

The Jockey Club CPS Limited

Central Police Station Conservation  
and Revitalisation Project:  
*47<sup>th</sup> Monthly EM&A Report*  
*(1 September to 30 September 2015)*

Issue Date: October 2015

**Environmental Resources Management**



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Central Police Station Conservation  
and Revitalisation Project:  
*47<sup>th</sup> Monthly EM&A Report*  
*(From 1 September to 30 September*  
*2015)*

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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:	12 October 2015

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.

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**Date:** 13 October 2015

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**By Post and Email (winnie.ko@erm.com)**

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**Attn: Ms Winnie Ko**

Dear Winnie,

**Central Police Station Conservation and Revitalization Project  
Verification of Monthly EM&A Report No. 47**

We refer to your letter dated 13 October 2015 regarding the Monthly EM&A Report No.47. Atkins China Limited. 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 Limited**



**Sharifah Or  
Independent Environmental Checker**

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

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## EXECUTIVE SUMMARY

The construction works of **Central Police Station Conservation and Revitalisation Project** commenced on 24 October 2011. This is the 47<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 1 to 30 September 2015 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 A&A works at Blocks 4, 9, 13, 14, 15 and 17;
- Roof repair works at Block 4;
- Balcony repair at Blocks 6, 7, 8 and 9;
- Plaster repair at Blocks 3, 9, 10, 14 and 15;
- Timber doors and windows repair works at Blocks 2, 3, 4, 6, 8, 9, 10 and 14;
- Structural timber floor repair at Blocks 4, 6, 7 and 10;
- Metal works repair at Blocks 3, 14 and 15;
- Façade works at Blocks 3, 4, 9, 14, 15 and 17;
- OBW steel structure & corewall construction;
- Arbuthnot Wing & Old Bailey Wing builders works;
- Arbuthnot Wing external facade installation;
- E&M Opening at Blocks 3, 9, 14 and 15;
- E&M installation at Blocks 1, 3, 6, 8, 9, 14, 15, 17, AW, OBW and basement plant room;
- U/G Drainage at Blocks 4, 10, 11, 13, 14 and sitewide (L1B, L3, L4, L6, L8, L9, L10, M1, M3B, M5B, M6A, U2);
- R18 upgrading; and
- Road works at Old Bailey Street & Hollywood Road.

### 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 | 5 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   | 120 times |
| • Vibration monitoring for other construction works                               | 72 times  |

## Noise

5 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 Action or Limit Level of construction noise was recorded during the reporting period.

## Cultural Heritage

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

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

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

- 24 vibration monitoring measurements for the structural addition and alteration works at Block 1;
- 24 vibration monitoring measurements for the structural addition and alteration works at Block 14.
- 24 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 1-4, 7-11, 14-18, 21-25, 28-30 September 2015 by the Heritage Checker during the reporting period. Major observations and recommendations during the site inspections were listed below:

### *4 September 2015*

- All shutter stays were observed rusted at Block 3. The Contractor was informed to follow up.
- Paint spills were observed on third floor façade of Block 3 due to lack of protection when decorating shutters. The Contractor was informed to follow up.

*7 September 2015*

- Three historic rainwater hoppers from Block 3 were observed missing. The Contractor was informed to follow up.

*14 September 2015*

- The catwalk at Block 3 was observed not installed in accordance with the approved drawings. 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 (August 2015) have generally been implemented.

#### Landscape & Visual

Landscape and visual monitoring has commenced since October 2011 on a monthly basis. Tree inspection was conducted on 4 September 2015 by the arborist during the reporting period. Signs of pest (mealy bugs) at Tree-5 have been reduced due to pest control. The Contractor was recommended to keep monitoring of the pest for Tree-5. Withered leaves were observed at Tree-11 and the Contractor was reminded to keep close monitoring on the growth of the trees. Also, wet cement was observed in the planter of Tree-11. The Contractor was recommended to place sand bags at the edge of the planter.

#### Waste Management

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. A total of 942.39 tonnes of inert C&D materials were generated during the reporting period. 330.23 tonnes of non-inert C&D materials comprising general refuse were generated and disposed of at the SENT Landfill. No metal, paper/cardboard packaging or plastic waste 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 17 September 2015. Oil stains were observed near a large container which stores a number of chemical waste containers at Parade Ground. The Contractor was reminded to remove the oil stains and store the chemical waste containers to the designated chemical waste store.

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

No exceedance of the Action or Limit Level of construction noise was recorded at designated monitoring stations 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.

No complaint was 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 Blocks 4, 9, 13 and 14;
- Roof repair works at Block 4;
- Balcony repair at Blocks 6, 7, 8 and 9;
- Plaster repair at Blocks 3, 9, 10, 14 and 15;
- Timber doors and windows repair works at Blocks 3, 4, 6, 9 and 10;
- Structural timber floor repair at Blocks 4, 6, 7 and 10;
- Metal works repair at Blocks 3, 13 and 14;
- Façade works at Blocks 3, 4, 9, 14, 15 and 17;
- Builders works at Arbuthnot Wing and Old Bailey Wing;
- External façade installation at Arbuthnot Wing;
- E&M opening at Blocks 3, 9, 14 and 15;
- E&M installation at Blocks 1, 3, 6, 9, 14, 15, 17, Arbuthnot Wing, Old Bailey Wing and basement plant room;
- Underground drainage at Blocks 4, 10, 11, 13, 14 and sitewide (L3, L4, L7, L8, L9, L10, M1, M3B, M5B, M6A & U2);
- Road works at Hollywood Road; and
- Footbridge construction.

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

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 47<sup>th</sup> EM&A report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from **1 to 30 September 2015**.

### **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 to 30 September 2015**

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<b>Construction Activities Undertaken</b>
<ul style="list-style-type: none"><li>• Structural A&amp;A works at Blocks 4, 9, 13, 14, 15 and 17;</li><li>• Roof repair works at Block 4;</li><li>• Balcony repair at Blocks 6, 7, 8 and 9;</li><li>• Plaster repair at Blocks 3, 9, 10, 14 and 15;</li><li>• Timber doors and windows repair works at Blocks 2, 3, 4, 6, 8, 9, 10 and 14;</li><li>• Structural timber floor repair at Blocks 4, 6, 7 and 10;</li><li>• Metal works repair at Blocks 3, 14 and 15;</li><li>• Façade works at Blocks 3, 4, 9, 14, 15 and 17;</li><li>• OBW steel structure &amp; corewall construction;</li><li>• Arbuthnot Wing &amp; Old Bailey Wing builders works;</li><li>• Arbuthnot Wing external facade installation;</li><li>• E&amp;M Opening at Blocks 3, 9, 14 and 15;</li><li>• E&amp;M installation at Blocks 1, 3, 6, 8, 9, 14, 15, 17, AW, OBW and basement plant room;</li><li>• U/G Drainage at Blocks 4, 10, 11, 13, 14 and sitewide (L1B, L3, L4, L6, L8, L9, L10, M1, M3B, M5B, M6A, U2);</li><li>• R18 upgrading; and</li><li>• Road works at Old Bailey Street &amp; Hollywood Road.</li></ul>

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**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**

<b>Permit/ Licences/ Notification</b>	<b>Reference</b>	<b>Validity Period</b>	<b>Remarks</b>
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 <i>Air Pollution Control (Construction Dust) Regulation</i>	Ref. No. 332920	Throughout the Contract	-
Registration of Waste Producer under <i>Waste Disposal Ordinance</i>	Waste Producer No.: 5213-122-G2347-25	Throughout the Contract	-
Effluent Discharge License under <i>Water Pollution Control Ordinance</i>	License No. WT00010633-2011	21 Oct 2011 – 31 Oct 2016	-
Notification of Commencement of Asbestos Abatement Work under <i>Air Pollution Control Ordinance</i>	-	Throughout the Contract	EPD's letter (EPD's ref.: (5) in EPAC/A/4/000/23 3 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/4/000/23 3) 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	Expired.

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
		1900 hours to 29 June 2013 at 2300 hours	
	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 0600 hours	Expired.
	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	Expired.
	GW-RS0651-14	28 July 2014 at 0000 hours to 26 September 2014 at 2400 hours	Expired.

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
	GW-RS0658-14	29 June 2014 at 0000 hours to 28 December 2014 at 2400 hours	Expired.
	GW-RS0918-14	29 September 2014 at 0000 hours to 31 December 2014 at 2400 hours	Expired.
	GW-RS0749-14	1 August 2014 at 0000 hours to 31 January 2015 at 2400 hours	Expired.
	GW-RS0044-15	16 March 2015 at 0100 hours to 24 April 2015 at 0500 hours	Expired.
	GW-RS0086-15	1 February 2015 at 0000 hours to 30 June 2015 at 2400 hours	Expired.
	GW-RS0280-15	27 April 2015 at 0000 hours to 26 May 2015 at 2400 hours	Expired.
	GW-RS0693-15	6 July 2015 at 0000 hours to 30 July 2015 at 2400 hours	Expired.
	GW-RS0707-15	1 July 2015 at 0000 hours to 29 December 2015 at 2400 hours	Cancelled by EPD on 31 July 2015.
	GW-RS0241-15	23 March 2015 at 0000 hours to 21 August 2015 at 2400 hours	Expired.
	GW-RS0580-15	28 May 2015 at 0000 hours to 25 August 2015 at 2400 hours	Expired.
	GW-RS0514-15	21 May 2015 at 0000 hours to 20 November 2015 at 2400 hours	-
	GW-RS0696-15	28 June 2015 at 0000 hours to 29 November 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	<u>Calibrator</u> CEL-120 (S/N 3421612) <u>Sound Level Meter</u> CEL-633A (S/N 3521757)

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.
<b>Notes:</b>			
(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*

<b>Instrument Type</b>	<b>Item Monitored</b>	<b>Alert Level</b>	<b>Alarm Level</b>	<b>Action Level</b>
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*

<b>Events</b>	<b>Action</b>
Exceedance of Alert Level	Notify Management Contractor
Exceedance of Alarm Level	Notify Authorised Person/ Resident Engineer
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.

