The Jockey Club CPS Limited

Central Police Station Conservation and Revitalisation Project:
Thirty-third Monthly EM&A Report (1 July to 31 July 2014)

Issue Date: August 2014

Environmental Resources Management
16/F Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

The Jockey Club CPS Limited

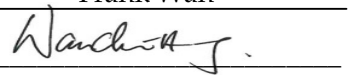
Central Police Station Conservation and Revitalisation Project:
Thirty-third Monthly EM&A Report (From 1 July to 31 July 2014)

Issue Date: August 2014

Reference 0095646

For and on behalf of
ERM-Hong Kong, Limited

Approved by: Frank Wan

Signed: 

Position: Partner

Certified by:
(Environmental Team Leader – Winnie Ko)

Date: 11 August 2014

This report has been prepared by ERM-Hong Kong, Limited with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

ATKINS

阿特金斯
ATKINS
香港九龍尖沙咀海港城
九倉電訊中心十三樓
13/F Wharf T&T Centre
Harbour City Tsim Sha Tsui
Kowloon Hong Kong

Telephone (852) 2972 1000
Facsimile (852) 2890 6343

info.hk@atkinsglobal.com
www.atkinsglobal.com

Your ref. 0095646_let_Atkins_20140812 Monthly EM&A Report No.33.doc
Our ref. 5121189/OC069/SO

Date: 12 August 2014

By Email and Post

ERM-Hong Kong Limited,
16/F DCH Commercial Centre,
25 Westlands Road,
Quarry Bay,
Hong Kong

Attn: Ms Winnie Ko

Dear Winnie,

Central Police Station Conservation and Revitalization Project
Verification of Monthly EM&A Report No.33

We refer to your letter dated 12 August 2014 regarding the Monthly EM&A Report No.33. Atkins China Ltd. verifies, in the capacity of Independent Environmental Checker, that the report, in principle, conforms the requirements provided in Condition 3.4 of the Environmental Permit (EP-408/2011/B).

Yours sincerely,
For Atkins China Ltd.

Sharifah Or
Independent Environmental Checker

c.c. HKJC – Mr. Kenneth Lee By Email
Rocco Design Architect – Mr. Charles Kung By Email

CONTENTS

1	*INTRODUCTION*	*1*
1.1	*PURPOSE OF THE REPORT*	*1*
1.2	*STRUCTURE OF THE REPORT*	*1*
2	*PROJECT INFORMATION*	*3*
2.1	*BACKGROUND*	*3*
2.2	*SITE DESCRIPTION*	*3*
2.3	*CONSTRUCTION ACTIVITIES*	*3*
2.4	*PROJECT ORGANISATION*	*4*
2.5	*STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS*	*4*
3	*ENVIRONMENTAL MONITORING REQUIREMENTS*	*7*
3.1	*NOISE MONITORING*	*7*
3.1.1	*Monitoring Location*	*7*
3.1.2	*Monitoring Parameters, Frequency and Programme*	*7*
3.1.3	*Monitoring Equipment and Methodology*	*7*
3.1.4	*Event / Action Plan*	*8*
3.1.5	*Mitigation Measures*	*8*
3.2	*CULTURAL HERITAGE*	*8*
3.2.1	*Vibration Monitoring*	*8*
3.2.2	*Mitigation Measures*	*9*
3.3	*LANDSCAPE AND VISUAL MONITORING*	*10*
3.3.1	*Mitigation Measures*	*10*
3.4	*ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS*	*10*
4	*IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS*	*11*
5	*MONITORING RESULTS*	*12*
5.1	*NOISE*	*12*
5.2	*CULTURAL HERITAGE*	*12*
5.3	*LANDSCAPE AND VISUAL*	*14*
5.4	*WASTE MANAGEMENT*	*14*
6	*ENVIRONMENTAL SITE INSPECTION*	*16*
7	*ENVIRONMENTAL NON-CONFORMANCE*	*17*
7.1	*SUMMARY OF MONITORING EXCEEDANCE*	*17*
7.2	*SUMMARY OF ENQUIRY*	*17*
7.3	*SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE*	*17*
7.4	*SUMMARY OF ENVIRONMENTAL COMPLAINT*	*17*
7.5	*SUMMARY OF ENVIRONMENTAL SUMMONS AND SUCCESSFUL PROSECUTION*	*17*

8 FUTURE KEY ISSUES 19

8.1 KEY ISSUES FOR THE COMING MONTH 19
8.2 MONITORING SCHEDULE FOR THE NEXT MONTH 19
8.3 CONSTRUCTION PROGRAMME FOR THE NEXT MONTH 19

9 CONCLUSIONS 20

LIST OF TABLES

Table 2.1 Summary of Construction Activities Undertaken from 1 July to 31 July 2014
Table 2.2 Summary of Environmental Licensing, Notification and Permit Status
Table 3.1 Construction Phase Noise Monitoring Station
Table 3.2 Noise Monitoring Equipment
Table 3.3 Action and Limit Levels for Construction Noise Monitoring
Table 3.4 Alert, Alarm and Action (AAA) Levels for Vibration Monitoring
Table 3.5 Event and Action Plan for Vibration Monitoring
Table 4.1 Status of Required Submissions
Table 5.1 Findings of Monthly Tree Inspection in the Reporting Period
Table 5.2 Quantities of Waste Generated from the Project
Table 7.1 Summary of Complaints Received
Table 8.1 Construction Works to be Undertaken in the Coming One Month

LIST OF ANNEXES

Annex A Locations of Works Areas and the Surroundings
Annex A1 Project Location
Annex A2 Declared Monuments within the Project Site
Annex A3 Site Layout Plan marked with Works
Annex B Project Organization Chart and Contact Detail
Annex C Locations of Noise Monitoring Stations and Noise Sensitive Receivers
Annex D Monitoring Schedule of the Reporting Month and the Next Month
Annex E Calibration Reports for Calibrators and Sound Level Meters
Annex F Event /Action Plans for Noise
Annex G Summary of Implementation Status
Annex H Noise Monitoring Results
Annex I Construction Programme for the Project

Annex J **Tree Inspection Reports**

Annex K **Environmental Complaint, Environmental Summons and Prosecution Log**

Annex L **Records of Vibration Monitoring for Trial Piling and Pipe / Bored Piling Works**

Annex M **Records of Vibration Monitoring for Other Construction Works**

EXECUTIVE SUMMARY

The construction works of **Central Police Station Conservation and Revitalisation Project** commenced on 24 October 2011. This is the thirty-third monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 1 July to 31 July 2014 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during Reporting Period

The major construction works undertaken during the reporting period include:

- Structural addition and alteration works at Block 2, Block 3, Block 4, Block 9, Block 10, Block 11, Block 12, Block 13, Block 14, Block 15 and Block 17;
- Roof tiling replacement works at Block 9 and Block 10;
- Demolition works at Block 3, Block 4 and Block 13;
- New RC structure construction at Block 3, Block 13, Block 14 and Block 15;
- RC structure construction at Block 8;
- E&M opening, conceal conduit construction and E&M installation at Block 1;
- BW in basement plant room;
- Timber doors and windows repair works at Block 9;
- Paint stripping and plaster works at Block 1, Block 3, Block 4, Block 9 and Block 14;
- Metal works repair at Block 15;
- Façade works at Block 1, Block 3, Block 6, Block 7, Block 9 and Block 14;
- Structural timber floor repair at Block 4 and Block 6;
- Balcony repair at Block 4, Block 6, Block 7, Block 9 and Block 10;
- Water/FS pipes/ELV & draw pit, etc of Pottinger Ramp (L1);
- Excavation of L2;
- Arbuthnot Road West utilities diversion works and carriageway;
- Core wall construction at Arbuthnot Wing;
- External and lateral support works and capping plate construction at Old Bailey Wing; and
- R22, R177 upgrading.

Environmental Monitoring and Audit Progress

A summary of the monitoring activities in this reporting period is listed below:

- Construction noise monitoring during normal weekdays at each monitoring station 6 times
- Joint environmental site inspection 1 time

- Heritage site inspections 22 times
- Landscape & visual monitoring 1 time
- Tree inspection 1 time
- Vibration monitoring for piling works 130 times
- Vibration monitoring for other construction works 78 times

Noise

6 sets of 30-minute construction noise measurements were carried out at each of the monitoring stations (NM2 and NM6) during normal weekdays of the reporting period. No exceedance of the Limit Level of construction noise was recorded during the reporting period. The Action Level of noise (complaint received) was triggered twice during the reporting period and investigations were carried out.

Cultural Heritage

Vibration monitoring carried out for the trial piling and piling works during the reporting period are listed below:

- 26 vibration monitoring measurements for the basement construction at Parade Ground;
- 26 vibration monitoring measurements at Block 8;
- 26 vibration monitoring measurements at Old Bailey Wing (Block 50);
- 26 vibration monitoring measurements at Block 51; and
- 26 vibration monitoring measurements at Block 17.

Vibration monitoring carried out for other construction works during the reporting period are listed below:

- 26 vibration monitoring measurements for the structural addition and alteration works at Block 1;
- 26 vibration monitoring measurements for the structural addition and alteration works at Block 14.
- 26 vibration monitoring measurements for the structural addition and alteration works at Block 11.

No exceedance of the Alert, Alarm and Action Levels was recorded during the reporting period.

Heritage site audits were conducted on 2, 3, 4, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, 29, 30 and 31 July 2014 by the Heritage Checker during the reporting period. Major observations and recommendations during the site inspections were listed below:

7 July 2014

- No protection was carried out at Block 4 during demolition works. The Contractor was informed to follow up.

10 July 2014

- It was observed that the west elevation of Block 9 was full of paint residual after canopy soffit paint removal. The Contractor was informed to follow up.

- It was observed that timber floor on second floor balcony in Block 10 was lack of protection. The Contractor was informed to follow up.

21 July 2014

- It was observed that the timber picture rail sections in Block 4 verandah were without any protection. The Contractor was informed to follow up.

24 July 2014

- Insufficient protection was observed at Block 9 during the propping of floors in central entrance area. The Contractor was informed to follow up.

- Two painted signs on the second floor of Block 3 were observed unprotected and covered in duct tape. The Contractor was informed to follow up.

25 July 2014

- Timber floor boards at Block 6 were observed unprotected in the passageway. The Contractor was informed to follow up.

- It was observed that water was running through the timber floor on first floor of Block 4 while the contractor was cutting steel beams. Works were stopped immediately and the Contractor was informed to follow up.

The Contractor was urged to follow-up the necessary rectification based on the inspection findings.

The follow-up actions recommended in the heritage site audits from the last reporting period (June 2014) have generally been implemented.

<u>Landscape & Visual</u>

Landscape and visual monitoring has commenced since October 2011 on a monthly basis. Tree inspection was conducted on 2 July 2014 by the arborist

during the reporting period. There was no observation or recommendation from the arborist.

Waste Management

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. A total of 1,009.96 tonnes of inert C&D materials were generated during the reporting period. 147.36 tonnes of non-inert C&D materials comprising general refuse were generated and disposed of at the SENT Landfill. 3,300 kg of metal was produced and sent to recyclers for recycling. No plastic waste or paper/cardboard packaging was generated during the reporting period. No chemical waste was produced during the reporting period.

Environmental Site Inspection

A joint environmental site inspection was carried out by the representatives of the Contractor, the IEC and the ET on 24 July 2014. Accumulation of water was observed between Block 11 and Block 12. The Contractor was reminded to pump the water to the wastewater treatment facility for treatment prior to discharge off site.

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

No exceedance of the Limit Level of construction noise was recorded at designated monitoring stations during the reporting period. Two exceedances of the Action Level of noise (complaint received) were recorded during the reporting period.

No exceedance of the Alert, Alarm and Action Levels of vibration was recorded during the reporting period.

No enquiry was received during the reporting period.

No non-compliance event was recorded during the reporting period.

Two complaints were received during the reporting period.

No summons/prosecution was received during the reporting period.

Future Key Issues

Works to be undertaken in the next month include:

- Structural addition and alteration works at Block 2, Block 3, Block 4, Block 9, Block 10, Block 11, Block 12, Block 13 and Block 17;
- Roof repair works at Block 4, Block 9, Block 10 and Block 19;
- Demolition works to Block 4, Block 9 and Block 13;
- Paint stripping and plaster repair at Block 3, Block 4, Block 9 and Block 14;

- Timber doors and windows repair works at Block 6, Block 7, Block 9, and Block 10;
- E&M installation at Block 1;
- Structural timber floor repair at Block 3, Block 4, Block 6, Block 7, Block 10 and Block 14;
- Façade works at Block 3, Block 6, Block 7, Block 9 and Block 14;
- Balcony repair at Block 4, Block 6, Block 7, Block 9 and Block 10;
- Pile cap construction at Old Bailey Wing;
- Arbuthnot Wing core wall structure construction;
- Reopen of Pottinger Ramp (L1);
- Excavation and service trench construction of L2;
- Works at Arbuthnot Road; and
- R22 upgrading.

Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise, site runoff and waste management.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by the Jockey Club CPS Limited (the CPS Ltd) as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme for the **Central Police Station Conservation and Revitalisation Project** (the Project).

1.1 PURPOSE OF THE REPORT

This is the thirty-third EM&A report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from **1 July** to **31 July 2014**.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : **Introduction**
details the scope and structure of the report.

Section 2 : **Project Information**
summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permit(s)/License(s) during the reporting period.

Section 3 : **Environmental Monitoring Requirements**
summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, Event/Action Plans, environmental mitigation measures as recommended in the EIA report and relevant environmental requirements.

Section 4 : **Implementation Status on Environmental Protection Requirements**
summarises the implementation of environmental protection measures during the reporting period.

Section 5 : **Monitoring Results**
summarises the monitoring results obtained in the reporting period.

Section 6 : **Environmental Site Inspection**
summarises the audit findings of the site inspections undertaken within the reporting period.

Section 7 : **Environmental Non-conformance**
summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 8 : **Future Key Issues**
summarises the impact forecast and monitoring schedule for the next reporting month.

Section 9 : **Conclusions**

2 PROJECT INFORMATION

2.1 BACKGROUND

The Chief Executive (CE)'s 2007-2008 Policy Address highlighted revitalisation as the guiding principle of heritage conservation and the Project was one of the specific proposals put forward by the CE in the same Policy Address. At the meeting of the Executive Council (ExCo) on 15 July 2008, the ExCo advised and the CE ordered that Government should enter into a partnership with the Hong Kong Jockey Club (HKJC) in the form of an agreement (or agreements) to take forward the conservation and revitalisation of the CPS project based on various guiding parameters. The Project is now being undertaken in partnership with the Development Bureau of the HKSAR Government. The HKJC has taken on board the decision at the ExCo meeting and further investigated the design and implementation of the Project. The Project is now implemented by the Jockey Club CPS Limited.

2.2 SITE DESCRIPTION

The location of the Project Site is shown in *Annex A1*. The Site is bounded by Hollywood Road to the north, Arbuthnot Road to the east, Chancery Lane to the south and Old Bailey Street to the west.

The Site comprises three Declared Monuments designated under the *Antiquities and Monuments Ordinance* in 1995. They are:

- Central Police Station;
- Former Central Magistracy; and
- Victoria Prison Compound.

They are collectively named the Central Police Station (CPS). *Annex A2* shows the location of the Declared Monuments within CPS and the buildings within the CPS.

2.3 CONSTRUCTION ACTIVITIES

A summary of the major construction activities undertaken in this reporting period is shown in *Table 2.1* and illustrated in *Annex A3.*

Table 2.1 Summary of Construction Activities Undertaken from 1 July to 31 July 2014

Construction Activities Undertaken
• Structural addition and alteration works at Block 2, Block 3, Block 4, Block 9, Block 10, Block 11, Block 12, Block 13, Block 14, Block 15 and Block 17;
• Roof tiling replacement works at Block 9 and Block 10;
• Demolition works at Block 3, Block 4 and Block 13;
• New RC structure construction at Block 3, Block 13, Block 14 and Block 15;
• RC structure construction at Block 8;
• E&M opening, conceal conduit construction and E&M installation at Block 1;
• BW in basement plant room;
• Timber doors and windows repair works at Block 9;
• Paint stripping and plaster works at Block 1, Block 3, Block 4, Block 9 and Block 14;
• Metal works repair at Block 15;
• Façade works at Block 1, Block 3, Block 6, Block 7, Block 9 and Block 14;
• Structural timber floor repair at Block 4 and Block 6;
• Balcony repair at Block 4, Block 6, Block 7, Block 9 and Block 10;
• Water/FS pipes/ELV & draw pit, etc of Pottinger Ramp (L1);
• Excavation of L2;
• Arbuthnot Road West utilities diversion works and carriageway;
• Core wall construction at Arbuthnot Wing;
• External and lateral support works and capping plate construction at Old Bailey Wing; and
• R22, R177 upgrading.

2.4 PROJECT ORGANISATION

The Project organisation chart and contact details are shown in *Annex B*.

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since the granting of the EP in April 2011 is presented in *Table 2.2*.

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
Environmental Permit (EP)	EP-408/2011	-	Superseded on 10 January 2012
	EP-408/2011/A	-	Superseded on 22 March 2012
	EP-408/2011/B	Throughout the Contract	Permit granted on 22 March 2012
Notification of Construction Works as required under *Air Pollution Control*	Ref. No. 332920	Throughout the Contract	-

(Construction Dust) Regulation			
Registration of Waste Producer under *Waste Disposal Ordinance*	Waste Producer No.: 5213-122-G2347-25	Throughout the Contract	-
Effluent Discharge License under *Water Pollution Control Ordinance*	License No. WT00010633-2011	21 Oct 2011 – 31 Oct 2016	-
Notification of Commencement of Asbestos Abatement Work under *Air Pollution Control Ordinance*	-	Throughout the Contract	EPD's letter (EPD's ref.: (5) in EPAC/A/4/000/233 II) dated 2 December 2011 satisfied that the content of the asbestos abatement plan (Report No.: 0210/11/ED/0078A) is in accordance with the APCO
Approval of Asbestos Abatement Work (Phase 2)	-	Earliest commencement date on 26 January 2012	EPD's letter (EPD's ref:() in EPAC/A/4/000/233) dated 18 January 2012.
Construction Noise Permit (CNP)	GW-RS0734-12	11 July 2012 at 0200 hours to 2 August 2012 at 0400 hours	Expired.
	GW-RS0839-12	13 August 2012 at 1900 hours to 31 December 2012 at 0700 hours	Expired.
	GW-RS1162-12	1 December 2012 at 0000 hours to 28 March 2013 at 0600 hours	Expired.
	GW-RS0113-13	1 February 2013 at 0200 hours to 31 May 2013 at 0400 hours	Expired.
	GW-RS1301-12	2 January 2013 at 1900 hours to 29 June 2013 at 2300 hours	Expired.
	GW-RS0084-13	24 January 2013 at 1900 hours to 29 June 2013 at 0700 hours	Expired.
	GW-RS0638-13	16 June 2013 at 0700 hours to 15 September 2013 at 1900 hours	Expired.
	GW-RS0901-13	14 August 2013 at 0000 hours to 31 October 2013 at	Expired.

	0600 hours	
GW-RS0714-13	29 June 2013 at 1900 hours to 28 December 2013 at 2400 hours	Expired.
GW-RS0745-13	5 July 2013 at 1900 hours to 30 December 2013 at 2300 hours	Expired.
GW-RS1110-13	7 October 2013 at 0200 hours to 31 December 2013 at 0400 hours	Expired.
GW-RS1205-13	4 November 2013 at 0000 hours to 30 January 2014 at 2400 hours	Expired.
GW-RS1275-13	13 November 2013 at 0000 hours to 30 April 2014 at 2400 hours	Expired.
GW-RS0062-14	10 February 2014 at 0000 hours to 31 March 2014 at 2400 hours.	Expired.
GW-RS1461-13	29 December 2013 at 0000 hours to 28 June 2014 at 2400 hours.	Expired.
GW-RS0271-14	1 April 2014 at 0100 hours to 30 June 2014 at 0600 hours	Expired.
GW-RS0434-14	8 May 2014 at 0000 hours to 30 September 2014 at 2400 hours	-
GW-RS0651-14	28 July 2014 at 0000 hours to 26 September 2014 at 2400 hours	-
GW-RS0658-14	29 June 2014 at 0000 hours to 28 December 2014 at 2400 hours	-
GW-RS0749-14	1 August 2014 at 0000 hours to 31 January 2015 at 2400 hours	-

3.1 NOISE MONITORING

3.1.1 Monitoring Location

The construction noise monitoring locations are listed in *Table 3.1* and are shown in *Annex C*.

Table 3.1 Construction Phase Noise Monitoring Station

Monitoring Location	Proposed Construction Noise Monitoring Station			
	ID in EM&A Manual	ID	Type of Measurement	Remark
Rooftop of Ho Fook Building	N2	NM2	Façade	-
Rooftop of Chancery Mansion	---	NM6	Façade	Accesses to the original proposed monitoring location in the EM&A Manual, Chancery House (N5), were denied; alternative location of Chancery Mansion (N6), were therefore proposed and approved by the Authorised Person (AP), the Independent Environmental Checker (IEC) and EPD.

The noise sensitive receivers are also shown in *Annex C*.

3.1.2 Monitoring Parameters, Frequency and Programme

Weekly construction noise monitoring was conducted in accordance with the requirements stipulated in the EM&A Manual. The monitoring programme for this reporting period is shown in *Annex D*.

The construction noise levels were measured in terms of A-weighted equivalent continuous sound pressure level (L_{eq}) in decibels dB(A). $L_{eq\ (30min)}$ were used as the monitoring parameter for the time period in between 0700 – 1900 hours on normal weekdays. Supplementary information for data auditing, two statistical sound levels L_{10} and L_{90} - the levels exceeded for 10 and 90 percent of the time respectively, were also recorded during the monitoring for reference. The measured noise levels were logged in every 5 minutes throughout the impact monitoring period.

