	29-SEP-06A	17-OCT-06	Tie beam/footing/upstand wall												
MB4-345	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing												
MB4-350	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WWO Inspection of FS/plumbing pipes												
MB4-355	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06	Backfill/Subbase/Grade slab, + 6.695												
MB4-360	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)												
MB4-365	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674												
MB4-370	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39												
MB4-375	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding												
MB4-380	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F												
MB4-385	Handover to ABWF, Grid L-N/1-4	0	0	22-DEC-06	22-NOV-06	Handover to ABWF, Grid L-N/1-4												
MB4-390	Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	Wall (G/F to 1/F, 11.125)												
Wing 4: Grid A-R/13-16																		
MB4-395	Excavation to drains	2	0	02-SEP-06A	18-SEP-06A													
MB4-400	Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A													
MB4-405	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-410	DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-415	Tie beam/footing/upstand wall	10	6	29-SEP-06A	17-OCT-06	Tie beam/footing/upstand wall												
MB4-420	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing												
MB4-425	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WWO Inspection of FS/plumbing pipes												
MB4-430	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06	Backfill/Subbase/Grade slab, + 6.695												
MB4-435	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)												
MB4-440	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674												
MB4-445	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39												
MB4-450	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding												
MB4-455	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F												
MB4-460	Handover to ABWF, Grid A-R/13-16	0	0	22-DEC-06	22-NOV-06	Handover to ABWF, Grid A-R/13-16												
MB4-465	Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	Wall (G/F to 1/F, 11.125)												
Wing 5: Grid A-R/1-4																		
MB4-470	Excavation to drains	2	0	02-SEP-06A	18-SEP-06A													
MB4-475	Excavation to manholes	2	0	02-SEP-06A	18-SEP-06A													
MB4-480	DN 100 foul drain laying + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-485	DN 100 storm drain + Manholes	6	0	20-SEP-06A	29-SEP-06A													
MB4-490	Tie beam/footing/upstand wall	10	6	29-SEP-06A	17-OCT-06	Tie beam/footing/upstand wall												
MB4-495	Install underground foul drains/FS pipe/plumbing	6	6	18-OCT-06	24-OCT-06	Install underground foul drains/FS pipe/plumbing												
MB4-500	WWO Inspection of FS/plumbing pipes	1	1	25-OCT-06	25-OCT-06	WWO Inspection of FS/plumbing pipes												
MB4-505	Backfill/Subbase/Grade slab, + 6.695	6	6	01-NOV-06	26-OCT-06	Backfill/Subbase/Grade slab, + 6.695												
MB4-510	Wall (G/F, +6.695 to +9.5)	12	12	02-NOV-06	15-NOV-06	Wall (G/F, +6.695 to +9.5)												
MB4-515	Steel Truss + lower roof +12.674	10	10	16-NOV-06	27-NOV-06	Steel Truss + lower roof +12.674												
MB4-520	Steel Upper Roof + 13.39	10	10	28-NOV-06	08-DEC-06	Steel Upper Roof + 13.39												
MB4-525	Steel sheet roofing/cladding	12	12	09-DEC-06	22-DEC-06	Steel sheet roofing/cladding												
MB4-530	Ceiling installation G/F	12	12	23-DEC-06	08-JAN-07	Ceiling installation G/F												
MB4-535	Handover to ABWF, Grid A-R/1-4	0	0	22-DEC-06	22-NOV-06	Handover to ABWF, Grid A-R/1-4												
MB4-540	Wall (G/F to 1/F, 11.125)	18	18	02-NOV-06	22-NOV-06	Wall (G/F to 1/F, 11.125)												

File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling Layout
Layout Name:Three Months Rolling Systems, Inc.
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China State Const. Eng. (H.K) Ltd. Sheet 11 of 19
Core Venue Main Construction Contract
(Package CV-2B & CV-2C)
FL-71 Three Months Rolling Programme
20 Sept 2006 to 20 Dec 2006

Prepared by William C	Revision	Checked	Approved
11-OCT-06	Extracted from Master Programme Version A	T LoT Wong	D Lau
	Activities for coming 3 months		