## **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*

<b>Submission</b>		<b>Submission Date</b>
<i>EP Condition</i>		
Condition 3.4	46 <sup>th</sup> Monthly EM&A Report	14 September 2015

## 5.1 NOISE

A total of 5 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 Action or Limit Level of construction noise was recorded during the reporting period.

## 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:

- 24 vibration monitoring measurements for the basement construction at Parade Ground;
- 24 vibration monitoring measurements at Block 8;
- 24 vibration monitoring measurements at Old Bailey Wing (Block 50);
- 24 vibration monitoring measurements at Block 51; and
- 24 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:

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

- 24 vibration monitoring measurements for the structural addition and alteration works at Block 14;
- 24 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 1-4, 7-11, 14-18, 21-25, 28-30 September 2015 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:

*4 September 2015*

- All shutter stays were observed rusted at Block 3. The Contractor was informed to follow up.
- Paint spills were observed on third floor façade of Block 3 due to lack of protection when decorating shutters. The Contractor was informed to follow up.

*7 September 2015*

- Three historic rainwater hoppers from Block 3 were observed missing. The Contractor was informed to follow up.

*14 September 2015*

- The catwalk at Block 3 was observed not installed in accordance with the approved drawings. The Contractor was informed to follow up.

The follow-up actions recommended in the heritage site audits from the last reporting period (August 2015) have generally been implemented.

### 5.3 *LANDSCAPE AND VISUAL*

The tree inspection was conducted by the arborist on 4 September 2015 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	<i>Mangifera indica</i>	Fair	<ul style="list-style-type: none"> <li>To keep close monitoring on the presence of pest on the tree.</li> </ul>
Tree -6	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> <li>No further action required.</li> </ul>
Tree-7	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> <li>No further action required.</li> </ul>
Tree-8	<i>Plumeria rubra</i>	Fair	<ul style="list-style-type: none"> <li>No further action required.</li> </ul>
Tree-9	<i>Araucaria cunninghamia</i>	Fair	<ul style="list-style-type: none"> <li>No further action required.</li> </ul>
Tree-11	<i>Dracaena marginata</i>	Poor	<ul style="list-style-type: none"> <li>Withered leaves were observed on the tree;</li> <li>Much cement was observed in the planter;</li> <li>To keep close monitoring on the growth of the tree;</li> <li>To place sand bags on the edge of the planter.</li> </ul>

**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. No metal, paper/cardboard packaging or plastic waste 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	C&D Materials		Chemical Waste		Recycled materials		
	(inert) <sup>(a)</sup>	(non-inert) <sup>(b)</sup>	Solid	Liquid	Paper / cardboard	Plastics	Metals
September 2015	942.39 tonnes	330.23 tonnes	0 kg	0 L	0 kg	0 kg	0 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 17 September 2015. 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*

- Oil stains were observed near a large container which stores a number of chemical waste containers at Parade Ground. The Contractor was reminded to remove the oil stains and store the chemical waste containers to the designated chemical waste store.

## 7 ENVIRONMENTAL NON-CONFORMANCE

### 7.1 SUMMARY OF MONITORING EXCEEDANCE

No exceedance of the Action or Limit Level of construction noise or Alert, Alarm and Action Levels of vibration was recorded 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

No complaint was received during the reporting period. The complaint received in the last reporting period is reported in this reporting period. The complaint investigation report and the cumulative number of complaints are presented in *Annex K*.

**Table 7.1** *Summary of Complaints Received*

Date of Complaint Received by the Contractor	Means by which complaint was received	Nature of complaint
4 August 2015 <sup>(a)</sup>	Environmental Protection Department	Noise nuisance

**Notes:**

(a) Complaint investigation for the complaint in 4 August 2015 was still in progress at the time of submission of the last EM&A Report. The complaint investigation is reported in this reporting month.

A noise complaint was received by EPD via email and transferred to the Project's Environmental Team and the Contractor (Gammon Construction Limited – GCL) on 4 August 2015. The complainant complained about noise nuisance in general and provided sound clips of the noise nuisance recorded by the complainant on different dates. Four sound clips on 28 January, 14 May, 20 May and 30 July 2015 were provided by the complainant. In addition, the complainant also complained about the noise nuisance from the back alert during the backing of construction vehicles.

According to sound clips dated 28 January, 14 May and 20 May 2015, the noise nuisance is suspected to be related to rock breaking works. According to the Contractor, site record showed that breakers have been used on these dates, indicating that there may be potential rock breaking or other demolition

activities being carried out within the CPS Project Site during normal working hours on these dates.

According to the sound clip dated 30 July 2015, the noise nuisance is suspected to be related to rock breaking. According to the Contractor, no rock breaking work has been carried out within the CPS Project Site on 30 July 2015. It is understood that Hong Kong Electric has construction site at Old Bailey Street outside the CPS Project Site, where rock breaking works may have been carried out on 30 July 2015.

The noise nuisance as recorded on 28 January, 14 May and 20 May 2015 by the complainant may have been originated from rock breaking works within the CPS Project Site during normal working hours. However, the exact location, time and duration of the suspected rock breaking works within the CPS Project Site on these dates could not be traced back.

The noise nuisance as recorded on 30 July 2015 by the complainant was likely originated from rock breaking works within the construction site managed by Hong Kong Electric. No rock breaking work has been carried out within the CPS Project Site on 30 July 2015.

The complainant mentioned noise nuisance from the back alert during the backing of construction vehicles. It should be noted that the back alert must be on during the backing of construction vehicles for safety purposes.

The complaint investigation showed that the recorded noise of rock breaking works on some of the dates may have been originated from the CPS Project Site. To minimize potential noise nuisance arising from rock breaking activities within the CPS Project Site in the future, the Contractor was recommended to implement the following:

- (i) Wrap the breaker head using acoustic blanket during rock breaking works; and
- (ii) Install or erect acoustic curtain / noise barrier, where practicable, during rock breaking works or other noisy construction activities.

In addition, the volume of the back alert during the backing of construction vehicles will be adjusted lower to reduce the potential noise nuisance to nearby sensitive receivers.

## 7.5

### *SUMMARY OF ENVIRONMENTAL SUMMONS AND SUCCESSFUL PROSECUTION*

No summons was received during the reporting period.



### 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**

<b>Work to be Undertaken</b>
• Structural addition and alteration works at Blocks 4, 9, 13 and 14;
• Roof repair works at Block 4;
• Balcony repair at Blocks 6, 7, 8 and 9;
• Plaster repair at Blocks 3, 9, 10, 14 and 15;
• Timber doors and windows repair works at Blocks 3, 4, 6, 9 and 10;
• Structural timber floor repair at Blocks 4, 6, 7 and 10;
• Metal works repair at Blocks 3, 13 and 14;
• Façade works at Blocks 3, 4, 9, 14, 15 and 17;
• Builders works at Arbuthnot Wing and Old Bailey Wing;
• External façade installation at Arbuthnot Wing;
• E&M opening at Blocks 3, 9, 14 and 15;
• E&M installation at Blocks 1, 3, 6, 9, 14, 15, 17, Arbuthnot Wing, Old Bailey Wing and basement plant room;
• Underground drainage at Blocks 4, 10, 11, 13, 14 and sitewide (L3, L4, L7, L8, L9, L10, M1, M3B, M5B, M6A & U2);
• Road works at Hollywood Road; and
• Footbridge construction.

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*.

## CONCLUSIONS

The *Environmental Monitoring and Audit (EM&A) Report* presents the EM&A works undertaken during the period from 1 to 30 September 2015 in accordance with EM&A Manual and the requirement under EP-408/2011/B.

No exceedance of the Action or Limit Level of construction noise was recorded at designated monitoring stations during the reporting period.

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.