3.1.3 Monitoring Equipment and Methodology

Construction noise measurements were conducted in accordance with the calibration and measurement procedures as stated in *Annex – General Calibration and Measurement Procedures* of *Technical Memorandum on Noise from Construction Work other than Percussive Piling* (*GW-TM*) issued under the *Noise Control Ordinance* (*NCO*) (Cap 400).

The sound level meters and calibrator used for the noise measurement, as listed in *Table 3.2*, complies with the IEC 651: 1979 and 804:1985 (Type 1) specifications. The calibration certificates of the sound level meters are appended in *Annex E*.

Table 3.2 Noise Monitoring Equipment

Monitoring Stations	Monitoring Equipment (Sound Level Meter and Calibrator)
NM2, NM6	Calibrator Rion NC-73 (S/N 10786708; S/N 10486660) Sound Level Meter Rion NL-52 (S/N 00131627)

Immediately prior to and following the noise measurements, the accuracy of the measurement equipment was checked using an acoustic calibrator generating a known sound pressure level at a known frequency.

Measurements were accepted as the calibration level from before and after the noise measurement agree to within 1.0 dB(A).

3.1.4 Event / Action Plan

Table 3.3 Action and Limit Levels for Construction Noise Monitoring

Noise Monitoring Location	Action Level	Limit Level, $L_{eq(30mins),\ dB(A)}$	Remark
NM2, NM6	When one documented complaint is received from any one of the sensitive receivers	75 (note)	Applicable during 0700 – 1900 hours on normal weekdays.

Notes:

a) Acceptable Noise Levels for Area Sensitivity Rating of A/B/C. Limit Level is reduced to 70dB(A) for schools and 65dB(A) during school examination periods.

b) If works are to be carried out during restricted hours, the conditions stipulated in the CNP issued by the NCA have to be followed.

The Event / Action Plan (EAP) for noise monitoring is presented in *Annex F*.

3.1.5 Mitigation Measures

The mitigation measures in accordance with the EP, EIA and EM&A Manual and their implementation status are presented in *Annex G*.

3.2 CULTURAL HERITAGE

3.2.1 Vibration Monitoring

In accordance with the EM&A Manual, vibration monitoring is required and the vibration control limits and vibration monitoring proposal are defined by a specialist for AMO's approval.

Baseline Monitoring

A set of initial readings should be recorded prior to commencement of each stage of demolition works or trial piling works. The baseline vibration monitoring should be conducted for duration of 5 minutes on the measurement day(s) at each vibration monitoring location.

Vibration Monitoring for Demolition Works

There are five phases/stages of vibration monitoring to be carried out for demolition works, namely Initial Reading Phase, Monitoring Stage 1, Monitoring Stage 2, Monitoring Stage 3 and Monitoring Stage 4. The vibration monitoring should be conducted for duration of 5 minutes on the days with demolition works at each vibration monitoring location.

Vibration Monitoring for Trial Piling and Pipe/Bored Piling Works

Vibration monitoring for trial piling works and pipe/bored piling works is required. The monitoring location is shown in *Annex L*. The vibration monitoring should be conducted for duration of 5 minutes on the days with trial piling works or pipe/bored piling works at each vibration monitoring location.

Vibration Monitoring for Other Construction Works

Vibration monitoring for specific construction works other than demolition works, trial piling works and pipe/bored piling works is also required in accordance with Building Department's requirement. The monitoring location is shown in *Annex M*. The number and location of monitoring location will depend on the location of the specific construction works. The vibration monitoring should be conducted for duration of 5 minutes on a daily basis (working day) at each vibration monitoring location.

Alert, Alarm and Action Levels

The Alert, Alarm and Action (AAA) Levels are to be implemented during the vibration monitoring and shown in *Table 3.4*.

Table 3.4 Alert, Alarm and Action (AAA) Levels for Vibration Monitoring

Instrument Type	Item Monitored	Alert Level	Alarm Level	Action Level
Vibration Monitoring	Horizontal Movement	2.0 mm/s	2.5 mm/s	3.0 mm/s

The Event / Action Plan (EAP) for vibration monitoring is shown in *Table 3.5*.

Table 3.5 Event and Action Plan for Vibration Monitoring

Events	Action
Exceedance of Alert Level	Notify Management Contractor
Exceedance of Alarm Level	Notify Authorised Person/ Resident Engineer

Events	Action
Exceedance of Action Level	Cease Works and submit mitigation

3.2.2 Mitigation Measures

Cultural heritage mitigation measures (including those for archaeology) in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor and the implementation status is given in *Annex G*.

3.3 LANDSCAPE AND VISUAL MONITORING

In accordance with the EM&A Manual, inspections of affected trees were conducted by an experienced and appropriately trained arborist. All irregularities that deviate from the recommended tree protection measures or could impose deleterious impacts on the protected trees were reported. Besides, implementation of mitigation measures for landscape and visual resources recommended in the EIA Report were also monitored during the site inspection.

3.3.1 Mitigation Measures

Landscape and visual mitigation measures in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor and the implementation status is given in *Annex G*.

3.4 ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS

The environmental requirements as specified in the contract documents were reviewed and were covered in the EIA's requirements.

4 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor has generally implemented the environmental mitigation measures (including those for archaeology) and requirements as stated in the EIA Report, the EP and EM&A Manual and the contract documents. The implementation status during the reporting period is summarized in *Annex G*.

Status of required submissions under the EP during the reporting period is presented in *Table 4.1*.

Table 4.1 Status of Required Submissions

Submission		Submission Date
EP Condition		
Condition 3.4	Thirty-second Monthly EM&A Report	15 July 2014

5 MONITORING RESULTS

5.1 NOISE

A total of 6 sets of 30-minute construction noise measurements were carried out at the monitoring stations (NM2 and NM6) during normal weekdays of the reporting period. The monitoring results together with graphical presentations are presented in *Annex H*. The local impacts observed near the monitoring stations of NM2 and NM6 were summarised below:

- NM2: construction noise from activities in the Project Site and traffic noise from Old Bailey Street.
- NM6: construction noise from activities in the Project Site and traffic noise from Chancery Lane.

No exceedance of the Limit Level of construction noise was recorded during the reporting period. The Action Level of construction noise (complaint received) was triggered twice during the reporting period. Investigations were carried out and the findings are presented in *Section 7.4*.

5.2 CULTURAL HERITAGE

5.2.1 *Vibration Monitoring*

Trial Piling and Piling works

Vibration monitoring carried out for the trial piling and piling works during the reporting period are listed below:

- 26 vibration monitoring measurements for the basement construction at Parade Ground;
- 26 vibration monitoring measurements at Block 8;
- 26 vibration monitoring measurements at Old Bailey Wing (Block 50);
- 26 vibration monitoring measurements at Block 51; and
- 26 vibration monitoring measurements at Block 17.

The monitoring results are presented in *Annex L*.

Other Construction Works

Vibration monitoring carried out for other construction works during the reporting period are listed below:

- 26 vibration monitoring measurements for the structural addition and alteration works at Block 1;

- 26 vibration monitoring measurements for the structural addition and alteration works at Block 14;

- 26 vibration monitoring measurements for the structural addition and alteration works at Block 11.

The monitoring results are presented in *Annex M.*

All monitoring results were below the Alert/Alarm/Action Levels.

5.2.2 Heritage Site Audit

Heritage site audits were conducted on 2, 3, 4, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, 29, 30 and 31 July 2014 by the Heritage Checker during the reporting period. The cultural heritage requirements (including the recommended mitigation measures) stated in the approved EIA Report (AEIAR-162/2011) are being carried out. Major observations with respect to the requirements of the contract documents during the site inspections were listed below:

7 July 2014

- No protection was carried out at Block 4 during demolition works. The Contractor was informed to follow up.

10 July 2014

- It was observed that the west elevation of Block 9 was full of paint residual after canopy soffit paint removal. The Contractor was informed to follow up.

- It was observed that timber floor on second floor balcony in Block 10 was lack of protection. The Contractor was informed to follow up.

21 July 2014

- It was observed that the timber picture rail sections in Block 4 verandah were without any protection. The Contractor was informed to follow up.

24 July 2014

- Insufficient protection was observed at Block 9 during the propping of floors in central entrance area. The Contractor was informed to follow up.

- Two painted signs on the second floor of Block 3 were observed unprotected and covered in duct tape. The Contractor was informed to follow up.

- Timber floor boards at Block 6 were observed unprotected in the passageway. The Contractor was informed to follow up.

- It was observed that water was running through the timber floor on first floor of Block 4 while the Contractor was cutting steel beams. Works were stopped immediately and the Contractor was informed to follow up.

The Contractor was urged to follow-up the necessary rectification based on the inspection findings.

The follow-up actions recommended in the heritage site audits from the last reporting period (June 2014) have been implemented.

5.3 LANDSCAPE AND VISUAL

The tree inspection was conducted by the arborist on 2 July 2014 and major observations and recommendations in the reporting period are summarised in *Table 5.1*. The tree inspection report is contained in *Annex J*.

Table 5.1 Findings of Monthly Tree Inspection in the Reporting Period

Tree No.	Botanical Name	Overall Health Condition	Arborist's Observations / Recommendations
Tree -5	*Mangifera indica*	Good	• No further action required.
Tree -6	*Aleurites moluccana*	Fair	• No further action required.
Tree-7	*Aleurites moluccana*	Fair	• No further action required.
Tree-8	*Plumeria rubra*	Fair	• No further action required.
Tree-9	*Araucaria cunninghamia*	Fair	• No further action required.
Tree-11	*Dracaena marginata*	Fair	• A dead log present on upper branches.

5.4 WASTE MANAGEMENT

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Non-inert C&D materials were made up of wastes such as general refuse. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting period are summarised in *Table 5.2*. The non-inert C&D materials and general refuse generated from the Project were disposed of at the SENT Landfill. 3,300 kg of metal was generated and sent to recyclers for recycling. No plastic waste or paper/cardboard packaging was generated during the reporting period. No chemical waste was produced during the reporting period.

Table 5.2 Quantities of Waste Generated from the Project

Month / Year	Quantity						
	C&D Materials (inert) [(a)]	C&D Materials (non-inert) [(b)]	Chemical Waste		Recycled materials		
			Solid	Liquid	Paper / cardboard	Plastics	Metals
July 2014	1,009.96 tonnes	147.36 tonnes	0 kg	0 L	0 kg	0 kg	3,300 kg

Notes:

(a) Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.

(b) The figure presented under non-inert C&D materials represents quantities of non-recyclable materials such as general refuse which were disposed of at SENT Landfill. Recycled materials are reported separately.

Joint environmental site inspection was conducted by the representatives of the Contractor, IEC and the ET in the reporting period on 24 July 2014. There was no non-compliance recorded during the site inspection.

Follow-up Actions for the Last Site Audit

- Nil.

Observations and Recommendations of this Reporting Month

- Accumulation of water was observed between Block 11 and Block 12. The Contractor was reminded to pump the water to the wastewater treatment facility for treatment prior to discharge off site.

7 ENVIRONMENTAL NON-CONFORMANCE

7.1 SUMMARY OF MONITORING EXCEEDANCE

No exceedance of the Limit Level of construction noise or Alert, Alarm and Action Levels of vibration was recorded during the reporting period. The Action Level of construction noise (complaint received) was triggered twice during the reporting period.

7.2 SUMMARY OF ENQUIRY

No enquiry was recorded during the reporting period.

7.3 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance event was recorded during the reporting period.

7.4 SUMMARY OF ENVIRONMENTAL COMPLAINT

Two complaints were received during the reporting period. Information about the complaints is summarised in *Table 7.1*.

Table 7.1 Summary of Complaints Received

Date of Complaint Received by the Contractor	Means by which complaint was received	Nature of complaint
21 July 2014	Hong Kong Jockey Club	Noise nuisance
25 July 2014	Hong Kong Jockey Club	Noise nuisance

On 21 July 2014, the Hong Kong Jockey Club received a complaint on noise nuisance from a resident living on Chancery Lane. The complaint was transferred to the Project's Environmental Team on 22 July 2014. The complainant mentioned that construction noise was emanated from the operation of multiple jack hammers at the CPS Site in the week of 14 July 2014. The complainant requested a phone call reply regarding the complaint. According to the Contractor's works summary, demolition of slab for lift shaft construction using hand-held breakers (>10kg) at Block 14 were being carried out in the week of 14 July 2014 during normal working hours. The slab demolition works have been completed. The noise nuisance mentioned by the complainant is likely to be related to the demolition works that were carried out on the rooftop of Block 14. Weekly daytime noise monitoring at designated noise monitoring stations (NM2 and NM6) are conducted according to the EM&A requirements. Noise monitoring results in the past 4 weeks showed compliance with the construction noise standard.

The Contractor was recommended to install acoustic silencers to the hand-held breakers during breaking and demolition works to reduce noise

generated at source. According to findings of investigation, the potential noise nuisance is suspected to be related to the demolition works on rooftop areas on which nearby noise sensitive receivers have direct line of sight. The Contractor was reminded to erect portable noise barriers or acoustic curtains, as far as practicable, when engaging in breaking works or other noisy works in open areas to minimise potential noise nuisance to nearby residents. Furthermore, the Contractor has returned call to complainant to explain the situation and the possible noise mitigation measures to be employed in the future.

On 25 July 2014, the Hong Kong Jockey Club received a complaint on noise nuisance from a resident living on Chancery Lane. The complaint was transferred to the Project's Environmental Team on 28 July 2014. The complainant mentioned that construction noise was emanated from the operation of multiple jack hammers at the prison area of the CPS Site. The complainant requested a phone call reply regarding the complaint. According to the Contractor's works summary, interior wall demolition at Block 15 and column demolition at Block 17 were being carried out in the week of 21 July 2014 during normal working hours. The noise nuisance mentioned by the complainant is likely to be related to the demolition works at Block 15 and Block 17. A number of hand-held breakers (>10kg) were being operated for the above-mentioned demolition works at Block 15 and Block 17. All demolition works were being conducted inside the buildings. According to the Contractor, the demolition works at Block 15 and Block 17 will be completed within the next 1 to 2 months.

The Contractor has implemented noise mitigation measures in response to the complaint. Acoustic curtains has been erected at the south and west elevations of Block 15, and at the entrance opening and windows areas of Block 17 to shield the direct line of sight and reduce the noise nuisance to nearby noise sensitive receivers along the Chancery Lane. The Contractor was also recommended to install acoustic silencers to the hand-held breakers during breaking and demolition works to reduce noise generated at source. On 26 July 2014, the Contractor has returned call to complainant to explain the situation and the noise mitigation measures that are currently in place.

The Complaint Investigation Reports and the cumulative number of complaints is presented in *Annex K*.

7.5 SUMMARY OF ENVIRONMENTAL SUMMONS AND SUCCESSFUL PROSECUTION

No summons was received during the reporting period.

8 FUTURE KEY ISSUES

8.1 KEY ISSUES FOR THE COMING MONTH

Works to be undertaken for the coming monitoring period are summarised in *Table 8.1.*

Table 8.1 Construction Works to be Undertaken in the Coming Month

Work to be Undertaken
• Structural addition and alteration works at Block 2, Block 3, Block 4, Block 9, Block 10, Block 11, Block 12, Block 13 and Block 17;
• Roof repair works at Block 4, Block 9, Block 10 and Block 19;
• Demolition works to Block 4, Block 9 and Block 13;
• Paint stripping and plaster repair at Block 3, Block 4, Block 9 and Block 14;
• Timber doors and windows repair works at Block 6, Block 7, Block 9, and Block 10;
• E&M installation at Block 1;
• Structural timber floor repair at Block 3, Block 4, Block 6, Block 7, Block 10 and Block 14;
• Façade works at Block 3, Block 6, Block 7, Block 9 and Block 14;
• Balcony repair at Block 4, Block 6, Block 7, Block 9 and Block 10;
• Pile cap construction at Old Bailey Wing;
• Arbuthnot Wing core wall structure construction;
• Reopen of Pottinger Ramp (L1);
• Excavation and service trench construction of L2;
• Works at Arbuthnot Road; and
• R22 upgrading.

Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise, site runoff and waste management.

8.2 MONITORING SCHEDULE FOR THE NEXT MONTH

The tentative schedule of noise monitoring for the next reporting period is presented in *Annex D*.

8.3 CONSTRUCTION PROGRAMME FOR THE NEXT MONTH

The most updated construction programme for the Project is presented in *Annex I*.

9 CONCLUSIONS

The *Environmental Monitoring and Audit (EM&A) Report* presents the EM&A works undertaken during the period from 1 July to 31 July 2014 in accordance with EM&A Manual and the requirement under EP-408/2011/B.

No exceedance of Limit Level of construction noise was recorded at designated monitoring stations during the reporting period. The Action Level of noise (complaint received) was triggered twice during the reporting period and investigations were carried out.

No exceedance of Alert, Alarm and Action Levels of vibration was recorded during the reporting period.

No enquiry was received during the reporting period.

No non-compliance event was recorded during the reporting period.

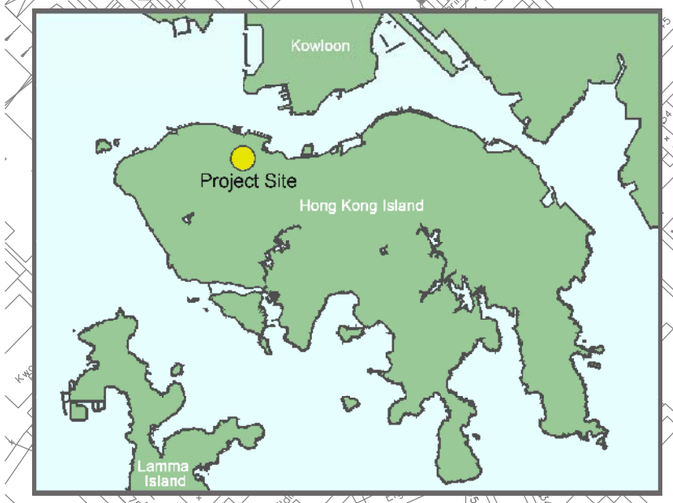
Two complaints were received during the reporting period.

No summons/prosecution was received during the reporting period.

The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Annex A

Locations of Works Areas and the Surroundings



HOLLYWOOD ROAD

OLD BAILEY STREET

ARBUTHNOT ROAD

CHANCERY LANE

CENTRAL POLICE STATION

CENTRAL MAGISTRACY

VICTORIA PRISON

N

Meters

0 20 40

Key

The CPS Site

Annex A1

Project Location

FILE: 0095646a-A3_01.dgn

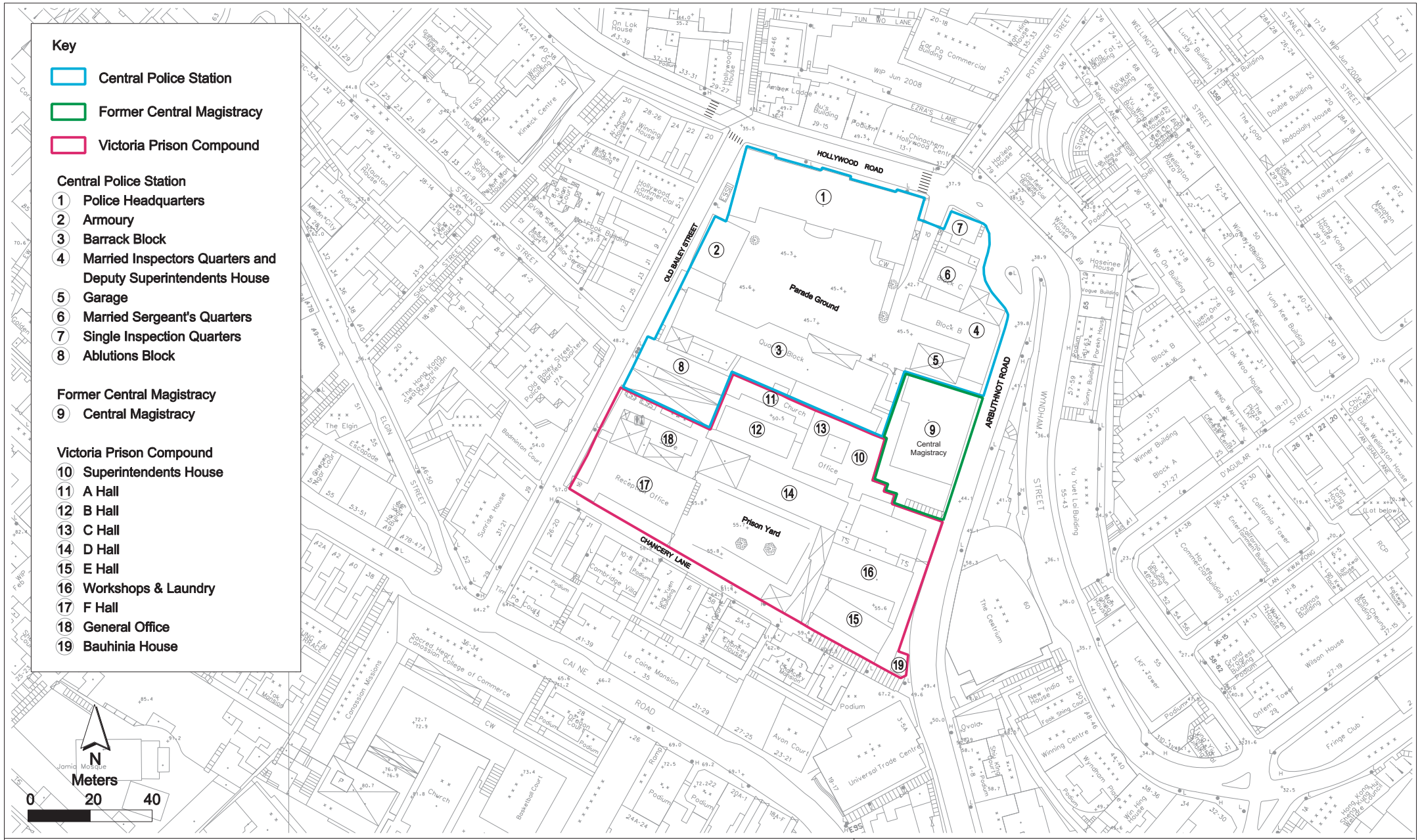
DATE: 21/11/2011

Environmental Resources Management

ERM

賽馬會文物保育有限公司

The Jockey Club CPS Limited



Annex A2

Declared Monuments within the Project Site

FILE: 0095646b1-A3.dgn
DATE: 07/12/2011

Environmental Resources Management

ERM

賽馬會文物保育有限公司
The Jockey Club CPS Limited

DRAWING BOX

Drawing No.