File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling
Layout Name:Three Months Rolling Prod
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File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling
Layout Name:Three Months Rolling Proat
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Activity ID	Activity Description	2006		2007	
		Oct	Nov	Dec	Jan
Utilities at South Side of MB4					
EXT-085	DN225, F12.13->F12.2A	12	12	2	03-JAN-07
Utilities between MB1 and MB2					
EXT-025	Remove Falsework at Wall MB2/MB1 (wing areas)	0	0	2	08-DEC-06
EXT-045	DN 750, storm MHS13.23 to S13.27	24	24	2	09-DEC-06
EXT-050	DN 300 foul drain, MHF12.15->F12.16->F12.17	18	18	2	08-JAN-07
Utilities between MB3 and MB4					
EXT-020	Wall bet MB3/MB4 completed	0	0	2	13-DEC-06
EXT-160	DN300, F12.8->F12.5	12	12	2	14-DEC-06
EXT-190	DN150/225/300, MHS12.50->S12.54	14	14	2	28-DEC-06
External Utilities/Drainage - Phase 2					
Utilities between Vet Stable and MB1					
EXT-040	Divert Access - Phase 2 Excavation	0	0	2	04-DEC-06*
EXT-105	DN450,MHS13.21->S12.36	12	12	2	05-DEC-06
EXT-110	DN300, MHF12.15->F13.1->13.2	18	18	2	18-DEC-06
Utilities bet. Vet Stable and Sand Arena, Rd ST5					
EXT-195	DN150- FS main, Ch D7.5 -> D99.5	12	12	2	04-DEC-06*
EXT-197	WWO Inspection	1	1	2	18-DEC-06*
EXT-199	Backfill	3	3	2	19-DEC-06*
Utilities at Road ST4					
EXT-200	DN150- FS main, Ch D99.5 -> D184.0	12	12	2	18-DEC-06
EXT-202	WWO Inspection	1	1	2	02-JAN-07
EXT-204	Backfill	3	3	2	03-JAN-07
EXT-225	DN80uPVC, Irrigation Main	12	12	2	02-JAN-07
Utilities between MB3 and MB2					
EXT-015	Divert Access - Phase 2 Excavation	0	0	2	04-DEC-06*
EXT-140	DN450 MHS12.36->S12.35->S12.34 (bet MB3/MB2)	14	14	2	05-DEC-06
EXT-145	DN450 MHS12.34->S12.32 (beside MB4)	16	16	2	20-DEC-06
EXT-150	DN300 MHF12.15->12.9 (bet MB3/MB2)	16	16	2	10-JAN-07
EXT-240	DN80uPVC, Irrigation Main	12	12	2	21-DEC-06
External Utilities/Drainage - Phase 3 + Roadwork					
LV Cabling Works					
43590	LV cable laying, Vet stable to Chiller Plant Rm	12	12	2	06-JAN-07
43595	LV cable laying, Tx Rm Vet stable to MB1 and MB2	12	12	2	19-JAN-07
Access Road (EVA)					
43630	Bituminous Access Road (EVA), Road ST4	6	6	2	08-JAN-07
Bituminous Access Road (EVA), Road ST4					
Prepared By William C					
Core Venue Main Construction Contract					
(Package CV-2B & CV-2C)					
FL-71 Three Months Rolling Programme					
20 Sept 2006 to 20 Dec 2006					
File Name:W13A					
Start Date:11-OCT-06					
Finish Date:27-JUN-07					
Filter Name:FL-71 Three Months Rolling					
LAYOUT Name:Three Months Rolling Prog					
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Legend:					
Current Bar	Progress Bar	Critical Activity			