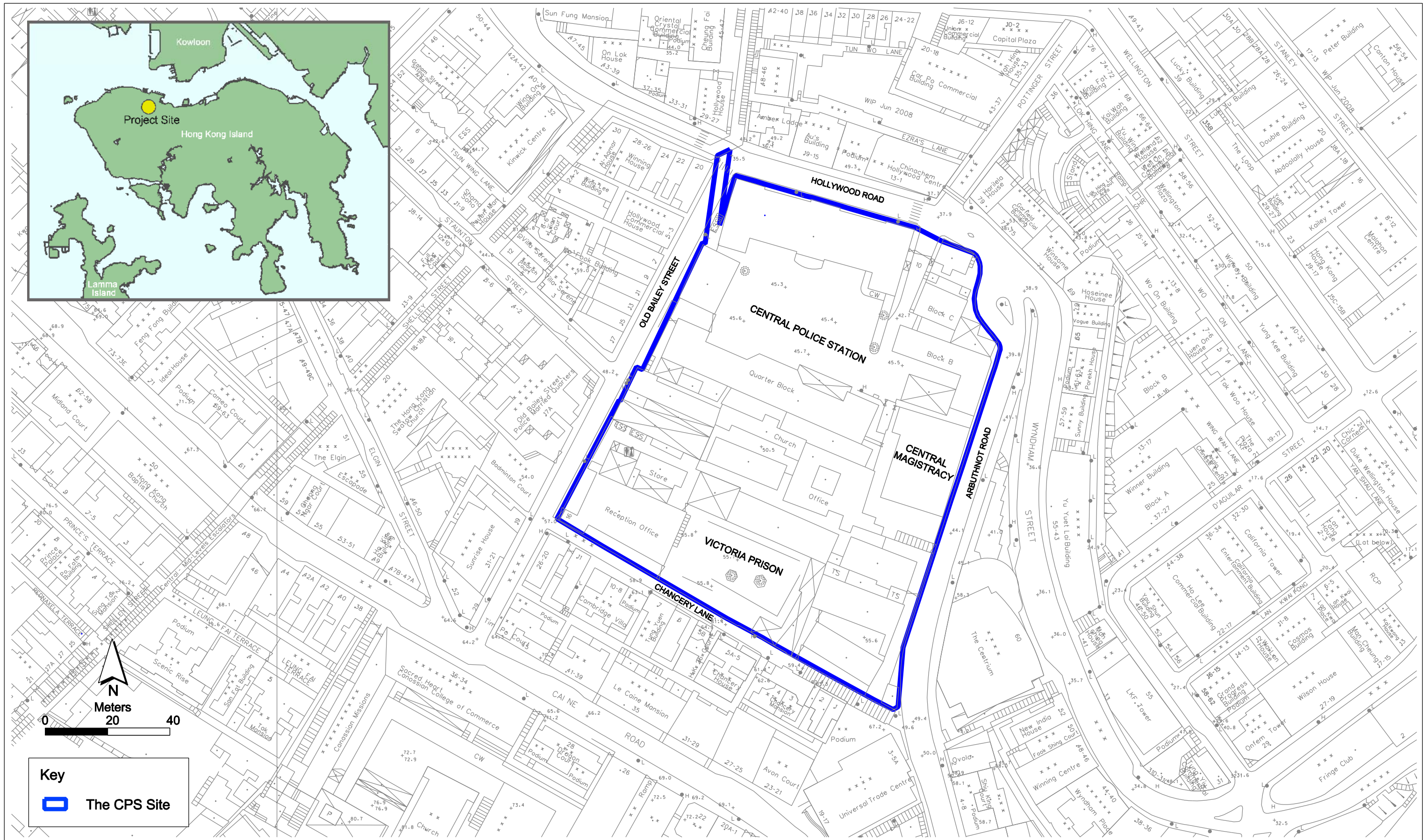
No complaint was received during the reporting period.

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



Annex A1

Project Location

**Environmental  
Resources  
Management**



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

FILE: 0095646a-A3\_01.dgn  
DATE: 21/11/2011





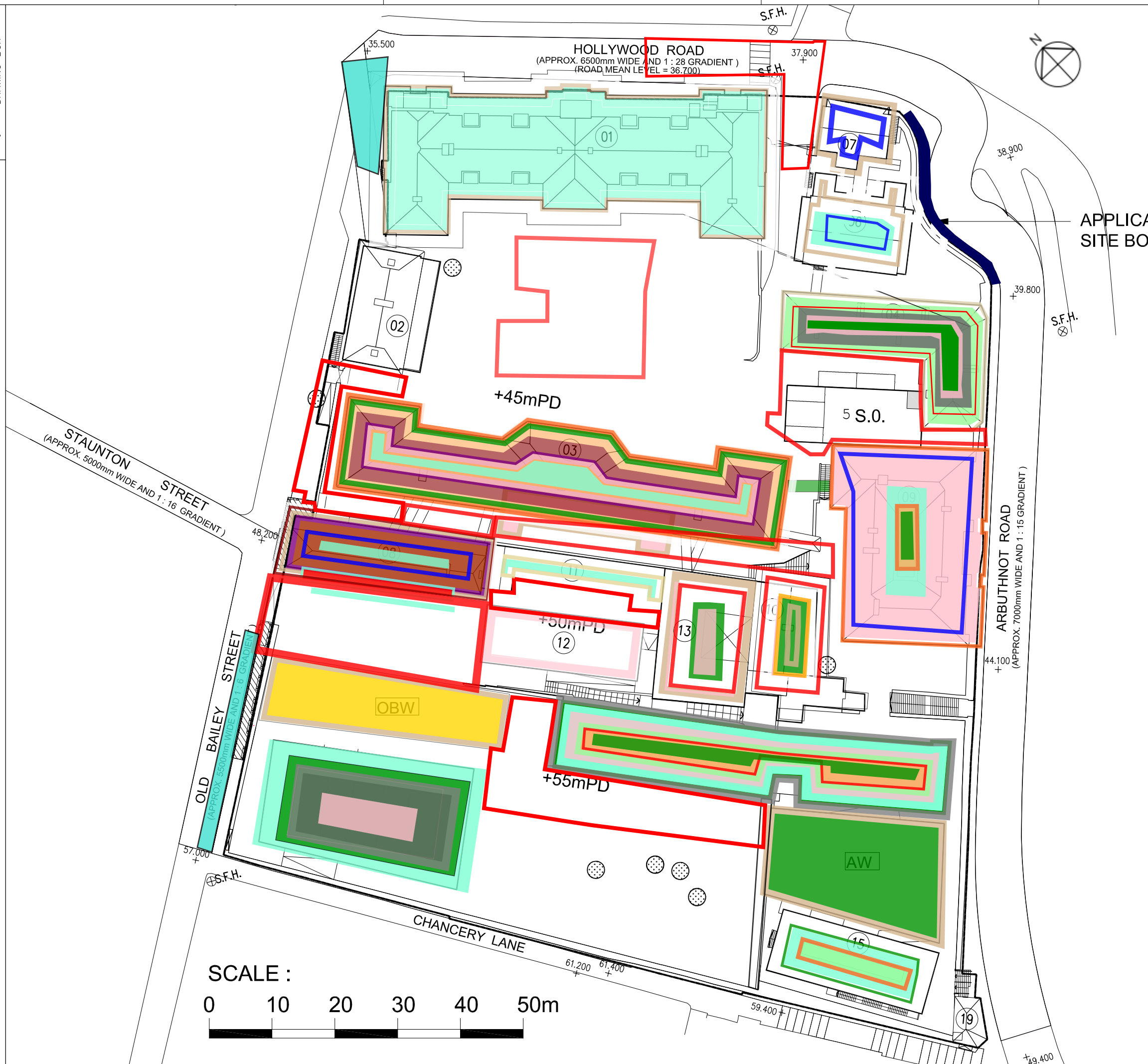
Annex A2

Declared Monuments within the Project Site

**Environmental Resources Management**

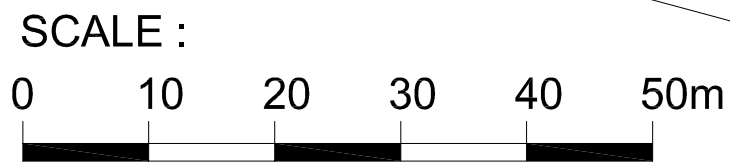


賽馬會文物保育有限公司  
The Jockey Club CPS Limited



**LEGEND**

- 1. E&M Installation / Opening / Conduit Transformer delivery and installation
- 2. Excavation
- 3. Internal Building Works
- 4. Permanent Steel Works Erection
- 5. Upgrading
- 6. Roof Replacement Works / New Roof / Repair
- 7. Basement Construction
- 8. Structure A&A Works
- 9. Repair Works to Timber Window, Door, Structure, Floor and Metal Elements
- 10. Demolition Works
- 11. Facade Works / Link Bridge Repair
- 12. New Structure Construction
- 13. Balcony Repair
- 14. Paint Stripping and Plastering Works
- 15. Core Wall Construction
- 16. Utilities Diversion and Carriageway
- 17. PBR
- 18. Removal of Needle Beams
- 19. U/G Drainage
- 20. Service trench construction
- 21. Demolition of concrete block
- 22. New Balcony Construction
- 23. Construction of terminal Manhole