LEGEND

1. E&M Installation / Opening / Conduit
2. Excavation
3. Internal Building Works
4. Permanent Steel Works Erection
5. Upgrading
6. Roof Tiles Replacement Works
7. ELS and Capping Plate Construction
8. Structure A&A Works
9. Repair Works to Timber Window, Door, Structure Floor and Metal Elements
10. Demolition Works
11. Facade Works
12. New Structure Construction
13. Balcony Repair
14. Paint Stripping and Plastering Works
15. Core Wall Construction
16. Utilities Diversion and Carriageway
17. Water / FS / Drainage Pipes and Backfill

Contractor

Gammon

Drawing Title

SITE LAYOUT PLAN

Drawn	Scale N.T.S.	
Designed	Status Marked for Enquiry & Complaint log (CPS/E&C/09)	
Checked		
Approved	Drawing No. –	–
CAD Ref		

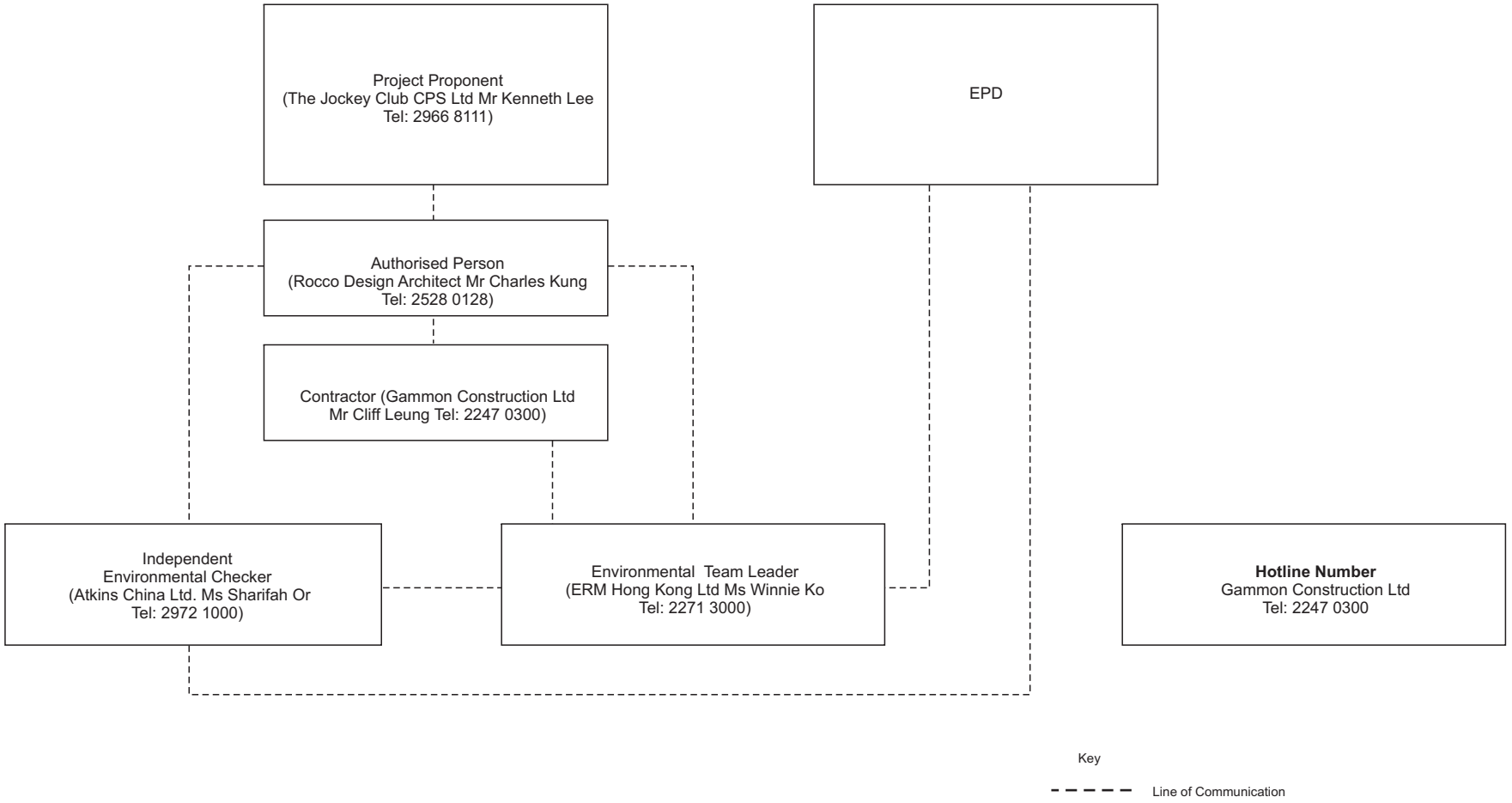
LAST_UPDATE

Original Size A3

Annex A3 Site Layout Plan marked with Works (July- 2014)

Annex B

Project Organization Chart and Contact Detail



Annex B

Project Organisation

FILE: 0095646k
DATE: 16/08/2013

Environmental Resources Management

ERM

賽馬會文物保育有限公司
The Jockey Club CPS Limited

Annex C

Locations of Noise Monitoring Stations and Noise Sensitive Receivers

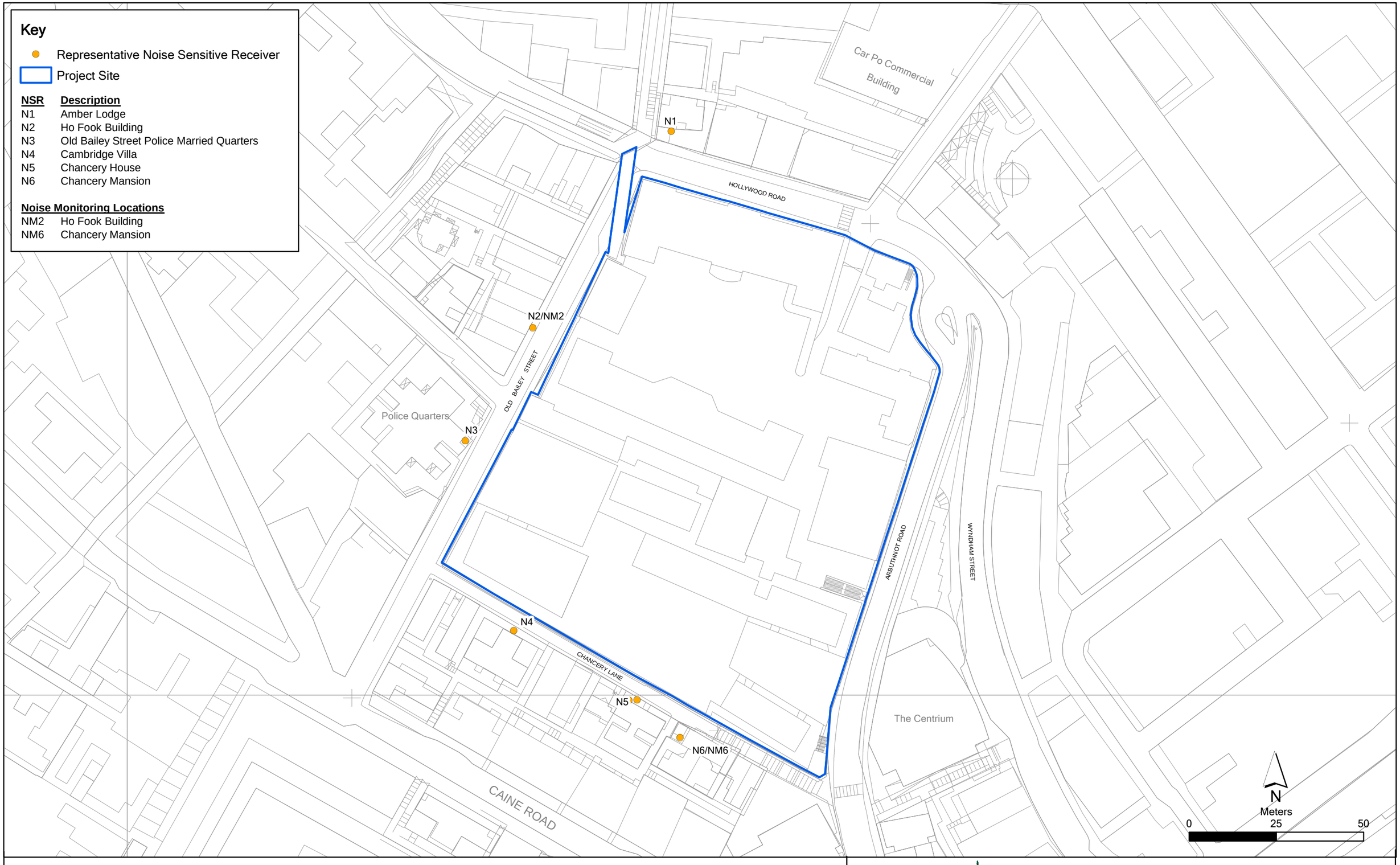
Key

- Representative Noise Sensitive Receiver
- Project Site

NSR	Description
N1	Amber Lodge
N2	Ho Fook Building
N3	Old Bailey Street Police Married Quarters
N4	Cambridge Villa
N5	Chancery House
N6	Chancery Mansion

Noise Monitoring Locations

NM2	Ho Fook Building
NM6	Chancery Mansion



Annex C

Location of Representative Noise Sensitive Receivers and Noise Monitoring Locations

File: 0095646_NSR_NM_May2012.mxd
Date: 09/05/2012

Environmental Resources Management

ERM

賽馬會文物保育有限公司
The Jockey Club CPS Limited

Annex D

Monitoring Schedule of the Reporting Period and Next Month

Central Police Station Compound Conservation and Revitalisation
(Ho Fook Building - NM2 & Chancery Mansion - NM6)
Monitoring Schedule for Reporting Month - July 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Jul	02-Jul	03-Jul	04-Jul	05-Jul
	Public Holiday		Noise Monitoring at NM2 & NM6			
06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul
		Noise Monitoring at NM2 & NM6				
13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul
	Noise Monitoring at NM2 & NM6					Noise Monitoring at NM2 & NM6
20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul
					Noise Monitoring at NM2 & NM6	
27-Jul	28-Jul	29-Jul	30-Jul	31-Jul		
				Noise Monitoring at NM2 & NM6		

Central Police Station Compound Conservation and Revitalisation
(Ho Fook Building - NM2 & Chancery Mansion - NM6)
Monitoring Schedule for Next Reporting Month - August 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					01-Aug	02-Aug
03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug
			Noise Monitoring at NM2 & NM6			
10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug
		Noise Monitoring at NM2 & NM6				
17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug
	Noise Monitoring at NM2 & NM6					Noise Monitoring at NM2 & NM6
24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug
					Noise Monitoring at NM2 & NM6	
31-Aug						

Annex E

Calibration Reports for Calibrators and Sound Level Meters

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C141622
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-0645) Date of Receipt / 收件日期 : 11 March 2014

Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00131627
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 17 March 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies, USA
- Fluke Everett Service Center, USA
- Rohde & Schwarz Laboratory, Germany

Tested By 測試 : K C Lee
Project Engineer

Certified By 核證 : K M Wu
Engineer

Date of Issue 簽發日期 : 20 March 2014

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C141622
證書編號

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

2. Self-calibration was performed before the test.

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

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C140016
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.1	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L_A	A	Fast	94.00	1	94.1 (Ref.)
				104.00		104.1
				114.00		114.1

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

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.1	Ref.
			Slow			94.1	± 0.3

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate s all not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
Rm 4/F, Tsing Shan Wan Exchange Building, 1 Hing On L ane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
香港新界屯門興安里一號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreatic i.com

Certificate of Calibration
校正證書

Certificate No. : C141622
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_A	A	Fast	94.00	63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.4	-8.6 ± 1.4
					500 Hz	90.8	-3.2 ± 1.4
					1 kHz	94.1	Ref.
					2 kHz	95.3	+1.2 ± 1.6
					4 kHz	95.1	+1.0 ± 1.6
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.6	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_A	C	Fast	94.00	63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.1	0.0 ± 1.4
					1 kHz	94.1	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.3	-0.8 ± 1.6
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.7	-6.2 (+3.0 ; -6.0)

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 04663

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

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

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

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4 F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C134306
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC13-1709)

Description / 儀器名稱	:	Sound Level Calibrator
Manufacturer / 製造商	:	Rion
Model No. / 型號	:	NC-73
Serial No. / 編號	:	10786708
Supplied By / 委託者	:	Envirotech Services Co. Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 12 July 2013

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee

Certified By 核證 : K M Wu

Date of Issue 簽發日期 : 15 July 2013

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c o 4 F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c o 香港新界屯門興安里一號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C134306
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

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

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C133632
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C120886

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.8	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.990	1 kHz ± 2 %	± 1

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

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C137683
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC13-3109)

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10486660
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 3 December 2013

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試 : K C Lee

Certified By 核證 : K M Wu

Date of Issue 簽發日期 : 4 December 2013

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
4 F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
香港新界屯門興安里一號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C137683
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

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

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C133632
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C120886

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.8	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.991	1 kHz ± 2 %	± 1

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

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/ 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/ 香港新界屯門興安里 1號青山灣機樓四樓
Tel 電話: 2927 2606 Fax 傳真: 2744 8986 E-mail 電郵: callab@suncreation.com Website 網址: www.suncreation.com

Annex F

Event / Action Plans for Noise

Annex F Event and Action Plan for Noise

Event	Action			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Authorised Person (AP)**	**Contractor**
Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, AP and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the AP accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to proposed remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC and AP; 3. Repeat measurements 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, AP and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and AP informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst AP, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the AP accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the AP until the exceedance is abated.