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	OCT	NOV	OCT	NOV	OCT	NOV
60080	CLP cable laying at Portion HKSI-1/HKSI-2	60	0	2	17-JUL-06A	06-OCT-06A	CLP cable laying at Portion HKSI-1/HKSI-2					
Interface Works with Employer Direct Contractors												
Statutory Submissions & Inspections												
Water Authority												
20552	RSS provide WWO approval letter	0	0	2	20-SEP-06A							
20560	Submit Form WW046 Part 1 and 2	1	0	2	25-SEP-06A	25-SEP-06A						
20570	Form WW046 Part 4 (underground utilities@stable)	0	0	2	06-OCT-06A		Form WW046 Part 4 (underground utilities@stable)					
20582	Form WW046 Part 4 -FS main Ch C144.5 -> E12.0	0	0	2	04-DEC-06							
20587	Form WW046 Part 4 - FS main, Ch D184 -> D290	0	0	2	18-NOV-06							
20597	Form WW046 Part 4 FS main Ch D7.5 -> D99.5	0	0	2	04-DEC-06							
20602	Form WW046 Part 4 - FS main Ch D99.5 -> D184.0	0	0	2	18-DEC-06							
EPD												
20620	EPD Application (EL)	0	0	2	09-OCT-06A							
CLP												
20630	CLP Supply metering application (vet stable)	0	0	2	16-OCT-06*							
20640	Form WR1 to CLP	0	0	2	03-JAN-07*							
FSD - Dangerous Goods												
20511	License application for DG store	0	0	2	03-JAN-07*							
FSD - Fire Services												
20514	FS 314 drawing submission (FS)	0	0	2	08-JAN-07*							
20516	VAC drawing submissions (AC)	0	0	2	08-JAN-07*							
Portion HKSI-2												
Training and Competition Arena - Sand												
Site Formation												
47040	Excavation and Fill to Formation Level	14	14	2	15-NOV-06*	30-NOV-06						
47050	Lay Drainage System (ie. Storm, Sub-soil Drain)	45	45	2	01-DEC-06	24-JAN-07						
External Works												
Drainage Works												
43602	Drainage DN225, MHS8 ->S12.25	12	12	2	01-DEC-06	14-DEC-06						
43606	ELV+PCCW/COMM ducts, to Vet stable	12	12	2	15-DEC-06	29-DEC-06						
External Works												
Drainage Works												
File Name:W13A Start Date:11-OCT-06 Finish Date:27-JUN-07 Filter Name:FL-71 Three Months Rolling Layout Name:Three Months Rolling Programme © Primavera Systems, Inc.	Current Bar	Progress Bar	Critical Activity	China State Const. Eng. (H.K.) Ltd. Sheet 15 of 19		Core Venue Main Construction Contract (Package CV-2B & CV-2C) FL-71 Three Months Rolling Programme 20 Sept 2006 to 20 Dec 2006	Prepared by William C Revision 11-OCT-06 Extracted from Master Programme Version A. Activities for coming 3 months	Checked T Loft Wong D Lau	Approved	JAN 2007		
OCT	NOV	2006	DEC	JAN	2007							

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal Start	Early Start	Early Finish	Oct	Nov	Dec	Jan
Section KD-2 (Portion HKS1-3 to HKS1-6)										
Portion HKS1-3										
Shing Mun Walkway										
Initial Works										
202205 Excavation Permit - at HKS1-3		51	24	2	24-JUL-06A	07-NOV-06				
660000 Erect Hoardings		6	6	2	08-NOV-06	14-NOV-06				
660005 Protection to existing trees		6	6	2	11-NOV-06	17-NOV-06				
66010 Site Clearance and demolition works		12	12	2	18-NOV-06	01-DEC-06				
66000A TTW Implementation		0	0	2	08-NOV-06					
External Drainage										
66020 Drainage Work - Stage 1 (50m)		16	16	2	02-DEC-06	20-DEC-06				
66030 Drainage Work - Stage 2 (50m)		16	16	2	21-DEC-06	10-JAN-07				
Portion HKS1-4										
Training and Competition Arenas										
Main Competition Arena										
Initial Works										
52010 Condition Survey and Reporting		12	12	2	04-DEC-06	16-DEC-06				
52020 Protect Existing Structures & Utilities		7	7	2	04-DEC-06	11-DEC-06				
52030 Divert Temporary Utilities/Irrigation		14	14	2	04-DEC-06	19-DEC-06				
52040 Site Clearing and Demolition		5	5	2	20-DEC-06	26-DEC-06				
Site Formation, Drainage Works, Mast Footing										
52050 Excavation		10	10	2	27-DEC-06	08-JAN-07				
52070 Fill to Final Formation		8	8	2	08-JAN-07	16-JAN-07				
52072 Lay underground 150UPVC ducts (900mm depth)		8	8	2	09-JAN-07	17-JAN-07				
52080 Lay Drainage System		24	24	2	09-JAN-07	05-FEB-07				
52095 Footing for 15m high mast (2 nos)		18	18	2	09-JAN-07	29-JAN-07				
Mini Pile & Pile Cap for 40m High Mast										
65025 Site Investigation		6	6	2	04-DEC-06*	09-DEC-06				
65035 Utilities diversion		12	12	2	11-DEC-06	23-DEC-06				
65045 Mini-piles- 32 nos. (2 rigs)		36	36	2	26-DEC-06	06-FEB-07				
Warm Up Arena and Holding Arena										
Initial Works										
53010 Condition Survey and Reporting		14	14	2	12-DEC-06	28-DEC-06				
53020 Protect Existing Structures & Utilities		7	7	2	12-DEC-06	19-DEC-06				
53030 Divert Temporary Utilities/Irrigation		21	21	2	12-DEC-06	06-JAN-07				
Completion										
Oct							Nov			
							2006			
								DEC		
									JAN	

File Name:W13A
 Start Date:11-OCT-06
 Finish Date:27-JUN-07
 Filter Name:FL-71 Three Months Rolling Programme
 Layout Name:Three Months Rolling Progr
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China State Const. Eng. (H.K) Ltd. Sheet 16 of 19
Core Venue Main Construction Contract
(Package CV-2B & CV-2C)
FL-71 Three Months Rolling Programme
 20 Sept 2006 to 20 Dec 2006