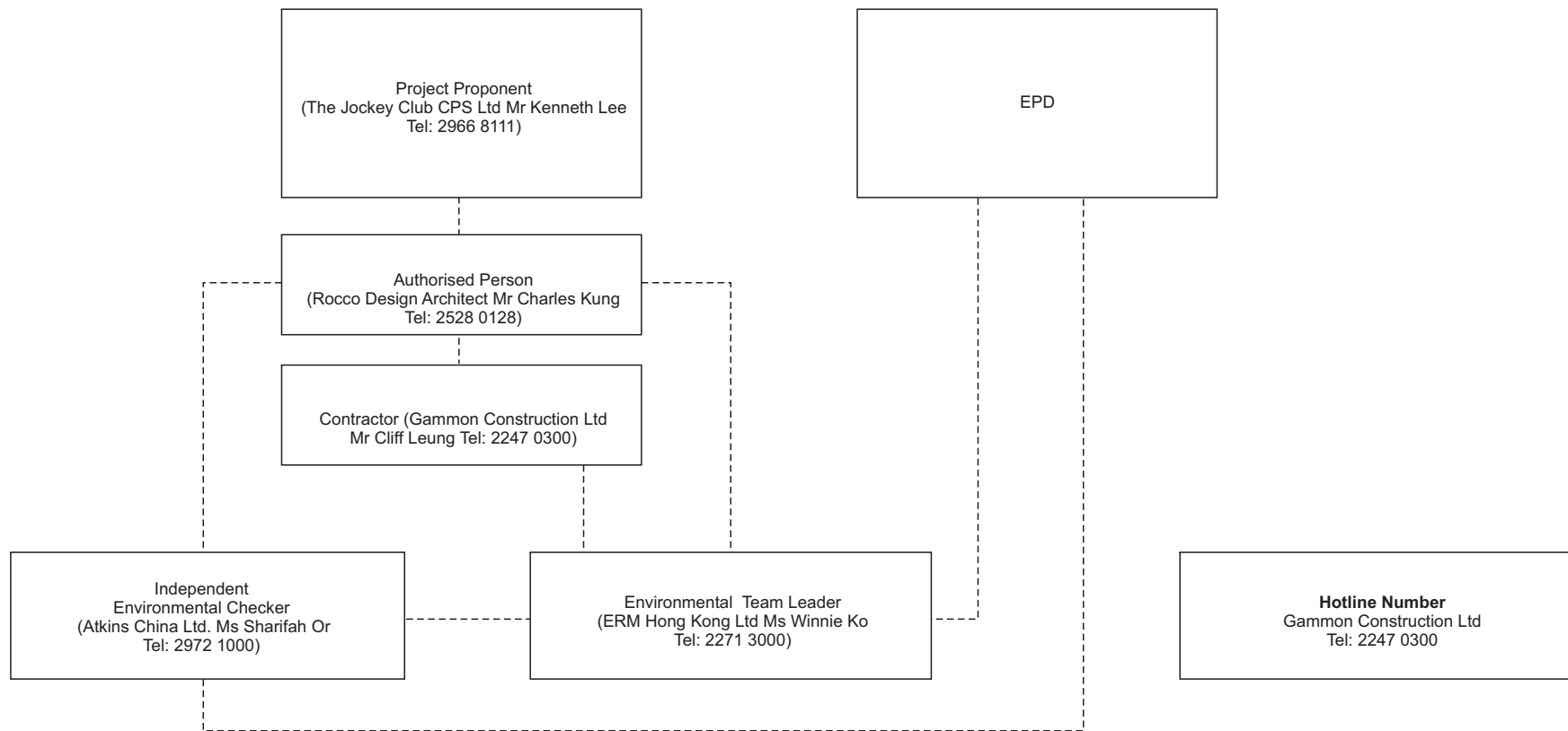


Contractor	
<b>Gammon</b>	
Drawing Title	
SITE LAYOUT PLAN	
Drawn	Scale N.T.S.
Designed	Status
Checked	Marked for Enquiry & Complaint log (CPS/E&C/09)
Approved	Drawing No.
CAD Ref	

**Annex A3 Site Layout Plan marked with Works (Aug- 2015)**

Annex B

## Project Organization Chart and Contact Detail



Key  
 - - - - - Line of Communication



Annex C

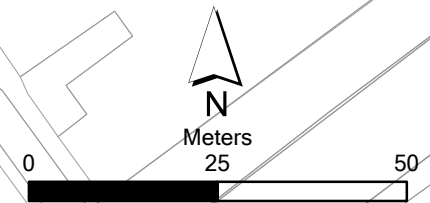
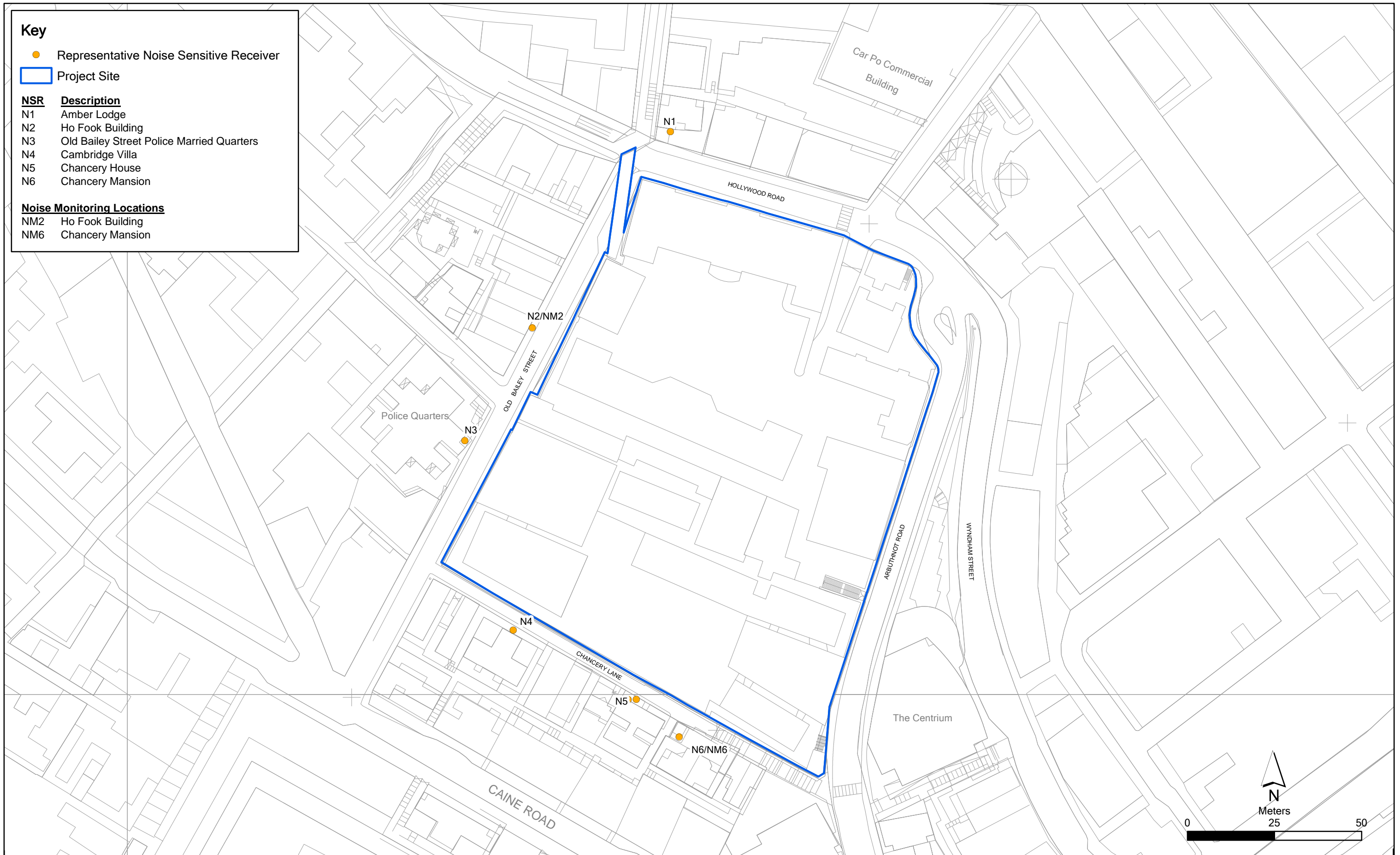
Locations of Noise  
Monitoring Stations and  
Noise Sensitive Receivers

**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

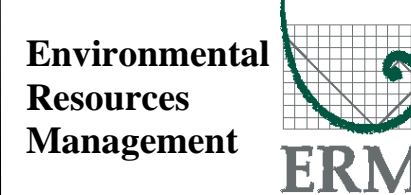
Noise Monitoring Locations	
NM2	Ho Fook Building
NM6	Chancery Mansion



Annex C

Location of Representative Noise Sensitive Receivers and Noise Monitoring Locations

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Date: 09/05/2012



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 - September 2015**

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

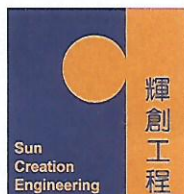
**Central Police Station Compound Conservation and Revitalisation  
(Ho Fook Building - NM2 & Chancery Mansion - NM6)  
Monitoring Schedule for Next Reporting Month - October 2015**

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

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. : C147473

證書編號

ITEM TESTED / 送檢項目 ( Job No. / 序引編號 : IC14-3079 )      Date of Receipt / 收件日期 : 5 December 2014

Description / 儀器名稱 : Acoustic Calibrator

Manufacturer / 製造商 : Casella

Model No. / 型號 : CEL-120/1

Serial No. / 編號 : 3421612

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

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 December 2014

### TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

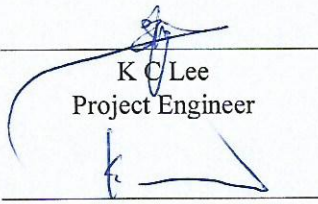
The results are detailed in the subsequent page(s).

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 / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

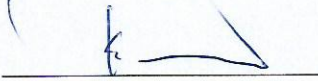
Tested By

測試

  
K C Lee  
Project Engineer

Certified By

核證

  
K K Wong  
Engineer

Date of Issue

簽發日期

17 December 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 - 校正及檢測實驗室

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. : C147473

證書編號

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

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C143868
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

- Test procedure : MA100N.

- Results :

### 5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.25	± 0.2
114 dB, 1 kHz	114.1		

### 5.2 Frequency Accuracy

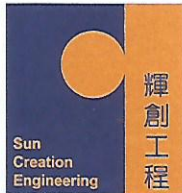
UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 5 Hz	± 0.1

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.





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. : C147474

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-3079)      Date of Receipt / 收件日期 : 5 December 2014

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Casella

Model No. / 型號 : CEL-633A

Serial No. / 編號 : 3521757

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

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 December 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 / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA


Tested By

測試

  
K O Lee  
Project Engineer

Certified By

核證

  
K K Wong  
Engineer

Date of Issue

簽發日期

17 December 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室所書面批准。

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c/o 香港新界屯門興安里一號青山灣機樓四樓

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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. : C147474

證書編號

- 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.
- Self-calibration using the Casella Acoustic Calibrator CEL-120/1, S/N : 3421612 was performed before the test.
- The results presented are the mean of 3 measurement at each calibration point.
- Test equipment :

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

- Test procedure : MA101N.