Annex G

Summary of Implementation Status

Annex G Implementation Schedule for Environmental Protection Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
Cultural Heritage					
S3.9.1	S3.2.6	Subject to the outcome of the archaeological investigation, if archaeological deposits are identified to be impacted by the proposed development, appropriate mitigation measures will be recommended and agreed with AMO.	In accordance with the recommendations in the Archaeological Action Plan (AAP) issued on 21 Dec 11 and approved on 30 Dec 11 by AMO	During detailed design and construction	No field work in the reporting month.
S3.9.2	S3.3.1	*Vibration Monitoring* A baseline condition survey and baseline vibration impact will be conducted by a specialist for the approval of AMO and Buildings Department prior to commencement of the construction works to define the vibration control limits and recommend a vibration monitoring proposal for the concerned historic buildings and structures in and outside CPS for AMO's prior approval before commencement of the construction works.	Historic buildings and structures in CPS, the granite walls at Old Bailey Street and the proposed Grade 3 historic building (No. 20 Hollywood Road)	During detailed design and construction	√
S3.9.2	S3.3.3	*Compliance of the Approved Measures and Auditing* Staff training by an experience building conservation expert or relevant competent person(s) in the environmental team of the project should be provided to the on-site staffs, contractors, sub-contractors and workers of the project before commencement of works to ensure their full understanding of the approved protection schedule, restoration proposal and work methodologies related to cultural heritage, and their respective responsibilities in the implementation of the environmental protection measures. Regular site audit for cultural heritage should be carried out in the construction phase by an experience building conservation expert in the environmental team ("the Heritage Checker") to investigate the site practice of the contractors and workers and their compliance of the approved work methodologies with respect of conservation works, mitigations for cultural heritage and any related works. A detailed	Whole site	Prior to and during construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		proposal of the regular audit such as methodology (e.g. performance and monitoring indicators, control tools, frequency of the audit, etc.) and the conservation professionals to be engaged should be agreed with AMO prior to work commencement. The Heritage Checker shall also attend the regular site meetings with AMO and report the compliance and effectiveness of the mitigation measures for cultural heritage.			
S3.9.3	S3.3.4	*Archival Recording* An archival recording should be conducted to provide a detailed reference for the update of the Conservation Management Plan and inventory of historical features of the monuments, the preparation of as-built drawings showing the condition of the historic buildings and structures after the completion of the construction works. These archival records will be a reference source for future maintenance of the character defining elements, conservation of the monuments, interpretation and conservation education of the Site. The archival recording shall include but not limit to the video and photographic recording on the detailed process of the repair trials for different kinds of historical features, conservation works of character defining elements and historic fabrics of the monuments, and a written records of any new changes to the detailed design made in the construction phase illustrate with photos and drawings. A full set of the archives records (including both hard and soft copies) should be submitted to the AMO for approval after the work completion for record purpose. Any new findings related to the conservation of built heritage in the Site identified during the detailed design stage and construction phases shall be properly recorded in details for notification to the AMO and update of the Conservation Management Plan.	Whole Site	During detailed design, construction and prior to operation	N/A – Archival recording will be conducted at later stage.
S3.7.3	-	*General Construction Methods* Prior to the commencement of the modification/refurbishment works at an existing building or structure (e.g. masonry walls near the Old Bailey Wing) , a site survey will be carried out by the design team, and all building dimensions and levels of the building/structure shown will be	Whole site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		checked and confirmed by the contractor. Non-percussive piling methods will be adopted for the construction of the foundation for the new buildings. Protective and precaution measures to the existing buildings and structure adjacent to the work area (including the proposed Grade 3 historic building (No. 20 Hollywood road) and the granite boundary walls between the Ablutions Block of the police station (building no. 08) and the General Office of the prison area (building no. 18) which is adjacent to the new construction of the Old Bailey Wing and for an old granite walls at Old Bailey Street within 15m from the new construction) shall be provided to avoid damage to the existing features and to safeguard the structural integrity during the course of construction. Small scale handheld pneumatic tools with minimal vibration impact to the existing buildings/ structures are selected so as to have a better logistic and handling at the existing buildings and structures, which usually have only narrow working areas. In cases of the local demolition of structural elements, demountable platforms will be erected to temporarily support the affected area and divert the loading from above to avoid instability and create excessive cracking and settlement of the building/structure.			
S3.7.1 & 3.7.2	-	Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose: • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and • an updated inventory list of the historic features together with the cross referenced location plans and photo records. One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the reporting month. There were no updates for the CMP.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
Landscape & Visual					
S4.7.27	-	<u>*In-situ Tree Protection - Cordon Zone (CZ)*</u> Cordon off each tree along its drip line (below the crown) with a chain-link fencing of 2.5 m height with padlocked gate, allowing limited access to area only to authorized persons. The base of the perimeter fence will be sealed up to 30 cm height to ensure that no construction drainage water will enter. If grouting is to be conducted less than 5 m from the edge of the CZ, a waterproof membrane will be installed below the ground to a depth of 1.5 m on the outer edge of the CZ to prevent the subsurface lateral movement of contaminated construction wastewater from intruding the soil inside the CZ.	Whole site	During construction	√ - Part of the cordon zone of Tree-5 has been used as a worker storage room. The Contractor was recommended to pay utmost attention to potential land pollution at the worker storage room at all times. Scaffolding has been set up close to Tree-5 within the cordon zone. The Contractor was reminded to perform proper measures to protect Tree-5 during the carrying out of works within the cordon zone.
S4.7.2	-	<u>*In-situ Tree Protection - Advanced & Phased Root Pruning*</u> All edges of the CZ that will be affected by excavation will undergo root pruning by a trained arborist or horticulturist, in advance of the earth work. The entire affected length of the CZ, plus 3 m additional length at both ends, shall be designated as the root pruning segment (RPS). The require trench will be opened manually in the RPS, be 1.5 m deep and 1 m wide, and closed on the same day after pruning with a good soil mix. All roots with a diameter >20 mm encountered in the course of trench opening shall be cut flushed with the inner wall of the trench. If the RPS exceeds one-quarter of the CZ circumference, the root pruning should be conducted in two stages. Each phase will tackle half of the RPS length. After the first phase, the tree will be allowed to recuperate for not less than four months before the second phase root pruning is conducted. The RPS shall be protected by sheet piles along the outer edge. The rig that installs the piles and the associated operations shall not intrude into the CZ or injure the protected tree.	Whole site	During construction	N/A – no root pruning has been conducted yet
S4.7.2	-	<u>*In-situ Tree Protection - Foliage cleansing system*</u> A sprinkler cleansing system will be installed either in the crown of the tree or at a suitable location on an adjacent building to provide the	Whole site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		means to wash the foliage of the accumulated dust when necessary, particularly in the dry season.			
S4.7.2	S4	*In-situ Tree Protection - Monthly inspection* Monthly inspection of affected trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (*http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf*) or a form designed by a tree expert and approved by Tree Management Office. All irregularities that deviate from the recommended tree protection measures, or could impose deleterious impacts on the protected trees, must be reported to the authorized person or the tree expert within two days.	Whole site	During construction	√
S4.7.2	-	*Light Control* Control of night-time lighting shall be implemented to minimise impact to adjacent VSRs.	Whole site	During construction and operation	√
S4.7.2	S4	*Compensatory Tree Planting* A new planting site has been identified for compensatory tree planting in the Parade Ground. The planting is to compensate for felling of T10. The existing tree site will be enlarged to become a wide tree strip to accommodate at least six trees. The entire strip of land that accommodates T1 to T4 should be revamped to improve the soil condition for future tree growth. The new tree strip should be 4 m wide and covered by porous unit pavers to permit the entry of rain and irrigation water and air exchange between the soil and the atmosphere. The unit pavers should be supported by small columns to create a vault-like structure so as to avoid compaction of the underlying soil due to pedestrian trampling. The unit pavers will be movable to provide access to the soil underneath so that fertilizers and conditioners could be added on a	At identified compensatory tree planting location at the Parade Ground	During detailed design and construction	N/A – Compensatory Tree Planting will be conducted at later stage.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation. Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. T10 has a DBH of 20 cm (*Table 4.3*), and it is proposed that six trees of heavy standard size be planted, each with a DBH of around 10 cm and root balls of not less than 0.75 m diameter and 0.75 m depth,. Since the aggregate DBH of the new trees would be 60 cm, the rate of compensation is equivalent to three times the DBH of T10, far beyond the requirements The six replacement trees should be planted in the new tree strip in two staggered rows, maximising distance between each tree to avoid mutual interference in the future. It is recommended that the species selected should have a small final dimension of less than 10 m height given the proximity to built structures such as the retaining wall and buildings. Two each of the outstanding and related flowering tree species connected to local natural history are suggested:: – *Bauhinia* 'Blakeana' a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring. – *Bauhinia purpure*, a native evergreen with lighter purple flowers from late autumn to early winter. – *Bauhinia variegata*, an exotic deciduous species, with pale pinkish flowers in spring to early summer often when the tree has little or no leaves.			
S4.7.2	S4	<u>*Vertical Greening*</u> Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible. As such it is recommended that the inner southern wall of the Site be planted as a green wall. The plantings should be inserted in between each of the large protruding piers and an offset be made from both the	Inner Southern Wall	During detailed design and construction	N/A – No vertical greening was conducted during the reporting month.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the exiting wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	***New Custom Paving*** New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	*In-situ Tree Protection - Quarterly inspection* Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (*http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf*) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
Noise					
S5.9	-	The following site practices should be followed during the construction of the Project: • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; • Mobile plant, if any, will be sited as far away from NSRs as possible;	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		• Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; • Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.			
S5.9	-	Noise insulating sheet would be adopted for certain PME (eg drill rig, excavator for demolition of existing structures, etc). The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	During construction	√
S5.9	-	Use temporary noise barriers to mitigate the noise impact arising from the construction works, particularly for low-rise NSRs. Movable noise barriers of 3 m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m^{-2} and have no openings or gaps.	Whole Site	During construction	√
S5.9	-	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	During construction	√
S5.9	-	Scheduling of construction activities with identified grouping of PMEs.	Whole Site	During construction	√
S5.11	S5	Weekly noise monitoring will be undertaken at the representative NSRs N2 Ho Fook Building and N5 Chancery House. Monthly site audits will be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.	Whole Site	During construction	√
Air Quality					
S6.8.1	-	Dust control measures stipulated in the *Air Pollution Control (Construction Dust) Regulation* will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S6.8.1	-	In particular: Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets; placed in an area sheltered on the top and three sides; or sprayed with water to maintain the entire surface wet at all the time.	Whole Site	During construction	√
S6.8.1	-	Impervious sheet will be provided for skip hoist for material transport.	Whole Site	During construction	√
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	√
S6.8.1	-	Every vehicle will be washed to remove any dusty materials from its chassis and wheels immediately before leaving the worksite.	Whole Site	During construction	√
S6.8.1	-	Road sections between vehicle-wash areas and vehicular entrances will be paved.	Whole Site	During construction	√
S6.8.1	-	The load carried by the trucks will be covered entirely to ensure no dust emission from the vehicles.	Whole Site	During construction	√
S6.8.1	-	Hoarding of not less than 2.4m high from ground level will be provided along the Project Site boundary adjoining a road where the new buildings (Old Bailey Wing and Arbuthnot Wing) will be constructed.	Whole Site	During construction	√
S6.8.1	-	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Whole Site	During construction	√
S6.8.1	-	An effective dust screen will be provided to enclose scaffolding, if required, from the ground floor level of building for construction of superstructure of the new buildings.	Whole Site	During construction	√
S6.8.1	-	Impervious dust screen or sheeting will be implemented for demolition of structures and renovation of outer surfaces of structures that abuts or fronts open area accessible to the public to no less than 1m higher than the highest level of the structure being demolished.	Whole Site	During construction	√
S6.8.1	-	The area at which demolition work takes place will be sprayed with water or dust suppression chemical immediately prior to, during and immediately after the demolition activity.	Area for Demolition Work	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S6.8.1	-	ULSD will be used for all construction plant on-site.	Whole Site	During construction	√
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	√
S6.8.1	-	Site practices such as regular maintenance and checking of construction equipment deployed on-site will be conducted to avoid any black smoke emissions and to minimise gaseous emissions.	Whole Site	During construction	N/A – Not observed.
S6.10	S3.2	Monthly environmental site audits to ensure that appropriate dust control measures are properly implemented and good construction site practices are adopted throughout the construction period.	Whole Site	During construction	√
Water Quality					
S7.6	-	Channels, earth bunds or sand bag barriers will be provided on site to direct stormwater to silt removal facilities. The design of silt removal facilities will make reference to the guidelines in *Appendix A1* of *ProPECC PN 1/94*. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Whole Site	During construction	√
S7.6	-	All drainage facilities and erosion and sediment control structures will be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit will be removed regularly and disposed of.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Measures will be taken to reduce the ingress of stormwater into excavation areas. If the excavation of the concrete foundation is to be carried out in wet season, they will be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations will be discharged into stormwater drains via silt removal facilities.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Open stockpiles of excavated and demolition materials will be covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of residues, chemicals or debris into any drainage system.	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S7.6	-	Manholes (including newly constructed ones) will always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Precautions will be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of *ProPECC PN 1/94*. Particular attention will be paid to the control of silty surface runoff during storm events.	Whole Site	During construction	N/A – Not observed.
S7.6	-	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge will be adequately designed for the controlled release of stormwater flows. All sediment traps will be regularly cleaned and maintained. The temporary diverted drainage will be reinstated to the original condition when the construction work has finished or the temporary diversion is no longer required.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Vehicle and plant servicing areas, vehicle washing bays and lubrication bays will, as far as possible, be located within roofed areas. The drainage in these covered areas will be connected to foul sewers via a petrol interceptor.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Oil leakage or spillage will be contained and cleaned up immediately. Waste oil will be collected and stored for recycling or disposal.	Whole Site	During construction	N/A – Not observed.
S7.6	-	Waste streams classifiable as chemical wastes will be properly stored, collected and treated.	Whole Site	During construction	√
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	√
S7.6	-	The storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters.	Whole Site	During construction	√
S7.6	-	The Contractors will prepare guidelines and procedures for immediate clean-up actions following any spillages of oil, fuel or chemicals.	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S7.6	-	Surface runoff from bunded areas will pass through oil/grease traps prior to discharge to the stormwater system	Whole Site	During construction	N/A – Not observed.
S7.6	-	The stormwater discharge from the site will be monitored as part of the routine monitoring under the WPCO licence, if applicable.	Whole Site	During construction	N/A – Not observed.
S7.6	-	The existing toilet facilities of the CPS will be available to the construction workforce. The sewage will be discharged to the public sewer.	Whole Site	During construction	√
S7.8	S5.2	Monthly site audits of the works areas will be carried out during the construction phase to monitor the environmental performance of the Project and to enable prompt actions to rectify any malpractice which may give rise to water pollution problem.	Whole Site	During construction	√
Waste Management					
S8.5	S6.3.1 & Table 6.1	*General* The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	√
S8.5	-	*Management of Waste Disposal* The construction contractor will open a billing account with the EPD. Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	*Reduction of Construction Waste Generation* C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	*Chemical Waste* The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	√
S8.5	S6	Containers used for storage of chemical waste shall: • 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 L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in *Schedule 2* of the *Regulations*.	Whole Site	During construction and operation	√
S8.5	S6	Storage areas for chemical waste shall: • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and • Be arranged so that incompatible materials are appropriately separated.	Whole Site	During construction and operation	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical Waste Treatment Centre at Tsing Yi	During construction and operation	√
S8.5	S6 & Table 6.1	*General Refuse* General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	√
S8.5	S6	Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the Site. Materials recovered will be sold for recycling.	Whole site	During construction and operation	√
S8.5	S6	*Staff Training* At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	√

Remark:

√ Compliance of Mitigation Measures

<> Compliance of Mitigation but need improvement

x Non-compliance of Mitigation Measures

▲ Non-compliance of Mitigation Measures but rectified by Gammon Construction Ltd

Δ Deficiency of Mitigation Measures but rectified by Gammon Construction Ltd

N/A Not Applicable in Reporting Period

Annex H

Noise Monitoring Results

Annex H Noise Monitoring Results

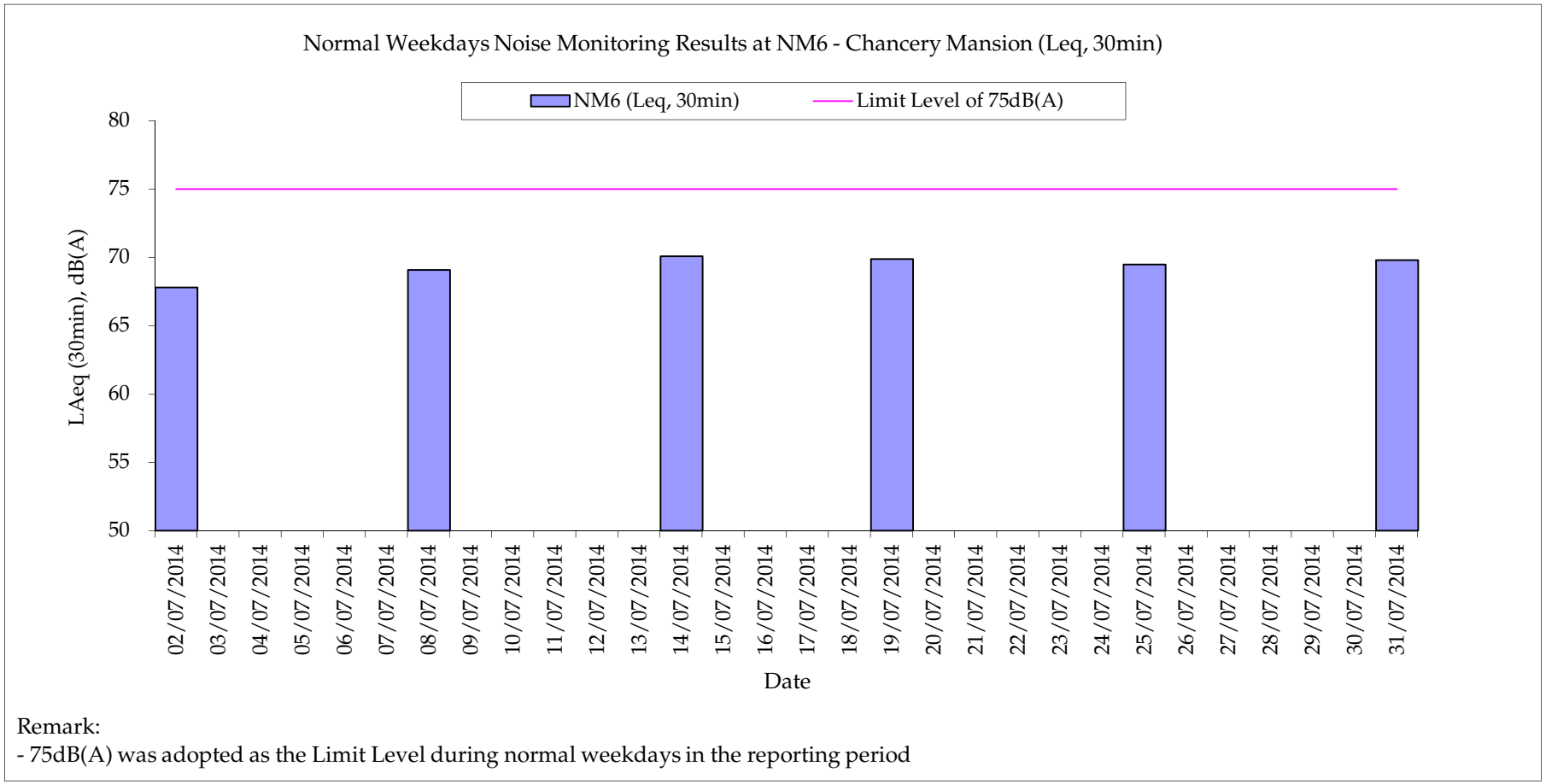
Daytime Noise Monitoring Results

NM6 Chancery Mansion

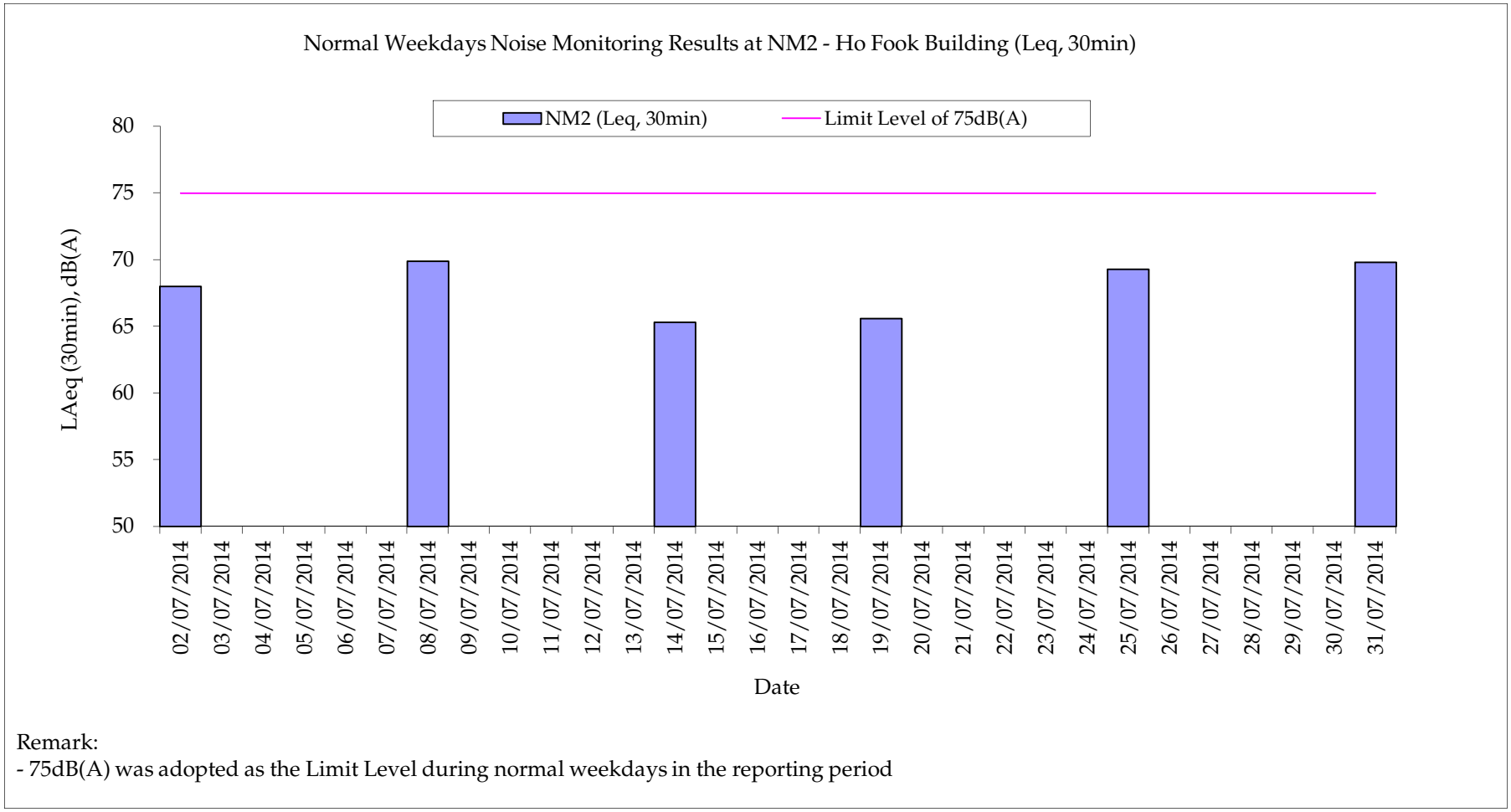
Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
02-Jul-14	10:14	10:44	Sunny	67.8	69.9	65.3	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
08-Jul-14	10:14	10:44	Sunny	69.1	70.6	67.0	Interior fitting, lifting, steel bending (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
14-Jul-14	10:17	10:47	Sunny	70.1	71.5	68.1	Interior fitting, lifting, steel bending (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
19-Jul-14	10:20	10:50	Sunny	69.9	71.5	67.1	Lifting, steel bending (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
25-Jul-14	10:30	11:00	Sunny	69.5	71.2	67.5	Lifting, steel bending (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
31-Jul-14	10:18	10:48	Sunny	69.8	71.5	66.7	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
			Min.	**67.8**								
			Max.	**70.1**								

NM2 Ho Fook Building

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
02-Jul-14	8:22	8:52	Sunny	68.0	69.7	65.3	Interior fitting (within the project site)	Traffic noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
08-Jul-14	8:23	8:53	Sunny	69.9	72.0	66.9	Interior fitting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
14-Jul-14	8:25	8:55	Sunny	65.3	67.0	63.7	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10786708)
19-Jul-14	8:28	8:58	Sunny	65.6	66.7	63.7	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
25-Jul-14	8:26	8:56	Sunny	69.3	70.3	67.1	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
31-Jul-14	8:25	8:55	Sunny	69.8	71.2	66.0	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00131627)	RION - NC73 (S/N 10486660)
			Min.	**65.3**								
			Max.	**69.9**								



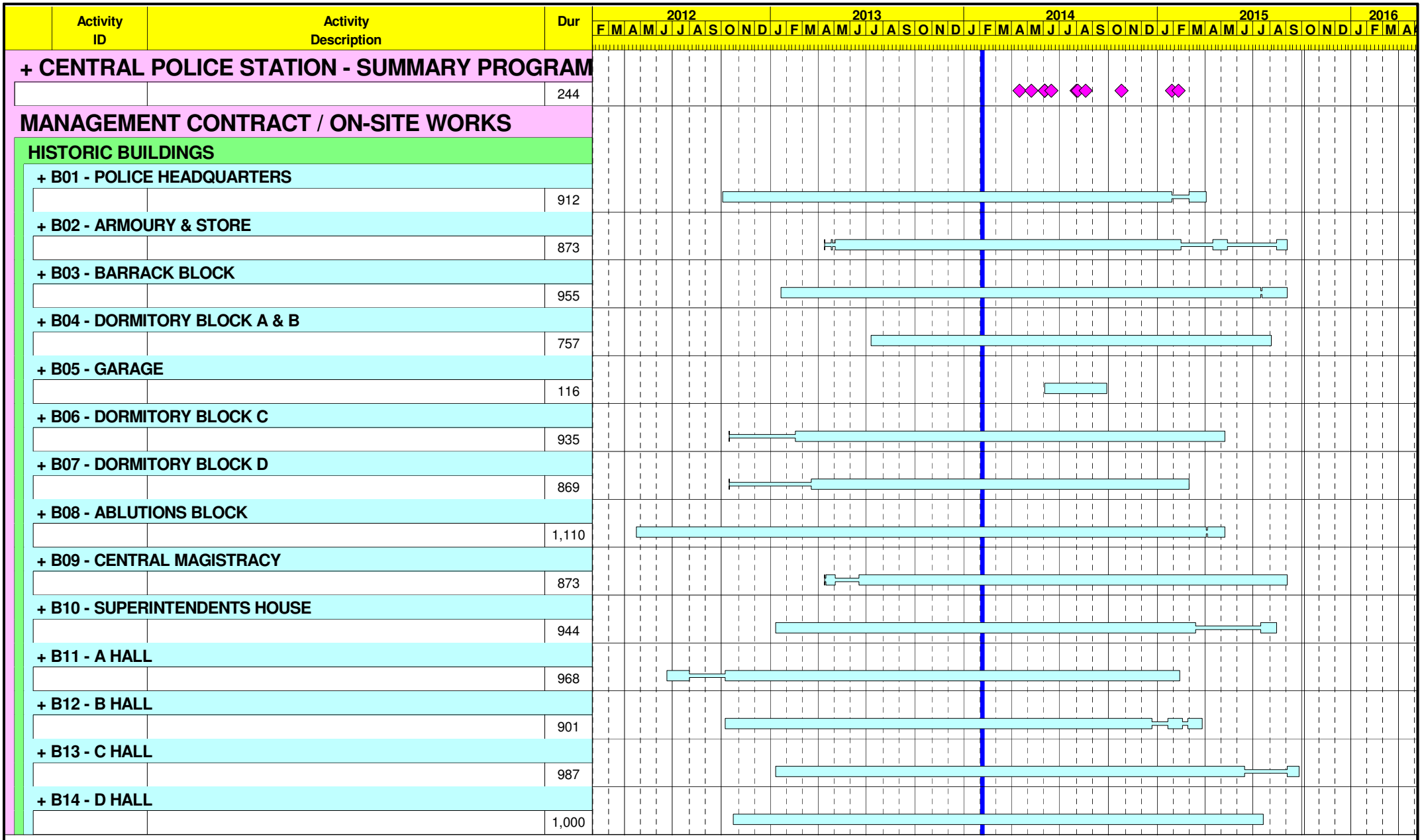
Remark:
- 75dB(A) was adopted as the Limit Level during normal weekdays in the reporting period



Remark:
- 75dB(A) was adopted as the Limit Level during normal weekdays in the reporting period

Annex I

Construction Programme for the Project



Start Date	07JUL10
Finish Date	05OCT15
Data Date	06FEB14
Run Date	07JUL14 15:24

?Primavera Systems, Inc.