Prepared by William C	Revision	Approved
Date 11-007-06	Extracted from Master Programme Version A	D Lau T Le/T Wong
Activities for coming 3 months		

Activity ID	Activity Description	2006						2007					
		Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	OCT	Now		DEC	JAN	DEC	JAN
Initial Works													
53040	Site Clearing and Demolition												
Dressage Training Arena													
Initial Works													
54010	Condition Survey and Reporting	14	14	2	12-DEC-06	28-DEC-06							
54020	Protect Existing Structures & Utilities	7	7	2	12-DEC-06	19-DEC-06							
54030	Divert Temporary Utilities/Irrigation	12	12	2	22-DEC-06	06-JAN-07							
54040	Site Clearing and Demolition	7	7	2	08-JAN-07	15-JAN-07							
General External Works													
Tree Transplanting													
Initial Works													
52045	Tree transplanting (T416...426 group)	33	33	2	04-DEC-06*	12-JAN-07							
52055	Tree transplanting (T440...446, T411..413 group)	35	35	2	04-DEC-06*	15-JAN-07							
53045	Tree transplanting (T167.... 182 group)	35	35	2	04-DEC-06*	15-JAN-07							
54045	Tree transplanting (T164 to T167)	40	40	2	15-DEC-06*	01-FEB-07							
External Utilities/Drainage													
LV Cabling Works													
61085	Lay LV cable-Tx Rm to 40m HM (P5/P4)	18	18	2	22-NOV-06	12-DEC-06							
61095	Lay LV cable-Tx Rm to 15m HM (P11, P11G)	18	18	2	13-DEC-06	04-JAN-07							
61100	Lay LV cable-Tx Rm to 40m HM (P9) + 20m HM(P8A)	12	12	2	05-JAN-07	18-JAN-07							
61120	Lay LV cable-Tx Rm to 40m HM (P2/P3)	12	12	2	04-DEC-06*	16-DEC-06							
61125	Lay LV cable-Tx Rm to 40m HM (P6/P7)	18	18	2	18-DEC-06	09-JAN-07							
Drainage Works													
61055	Drainage - DN750, MHS12.2->S12.3	18	18	2	04-DEC-06*	23-DEC-06							
61065	Drainage - DN750, MHS12.3->S12.5	18	18	2	11-DEC-06	02-JAN-07							
61075	Drainage - DN675, MHS12.5->S12.6	18	18	2	18-DEC-06	09-JAN-07							
Fresh Water Mains													
61140	Fresh water mains- main competition arena area	18	18	2	27-DEC-06	17-JAN-07							
Area near Shatin Racecourse													
Soft Landscape													
30010	Site clearance+Horading+Tree protection	18	18	2	04-JAN-07*	24-JAN-07							
Portion HKS1-6													
General External Works													
Tree Transplanting													
Tree Transplanting													
40510	Tree Transplanting (T593, 592)	69	69	2	01-DEC-06*	28-FEB-07							
Tree Transplanting													
Tree Transplanting													
Tree Transplanting													
Tree Transplanting													
Site Clearance and Demolition													
Condition Survey and Reporting													
Protect Existing Structures & Utilities													
Divert Temporary Utilities/Irrigation													
Site Clearing and Demolition													
Condition Survey and Reporting													
Protect Existing Structures & Utilities													
Divert Temporary Utilities/Irrigation													
Site Clearing and Demolition													

China State Const. Eng. (H.K) Ltd. Sheet 17 of 19
Core Venue Main Construction Contract
 (Package CV-2B & CV-2C)
FL-71 Three Months Rolling Programme
 20 Sept 2006 to 20 Dec 2006

Progress Bar
 Critical Activity

Prepared by William C
 Revision
 Date
 11-OCT-06
 Extracted from Master Programme
 Version A
 Activities for coming 3 months

File Name:W13A
 Start Date:11-OCT-06
 Finish Date:27-JUN-07
 Filter Name:FL-71 Three Months Rolling
 Layout Name:Three Months Rolling Programme
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OCT NOV 2006 DEC JAN 2007