- 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)
Time Weighting	Frequency Weighting	Level (dB)	Freq. (kHz)		
L <sub>F</sub>	A	114.00	1	113.9	± 1.1

#### 6.1.2 Linearity

UUT Setting		Applied Value		UUT Reading (dB)
Time Weighting	Frequency Weighting	Level (dB)	Freq. (kHz)	
L <sub>F</sub>	A	114.00	1	113.9 (Ref.)
		104.00		103.9
		94.00		93.9

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)	
Time Weighting	Frequency Weighting	Level (dB)	Freq. (kHz)			
L <sub>F</sub>	A	114.00	1	113.9	Ref.	
L <sub>S</sub>				113.9		± 0.3
L <sub>I</sub>				113.9		

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

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# Certificate of Calibration

## 校正證書

Certificate No. : C147474

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)
Time Weighting	Frequency Weighting	Level (dB)	Freq.		
L <sub>F</sub>	A	94.00	63 Hz	87.6	-26.2 ± 1.5
			125 Hz	97.7	-16.1 ± 1.5
			250 Hz	105.2	-8.6 ± 1.4
			500 Hz	110.6	-3.2 ± 1.4
			1 kHz	113.9	Ref.
			2 kHz	115.1	+1.2 ± 1.6
			4 kHz	114.7	+1.0 ± 1.6
			8 kHz	112.4	-1.1(+2.1 ; -3.1)
			12.5 kHz	108.3	-4.3(+3.0 ; -6.0)

#### 6.3.2 C-Weighting

UUT Setting		Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Time Weighting	Frequency Weighting	Level (dB)	Freq.		
L <sub>F</sub>	C	94.00	63 Hz	113.0	-0.8 ± 1.5
			125 Hz	113.7	-0.2 ± 1.0
			250 Hz	113.8	0.0 ± 1.0
			500 Hz	113.9	0.0 ± 1.0
			1 kHz	113.9	Ref.
			2 kHz	113.7	-0.2 ± 1.0
			4 kHz	112.9	-0.8 ± 1.0
			8 kHz	110.5	-3.0 (+1.5 ; -3.0)
			12.5 kHz	106.4	-6.2 (+3.0 ; -6.0)

Remarks : - UUT Microphone Model No. : CEL-251 & S/N : 1950

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

114 dB	: 63 Hz - 125 Hz	: ± 0.45 dB
	250 Hz - 500 Hz	: ± 0.40 dB
	1 kHz	: ± 0.30 dB
	2 kHz - 4 kHz	: ± 0.45 dB
	8 kHz	: ± 0.55 dB
	12.5 kHz	: ± 0.80 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 114 dB)
94 dB	: 1 kHz	: ± 0.10 dB (Ref. 114 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.

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

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
<i>Cultural Heritage</i>					
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	<u>Vibration Monitoring</u> 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	<u>Compliance of the Approved Measures and Auditing</u> 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
		<p>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.</p> <p>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.</p>			
S3.9.3	S3.3.4	<p><u>Archival Recording</u></p> <p>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.</p>	Whole Site	During detailed design, construction and prior to operation	N/A – Archival recording will be conducted at later stage.
S3.7.3	-	<p><u>General Construction Methods</u></p> <p>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</p>	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	-	<p>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:</p> <ul style="list-style-type: none"> <li>• one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and</li> <li>• an updated inventory list of the historic features together with the cross referenced location plans and photo records.</li> </ul> <p>One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.</p>	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
<i>Landscape &amp; Visual</i>					
S4.7.27	-	<p><u><i>In-situ Tree Protection - Cordon Zone (CZ)</i></u></p> <p>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.</p>	Whole site	During construction	<p>√ - 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.</p> <p>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.</p>
S4.7.2	-	<p><u><i>In-situ Tree Protection - Advanced &amp; Phased Root Pruning</i></u></p> <p>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 &gt;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.</p>	Whole site	During construction	N/A – no root pruning has been conducted yet
S4.7.2	-	<p><u><i>In-situ Tree Protection - Foliage cleansing system</i></u></p> <p>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</p>	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	<p><u>In-situ Tree Protection - Monthly inspection</u></p> <p>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 (<a href="http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf">http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf</a>) 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.</p>	Whole site	During construction	√
S4.7.2	-	<p><u>Light Control</u></p> <p>Control of night-time lighting shall be implemented to minimise impact to adjacent VSRs.</p>	Whole site	During construction and operation	√
S4.7.2	S4	<p><u>Compensatory Tree Planting</u></p> <p>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.</p> <p>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</p>	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
		<p>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.</p> <p>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</p> <p>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::</p> <ul style="list-style-type: none"> <li>– <i>Bauhinia</i> ‘Blakeana’ a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring.</li> <li>– <i>Bauhinia purpure</i>, a native evergreen with lighter purple flowers from late autumn to early winter.</li> <li>– <i>Bauhinia variegata</i>, an exotic deciduous species, with pale pinkish flowers in spring to early summer often when the tree has little or no leaves.</li> </ul>			
S4.7.2	S4	<p><u>Vertical Greening</u></p> <p>Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible.</p> <p>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</p>	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 existing 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	-	<u>New Custom Paving</u>  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	<u>In-situ Tree Protection - Quarterly inspection</u>  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 ( <a href="http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf">http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf</a> ) 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.
<i>Noise</i>					
S5.9	-	The following site practices should be followed during the construction of the Project: <ul style="list-style-type: none"> <li>• Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase;</li> <li>• Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase;</li> <li>• Mobile plant, if any, will be sited as far away from NSRs as possible;</li> </ul>	Whole Site	During construction	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.</li> </ul>			
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 <sup>-2</sup> 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	√
<i>Air Quality</i>					
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> 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	√
<i>Water Quality</i>					
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 <i>Appendix A1 of ProPECC PN 1/94</i> . 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 <i>ProPECC PN 1/94</i> . 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	√
<i>Waste Management</i>					
S8.5	S6.3.1 & Table 6.1	<u>General</u> 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	-	<u>Management of Waste Disposal</u> 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	<u>Reduction of Construction Waste Generation</u>  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	<u>Chemical Waste</u>  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: <ul style="list-style-type: none"> <li>• Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> <li>• Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and</li> <li>• Display a label in English and Chinese in accordance with instructions prescribed in <i>Schedule 2 of the Regulations</i>.</li> </ul>	Whole Site	During construction and operation	√
S8.5	S6	Storage areas for chemical waste shall: <ul style="list-style-type: none"> <li>• Be clearly labelled and used solely for the storage of chemical waste;</li> <li>• Be enclosed on at least 3 sides;</li> <li>• 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;</li> <li>• Have adequate ventilation;</li> <li>• Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and</li> <li>• Be arranged so that incompatible materials are appropriately separated.</li> </ul>	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	<u>General Refuse</u> 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	<u>Staff Training</u> 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
- △ 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

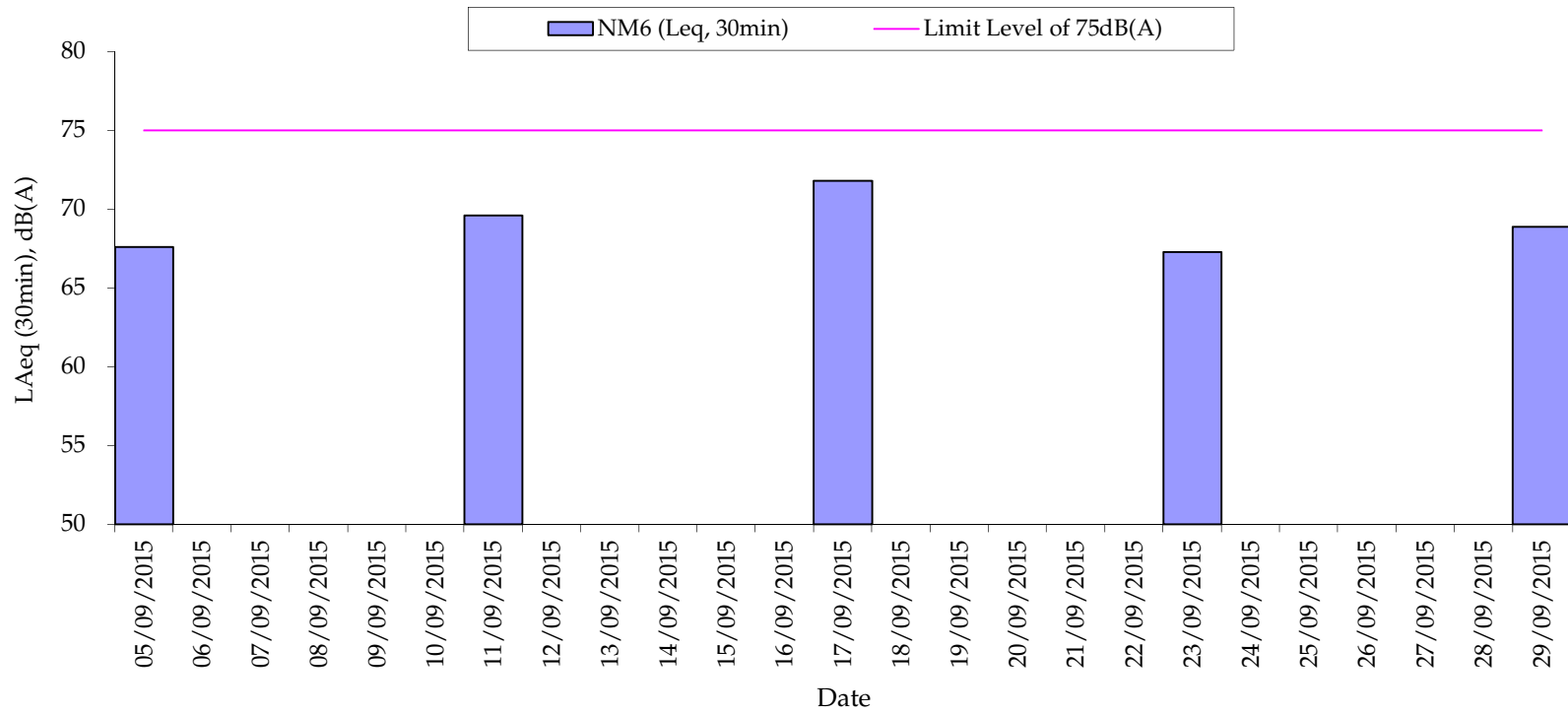
#### NM6 Chancery Mansion

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						
05-Sep-15	14:20	14:50	Sunny	67.6	68.9	64.8	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
11-Sep-15	10:30	11:00	Fine	69.6	71.0	68.1	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
17-Sep-15	10:09	10:39	Fine	71.8	73.3	69.9	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.3	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
23-Sep-15	13:00	13:30	Sunny	67.3	68.8	64.4	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.3	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
29-Sep-15	8:26	8:56	Sunny	68.9	70.3	66.0	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.5	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
				Min.	67.3							
				Max.	71.8							