Early Bar
Progress Bar

T78A

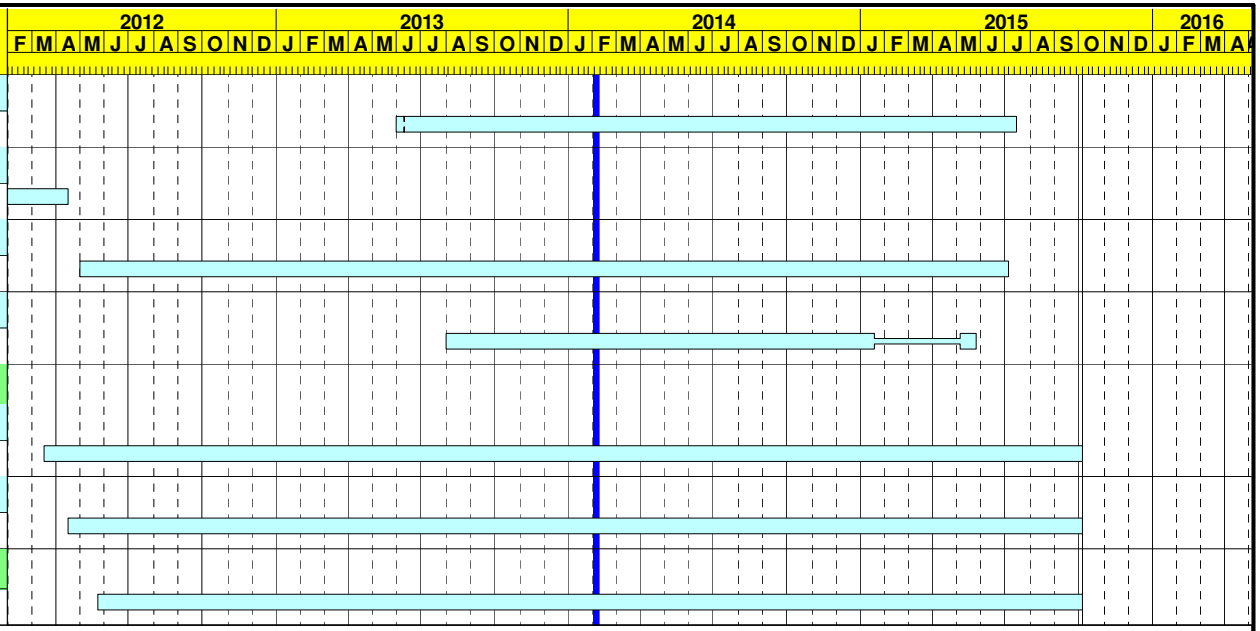
Sheet 1 of 2

CENTRAL POLICE STATION
CONSERVATION AND REVITALIZATION
CONSTRUCTION PROGRAMME
SUMMARY PROGRAMME
(AS OF 06 Feb 2014)

GCL/P/J3416 /CP05A-1

Date	Revision	Checked	Approved
22APR14	1st Issued		

Activity ID	Activity Description	Dur
+ B15 - E HALL		
		777
+ B16 - WORKSHOP & LAUNDRY		
		192*
+ B17 - F HALL		
		1,158
+ B19 - BAUHINIA HOUSE		
		664
NEW BUILDINGS		
+ OBW - OLD BAILEY WING		
		1,299
+ AW - ARBUTHNOT WING		
		1,267
+ SITE WORKS		
		1,230



Start Date	07JUL10
Finish Date	05OCT15
Data Date	06FEB14
Run Date	07JUL14 15:24

?Primavera Systems, Inc.

Early Bar
Progress Bar

T78A

CENTRAL POLICE STATION CONSERVATION AND REVITALIZATION CONSTRUCTION PROGRAMME SUMMARY PROGRAMME (AS OF 06 Feb 2014)

GCL/P/J3416 /CP05A-1

Date	Revision	Checked	Approved
22APR14	1st Issued		

Annex J

Tree Inspection Reports

RECEIVED
-2 AUG 2014

R187801

欣榮(香港)環境管理有限公司

Yan Wing (Hong Kong) Environment Management Limited

香港 新界 沙頭角 新樓街 15號 二樓
No. 15, San Lau Street, 1/F., Sha Tau Kok, N.T. , Hong Kong

通信地址 (Mail Address)：上水郵局信箱 八八九 號 (Sheung Shui Post Office Box 889)
Tel : 9776 1987, 2486 2317 Fax : 2482 4667 E-mail : yanwinghk@netvigator.com

Our Ref. : YW/TP/GAMMON/2014/07/1

30th July 2014

Gammon Construction Limited
28/F Devon House,
TaiKoo Place 979 King's Road
Hong Kong

Tel. 2516 8823
Fax.2516 6260

Attn : Mr. Cliff C.H. LEUNG, Mr. Ariel LUI

Dear Sirs,

Summary of Monthly Inspection Report for the Six Existing Trees
at Central Police Station Compound for July 2014
(Contract Ref. : J3416/400.4/D00025)

Tree No.	Botanical Name	Date of Inspection	Overall Health Condition Good/Fair/Poor	Remarks
Tree-5	*Mangifera indica* 芒果	2nd July 2014	Good	1. No further action is required.
Tree-6	*Aleurites moluccana* 石栗	2nd July 2014	Fair	1. No further action is required.
Tree-7	*Aleurites moluccana* 石栗	2nd July 2014	Fair	1. No further action is required.
Tree-8	*Plumeria rubra* 紅雞蛋花	2nd July 2014	Fair	1. No further action is required.
Tree-9	*Araucaria cunninghamia* 花旗杉	2nd July 2014	Fair	1. No further action is required.
Tree-11	*Dracaena marginata* 馬尾鐵	2nd July 2014	Fair	1. A dead log appears on the upper branches.

欣榮(香港)環境管理有限公司

Yan Wing (Hong Kong) Environment Management Limited

香港 新界 沙頭角 新樓街 15 號 二樓
No. 15, San Lau Street, 1/F., Sha Tau Kok, N.T. , Hong Kong

通信地址 (Mail Address)：上水郵局信箱 八八九 號 (Sheung Shui Post Office Box 889)
Tel : 9776 1987, 2486 2317 Fax : 2482 4667 E-mail : yanwinghk@netvigator.com

Tree Inspection Reports and Tree Group Inspection Form (Form 1) are attached for your reference and record, please.

I should be much grateful if you could endorse the attached Invoice (No.1073) and fax it to my Office at 2482 4667. Thank you.

Yours faithfully

For and on behalf of
Yan Wing (HK) Environment Management Ltd.

(WONG Pak Hay)
Contract Manager

FORM 1: TREE GROUP INSPECTION FORM
表格 1: 樹群檢查表格

General Information 基本資料

Company 公司:	**Gammon Construction Ltd**	Name of Tree Inspection officer 巡查人員姓名:	**LAU Man Chung**
File Ref. 檔案編號:	**YW/TP/GAMMON/2014/07/2**	Name of Endorsement Officer 覆核人員姓名:	**WONG Pak Hay**
Date of Inspection 巡查日期:	**July 2, 2014**		
Project/Contract No.合約/工程編號：	**J3416/400.4/D00025**		

Location Information 位置資料

Location 地點:	**Central Police Station Compound.**	Nearby Utility Post No. 就近公用設施編號：	

Location Types 地點類別:
Address : __
(multiple answers allowed)
可選多於一項)

- ☐ Roadside 路旁
- ☒ Open space 空地
- ☐ Exhibition Centre 展覽中心
- ☐ View Point 觀景台
- ☐ Walking / nature trail 行山徑 / 自然徑
- ☐ Others *(please specify)*其他 *(請說明)*: _____
- ☐ Community Hall / Centre 社區會堂 / 中心
- ☐ Roadside Planter 路旁花圃
- ☐ Rain shelter / pavilion 避雨亭 / 涼亭
- ☐ Sitting out area 休憩處

General Tree Information 基本樹木資料

*** Delete as appropriate** 請把不合適的刪除

Main tree species in the group or minority tree species of significant size 在群組內的主要樹種或樹幹胸徑或高度或樹冠範圍較大的樹種 *(Note 2)*	Approx. number of trees in the relevant species or as a % of tree group 該樹種在群組內的百份比/數目*	Range of tree height (m) 該樹種高度範圍	Overall health condition 整體健康狀況 *(good, fair, poor* 好，良，差)	Overall structural condition 整體結構狀況 *(good, fair, poor* 好，良，差*)*	Other remarks (Any special tree condition, e.g. dying/dead, pest/disease problem and structural defects; and soil condition 其他評語 (樹木狀況例如：凋謝/枯樹/病蟲害或結構問題; 及泥土狀況)
Mangifera indica 芒果	**17%, 1 No.**	**16M**	**GOOD**	**GOOD**	NFA
Aleurites moluccana 石栗	**32% 2 Nos.**	**10-13M**	**FAIR**	**FAIR**	NFA
Plumeria rubra 紅雞蛋花	**17% 1 No.**	**7M**	**FAIR**	**FAIR**	NFA
Araucaria cunninghamia 花旗杉	**17% 1 No.**	**13M**	**FAIR**	**FAIR**	NFA
Dracaena marginata 馬尾鐵	**17% 1 No.**	**8M**	**FAIR**	**FAIR**	A dead log appears on the tree

Target 目標

TARGET *(people or property potentially affected by tree/branch failure)* 目標 *(因樹木倒塌或枝條斷裂而受影響的人或財產)*

Does target exist? 目標是否存在? ☒ Yes 是 ☐ No 否

Can target be moved?能否移除目標? ☐ Yes 是 ☒ No 否

Can the use of site be restricted? 可否限制場地的使用? ☒ Yes 是 ☐ No 否

Frequency of use of location 使用 該地點 的頻密程度：
☐ Occasional use偶爾使用 ☐ Intermittent use間歇使用 ☒ Frequent use經常使用 ☐ Constant use恆常使用

Identification of Trees for Remedial Action or Detailed Tree Risk Assessment

識別下述樹木，以便採取風險緩減措施或進行詳細樹木風險評估

Trees falling under the following criteria 樹木屬於以下任何一項或多於一項類別		Number of trees 樹木數量	Remedial action or detailed tree risk assessment 緩減措施或進行詳細樹木風險評估
(1)	Trees on complaint list with structural or health problems 投訴個案中，結構或健康問題的樹木 *(Note 1)*	**Nil**	
(2)	Mature trees belonging to species with brittle wood structure and having unsatisfactory health or structural conditions with failure potential 屬木質脆弱品種並已達成熟期及有倒塌風險的樹木 *(Note 1)*	**Nil**	
(3)	Tree with major defects or health problems 有明顯缺陷或健康問題的樹木 *(Note 1)*	**Nil**	
(4)	Trees growing in very stressful site conditions with failure potential 生長於非常擠壓環境而有倒塌風險的樹木 *(Note 1)*	**Nil**	

Signature of Tree Inspection Officer :
Signature of Endorsement Officer:

Name of Contractor: Yan Wing (HK) Environment Management Ltd.

Date: 30-7-2014

Note 1: If remedial action (such as pruning) undertaken cannot mitigate the potential risk of tree or branch failure, detailed tree risk assessment (using Form 2) should be carried out.
備註 1： 若風險緩減措施(如枝幹修剪)仍未能解決倒塌或枝條斷裂的潛在風險，應爲該樹進行詳細的樹木風險評估(表格 2)。
Note 2: Please read in conjunction with TMO's Guidelines on Tree Risk Assessment and Management Arrangement (Para. 4.3. refers.)
備註 2： 請參閱樹木管理辦事處的樹木風險評估安排及管理指引(第 4.3 節)

Appendix 1

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREE NUMBER : Tree-5 *Mangifera indica* 芒果

II. BASIC INFORMATION :

Height (m)	16m	Crown spread (m)	18m
DBH (mm)	1000mm	Overall Health Condition Good/Fair/Poor	Good
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is good.
2. The planter is full of mulch.
3. Renovation works are in progress near the tree.
4. The small cordon zone is in good order.
5. Construction works are in progress outside the cordon zone.
6. The site outside the cordon zone is clean and tidy.

IV. RECOMMENDATIONS :

1. No further action is required.

V. PHOTO RECORD :

Fig 1. Tree number.

Fig 2. The root collar of Tree-5 is good. The planter is full of mulch.

Fig. 3 The small cordon zone is in good order.

Fig. 4 The site near Tree-5 is clean and tidy.

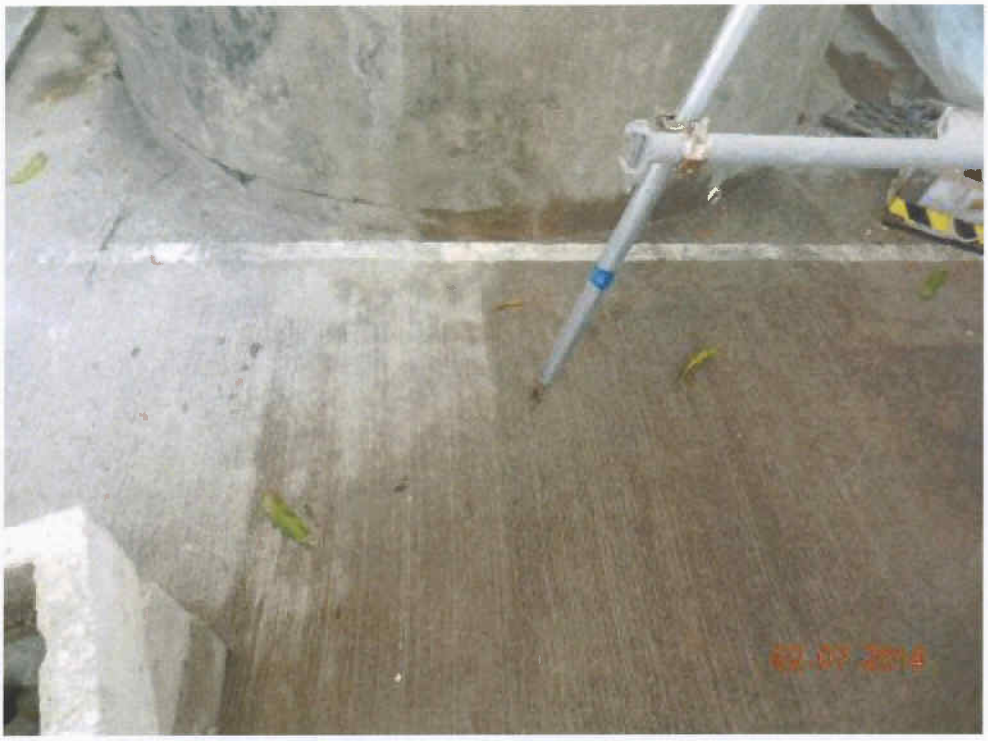


Fig. 5 Health condition of the mid trunk is good.

Fig. 6 A pipe leads water to tree top for irrigation.

Fig. 7 The crown is full of dense and green leaves.

Fig. 8 Renovation work is in progress near the tree

Fig. 9 The store-room next to the tree is clean and tidy.

Fig. 10 The site outside the cordon zone is clean and tidy.

Fig. 11 Construction works are in progress outside the cordon zone.

Fig. 12 Overall view of Tree-5 during inspection on 2nd July 2014.

Signature of Inspection Officer :
(Mr. LAU Man-chung, ISA CA–HK0050A)

Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014.

Appendix 2

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREEE NUMBER : Tree-6 *Aleurites moluccana* 石栗

II. BASIC INFORMATION :

Height (m)	10m	Crown spread (m)	10m
DBH (mm)	510mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The planter is full of mulch.
3. The crown is full of green and dense leaves.
4. The site outside the cordon zone is clean and tidy.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. No further action is required.

V. PHOTO RECORD :

Fig 1. Tree number

Fig 2. The root collar is normal. The planter is full of mulch.

Fig. 3 Health condition of the mid trunk is fair.

Fig. 4 Health condition of the upper trunk is fair.

Fig. 5 The crown is full of green and dense leaves.

Fig. 6 The small cordon zone is in good order.

Fig. 7 The access outside the cordon zone is clean and tidy.

Fig. 8 Construction works are in progress outside the cordon zone.

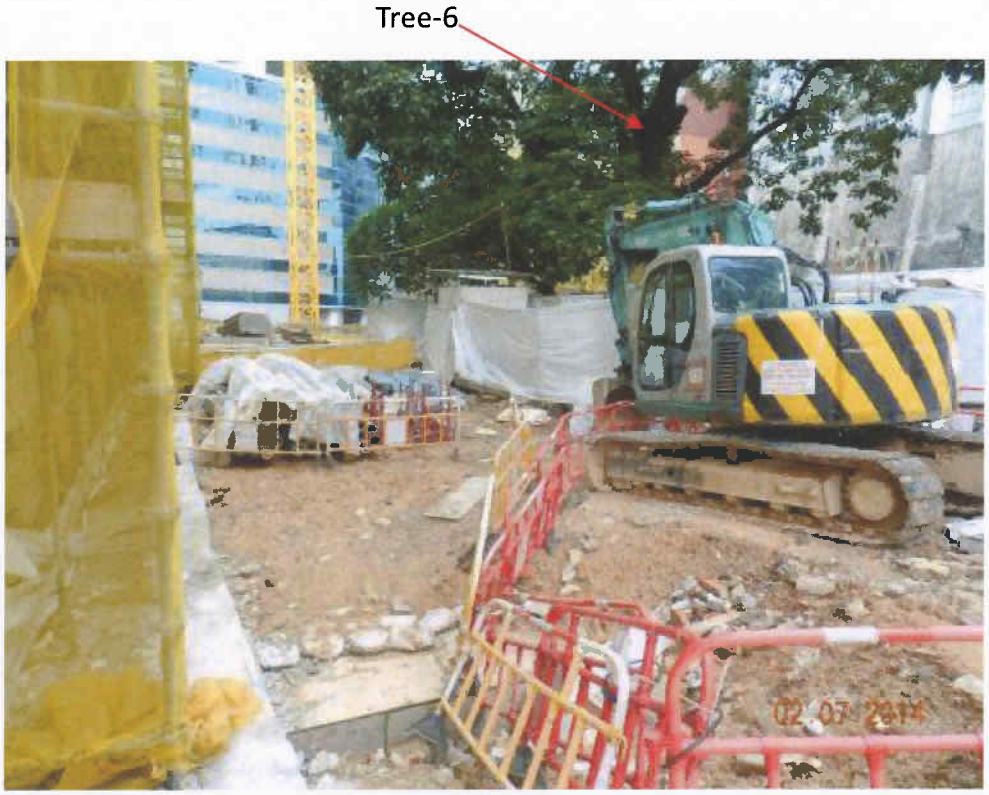


Fig. 9 The side view of the crown during inspection on 2nd July 2014.

Fig. 10 Overall view of Tree-6 during inspection on 2nd July 2014.

Signature of Inspection Officer :
(Mr. LAU Man-chung, ISA CA–HK0050A)

Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014

Appendix 3

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREEE NUMBER : Tree-7 *Aleurites moluccana* 石栗

II. BASIC INFORMATION :

Height (m)	13m	Crown spread (m)	12m
DBH (mm)	650mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The planter is full of mulch.
3. The small cordon is in good order.
4. The crown is full of vigorous and dense leaves.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. No further action is required.

V. PHOTO RECORD :

Fig 1. Tree number

Fig 2. Root collar of Tree-7 is normal. The planter is full of mulch.

Fig. 3 Health condition of the mid trunk is fair.

Fig. 4 Health condition of the upper trunk also is fair.

Fig. 5 The crown is full of vigorous and dense leaves.

Fig. 6 The small cordon zone has been maintained in good order.

Fig. 7 Appropriate notice is displayed in front of the cordon zone.

Fig. 8 Construction works are in progress outside the cordon zone.

Fig. 9 The access near Tree-7 is clean and tidy.

Fig. 10 Overall view of Tree-7 during inspection on 2nd July 2014.

Signature of Inspection Officer :
(Mr. Lau Man-chung, ISA CA–HK0045A)
Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREEE NUMBER : Tree-8 *Plumeria rubra*

II. BASIC INFORMATION :

Height (m)	7m	Crown spread (m)	9m
DBH (mm)	430mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The planter is full of mulch.
3. The small cordon zone is in good order.
4. Red flowers and green leaves appear on the crown.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. No further action is required.

V. PHOTO RECORD :

Fig 1. Tree number

Fig 2. The root collar is normal. The planter is full of mulch.

Fig. 3 Health condition of the mid trunk is fair.

Fig. 4 Health condition of the upper trunk also is fair.

Fig. 5 Red flowers and green leaves appear on the crown.

Fig. 6 The small cordon zone is in good order.

Fig. 7 Cleanliness of the site near the tree is acceptable.

Fig. 8 The access near Tree-8 is clean and tidy.

Fig. 9 Construction works are in progress outside the cordon zone.

Fig. 10 Overall view of Tree-8 during inspection on 2nd July 2014

Signature of Inspection Officer :
(Mr. LAU Man-chung, ISA CA–HK0050A)

Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREEE NUMBER : Tree - 9 *Araucaria cunninghamia* 花旗杉

II. BASIC INFORMATION :

Height (m)	13m	Crown spread (m)	5m
DBH (mm)	230mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The small cordon zone is in good order.
3. Vigorous branches/leaves appear on the tree.
4. The access near the tree is clean and tidy.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. No further action is required.

V. PHOTO RECORD :

Fig 1. Tree number

Fig 2. Root collar of Tree-9 is normal. The planter is full of mulch.

Fig. 3 Health condition of the mid trunk is fair

Fig. 4 No signs of sap flow have been detected again on the cavity.

Fig. 5 Vigorous branches/leaves appear on the tree.

Fig. 6 The small cordon zone is in good order.