JAN

2007

Activity ID	Activity Description	Orig Dur	Rem Dur	Cal ID	Early Start	Early Finish	2006		2007	
							OCT	NOV	DEC	JAN
West side of Penfold Park										
PP-070	Remove / modify existing irrigation system	20	9	2	21-AUG-06A	20-OCT-06				
PP-075	Construct new foot path no. 5	20	0	2	21-AUG-06A	30-SEP-06A				
PP-080	Construct 300 UC (C1)	20	0	2	21-AUG-06A	12-SEP-06A				
PP-085	Formation at Bridle path at south and west	20	0	2	21-AUG-06A	12-SEP-06A				
PP-090	Associated 225 TCD	20	3	2	20-SEP-06A	13-OCT-06				
PP-095	Associated 300 TCD from CP1.10->CP1.8	20	9	2	20-SEP-06A	20-OCT-06				
PP-100	DN375 storm drain CP1.8 -> CP1.7	20	9	2	20-SEP-06A	20-OCT-06				
PP-105	New Footpath 1 south side	20	3	2	21-AUG-06A	13-OCT-06				
PP-110	Stage 1 complete	0	0	2			20-OCT-06			
Stage 2										
PP-120	DN150/225 from water jump to CP1.4	20	17	2	06-OCT-06A	30-OCT-06				
PP-125	DN225 CP1.4A -> CP1.4B	20	0	2	04-SEP-06A	20-SEP-06A				
PP-130	DN225 CP1.5 -> EX.	20	0	2	25-SEP-06A	30-SEP-06A				
PP-135	DN225 CP1.24 ->OF1.26	12	0	2	20-SEP-06A	06-OCT-06A	DN22 CP1.24 ->OF1.26			
PP-140	DN3755 CP1.7 ->OF1.9	12	9	2	06-OCT-06A	20-OCT-06				
PP-145	DN300 CP1.12 -> OF1.13	12	9	2	06-OCT-06A	20-OCT-06				
PP-150	DN300 ST1.16 -> OF1.16	20	0	2	11-SEP-06A	20-SEP-06A				
PP-160	DN300 ST2 -> OF1.19	20	7	2	25-SEP-06A	18-OCT-06				
PP-165	DN225 CP1.21 ->CP1.20->EX	12	9	2	06-OCT-06A	20-OCT-06				
PP-170	Sand trap ST1 & ST2	20	0	2	05-SEP-06A	30-SEP-06A				
PP-175	300UC for Arena 1 and 2	20	0	2	05-SEP-06A	30-SEP-06A				
PP-180	300UC foot path 4 to CP1.18	12	9	2	06-OCT-06A	20-OCT-06				
PP-185	225UC to CP1.14	12	9	2	06-OCT-06A	20-OCT-06				
PP-190	300TCD to CP1.8	20	0	2	23-SEP-06A	30-SEP-06A				
PP-195	DN150 sub soil drains	6	3	2	06-OCT-06A	13-OCT-06				
PP-215	Overflow weir headwall 5 nos) around lake C	20	9	2	20-SEP-06A	20-OCT-06				
PP-220	Formation works in dressage training Arena 1 & 2	20	3	2	13-SEP-06A	13-OCT-06				
PP-225	Remove / modify existing irrigation system	20	9	2	21-AUG-06A	20-OCT-06				
PP-235	Formation works in general schooling areas	20	3	2	06-SEP-06A	13-OCT-06				
PP-240	Water jump in schooling area	20	17	2	06-OCT-06A	30-OCT-06				
PP-245	Formation works in Cross Country 3 and 4	20	9	2	13-SEP-06A	20-OCT-06				
PP-250	New footpath east of Lake C	20	17	2	06-OCT-06A	30-OCT-06				
PP-255	Stage 2 Complete	0	0	2			30-OCT-06			
Site Formation/Landscaping Works										
PP-120	DN150/225 from water jump to CP1.4							DN150/225 from water jump to CP1.4		
PP-125	DN225 CP1.4A -> CP1.4B									
PP-130	DN225 CP1.5 -> EX.									
PP-135	DN225 CP1.24 ->OF1.26									
PP-140	DN3755 CP1.7 ->OF1.9									
PP-145	DN300 CP1.12 -> OF1.13									
PP-150	DN300 ST1.16 -> OF1.16									
PP-160	DN300 ST2 -> OF1.19									
PP-165	DN225 CP1.21 ->CP1.20->EX									
PP-170	Sand trap ST1 & ST2									
PP-175	300UC for Arena 1 and 2									
PP-180	300UC foot path 4 to CP1.18									
PP-185	225UC to CP1.14									
PP-190	300TCD to CP1.8									
PP-195	DN150 sub soil drains									
PP-215	Overflow weir headwall 5 nos) around lake C									
PP-220	Formation works in dressage training Arena 1 & 2									
PP-225	Remove / modify existing irrigation system									
PP-235	Formation works in general schooling areas									
PP-240	Water jump in schooling area									
PP-245	Formation works in Cross Country 3 and 4									
PP-250	New footpath east of Lake C									
PP-255	Stage 2 Complete									
China State Const. Eng. (H.K.) Ltd. Sheet 19 of 19										
Core Venue Main Construction Contract										
(Package CV-2B & CV-2C)										
FL-71 Three Months Rolling Programme										
20 Sept 2006 to 20 Dec 2006										
Oct							NOV			
Nov							2006			
Dec										
JAN										
2007										
Prepared by William C										
Date							Revision			
11-OCT-06							Extracted from Master Programme			
							Version A,			
							Activities for coming 3 months			
T Latif Wong										
D Lau										