#### 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						
05-Sep-15	15:05	15:35	Sunny	70.6	72.4	67.1	Interior fitting, lifting (within the project site)	Traffic noise	-	0.3	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
11-Sep-15	9:52	10:22	Fine	68.1	69.6	66.4	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
17-Sep-15	9:31	10:01	Fine	74.8	77.3	72.3	Interior fitting, lifting, handheld brekaer (within the project site)	Traffic Noise	-	0.5	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
23-Sep-15	13:37	14:07	Sunny	72.0	74.8	69.5	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.2	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
29-Sep-15	9:04	9:34	Sunny	74.5	77.8	67.5	Interior fitting, lifting, breaker (within the project site)	Traffic Noise	-	0.5	CEL-633A (S/N 3521757)	CEL-120 (S/N 3421612)
				Min.	68.1							
				Max.	74.8							

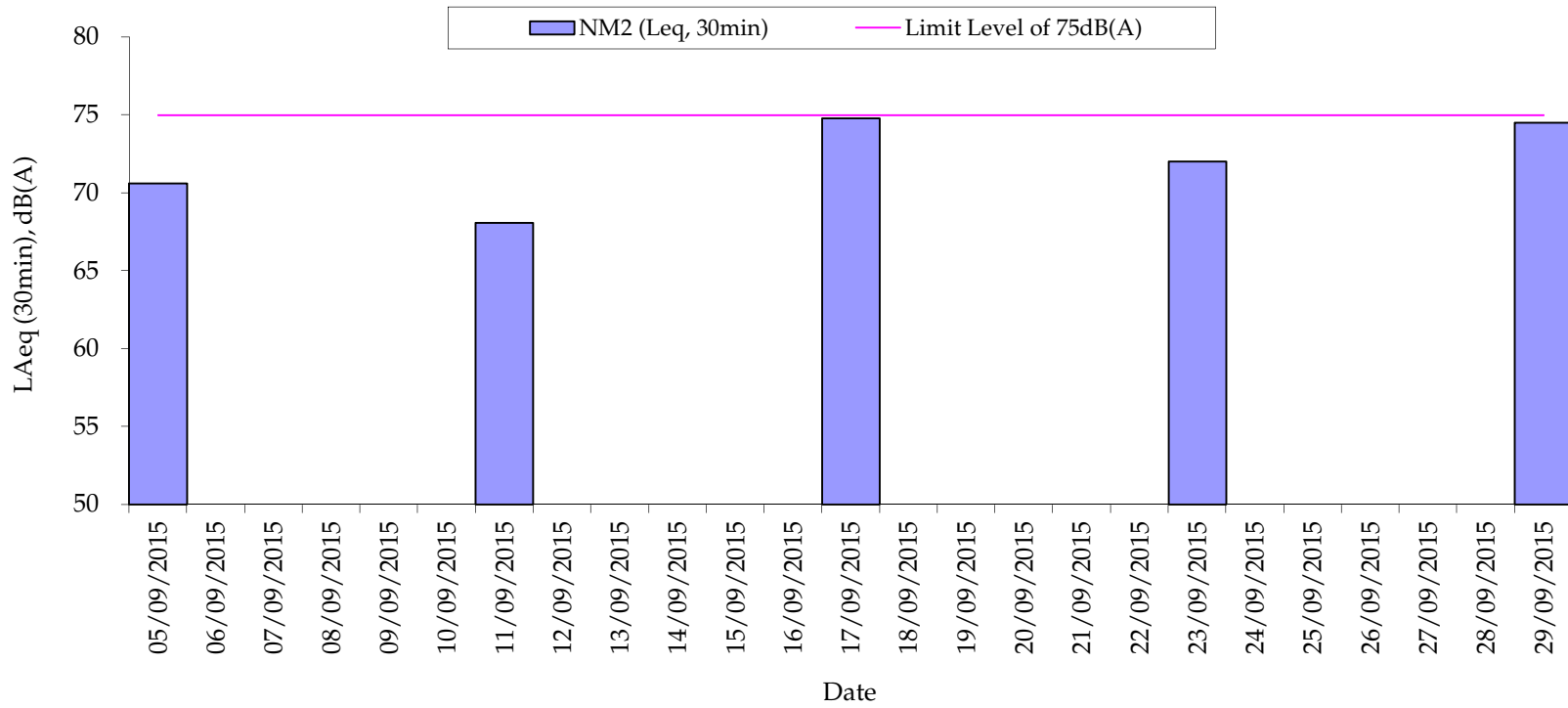
Normal Weekdays Noise Monitoring Results at NM6 - Chancery Mansion (Leq, 30min)



Remark:

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

Normal Weekdays Noise Monitoring Results at NM2 - Ho Fook Building (Leq, 30min)



Remark:

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



Annex I

# Construction Programme for the Project

Activity ID	Activity Description	Dur (Cal Days)	Start Date	Finish Date	Rev 6A Start	Rev 6A Finish	2012												2013												2014												2015												2016																																																																
							M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D																																																							
<b>EXISTING BUILDING</b>																																																																																																																							
<b>Block 1</b>																																																																																																																							
010005-18	BLOCK 1 - POLICE HEADQUARTERS MAJOR WORKS	932*	03OCT12A	22APR15	03OCT12A	14MAR15																																																						BLOCK 1 - POLICE HEADQUARTERS MAJOR WORKS																																																											
010005-22	BLOCK 1 - SERV. CORRIDOR&WORKS AFTER CATWALK	271*	18AUG14A	15MAY15	18AUG14A	16APR15																																																						BLOCK 1 - SERV. CORRIDOR&WORKS AFTER CATWALK																																																											
010005-30	BLK 1-O/S WORK AFTER SITE OFFICE VACATED+SIGNAGE	204*	02JUL15	21JAN16	02JUL15	15FEB16																																																						BLK 1-O/S WORK AFTER SITE OFFICE VACATED+SIGNAGE																																																											
<b>Central Basement Plant Room</b>																																																																																																																							
010005-35	CENTRAL BASEMENT PLANT ROOM	968*	04OCT12A	29MAY15	04OCT12A	21MAY15																																																						CENTRAL BASEMENT PLANT ROOM																																																											
<b>Block 2</b>																																																																																																																							
020005-05	BLOCK 2 - ARMOURY & STORE	838*	03MAY13A	18AUG15	03MAY13A	14JUL15																																																						BLOCK 2 - ARMOURY & STORE																																																											
<b>Block 3</b>																																																																																																																							
030005-05	BLOCK 3 - BARRACK BLOCK	1,066*	21MAR13A	19FEB16	21MAR13A	13JAN16																																																						BLOCK 3 - BARRACK BLOCK																																																											
030005-20	BLOCK 3 - REMAINING FACADE REPAIR WORK	136*	16JUL15	28NOV15	22JUN15	21DEC15																																																						BLOCK 3 - REMAINING FACADE REPAIR WORK																																																											
<b>Block 4</b>																																																																																																																							
040005-05	BLOCK 4 - DORMITORY BLOCK A & B	869*	12AUG13A	28DEC15	12AUG13A	06JAN16																																																						BLOCK 4 - DORMITORY BLOCK A & B																																																											
040005-30	BLOCK 4 - T & C	32*	18DEC15	18JAN16	21DEC15	20JAN16																																																						BLOCK 4 - T & C																																																											
040005-40	BLOCK 4 - STATUTORY INSPECTIONS	55*	30DEC15	22FEB16	30DEC15	22FEB16																																																						BLOCK 4 - STATUTORY INSPECTIONS																																																											
<b>Block 5</b>																																																																																																																							
050002	Block 5 (Demolition Only)	159*	16JUN14A	21NOV14A	16JUN14A	26NOV14																																																						Block 5 (Demolition Only)																																																											
<b>Block 6</b>																																																																																																																							
060005-05	BLOCK 6 - DORMITORY BLOCK C	915*	18FEB13A	21AUG15	18FEB13A	05AUG15																																																						BLOCK 6 - DORMITORY BLOCK C																																																											
<b>Block 7</b>																																																																																																																							
070005-05	BLOCK 7 - DORMITORY BLOCK D	852*	19MAR13A	18JUL15	19MAR13A	30JUL15																																																						BLOCK 7 - DORMITORY BLOCK D																																																											
<b>Block 8</b>																																																																																																																							
080010-05	BLOCK 8 - ABLUTIONS BLOCK	1,205*	23APR12A	10AUG15	23APR12A	27JUL15																																																						BLOCK 8 - ABLUTIONS BLOCK																																																											
080010-30	BLOCK 8 - REMAINING FACADE REPAIR WORK	71*	09OCT15	18DEC15	08OCT15	17DEC15																																																						BLOCK 8 - REMAINING FACADE REPAIR WORK																																																											
<b>Block 9</b>																																																																																																																							
090005-05	BLOCK 9 - CENTRAL MAGISTRACY	877*	17JUN13A	10NOV15	17JUN13A	27OCT15																																																						BLOCK 9 - CENTRAL MAGISTRACY																																																											
<b>Block 10</b>																																																																																																																							
100010-05	BLOCK 10 - SUPERINTENDENT HOUSE	1,050*	11JAN13A	26NOV15	11JAN13A	28OCT15																																																						BLOCK 10 - SUPERINTEND																																																											
<b>Block 11</b>																																																																																																																							
110010-05	BLOCK 11 - A HALL	986*	10NOV12A	23JUL15	10NOV12A	27JUL15																																																						BLOCK 11 - A HALL																																																											
110010-30	BLOCK 11 - A HALL REMAIN FACADE REPAIR WORK	128*	19AUG15	24DEC15	16JUL15	24DEC15																																																						BLOCK 11 - A HALL REMAIN FACADE REPAIR WORK																																																											
<b>Block 12</b>																																																																																																																							
120010-05	BLOCK 12 - B HALL	1,023*	10NOV12A	29AUG15	10NOV12A	07AUG15																																																						BLOCK 12 - B HALL																																																											
<b>Block 13</b>																																																																																																																							
130010-05	BLOCK 13 - C HALL	1,056*	18JAN13A	09DEC15	18JAN13A	24NOV15																																																						BLOCK 13 - C HALL																																																											
130010-35	BLOCK 13 - C HALL REMAIN FACADE REPAIR WORK	79*	06AUG15	23OCT15	04JUL15	21NOV15																																																						BLOCK 13 - C HALL REMAIN FACADE REPAIR WORK																																																											
<b>Block 14</b>																																																																																																																							
140010-03	BLOCK 14 EAST WING D HALL	1,112*	22OCT12A	07NOV15	22OCT12A	20OCT15																																																						BLOCK 14 EAST WING D HALL																																																											
140035-03	BLOCK 14 - WEST WING D HALL	1,052*	08JAN13A	25NOV15	08JAN13A	16OCT15																																																						BLOCK 14 - WEST WING D HALL																																																											
<b>Block 15</b>																																																																																																																							
150010-05	BLOCK 15 - E HALL	829*	10JUN13A	16SEP15	10JUN13A	29AUG15																																																						BLOCK 15 - E HALL																																																											
<b>Block 17</b>																																																																																																																							
170010-02	BLOCK 17 - F HALL	1,199*	02MAY12A	13AUG15	02MAY12A	12AUG15																																																						BLOCK 17 - F HALL																																																											
<b>Block 19</b>																																																																																																																							
190005-05	BLOCK 19 - BAUHINIA HOUSE	775*	01AUG13A	14SEP15	01AUG13A	02SEP15																																																						BLOCK 19 - BAUHINIA HOUSE																																																											
<b>T &amp; C / INSPECTION &amp; HANDOVER</b>																																																																																																																							
S400	- T & C - BLOCK 1 TO 19 (EXCL BLOCK 4)	294*	08APR15	26JAN16	17FEB15	13JAN16																																																						- T & C - BLOCK 1 TO 19 (EXCL BLOCK 4)																																																											
S410	-STATUTORY INSPECTION (EXCL BLOCK 4)	50*	12NOV15	31DEC15	09NOV15	24DEC15																																																						-STATUTORY INSPECTION (EXCL BLOCK 4)																																																											
S415	- FINAL HANDOVER INSPECTION	120*	05JAN16	03MAY16	29DEC15	26APR16																																																						- FINAL HANDOVER INSPECTION																																																											