Fig. 7 Many bulky items are placed near the planter but they cause no disturbance to the tree.

Fig. 8 Construction works are in progress outside the cordon zone.

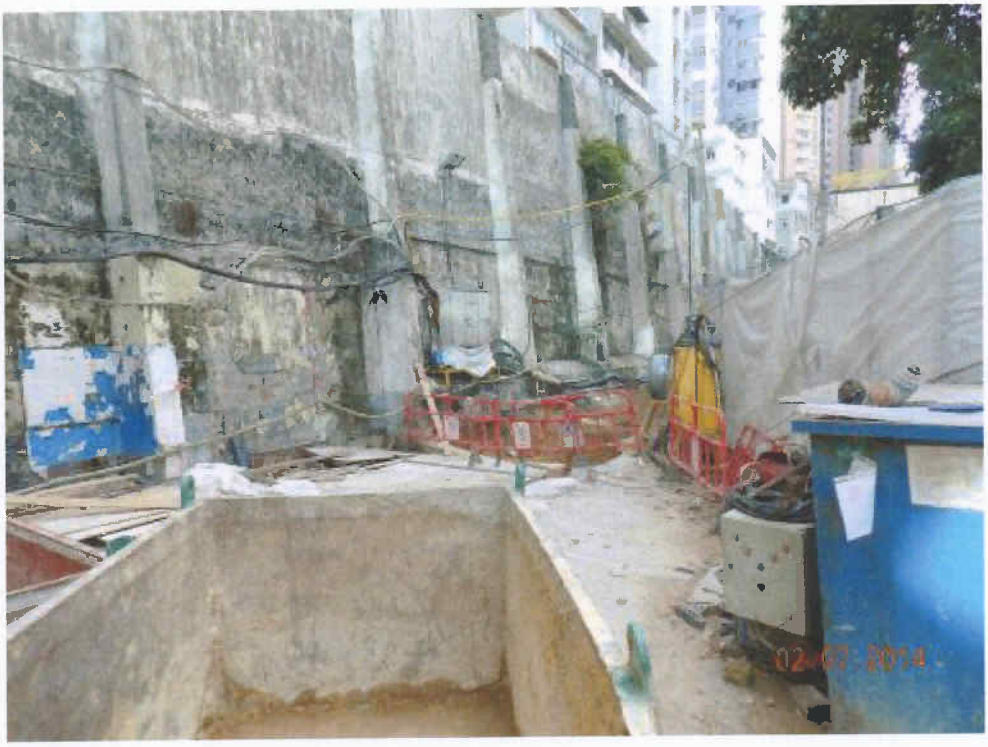


Fig. 9 The access near the tree is clean and tidy.

Fig. 10 Overall view of Tree-9 during inspection on 2nd July 2014.

Signature of Inspection Officer :
(Mr. LAU Man-chung, ISA CA–HK0050A)

Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014

Inspection Report for the 6 Existing Trees
at Central Police Station Compound
(Contract Ref. : J3416/400.4/D00025)

I. TREEE NUMBER : Tree -11 *Dracaena marginata* 馬尾鐵

II. BASIC INFORMATION :

Height (m)	8m	Crown spread (m)	2m
DBH (mm)	170mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	2nd July 2014	Last Inspection Date	3rd June 2014

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The planter is full of mulch.
3. The small cordon zone is in order.
4. Renovation works are in progress near the tree.
5. The dead log still appears on the upper branches.

IV. RECOMMENDATIONS :

1. To prune the dead log before typhoon seasons.

V. PHOTO RECORD :

Fig 1. Tree number

Fig. 2 The root collar is normal. The planter is full of mulch.

Fig. 3 Health condition of the mid trunk is normal.

Fig. 4 The small cordon zone is in good order.

Fig. 5 Cleanliness of the site near the planter is acceptable.

Fig. 6 The dead log still appears on the upper branches.

Fig. 7 Renovation works are in progress near the tree.

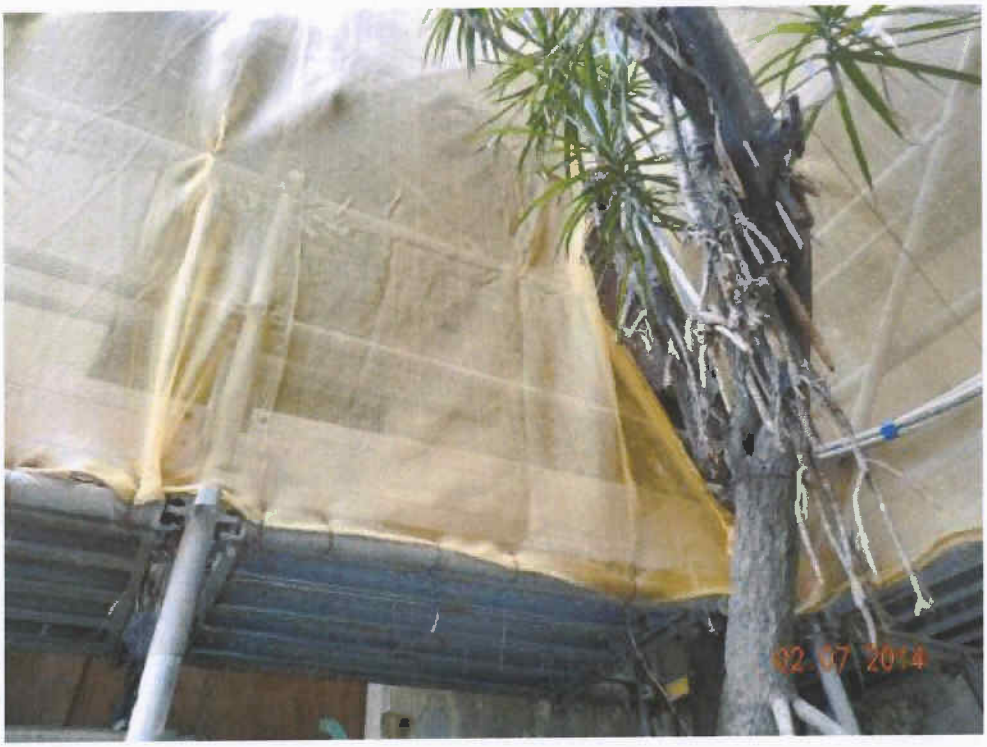


Fig. 8 Vigorous and green leaves appear on the tree.

Fig. 9 The site outside the cordon zone is clean and tidy.

Fig. 10 Overall view of Tree-11 during inspection on 2nd July 2014.

Signature of Inspection Officer :
(Mr. LAU Man-chung, ISA CA–HK0050A)

Signature of Endorsement Officer :
(Mr. WONG Pak-hay, Contract Manager)

Name of Contractor : Yan Wing (HK) Environment Management Ltd.

Dated this : 30th July 2014

YAN WING (HONG KONG) ENVIRONMENT MANAGEMENT LIMITED 恩榮(香港)環境管理有限公司

Annex K

Environmental Complaint, Environmental Summons and Prosecution Log

Annex K Cumulative Complaint and Summons/Prosecutions Log

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
November 2011	0	0
December 2011	0	0
January 2012	0	0
February 2012	0	0
March 2012	4	0
April 2012	0	0
May 2012	0	0
June 2012	2	0
July 2012	1	0
August 2012	0	0
September 2012	0	0
October 2012	0	0
November 2012	2	0
December 2012	0	0
January 2013	0	0
February 2013	1	0
March 2013	1	0
April 2013	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
May 2013	0	0
June 2013	0	0
July 2013	0	0
August 2013	0	0
September 2013	0	0
October 2013	0	0
November 2013	0	0
December 2013	0	0
January 2014	2	0
February 2014	1	0
March 2014	1	0
April 2014	1	0
May 2014	0	0
June 2014	0	0
July 2014	2	0
Overall Total	**18**	**0**

ROCCO 许李严

賽馬會文物保育有限公司
The Jockey Club CPS Limited

ATKINS

Gammon

Central Police Station
Conservation and Revitalisation Project

ERM

COMPLAINT INVESTIGATION REPORT

Basic Information of Complaint

Log Number:	**2014/07/001**
Date of Complaint Received	21 July 2014
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Hong Kong Jocky Club (HKJC)
Complainant	Marcus Shenn, nearby resident

Details of Complaint

The Hong Kong Jockey Club received a complaint on noise nuisance from a resident living on Chancery Lane on 21 July 2014. The complaint was transferred to the Project's Environmental Team on 22 July 2014. The complainant mentioned that construction noise was emanated from the operation of multiple jack hammers at the CPS Site in the week of 14 July 2014. The complainant requested a phone call reply regarding the complaint.

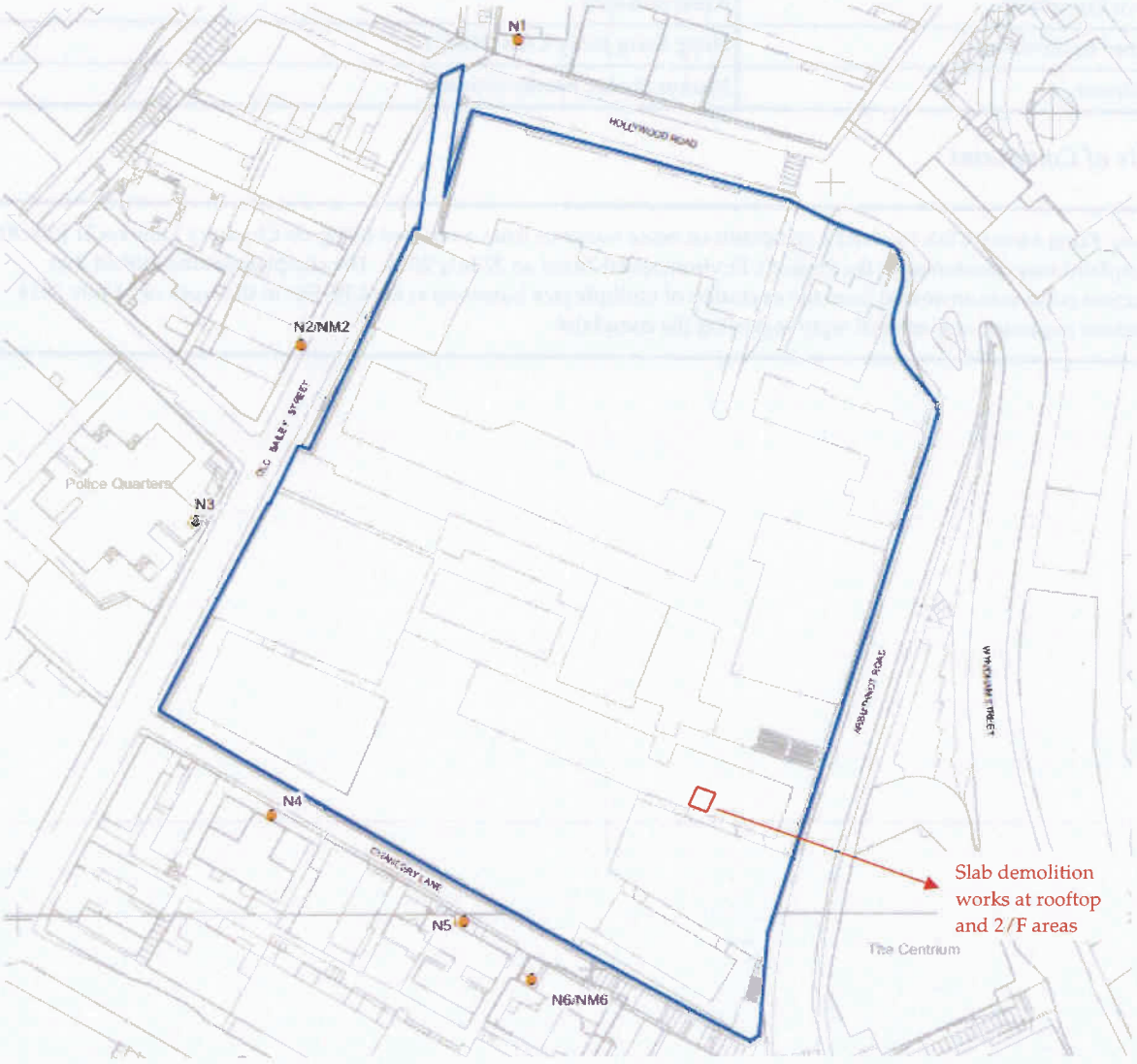
Investigation Report

1. According to the Contractor's works summary, demolition of slab for lift shaft construction using hand-held breakers (>10kg) at Block 14 were being carried out in the week of 14 July 2014 during normal working hours. The location of the mentioned demolition works is shown in the figure below.

2. A number of hand-held breakers (>10kg) were being operated for slab demolition on the rooftop and 2/F of Block 14. The slab demolition works have been completed.

3. The noise nuisance mentioned by the complainant is likely to be related to the demolition works that were carried out on the rooftop of Block 14.

4. Weekly daytime noise monitoring at designated noise monitoring stations (NM2 and NM6) are conducted according to EM&A requirement. Noise monitoring results in the past 4 weeks showed compliance with the construction noise standard.



Mitigation Measures and Follow-up Actions Recommended to Contractor

All construction works are carried out strictly following the necessary requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor was recommended to install acoustic silencers to the hand-held breakers during breaking and demolition works to reduce noise generated at source. According to findings of investigation, the potential noise nuisance is suspected to be related to the demolition works on rooftop areas on which nearby noise sensitive receivers have direct line of sight. The Contractor was reminded to erect portable noise barriers or acoustic curtains, as far as practicable, when engaging in breaking works or other noisy works in open areas to minimise potential noise nuisance to nearby residents. Furthermore, the Contractor has returned call to complainant to explain the situation and the possible noise mitigation measures to be employed in the future.

Date of File Closed : 25 July 2014

Approved by:

ET Leader	IEC	JCCPS's Representative	Rocco Design Architect's Representative
(Name: Winnie Ko)	(Name: Sharifah Or)	(Name: C W Sham)	(Name: CHARLES KUNG)
Date: 25 July 2014	Date: 25 July 2014	Date: 28 July 2014	Date: 28 July 2014

Gammon's Representative

(Name: CUFF LEUNG)
Date: 2014.07.28

ROCCO 許李

賽馬會文物保育有限公司
The Jockey Club CPS Limited

ATKINS

Gammon

ERM

Central Police Station
Conservation and Revitalisation Project

COMPLAINT INVESTIGATION REPORT

Basic Information of Complaint

Log Number:	**2014/07/002**
Date of Complaint Received	25 July 2014
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Hong Kong Jocky Club (HKJC)
Complainant	Marcus Shenn, nearby resident

Details of Complaint

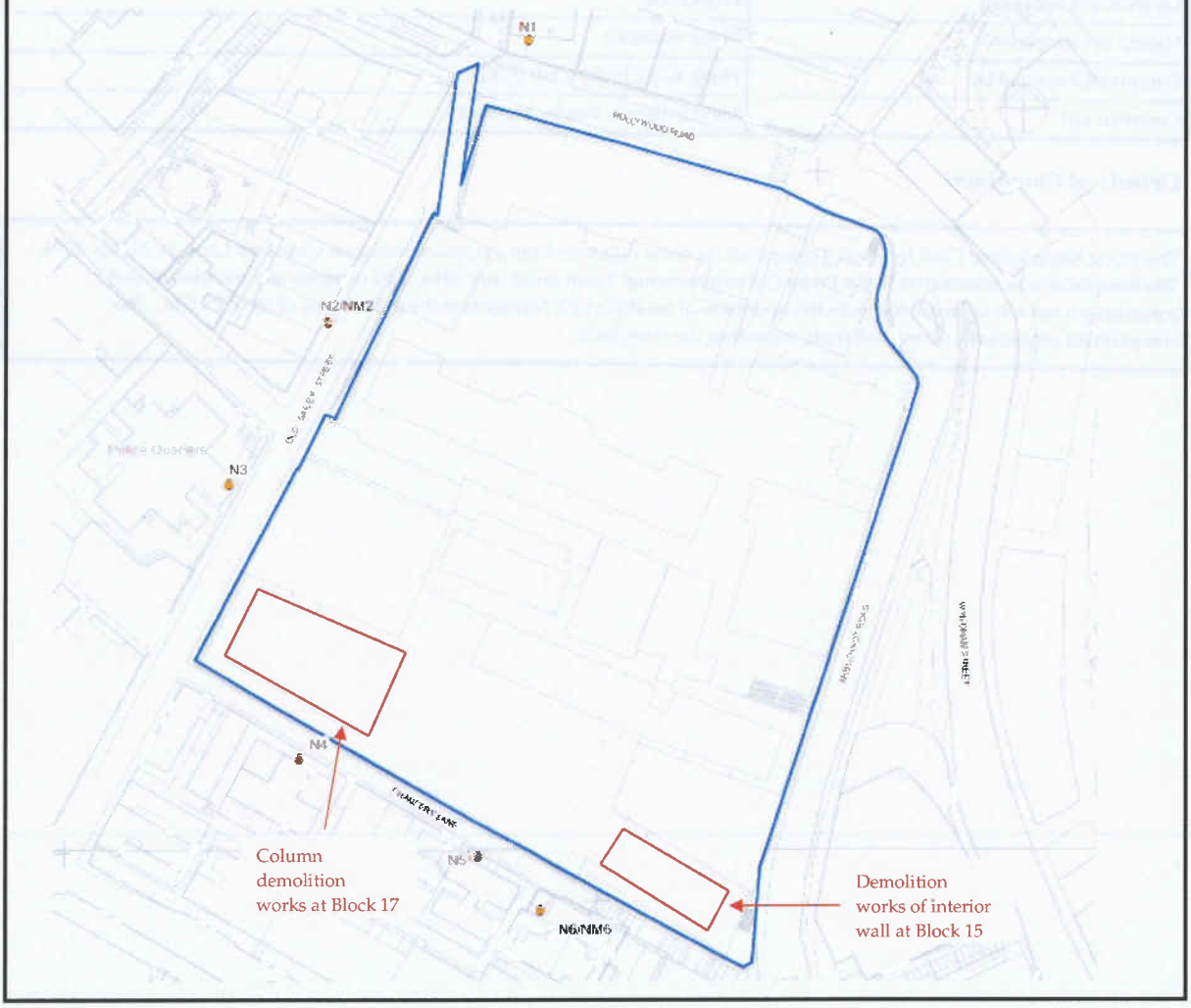
The Hong Kong Jockey Club received a complaint on noise nuisance from a resident living on Chancery Lane on 25 July 2014. The complaint was transferred to the Project's Environmental Team on 28 July 2014. The complainant mentioned that construction noise was emanated from the operation of multiple jack hammers at the prison area of the CPS Site. The complainant requested a phone call reply regarding the complaint.

Investigation Report

1. According to the Contractor's works summary, interior wall demolition at Block 15 and column demolition at Block 17 were being carried out in the week of 21 July 2014 during normal working hours. The noise nuisance mentioned by the complainant is likely to be related to the demolition works at Block 15 and Block 17. The location of the mentioned demolition works is shown in the figure below.

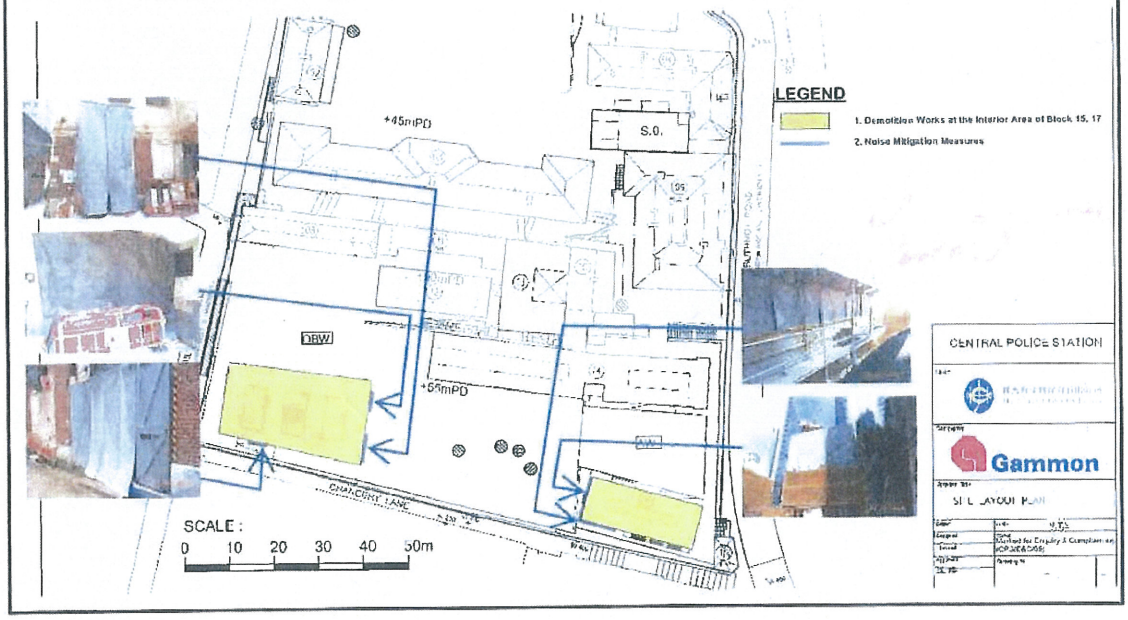
2. A number of hand-held breakers (>10kg) were being operated for the above-mentioned demolition works at Block 15 and Block 17. All demolition works were being conducted inside the buildings. According to the Contractor, the demolition works at Block 15 and Block 17 will be completed within the next 1 to 2 months.

3. Weekly daytime noise monitoring at designated noise monitoring stations (NM2 and NM6) are conducted according to EM&A requirement. Noise monitoring results in the past 4 weeks showed compliance with the construction noise standard.