File Name:W13A
Start Date:11-OCT-06
Finish Date:27-JUN-07
Filter Name:FL-71 Three Months Rolling Programme
Layout Name:Three Months Rolling Progra
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Appendix B

**Environmental
Mitigation
Implementation
Schedule**

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation	What requirements or standards for the measures to achieve?
S3.8	<p>The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation</p> <ul style="list-style-type: none"> • Any excavated of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads or streets; • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; 	Contractor	Entire construction site	Construction stage	✓	✓	<ul style="list-style-type: none"> • To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1-hr and 24hr TSP levels are 500 μgm^{-3} and 260 μgm^{-3}, respectively)

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Main Arena of 2008 Olympic Equestrian Events

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S3.8.2	<p>The Contract shall adopt adequate measures to mitigate the odour impact to acceptable level:</p> <ul style="list-style-type: none"> • A sanitary environment will always be maintained in the stable area. The current waste management practices will be extended to cover the new stable area at HKSI. Detailed design of stable will cater for the health, safety and environmental protection considerations in accordance with the HKJC policy and practice; • Regular maintenance of the odour removal system, such as carbon filter system will be carried out to maintain the odour removal efficiency; and • Enclosed containers, similar to those at the existing stables near HKSI, will be provided for the stockpiling of waste. 	minimize the potential odour impact to nearby sensitive receivers	Contractor	Stables	Operational Phase	N/A	<ul style="list-style-type: none"> • TM-EIA, Annex 4 • 5 odour units based on averaging time of 5 seconds
S4.8.1.1	<p>1) Use of good site practices to limit noise emissions by considering the following:</p> <ul style="list-style-type: none"> • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; • material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Control construction airborne noise by means of good site practices	Contractor	Entire construction site	Construction stage		<ul style="list-style-type: none"> • Noise Control Ordinance

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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S4.8.1.2	2) Install temporary hoarding of 2.4m high located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> • Noise Control Ordinance • Annex 5, TM-EIA • Hoarding should have no openings and a superficial surface density of at least 14kg/m².
S4.8.1.3	3) Install movable noise barriers (typically density @14kg/m ²), acoustic mat close to noisy plants including air compressor, water pump, hand-held breaker and pipe pile rigs.	Screen the noisy plant items to be used at all construction sites	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> • Noise Control Ordinance • Annex 5, TM-EIA • 75dB(A) for residential premises and 70dB(A) for schools during daytime • The movable barrier should achieve at least 5dB(A) and the full enclosure should be designed to achieve 10dB(A)

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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S4.8.1.4	4) Liaise with the school representative(s) including, but not limited to Hong Kong Institute of Vocational Education (Shatin), Jockey Club Ti-1 College, International Christian School – Elementary and Leung Kui Kau Primary School to obtain the examination schedule and avoid noisy construction activities during school examination period.	Schedule the construction works outside school examination periods to less intrusive periods	Contractor	Construction sites near the schools such as Hong Kong Institute of Vocational Education (Shatin), Jockey Club Ti-1 College, International Christian School – Elementary and Leung Kui Kau Primary School	Construction stage	N/A	<ul style="list-style-type: none"> • Noise Control Ordinance • Annex 5, TM-EIA • To comply with the daytime construction noise criterion of 65dB(A) at school during the examination periods,
S4.8.1.5	5) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	Reduce the noise levels of plant items	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> • Noise Control Ordinance & its TM • Annex 5, TM-EIA
S4.8.1.6	6) Sequencing operation of construction plant equipment.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	Entire construction site where practicable	Construction stage	✓	<ul style="list-style-type: none"> • Noise Control Ordinance • Annex 5, TM-EIA
S4.8.4.1	1) The Louvres should be orientated away from adjacent NSRs where possible, preferably onto Sha Tin Racecourse which are less sensitive. 2) Adequate direct noise mitigation measures including silencers, acoustic louvers, acoustic enclosures should be allowed for in the design. 3) A cluster of small power rated loudspeakers should be used instead of a few large power rated loudspeakers	Control operational noise from fixed sources	Designers	E&M plant items	Design stage	✓	<ul style="list-style-type: none"> • HKPSG
S4.8.4.2		Control operational noise from fixed sources	Designers	PA system	Design stage	✓	<ul style="list-style-type: none"> • HKPSG