Start Date	07JUL10
Finish Date	04MAY16
Data Date	27NOV14
Run Date	28NOV14 17:34

	Early Bar
	Rev6A Bar
	Progress Bar

4L02

CENTRAL POLICE STATION  
CONSERVATION AND REVITALIZATION  
CONSTRUCTION PROGRAMME (Rev 6A)  
SUMMARY PROGRAMME OF HISTORIC & NEW BUILDINGS  
(WITH PROGRESS AS OF 27 NOV 2014)

Sheet 1 of 2



GCL / P / J3416 / CP08A/SUM / HIST BLDG				
Date	Revision	Checked	Approved	
30OCT14				

Activity ID	Activity Description	Dur (Cal Days)	Start Date	Finish Date	Rev 6A Start	Rev 6A Finish	2012												2013												2014												2015												2016																							
							M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D														
<b>NEW BUILDINGS</b>																																																																														
<b>OBW</b>																																																																														
OBW-0010	OLD BAILEY WING	1,374*	30MAR12A	02JAN16	30MAR12A	24DEC15																																																																								
<b>AW</b>																																																																														
AW-0010	ARBUTHNOT WING	1,291*	08MAY12A	19NOV15	08MAY12A	07NOV15																																																																								
<b>INSPECTION &amp; HANDOVER</b>																																																																														
OBW-0015	- APPLY FOR WATER SUPPLY & CONNECTION	66*	10OCT15	14DEC15	10OCT15	26NOV15																																																																								
OBW-0020	- STATUTORY INSPECTION (NEW BLDGS)	50*	12NOV15	31DEC15	09NOV15	24DEC15																																																																								
OBW-0025	- OP ACHIEVED	0		31DEC15		24DEC15																																																																								
OBW-0030	- HANDOVER INSPECTION (NEW BLDGS)	120*	05JAN16	03MAY16	29DEC15	26APR16																																																																								
OBW-0035	- PRACTICAL COMPLETION	0		03MAY16		26APR16																																																																								
<b>SIGNAGE</b>																																																																														
<b>SIGNAGE</b>																																																																														
SN-0010	-SIGNAGE	92*	10OCT15	09JAN16	02OCT15	31DEC15																																																																								

Start Date 07JUL10  
 Finish Date 04MAY16  
 Data Date 27NOV14  
 Run Date 28NOV14 17:34

Early Bar  
 Rev6A Bar  
 Progress Bar

4L02 Sheet 2 of 2

**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALIZATION  
 CONSTRUCTION PROGRAMME (Rev 6A)  
 SUMMARY PROGRAMME OF HISTORIC & NEW BUILDINGS  
 (WITH PROGRESS AS OF 27 NOV 2014)**



GCL / P / J3416 / CP06A/SUM/ HIST BLDG			
Date	Revision	Checked	Approved
30OCT14	Reviewed		

Annex J

## Tree Inspection Reports



R28764  
 欣榮 (香港) 環境管理有限公司

RECEIVED

- 6 OCT 2015

.....

**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

Tel: 9776 1987, 2486 2317 Fax: 2482 4667 E-mail: yanwinghk@netvigator.com

Our Ref. : YW/TP/GAMMON/2015/9/1

2<sup>nd</sup> Oct. 2015

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. YAU

Dear Sirs,

**Summary of Monthly Inspection Report for the Six Existing Trees  
 at Central Police Station Compound for Sept. 2015  
 ( Contract Ref. : J3416/400.4/D00025 )**

Tree No.	Botanical Name	Date of Inspection	Overall Health Condition Good/Fair/Poor	Remarks
Tree-5	<i>Mangifera indica</i> 芒果	4 <sup>th</sup> Sept. 2015	Fair	1. To keep monitoring on the pest disease on the tree.
Tree-6	<i>Aleurites moluccana</i> 石栗	4 <sup>th</sup> Sept. 2015	Fair	1. No further action is required.
Tree-7	<i>Aleurites moluccana</i> 石栗	4 <sup>th</sup> Sept. 2015	Fair	1. No further action is required.
Tree-8	<i>Plumeria rubra</i> 紅雞蛋花	4 <sup>th</sup> Sept. 2015	Fair	1. No further action is required.
Tree-9	<i>Araucaria cunninghamia</i> 花旗杉	4 <sup>th</sup> Sept. 2015	Fair	1. No further action is required.
Tree-11	<i>Dracaena marginata</i> 馬尾鐵	4 <sup>th</sup> Sept. 2015	Poor	1. To place sand bags on the edge of the planter. 2. To keep monitoring on the growth of the tree.



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

Tel : 9776 1987, 2486 2317 Fax : 2482 4667 E-mail : yanwinghk@netvigator.com

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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.1097) 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:	<b>Gammon Construction Ltd</b>	Name of Tree Inspection officer 巡查人員姓名:	<b>LAU Man Chung</b>
File Ref. 檔案編號:	<b>YW/TP/GAMMON/2015/9/2</b>	Name of Endorsement Officer 覆核人員姓名:	<b>WONG Pak Hay</b>
Date of Inspection 巡查日期:	<b>September 4, 2015</b>		
Project/Contract No. 合約/工程編號:	<b>J3416/400.4/D00025</b>		

**Location Information 位置資料**

Location 地點:	<b>Central Police Station Compound</b>	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	<input type="checkbox"/> Roadside 路旁 <input checked="" type="checkbox"/> Open space 空地 <input type="checkbox"/> Exhibition Centre 展覽中心 <input type="checkbox"/> View Point 觀景台 <input type="checkbox"/> Walking / nature trail 行山徑 / 自然徑 <input type="checkbox"/> Others (please specify) 其他 (請說明): _____	<input type="checkbox"/> Community Hall / Centre 社區會堂 / 中心 <input type="checkbox"/> Roadside Planter 路旁花園 <input type="checkbox"/> Rain shelter / pavilion 避雨亭 / 涼亭 <input type="checkbox"/> 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分比/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)
<i>Mangifera indica</i> 芒果	17%, 1 No.	16M	FAIR	FAIR	To keep monitoring on the pest disease on the tree.
<i>Aleurites moluccana</i> 石栗	32% 2 Nos.	10-13M	FAIR	FAIR	No further action is required..
<i>Plumeria rubra</i> 紅雞蛋花	17% 1 No.	7M	FAIR	FAIR	No further action is required..
<i>Araucaria cunninghamia</i> 花旗杉	17% 1 No.	13M	FAIR	FAIR	No further action is required..
<i>Dracaena marginata</i> 馬尾鐵	17% 1 No.	8M	FAIR	POOR	Lots of cement found at the planter.