Mitigation Measures and Follow-up Actions Recommended to Contractor

All construction works are carried out strictly following the necessary requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor has implemented noise mitigation measures in response to the complaint. Acoustic curtains has been erected at the south and west elevations of Block 15, and at the entrance opening and windows areas of Block 17 to shield the direct line of sight and reduce the noise nuisance to nearby noise sensitive receivers along the Chancery Lane. Locations of the erected acoustic curtains are shown in the figure below. The Contractor was also recommended to install acoustic silencers to the hand-held breakers during breaking and demolition works to reduce noise generated at source. On 26 July 2014, the Contractor has returned call to complainant to explain the situation and the noise mitigation measures that are currently in place.



Date of File Closed : 30 July 2014

Approved by:

ET Leader	IEC	JCCPS's Representative	Rocco Design Architect's Representative
(Name: Winnie Ko)	(Name: Sharifah Or)	(Name: C W Sham)	(Name: CHARLES KUNG)
Date: 30 July 2014	Date: 31 July 2014	Date: 31 July 2014	Date: 31 July 2014

Gammon's
Representative

(Name: CLIFF LEUNG)
Date: 2014. 07. 30

Annex L

Records of Vibration Monitoring for Piling works

Pipe pile wall, grout curtain and excavation and lateral support at Parade Ground

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 3348B-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- SITE BOUNDARY
- EXISTING RETAINING WALL
- DH1(S,P) EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VM1-1 PROPOSED VIBRATION MONITORING POINTS
- ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

NOTES:

1. UTILITIES SETTLEMENT POINTS (UT1 TO UT5) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED. AS ALTERNATIVE SETTLEMENT POINTS (GS18 AND GS19) MAY BE INSTALLED.
2. SHOULD UT1 TO UT6 BE INSTALLED, GS18 AND GS19 SHALL NOT BE REQUIRED.
3. EITHER UTILITIES SETTLEMENT MARKERS (UT1 TO UT6) OR GROUND SETTLEMENT MARKETS (GS18 AND GS19) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WING ELS WORKS.

BD Ref. No. 32-1-3066/10/BH KOH(BU)(S)

F.S.D. Ref. No. 3/6/6/3/6/3/6/3/6

Revision/Submission 修改版/增加

No. 編號	Description 說明	Date 日期	Approved 審核
-	BD SUBMISSION	12/11	JS
A	BD SUBMISSION	03/12	JS

Note: This plan has been processed on a curtailed check bar under the centralized processing system as promulgated in PN ADM-19. The duties of the authorized person, registered structu engineer and/or registered geotechnical engineer concerned specified under section 4(3)(b) and the provision of section 14(2) of the Buildings Ordinance are of particular relevance in this regar

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
- 3 MAY 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents herein are the copyright of relevant consultants.
本圖紙及其內容的版權屬有關顧問公司所有。
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
未經有關顧問公司書面同意，不得複製此圖紙或任何內容或設計。
- Do not take measurements directly from this drawing. 切勿直接從圖紙上量度尺寸。
- Check and verify all dimensions on site 所有尺寸必須在工地現場查及電核。
- Read this drawing in conjunction with the specifications and all other related drawings.
此圖紙必須與其相關說明書及其它有關圖紙一併閱讀。
- Notify the relevant consultants immediately of any discrepancy found herein.
如發現內容有任何詳細之處，應立即通知有關顧問公司。

Client 業主
香港賽馬會文物保育有限公司
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect
[illegible]

Executive Architect / AP
ROCCO

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 製圖	Checked 校對
1:3000A1	K.C.Lo	AL

Drawing No. 圖號 00-OAP209674-G-001 Revision 修改版 A

Cad file : 00-OAP209674-G-001.dwg

Vibration Monitoring Record (JULY)

	Parade Ground				
Point	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2
Date	mm/s	mm/s	mm/s	mm/s	mm/s
01-Jul-14	Sunday				
02-Jul-14	0.209	0.153	0.176	0.309	0.176
03-Jul-14	0.206	0.573	0.166	0.225	0.249
04-Jul-14	0.207	0.452	0.194	0.242	0.223
05-Jul-14	0.247	0.317	0.242	0.598	0.251
06-Jul-14	Sunday				
07-Jul-14	0.365	0.284	0.174	0.296	0.192
08-Jul-14	0.216	0.237	0.359	0.364	0.363
09-Jul-14	0.197	0.313	0.521	0.168	0.193
10-Jul-14	0.325	0.184	0.229	0.531	0.164
11-Jul-14	0.073	0.073	0.104	0.131	0.081
12-Jul-14	0.168	0.117	0.291	0.443	0.154
13-Jul-14	Sunday				
14-Jul-14	0.394	0.221	0.199	0.261	0.173
15-Jul-14	0.369	0.184	0.184	0.289	0.520
16-Jul-14	0.241	0.192	0.341	0.164	0.254
17-Jul-14	0.394	0.284	0.213	0.147	0.263
18-Jul-14	0.641	0.258	0.164	0.164	0.326
19-Jul-14	0.319	0.154	0.165	0.551	0.134
20-Jul-14	Sunday				
21-Jul-14	0.360	0.112	0.112	0.627	0.078
22-Jul-14	0.086	0.086	0.081	0.081	0.086
23-Jul-14	0.086	0.059	0.066	0.129	0.413
24-Jul-14	0.086	0.081	0.518	0.139	0.086
25-Jul-14	0.106	0.121	0.096	0.331	0.129
26-Jul-14	0.089	0.162	0.087	0.221	0.103
27-Jul-14	Sunday				
28-Jul-14	0.162	0.099	0.172	0.138	0.334
29-Jul-14	0.083	0.073	0.081	0.073	0.135
30-Jul-14	0.086	0.048	0.066	0.066	0.462
31-Jul-14	0.121	0.192	0.088	0.185	0.094

Foundation Pile Works at Block 8.

WYNDHAM STREET

ARBUTHNOT ROAD

EZRA'S LANE

HOLLYWOOD ROAD

OLD BAILEY STREET

JUNCTION ROAD

CHANCERY LANE

Central Police Station

Victoria Prison

The Centrium

Shiu King Court

Ovolo

Chinachem Hollywood Centre

Garfield Commercial Building

3a Hanoi House

Au's Building

Podium

Wing Lee Building

Hollywood Commercial House

Winning House

Villa Serene

Cambridge Villa

Tung Yuen Building

Chancery Mansion

Avon Court

HK 26 Court

Lascar Court

11SW-B/R17

11SW-B/R18

11SW-B/R22

11SW-B/R805

11SW-B/R806

11SW-B/R23

11SW-B/R24

11SW-B/R176

11SW-B/R52

11SW-B/R53

11SW-B/R19

11SW-B/R174

11SW-B/R175

11SW-B/R177

11SW-B/R55

11SW-B/R54

11SW-B/R178

WORKING ZONE B (EXCAVATIONS BLOCK 8)

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
20 FEB 2012

Key Plan

BD SUBMISSION
Drawing Status

- This drawing and the contents hereon are the copyright of relevant consultants.
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
- Do not take measurements directly from this drawing.
- Check and verify all dimensions on site.
- Read this drawing in conjunction with the specifications and all other related drawings.
- Notify the relevant consultants immediately of any discrepancy found hereon.

Client
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title
MONITORING LAYOUT PLAN

Scale	Drawn	Checked
1:300@A1	K.C.Lo	AL

Drawing No.
00-0AP209674-G-001

Revision
-

No.	Description	Date	Approved
-	BD SUBMISSION	12/11	JS

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- STE BOUNDARY
- EXISTING RETAINING WALL
- EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE EITHER IN BORED PILE WALL OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VW1-1 PROPOSED VIBRATION MONITORING POINTS
- ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

NOTES
1. UTILITIES SETTLEMENT POINTS (UT1 TO UT6) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED AS ALTERNATES SETTLEMENT POINTS (GS1.5 AND GS1.6) HAVE BEEN INSTALLED
2. SHOULD UT1 TO UT6 BE INSTALLED, GS1.5 AND GS1.6 SHALL NOT BE REQUIRED
3. THREE UTILITIES SETTLEMENT MARKERS (UT1 TO UT3) OR GROUND SETTLEMENT MARKERS (GS1.5 AND GS1.6) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WORKS WORKS

Cad file : 00-0AP209674-G-001.dwg

(Block 8 Foundation)

恆誠建築工程有限公司
Win Win Way Construction Company Ltd.

Monitoring Check Pts.	Trigger Levels		
	Alert level	Alarm level	Action level
Vibrating Monitoring	2mm/s	2.5mm/s	3mm/s
#Vibration at largest span of highest Structural level	5.0mm/s	6.0mm/s	7.5mm/s

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP201 1-Jul-2014 to 31-Jul-2014

POINT		VM8-1	VM11-1#	VM11-2						
DATE	PD/(m)	mm/s	mm/s	mm/s						
19-Jun-2012 (Initial)		0.56	0.13	0.19						
1-Jul-2014						Holiday				
2-Jul-2014		0.51	0.31	0.26						
3-Jul-2014		0.45	0.30	0.22						
4-Jul-2014		0.56	0.32	0.25						
5-Jul-2014		0.50	0.35	0.29						
6-Jul-2014						Sunday				
7-Jul-2014		0.55	0.31	0.27						
8-Jul-2014		0.54	0.33	0.28						
9-Jul-2014		0.53	0.32	0.27						
10-Jul-2014		0.52	0.33	0.29						
11-Jul-2014		0.60	0.38	0.32						
12-Jul-2014		0.66	0.36	0.35						
13-Jul-2014						Sunday				
14-Jul-2014		0.55	0.31	0.27						
15-Jul-2014		0.55	0.31	0.27						
16-Jul-2014		0.16	0.18	0.16						
17-Jul-2014		0.60	0.12	0.25						
18-Jul-2014		0.36	0.46	0.17						
19-Jul-2014		0.13	0.33	0.46						
20-Jul-2014						Sunday				
21-Jul-2014		0.08	0.09	0.31						
22-Jul-2014		0.07	0.09	0.08						
23-Jul-2014		0.06	0.08	0.17						
24-Jul-2014		0.09	0.41	0.10						
25-Jul-2014		0.10	0.13	0.37						
26-Jul-2014		0.54	0.16	0.17						
27-Jul-2014						Sunday				
28-Jul-2014		0.16	0.52	0.27						
29-Jul-2014		0.09	0.26	0.08						
30-Jul-2014		0.55	0.40	0.15						
31-Jul-2014		0.13	0.25	0.11						

Mini-piles with post-pressurized grout in CDG and Steel Shear H-piles at Block 17

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- SITE BOUNDARY
- EXISTING RETAINING WALL
- DH1(S,P) EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VM1-1 PROPOSED VIBRATION MONITORING POINTS
- ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

NOTES:

1. UTILITIES SETTLEMENT POINTS (UT1 TO UT6) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED. AS ALTERNATIVE SETTLEMENT POINTS (GS18 AND GS19) MAY BE INSTALLED.
2. SHOULD UT1 TO UT6 BE INSTALLED, GS18 AND GS19 SHALL NOT BE REQUIRED.
3. EITHER UTILITIES SETTLEMENT MARKERS (UT1 TO UT6) OR GROUND SETTLEMENT MARKETS (GS18 AND GS19) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WING ELS WORKS.

B.D. Ref. No. 2/3053/11(BLK17&50) (HJ) (S)

F.S.D. Ref. No.

Revision/Submission

No.	Description	Date	Approved
-	BD SUBMISSION	12/11	JS
A	BD SUBMISSION	03/12	JS
B	BD SUBMISSION	03/12	JS

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
19 MAR 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents hereon are the copyright of relevant consultants.
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
- Do not take measurements directly from this drawing.
- Check and verify all dimensions on site.
- Read this drawing in conjunction with the specifications and all other related drawings.
- Notify the relevant consultants immediately of any discrepancy found herein.

Client 業主
賽馬會文物保育有限公司
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 製圖	Checked 校對
1:300@A1	K.C.Lai	AL

Drawing No. 圖號 00-OAP209674-G-001 Revision 修改版 B

Cad file : 00-OAP209674-G-001.dwg

恆誠建築工程有限公司
Win Win Way Construction Company Ltd.

(Block 17 Foundation Works)

Monitoring Check Pts.	Trigger Levels		
	Alert level	Alarm level	Action level
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s
# Vibration at largest span of highest Structural level	5.0mm/s	6.0mm/s	7.5mm/s

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP201 1-Jul-2014 to 30-Jul-2014

POINT		VM17-1	VM17-3 #							
DATE	PD/(m)	mm/s	mm/s							
19-Jun-2012 (Initial)		**0.13**	**0.37**							
Surveying Date										
1-Jul-2014						Sunday				
2-Jul-2014		0.24	0.42							
3-Jul-2014		0.28	0.46							
4-Jul-2014		0.33	0.44							
5-Jul-2014		0.25	0.49							
6-Jul-2014						Sunday				
7-Jul-2014		0.20	0.48							
8-Jul-2014		0.31	0.41							
9-Jul-2014		0.25	0.45							
10-Jul-2014		0.26	0.49							
11-Jul-2014		0.30	0.59							
12-Jul-2014		0.20	0.53							
13-Jul-2014						Sunday				
14-Jul-2014		0.19	0.41							
15-Jul-2014		0.19	0.41							
16-Jul-2014		0.17	0.15							
17-Jul-2014		0.16	0.15							
18-Jul-2014		0.36	0.34							
19-Jul-2014		0.25	0.35							
20-Jul-2014						Sunday				
21-Jul-2014		0.76	0.21							
22-Jul-2014		0.18	0.10							
23-Jul-2014		0.11	0.07							
24-Jul-2014		0.25	0.33							
25-Jul-2014		0.15	0.14							
26-Jul-2014		0.18	0.17							
27-Jul-2014						Sunday				
28-Jul-2014		0.20	0.17							
29-Jul-2014		0.08	0.08							
30-Jul-2014		0.06	0.30							
31-Jul-2014		0.06	0.65							

Bored Pile Walls / Pipe pile Walls at Block 50

NOTES
1. UTILITIES SETTLEMENT POINTS (UT1 TO UT6) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED. AS ALTERNATIVE SETTLEMENT POINTS (GS18 TO GS19) MAY BE INSTALLED.
2. SHOULD UT1 TO UT6 BE INSTALLED, GS18 AND GS19 SHALL NOT BE REQUIRED. EITHER UTILITIES SETTLEMENT MARKERS (UT1 TO UT6) OR GROUND SETTLEMENT MARKERS (GS18 TO GS19) SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF OLD BAILEY WING ELS WORKS

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- SITE BOUNDARY
- EXISTING RETAINING WALL
- DH1(S,P) EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BJILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VM1-1 PROPOSED VIBRATION MONITORING POINTS
- ACH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

B.D. Ref. No. 屋宇署檔案編號
3/3053/11 (Blk 17 & 50) (HC)(S)
F.S.D. Ref. No. 消防處檔案編號

Revision/Submission 修改版/提交

No. 編號	Description 說明	Date 日期	Approved 審定
–	BD SUBMISSION	12/11	JS

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
20 FEB 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents herein are the copyright of relevant consultants.
本圖紙及其內容的版權屬有關顧問公司所有。
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
未經有關顧問公司書面同意，不得複製此圖紙內任何內容或設計。
- Do not take measurements directly from this drawing 切勿直接從圖紙上量度尺寸。
- Check and verify all dimensions on site 所有尺寸必須在工地現場複查及審核。
- Read this drawing in conjunction with the specifications and all other related drawings.
此圖紙必須與規格說明書及其它有關圖紙一併閱讀。
- Notify the relevant consultants immediately of any discrepancy found herein.
如發現內容有任何謬誤之處，應立刻通知有關顧問公司。

Client 業主
賽馬會文物保育有限公司
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect
PURCELL MILLER TRITTON

Executive Architect / AP
ROCCO 许李翁

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 製圖	Checked 校對
1:300@A1	K.C.Loi	AL

Drawing No. 圖號 00-OAP209674-G-001 Revision 修改版 –

Cad file : 00-OAP209674-G-001.dwg

RECEIVED BY
2011 DEC 23 P 2:09
R & D Section
BUILDINGS DEPARTMENT

恆誠建築工程有限公司
Win Win Way Construction Company Ltd.

(Bored Pile Walls / Pipe Pile Walls at Block 50)

Monitoring Check Pts.	Trigger Levels		
	Alert level	Alarm level	Action level
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s
# Vibration at largest span of highest Structural level	5.0mm/s	6.0mm/s	7.5mm/s

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP201 1-Jul-2014 to 30-Jul-2014

POINT		VM8-1	VM11-1#	VM11-2	VM12-1#	VM12-2	VM14-3	VM17-1	VM17-2	VM17-3 #
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
19-Jun-2012 (Initial)		**0.56**	**0.13**	**0.19**	**0.22**	**0.13**	**0.21**	**0.13**	**0.13**	**0.37**
Surveying Date										
1-Jul-2014						**Holiday**				
2-Jul-2014		0.51	0.31	0.26	0.25	0.29	0.35	0.24	0.45	0.42
3-Jul-2014		0.45	0.30	0.22	0.26	0.28	0.19	0.28	0.48	0.46
4-Jul-2014		0.56	0.32	0.25	0.28	0.30	0.30	0.33	0.55	0.44
5-Jul-2014		0.50	0.35	0.29	0.27	0.31	0.27	0.25	0.54	0.49
6-Jul-2014						**Sunday**				
7-Jul-2014		0.55	0.31	0.27	0.25	0.28	0.17	0.20	0.50	0.48
8-Jul-2014		0.54	0.33	0.28	0.29	0.22	0.38	0.31	0.44	0.41
9-Jul-2014		0.53	0.32	0.27	0.22	0.25	0.18	0.25	0.49	0.45
10-Jul-2014		0.52	0.33	0.29	0.25	0.24	0.22	0.26	0.50	0.49
11-Jul-2014		0.60	0.38	0.32	0.36	0.34	0.10	0.30	0.63	0.59
12-Jul-2014		0.66	0.36	0.35	0.34	0.36	0.12	0.20	0.55	0.53
13-Jul-2014						**Sunday**				
14-Jul-2014		0.55	0.31	0.27	0.26	0.27	0.35	0.19	0.45	0.41
15-Jul-2014		0.55	0.31	0.27	0.26	0.27	0.35	0.19	0.45	0.41
16-Jul-2014		0.16	0.18	0.16	0.20	0.23	0.18	0.17	0.40	0.15
17-Jul-2014		0.60	0.12	0.25	0.27	0.34	0.20	0.16	0.24	0.15
18-Jul-2014		0.36	0.46	0.17	0.34	0.12	0.17	0.36	0.25	0.34
19-Jul-2014		0.13	0.33	0.46	0.14	0.24	0.12	0.25	0.20	0.35
20-Jul-2014						Sunday				
21-Jul-2014		0.08	0.09	0.31	0.58	0.09	0.66	0.76	0.09	0.21
22-Jul-2014		0.07	0.09	0.08	0.42	0.21	0.34	0.18	0.10	0.10
23-Jul-2014		0.06	0.08	0.17	0.31	0.06	0.07	0.11	0.18	0.07
24-Jul-2014		0.09	0.41	0.10	0.15	0.01	0.23	0.25	0.33	0.33
25-Jul-2014		0.10	0.13	0.37	0.17	0.65	0.10	0.15	0.10	0.14
26-Jul-2014		0.54	0.16	0.17	0.34	0.16	0.30	0.18	0.10	0.17
27-Jul-2014						Sunday				
28-Jul-2014		0.16	0.52	0.27	0.20	0.16	0.21	0.20	0.22	0.17
29-Jul-2014		0.09	0.26	0.08	0.12	0.13	0.09	0.08	0.13	0.08
30-Jul-2014		0.55	0.40	0.15	0.28	0.53	0.48	0.06	0.09	0.30
31-Jul-2014		0.13	0.25	0.11	0.11	0.16	0.09	0.15	0.17	0.65

Shaft Grouted Pre-bored H-piles at Block 51 (Arbuthnot Wing)

B.D. Ref. No. 3/3067/11 (BLK51, 14&15) (BU) (S)

P.B.D. Ref. No.

Revision/Submission

No.	Description	Date	Approved
–	BD SUBMISSION (50)	12/11	JS
A	BD SUBMISSION (01)	03/12	JS
B	BD SUBMISSION (17)	03/12	JS
C	BD SUBMISSION RW BATCH 1	03/12	JS
D	FOR INFROMATION (50)	03/12	JS
E	BD SUBMISSION (51)	05/12	JS

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
13 JUL 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents herein are the copyright of relevant consultants.
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
- Do not take measurements directly from this drawing.
- Check and verify all dimensions on site.
- Read this drawing in conjunction with the specifications and all other related drawings.
- Notify the relevant consultants immediately of any discrepancy found herein.

Client 業主
賽馬會文物保育有限公司
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO 许李严

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 製圖	Checked 校對
1:300@A1	K.C.Lai	AL

Drawing No. 圖號 00-OAP209674-G-001 Revision 修改版 E

Cad file : 00-OAP209674-G-001.dwg

(Shaft Grouted Pre-bored H-piles at Block 51)

恆誠建築工程有限公司
Win Win Way Construction Company Ltd.