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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S4.8.4.2	4) Directional loudspeakers should be used and orientated them to point towards the audience and away from the nearby noise sensitive receivers	Control operational noise from fixed sources	Designers	PA system	Design stage	✓	• HKPSG
S5.6.1	1) Follow the site practices outlined in ProPECC PN 1/94 as far as practicable in order to minimise surface runoff and the chance of erosion, and to reduce any suspended solids prior to discharge.	Good site practice to control construction water quality	Contractor	Entire construction site	Construction stage	✓	• Requirements laid down in ProPECC PN 1/94
S5.6.1	<u>Sewage Effluent</u> 1) Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Control sewage effluent arising from the sanitary facilities provided for the on-site construction workforce	Contractor	On-site sanitary facilities	Construction stage	✓	• ProPECC PN 1/94 • Water Pollution Control Ordinance • Waste Disposal Ordinance

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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S5.6.1	<u>Construction Runoff and Site Drainage</u>	<p>Control construction runoff and erosion from site surface, drainage channel, stockpiles, barging facility, wheel washing facilities, etc to minimize water quality during construction stage</p> <ul style="list-style-type: none"> At the start of site establishment (including the barging facility), 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 (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. 	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> • ProPECC PN 1/94 • Water Pollution Control Ordinance

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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	<ul style="list-style-type: none"> Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50 m³ 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. Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPEC 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. 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 bay should be provided at every construction site exit. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. Oil interceptors should be provided in the site drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>					N/A

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation	What requirements or standards for the measures to achieve?
	<ul style="list-style-type: none"> Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. Requirements for solid waste management are detailed in Section 6 of the EIA Report. All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bounds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. 				✓		
S5.6.2.1	A low flow interceptor drainage system should be constructed to intercept the first foul flush and convey it to a storage tank from where it is pumped to the foul drainage system. The catchment area of the low flow interceptor drainage covers the area of Main Stable Complex. Sand traps will also be provided at the stable to prevent sand from being conveyed into the pipe system.	Control surface runoff	Scheme designers and/or Operator	Drainage system	Design and/or operational stage	B	<ul style="list-style-type: none"> TM-water Water Pollution Control Ordinance
S5.6.2.2	A new 450mm public gravity sewer should be constructed along the pathway of the Shing Mun River and be connected to the existing 450mm public sewer at the southeastern corner of HKSI to collect the sewage from the new Stable Complex and the low flow interceptor system.	Control sewage collection	Scheme designers	Sewage System	Design stage	B	<ul style="list-style-type: none"> Water Pollution Control Ordinance TM-water
S6.5.1.1	1) The requirements as recommended in ETWB TC 15/2003 Waste Management on Construction Sites and its latest version, and other relevant guidelines, should be included in the Particular Specification as appropriate. 2) Prior to the commencement of construction work, the Contractor should prepare a WMP to provide an overall framework for waste management and reduction.	Develop waste management strategies and minimize construction waste disposal	Scheme Designer	Entire construction site	Design stage	✓	<ul style="list-style-type: none"> Waste Disposal Ordinance • ETWB TC 15/2003
S6.5.1.1		Develop waste management and reduction strategies	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> Waste Disposal Ordinance • ETWB TC 15/2003 Waste Disposal (Chemical Waste) (General) Regulation • ETWBTC 34/2002

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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S6.5.1.2 & S6.5.1.3	<p><u><i>Construction and Demolition Material</i></u></p> <ul style="list-style-type: none"> Opportunity for re-using of fill material for back filling should be optimized. Excavated materials that cannot be recycled should be transported to public filling areas. Careful design, planning and good site management can minimise over-ordering and waste materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse. The contractor should recycle as much as possible of the construction waste on-site. Proper segregation of wastes on site will increase the feasibility of recycling certain components of the waste stream by recycling contractors. Concrete and masonry can be used as general fill and steel reinforcement bars can be used by scrap steel mills. Different areas should be designated for such segregation and storage wherever site conditions permit. Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement. Surplus artificial hard materials should be delivered to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products. 	<p>Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal</p>	Contractor	Entire construction site	Construction stage	✓	<ul style="list-style-type: none"> Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance ETWB TC 15/2003

Environmental Mitigation Implementation Schedule
Main Arena of 2008 Olympic Equestrian Events

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	<ul style="list-style-type: none"> Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate. Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified. Implement an enhanced Waste Management Plan similar to ETWB TC(W) No. 15/2003 – "Waste Management on Construction Sites" to encourage on-siting sorting of C&D materials and to minimize their generation during the course of construction. 				✓	✓	
S6.5.1.4	<i>Chemical Waste</i>	<ul style="list-style-type: none"> Control the chemical waste and ensure proper storage, handling and disposal. 	Contractor	Entire construction site	Construction stage	N/A	<ul style="list-style-type: none"> • Waste Disposal (Chemical Waste) General Regulation • Code of Practice on the Packaging, Labelling and Storage of Chemical Waste
	<ul style="list-style-type: none"> Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD, and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation. The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated. Disposal of chemical waste should be via a licensed waste collector, be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD. 			N/A	N/A		

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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation	What requirements or standards for the measures to achieve?
S6.5.1.6	<u>Sewage</u>	Proper handling of sewage from worker to avoid odour, pest and litter impacts	Contractor	Entire construction site	Construction stage	✓	• Waste Disposal Ordinance
S6.5.1.5	<u>General Refuse</u>	<ul style="list-style-type: none"> Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly. General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible. Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. In addition, waste separation facilities for paper, aluminium cans, plastic bottles etc., should be provided. 	Contractor	Entire construction site	Construction stage	✓	• Waste Disposal Ordinance

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S6.5.2.1	Municipal Waste	<ul style="list-style-type: none"> Recycling bins will be provided at shops and food service locations to collect cardboard containers. Personnel in office will be provided with bins to recycle office paper. Aluminium can recycling bins will be placed at prominent locations for collection Recycling bins for plastic bottle recovery should be set up at prominent places to facilitate visitors' participation in material recovery activities. The landscaping works will generate a certain amount of grass clippings, leaves, bush and tree trimmings. However, the handling capacity of the existing Sha Ling composting facility is limited and is currently composting livestock wastes. The facility is unlikely to be able to handle the green waste generated from the Project site. Should there be a market or facility which could process the green waste arising from the Project site, the establishment of a recycling programme for green waste should be considered. The venue operator should make arrangements with the laser printer toner cartridge suppliers to collect and recycle used toner cartridges for laser printers to avoid disposal of the cartridge at landfills as far as practicable. 	Storage and handing of waste Operator	Entire project site	Operational stage	B	•Waste Disposal Ordinance
S6.5.2.2	Waste from Stables	<ul style="list-style-type: none"> Waste from horse stables (mainly the horse manure) would be collected on a regular basis following HKJC's sanitary practices. 	Storage and handing of waste Operator	Entire project site	Operational stage	B	•Waste Disposal Ordinance

**Environmental Mitigation Implementation Schedule
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures?	When to implement the measures?	Implementation	What requirements or standards for the measures to achieve?
S9.3 & S9.7	1) An Independent Environmental Checker needs to be employed as per the EM&A Manual. 2) Establish a telephone hotline which enables the public to raise any matters of concern regarding the project such as complaints, comments, suggestions or requests for information.	Control EM&A Performance	Project Proponent	All construction sites	Construction stage	✓	• EIAO Guidance Note No. 4/2002 • TM-EIAO
S9.5	1) An Environmental Team needs to be employed as per the EM&A Manual. 2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. 3) An environmental impact monitoring needs to be implemented by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with. 4) Real-time reporting of monitoring data for the Project through a dedicated internet website need to be provided and maintained by the Environmental Team	Perform environmental monitoring & auditing	Contractor	All construction sites	Construction stage	✓	• EIAO Guidance Note No. 4/2002 • TM-EIAO

Note: ✓ - Implemented
 B - To be implemented
 N/A - Not applicable

Appendix C

**Log records and details
of environmental
complaints**

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Investigation Result and Proposed Actions	Completion Date	Remarks
001	28 Aug 2006	Discharge of muddy water into Shing Mun River	<p>No evidence had shown the source of the muddy water discharge from subjected site. In fact, there were three main contractors working inside the HKSL area and all share the same discharge outlet. However, contractor had carried out the following measures to prevent any further discharge of muddy water from the subject site areas:</p> <ol style="list-style-type: none"> 1. Keep closely checking on the performance of the wastewater treatment system; 2. Closely monitoring of the discharge outlet at Shing Mun River and tracing of the source origin immediately if muddy water was observed; 3. Made use of the shallow ground areas on site to temporary trap stormwater inside the site to prevent any direct discharge; 4. Construction of temporary drainage channel and use of water pump to properly divert the trapped stormwater to the temporary sump pit; 5. Control pumping of all muddy water collected from the sump pit to the wastewater treatment plant within its treatment capacity before discharging. 	1 Sept 2006	EPD inspected the site drainage system on 1 Sept 2006 and was satisfied.