Monitoring Check Pts.	Trigger Levels		
	Alert level	Alarm level	Action level
Vibrating Monitoring	2mm/s	2.5mm/s	3mm/s

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP201 1-Jul-2014 to 30-Jul-2014

POINT		VM14-4	VM15-2	VM51-1						
DATE	PD/(m)	mm/s	mm/s	mm/s						
03-Dec-2012 (Initial)		0.14	0.21	0.3						
1-Jul-2014						Holiday				
2-Jul-2014		0.40	0.28	0.12						
3-Jul-2014		0.18	0.31	0.32						
4-Jul-2014		0.20	0.39	0.19						
5-Jul-2014		0.33	0.71	0.11						
6-Jul-2014						Sunday				
7-Jul-2014		0.20	0.19	0.15						
8-Jul-2014		0.16	0.41	0.10						
9-Jul-2014		0.22	0.30	0.16						
10-Jul-2014		0.14	0.12	0.13						
11-Jul-2014		0.19	0.20	0.10						
12-Jul-2014		0.19	0.23	0.19						
13-Jul-2014						Sunday				
14-Jul-2014		0.21	0.20	0.29						
15-Jul-2014		0.15	0.22	0.32						
16-Jul-2014		0.14	0.18	0.20						
17-Jul-2014		0.17	0.28	0.17						
18-Jul-2014		0.13	0.31	0.32						
19-Jul-2014		0.14	0.20	0.25						
20-Jul-2014						Sunday				
21-Jul-2014		0.11	0.09	0.34						
22-Jul-2014		0.26	0.20	0.12						
23-Jul-2014		0.06	0.07	0.17						
24-Jul-2014		0.26	0.52	0.38						
25-Jul-2014		0.09	0.33	0.39						
26-Jul-2014		0.10	0.20	0.33						
27-Jul-2014						Sunday				
28-Jul-2014		0.15	0.17	0.17						
29-Jul-2014		0.14	0.08	0.15						
30-Jul-2014		0.61	0.07	0.68						
31-Jul-2014		0.07	0.61	0.20						

Annex M

Records of Vibration Monitoring for Other Construction Works

Structual Alteration and Additions at Block 14

WYNDHAM STREET

ARBUTHNOT ROAD

HOLLYWOOD ROAD

EZRA'S LANE

OLD BAILEY STREET

CHANCERY LANE

Victoria Prison

Central Police Station

Garfield Commercial Building

Hanbik House

Chinachem Hollywood Centre

Podium

Au's Building

Winning House

Hollywood Commercial House

Ho Fook Building

Wing Lee Building

Alabama House

Villa Serene

Cambridge Villa

Tung Yuen Building

Chancery House

H.K. Zo Court

Avon Court

Shiu King Court

Ovolo

The Centrium

New Hide House

Le Cachet

11SW-B/R17

11SW-B/R18

11SW-B/R22

11SW-B/R805

11SW-B/R806

11SW-B/R23

11SW-B/R52

11SW-B/R24

11SW-B/R53

11SW-B/R176

11SW-B/R19

11SW-B/R174

11SW-B/R175

11SW-B/R177

11SW-B/R55

11SW-B/R54

11SW-B/R178

MONITORING ZONE A

N

No. 編號	Description 說明	Date 日期	Approved 審定
–	BD SUBMISSION (50)	12/11	JS
A	BD SUBMISSION (01)	03/12	JS
B	BD SUBMISSION (17)	03/12	JS
C	BD SUBMISSION RW BATCH 1	03/12	JS
D	FOR INFROMATION (56)	03/12	JS
E	BD SUBMISSION (51)	05/12	JS
F	BD SUBMISSION (04)	05/12	JS
G	BD SUBMISSION (03)	05/12	JS
H	BD SUBMISSION (14)	05/12	JS

W.O. Ref. No. 屋宇署檔案編號
22/3067/11 (BLKS1, 14&16) (HO) (5)
F.S.D. Ref. No. 消防處檔案編號

Revision/Submission 修改版/報呈

Note: This plan has been processed on a dumbbell check basis under the computerised processing system as promulgated in PNAP ADM-19. The duties of the authorised person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(2)(a) and the provision of section 14(2)(a) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved
NG Kin-shing
Chief Structural Engineer
for BUILDING AUTHORITY
- 9 AUG 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents hereon are the copyright of relevant consultants.
本圖紙及其內容的版權屬有關顧問公司所有。
- No part of the drawing and the design conveyed therein may be reproduced without the prior written consent of relevant consultants.
未經有關顧問公司書面同意，不得複製或翻製此圖紙內容或設計。
- Do not take measurements directly from this drawing.
切勿直接從圖紙上量度尺寸。
- Check and verify all dimensions on site.
所有尺寸必須在工地核實及妥善校對。
- Read this drawing in conjunction with the specifications and all other relevant drawings.
此圖紙必須與其他說明書及其它有關圖紙一併閱讀。
- Notify the relevant consultants immediately of any discrepancy found herein.
如發現內容有任何錯誤之處，應立刻通知有關顧問公司。

Client 業主
賽馬會太物保育有限公司
The Jockey Club CPS Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO 許智雄

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 製圖	Checked 核對
1:300@A1	K.C.Lo	AL

Drawing No. 圖號 00-OAP209674-G-001 Revision 修改版 H

KWAN KIN KEI
CEng FIStructE MICE FHKIE
REGISTERED STRUCTURAL ENGINEER

Cad file : 00-OAP209674-G-001.dwg

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- SITE BOUNDARY
- EXISTING RETAINING WALL
- DH1(S,P) EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VM1-1 PROPOSED VIBRATION MONITORING POINTS
- ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

恆誠建築工程有限公司
Win Win Way Construction Company Ltd.

(Block 14 Structural A&A)

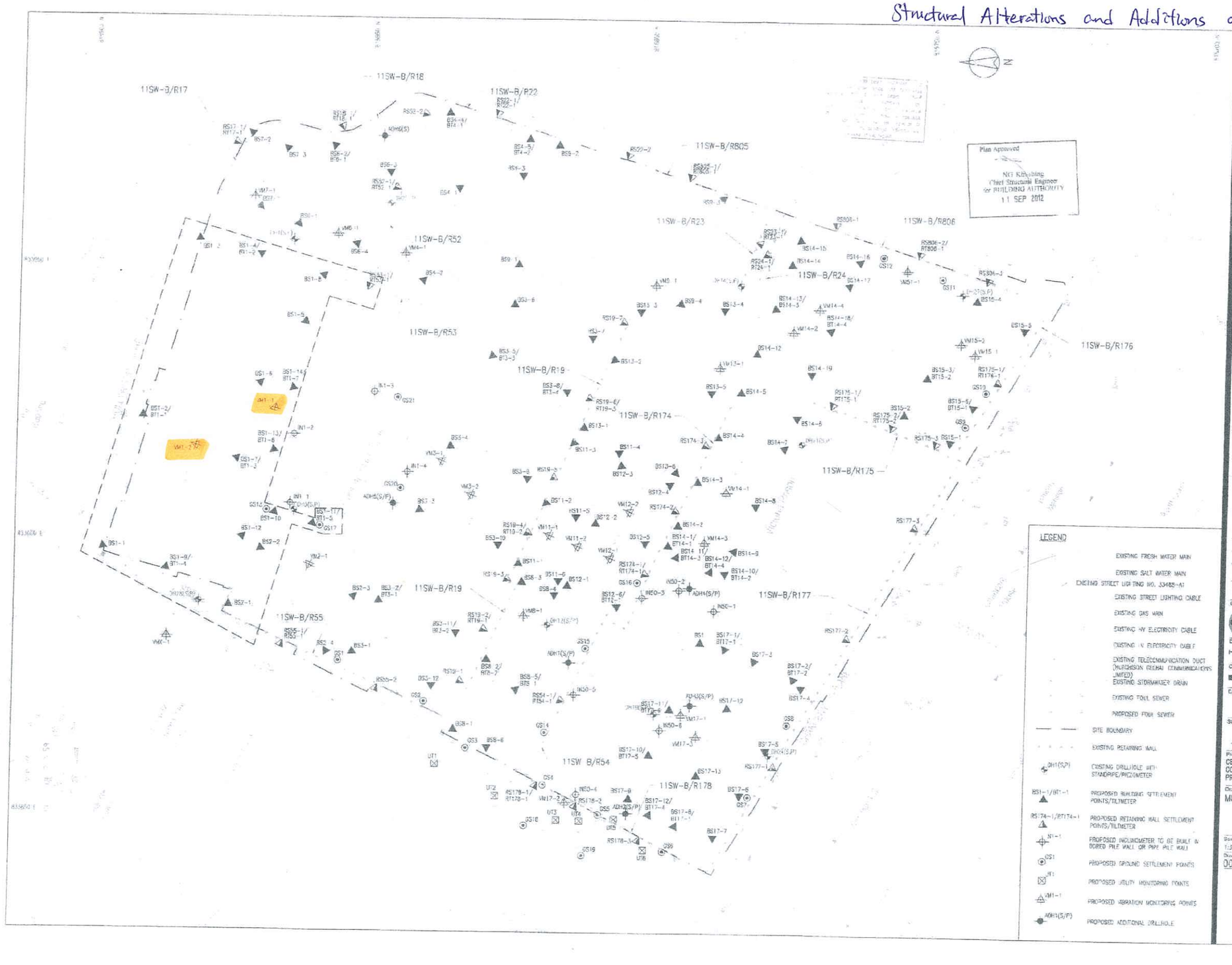
Monitoring Check Pts.	Trigger Levels		
	Alert level	Alarm level	Action level
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s
# Vibration at largest span of highest Structural level	5.0mm/s	6.0mm/s	7.5mm/s

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP201 1-Jul-2014 to 30-Jul-2014

POINT		VM14-1#	VM14-2 #	VM14-3	VM14-4					
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s					
19-Nov-12 (Initial)		0.103	0.112	0.147	0.136					
1-Jul-2014		Holiday								
2-Jul-2014		0.24	0.10	0.35	0.40					
3-Jul-2014		0.18	0.19	0.19	0.18					
4-Jul-2014		0.20	0.29	0.30	0.20					
5-Jul-2014		0.45	0.23	0.27	0.33					
6-Jul-2014		Holiday								
7-Jul-2014		0.29	0.33	0.17	0.20					
8-Jul-2014		0.49	0.34	0.38	0.16					
9-Jul-2014		0.36	0.26	0.18	0.22					
10-Jul-2014		0.19	0.38	0.22	0.14					
11-Jul-2014		0.15	0.10	0.10	0.19					
12-Jul-2014		0.26	0.20	0.12	0.19					
13-Jul-2014		Holiday								
14-Jul-2014		0.39	0.63	0.17	0.21					
15-Jul-2014		0.21	0.21	0.11	0.15					
16-Jul-2014		0.12	0.42	0.18	0.14					
17-Jul-2014		0.34	0.26	0.20	0.17					
18-Jul-2014		0.20	0.31	0.17	0.13					
19-Jul-2014		0.17	0.20	0.12	0.14					
20-Jul-2014		Holiday								
21-Jul-2014		0.62	0.36	0.66	0.11					
22-Jul-2014		0.09	0.09	0.34	0.26					
23-Jul-2014		0.18	0.07	0.07	0.06					
24-Jul-2014		0.18	0.07	0.07	0.06					
25-Jul-2014		0.11	0.22	0.10	0.09					
26-Jul-2014		0.10	0.30	0.09	0.10					
27-Jul-2014		Holiday								
28-Jul-2014		0.15	0.52	0.21	0.12					
29-Jul-2014		0.08	0.09	0.09	0.14					
30-Jul-2014		0.53	0.08	0.48	0.61					
31-Jul-2014		0.20	0.11	0.09	0.07					

Structural Alterations and Additions at Block 1.



LEGEND

EXISTING FRESH WATER MAIN
EXISTING SALT WATER MAIN
EXISTING STREET LIGHTING NO. 33488-A1
EXISTING STREET LIGHTING CABLE
EXISTING GAS MAIN
EXISTING HV ELECTRICITY CABLE
EXISTING LV ELECTRICITY CABLE
EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
EXISTING STORMWATER DRAIN
EXISTING FOUL SEWER
PROPOSED FOUL SEWER
SITE BOUNDARY
EXISTING RETAINING WALL
EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL
PROPOSED GROUND SETTLEMENT POINTS
PROPOSED UTILITY MONITORING POINTS
PROPOSED VIBRATION MONITORING POINTS
PROPOSED ADDITIONAL DRILLHOLE

No.	Description	Date	Approved
–	BD SUBMISSION (50)	12/11	JS
A	BD SUBMISSION (01)	03/12	JS
B	BD SUBMISSION (17)	03/12	JS
C	BD SUBMISSION BW BATCH 1	03/12	JS
D	FOR INFROMATION (50)	03/12	JS
E	BD SUBMISSION (51)	05/12	JS
F	BD SUBMISSION (04)	05/12	JS
G	BD SUBMISSION (03)	05/12	JS
H	BD SUBMISSION (14)	05/12	JS
J	BD SUBMISSION BW BATCH 2	06/12	JS
K	BD SUBMISSION (06&07)	07/12	JS
L	BD SUBMISSION (01)(HQ)	07/12	JS

KWAN KIN KIN
Chief Professional Engineer
REGISTERED STRUCTURAL ENGINEER

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents herein are the copyright of relevant consultants.
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
- Do not take measurements directly from this drawing
- Check and verify all dimensions on site
- Read this drawing in conjunction with the specifications and all other related drawings.
- Notify the relevant consultants immediately of any discrepancy found herein.

Client 業主

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 1:1000 | Drawn 制圖 K.C.Lai | Checked 校對 AL

Drawing No. 圖號 00-0AP209674-G-C01 L

Structural Additions and Alterations at Block 11

WYNDHAM STREET

ARBUTHNOT ROAD

Gofield Commercial Building

Hollywood Centre

Hollywood Commercial House

Hollywood Road

Ezra's Lane

Hu Fook Building

Wing Lee Building

Old Bailey Street

Central Police Station

Victoria Prison

The Centrum

Shiu King Court

Hew Tinde House

Chancery Mansion

Chancery House

Tung Yuen Building

Cambridge Villa

Villa Serene

Podium

11SW-B/R17
11SW-B/R18
11SW-B/R22
11SW-B/R805
11SW-B/R806
11SW-B/R23
11SW-B/R24
11SW-B/R52
11SW-B/R53
11SW-B/R19
11SW-B/R174
11SW-B/R175
11SW-B/R176
11SW-B/R177
11SW-B/R178
11SW-B/R54
11SW-B/R55

RECEIVED by Winning 2012 OCT 2 P 2:55 Buildings Department

E.D. Ref. No. 屋宇署檔案編號	22-3/3066/10/BLK11 (HU) (S1)
F.S.D. Ref. No. 消防處檔案編號	

Revision/Submission 修改及/或發

No. 編號	Description 說明	Date 日期	Approved 獲准
–	BD SUBMISSION (50)	12/11	JS
A	BD SUBMISSION (01)	03/12	JS
B	BD SUBMISSION (17)	03/12	JS
C	BD SUBMISSION RW BATCH 1	03/12	JS
D	FOR INFROMATION (50)	03/12	JS
E	BD SUBMISSION (51)	05/12	JS
F	BD SUBMISSION (04)	05/12	JS
G	BD SUBMISSION (03)	05/12	JS
H	BD SUBMISSION (14)	05/12	JS
J	BD SUBMISSION RW BATCH 2	06/12	JS
K	BD SUBMISSION (05&07)	07/12	JS
L	BD SUBMISSION (01)(H2)	07/12	JS
M	BD SUBMISSION (11)	07/12	JS

Plan Approved
CHIONG Kam-yuen, Jacky
Chief Structural Engineer
for BUILDING AUTHORITY
– 3 OCT 2012

Key Plan 索引圖

BD SUBMISSION
Drawing Status 製圖狀況

- This drawing and the contents herein are the copyright of relevant consultants.
本圖紙及其內容的版權屬有關顧問公司所有。
- No part of the drawing and the design contained herein may be reproduced without the prior written consent of relevant consultants.
未經有關顧問公司書面同意，不得複製此圖紙內任何內容或設計。
- Do not take measurements directly from this drawing.
切勿直接從圖紙上量度尺寸。
- Check and verify all dimensions on site.
所有尺寸必須在工地現場核實及審核。
- Read this drawing in conjunction with the specifications and all other related drawings.
此圖紙必須與規格說明書及其它有關圖紙一併閱讀。
- Notify the relevant consultants immediately of any discrepancy found herein.
如發現內有任何矛盾之處，應立刻通知有關顧問公司。

Client 業主
賽馬會文物保育有限公司
The Jockey Club CP Limited

Design Consultant
HERZOG & DE MEURON

Conservation Architect

Executive Architect / AP
ROCCO

Structural Engineer / RSE
ARUP

E & M Engineer
JRP

Project 項目
CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名
MONITORING LAYOUT PLAN

Scale 比例	Drawn 繪圖	Checked 校對
1:300@A1	K.C.Lai	AL
Drawing No. 圖號		Revision 修改版
00-0AP209674-G-001		M

LEGEND

- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER
- SITE BOUNDARY
- EXISTING RETAINING WALL
- DH1(S,P) EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
- BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
- RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
- IN1-1 PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL
- GS1 PROPOSED GROUND SETTLEMENT POINTS
- UT1 PROPOSED UTILITY MONITORING POINTS
- VM1-1 PROPOSED VIBRATION MONITORING POINTS
- ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE

Cad file : 00-0AP209674-G-001.dwg

Gammon

Vibration Monitoring Record (JULY)

	Block 1		Block 2	Block 3		Block 4	Block 6 & 7		Block 9	Block 11		Block 12		Block 13	Block 15	
Point	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2	VM4-1	VM6-1	VM7-1	VM9-1	VM11-1	VM11-2	VM12-1	VM12-2	VM13-1	VM15-1	VM15-2
Date	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
01-Jul-14	Sunday															
02-Jul-14	0.209	0.153	0.176	0.309	0.176	0.413	0.211	0.209	0.182	0.328	0.194	0.194	0.235	0.169	0.166	0.151
03-Jul-14	0.206	0.573	0.166	0.225	0.249	0.321	0.196	0.209	0.178	0.209	0.270	0.230	0.180	0.223	0.177	0.146
04-Jul-14	0.207	0.452	0.194	0.242	0.223	0.180	0.265	0.177	0.260	0.202	0.163	0.199	0.203	0.169	0.171	0.223
05-Jul-14	0.247	0.317	0.242	0.598	0.251	0.194	0.308	0.390	0.660	0.493	0.317	0.491	0.235	0.398	0.327	0.811
06-Jul-14	Sunday															
07-Jul-14	0.365	0.284	0.174	0.296	0.192	0.226	0.269	0.341	0.201	0.631	0.205	0.294	0.164	0.182	0.413	0.562
08-Jul-14	0.216	0.237	0.359	0.364	0.363	0.209	0.216	0.203	0.598	0.532	0.217	0.421	0.390	0.370	0.157	0.292
09-Jul-14	0.197	0.313	0.521	0.168	0.193	0.325	0.229	0.256	0.216	0.269	0.197	0.285	0.361	0.231	0.391	0.543
10-Jul-14	0.325	0.184	0.229	0.531	0.164	0.182	0.261	0.165	0.359	0.394	0.201	0.396	0.288	0.146	0.625	0.441
11-Jul-14	0.073	0.073	0.104	0.131	0.081	0.073	0.073	0.073	0.189	0.120	0.081	0.145	0.081	0.081	0.086	0.091
12-Jul-14	0.168	0.117	0.291	0.443	0.154	0.299	0.381	0.129	0.360	0.264	0.167	0.351	0.117	0.231	0.361	0.221
13-Jul-14	Sunday															
14-Jul-14	0.394	0.221	0.199	0.261	0.173	0.335	0.212	0.194	0.165	0.394	0.284	0.198	0.182	0.524	0.267	0.197
15-Jul-14	0.369	0.184	0.184	0.289	0.520	0.196	0.185	0.338	0.206	0.168	0.117	0.318	0.241	0.149	0.381	0.224
16-Jul-14	0.241	0.192	0.341	0.164	0.254	0.224	0.210	0.351	0.169	0.182	0.162	0.196	0.225	0.226	0.216	0.176
17-Jul-14	0.394	0.284	0.213	0.147	0.263	0.374	0.189	0.216	0.099	0.119	0.252	0.266	0.341	0.194	0.341	0.284
18-Jul-14	0.641	0.258	0.164	0.164	0.326	0.341	0.298	0.179	0.196	0.461	0.169	0.344	0.116	0.144	0.199	0.314
19-Jul-14	0.319	0.154	0.165	0.551	0.134	0.167	0.221	0.327	0.112	0.325	0.464	0.136	0.242	0.168	0.333	0.196
20-Jul-14	Sunday															
21-Jul-14	0.360	0.112	0.112	0.627	0.078	0.078	0.078	0.078	0.147	0.086	0.312	0.579	0.086	0.086	0.339	0.086
22-Jul-14	0.086	0.086	0.081	0.081	0.086	0.445	0.081	0.086	0.324	0.086	0.081	0.417	0.212	0.120	0.122	0.196
23-Jul-14	0.086	0.059	0.066	0.129	0.413	0.154	0.066	0.223	0.106	0.081	0.166	0.308	0.059	0.073	0.171	0.066
24-Jul-14	0.086	0.081	0.518	0.139	0.086	0.445	0.306	0.408	0.102	0.408	0.102	0.147	0.081	0.086	0.375	0.520
25-Jul-14	0.106	0.121	0.096	0.331	0.129	0.165	0.641	0.366	0.165	0.126	0.366	0.168	0.653	0.154	0.385	0.331
26-Jul-14	0.089	0.162	0.087	0.221	0.103	0.612	0.229	0.169	0.086	0.164	0.168	0.341	0.158	0.286	0.325	0.198
27-Jul-14	Sunday															
28-Jul-14	0.162	0.099	0.172	0.138	0.334	0.249	0.321	0.249	0.165	0.521	0.265	0.195	0.156	0.132	0.165	0.165
29-Jul-14	0.083	0.073	0.081	0.073	0.135	0.078	0.482	0.073	0.202	0.259	0.081	0.120	0.131	0.081	0.151	0.081
30-Jul-14	0.086	0.048	0.066	0.066	0.462	0.117	0.048	0.433	0.453	0.398	0.147	0.278	0.529	0.686	0.678	0.066
31-Jul-14	0.121	0.192	0.088	0.185	0.094	0.091	0.198	0.204	0.632	0.251	0.105	0.112	0.161	0.149	0.195	0.613