**Target 目標**

<b>TARGET</b> (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? <input checked="" type="checkbox"/> Yes 是 <input type="checkbox"/> No 否
Can target be moved? 能否移除目標? <input type="checkbox"/> Yes 是 <input checked="" type="checkbox"/> No 否
Can the use of site be restricted? 可否限制場地的使用? <input checked="" type="checkbox"/> Yes 是 <input type="checkbox"/> No 否
Frequency of use of location 使用該地點的頻密程度: <input type="checkbox"/> Occasional use 偶爾使用 <input type="checkbox"/> Intermittent use 間歇使用 <input checked="" type="checkbox"/> Frequent use 經常使用 <input type="checkbox"/> Constant use 恆常使用

**Identification of Trees for Remedial Action or Detailed Tree Risk Assessment**

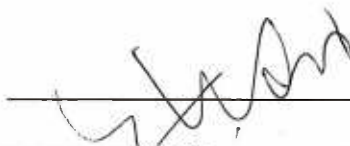
識別下述樹木，以便採取風險緩減措施或進行詳細樹木風險評估

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)	<b>NII</b>	
(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)	<b>NII</b>	
(3) Tree with major defects or health problems 有明顯缺陷或健康問題的樹木 (Note 1)	<b>NII</b>	
(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)	<b>NII</b>	





Signature of Tree Inspection Officer :  
Signature of Endorsement Officer:



Name of Contractor

Yan Wing (HK) Environment Management Ltd.

Date:

30-9-2015

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, 應為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)



**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	Fair
Date of Inspection	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. Root collar is normal. The planter appears clean and tidy.
3. The crown is full of green and vigorous leaves.
4. Signs of Pest (Mealy Bugs 粉狀介殼蟲) have apparently reduced due to pest control operation on 3<sup>rd</sup> July 2015.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. To keep close monitoring on the pest disease on the tree.

V. PHOTO RECORD :



Fig 2. Root collar of Tree-5 is normal. The planter appears clean and tidy.



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 green and vigorous leaves.





Fig. 6 Vigorous and green leaves also appear on the upper branches.



Fig. 7 Signs of the Pest (Mealy Bugs 粉狀介殼蟲) have apparently reduced due to pest control operation on 3<sup>rd</sup> July 2015.



Fig. 8 Renovation works are in progress near Tree-5.



Fig. 9 The small cordon zone is in good order.





Fig. 10 The site near Tree-5 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 4<sup>th</sup> September 2015.



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

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

Name of Contractor :

Dated this :

A handwritten signature in black ink, appearing to read 'Yan Wing', written over a horizontal line.

Yan Wing (HK) Environment  
Management Ltd.

30<sup>th</sup> September 2015



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

I. TREE 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	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. Root collar is normal. The planter appears clean and tidy.
3. The crown is full of vigorous and green leaves.
4. The site 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 2. Root collar is normal. The planter appears clean and tidy.



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 green leaves.





Fig. 6 Vigorous and green leaves also appear on the lower branches.



Fig. 7 The small cordon zone is in good order.



Fig. 8 Many construction items are placed near the planter.



Fig. 9 The site near the planter is clean and tidy.





Fig. 10 Construction works are in progress outside the cordon zone.



Fig. 11 The access near Tree-6 is clean and tidy.



Fig. 12 Overall view of Tree-6 during inspection on 4<sup>th</sup> September 2015.



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

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

Name of Contractor :

Dated this :

Yan Wing (HK) Environment  
Management Ltd.

30<sup>th</sup> September 2015





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

I. TREE 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	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. Root collar is normal. The planter appears clean and tidy.
3. The crown is full of vigorous and green leaves.
4. The site near Tree-7 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 is normal. The planter appears clean and tidy.



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 green leaves.





Fig. 6 Vigorous and green leaves also appear on the lower branches.



Fig. 7 The small cordon zone is in good order.



Fig. 8 Many construction items are placed near the planter.



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





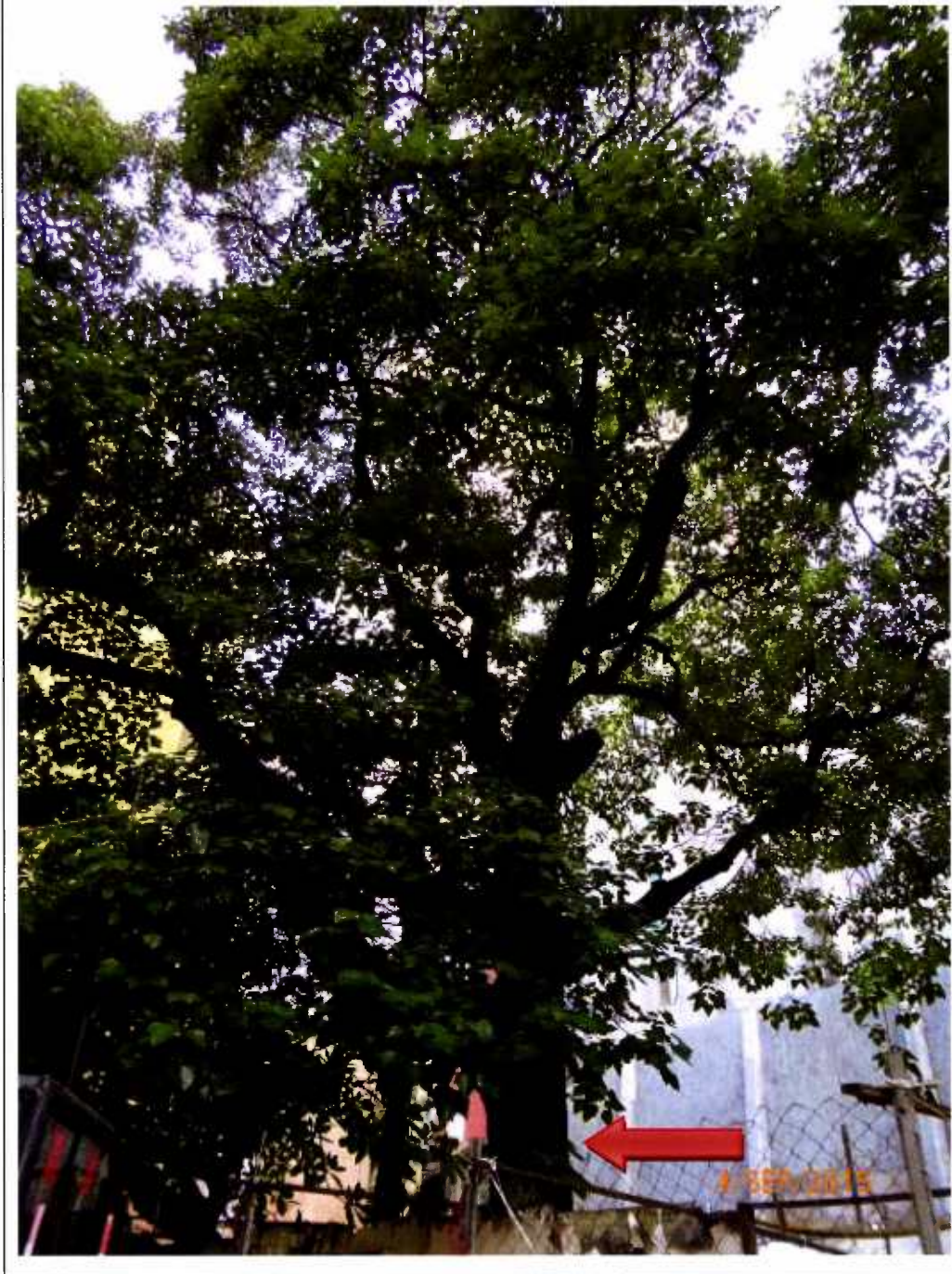
Fig. 10 Construction works are in progress outside the cordon zone.



Fig. 11 The access near Tree-7 is clean and tidy.



Fig. 12 Overall view of Tree-7 during inspection on 4<sup>th</sup> September 2015.



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

Name of Contractor :

Dated this :

  
\_\_\_\_\_  
Yan Wing (HK) Environment  
Management Ltd.  
\_\_\_\_\_  
30<sup>th</sup> September 2015  
\_\_\_\_\_





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

I. TREE NUMBER : Tree-8 *Plumeria rubra* 紅雞蛋花

II. BASIC INFORMATION :

Height (m)	7m	Crown spread (m)	9m
DBH (mm)	430mm	Overall Health Condition Good/Fair/Poor	Fair
Date of Inspection	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. Root collar is normal. The planter is covered with mulch and leaves.
3. The crown is full vigorous and green leaves.
4. The access near Tree-8 is clean and tidy.
5. Construction works are in progress outside the cordon zone.

IV. RECOMMENDATIONS :

1. No further action is required.

1. PHOTO RECORD :



Fig 2. Root collar is normal. The planter is covered with mulch and leaves.



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 green leaves.





Fig. 6 Vigorous and green leaves also appear on the lower branches.



Fig. 7 The small cordon zone is in good order.



Fig. 8 Many bulky items are placed near the planter.



Fig. 9 The site near the planter is clean and tidy.





Fig. 10 The access near Tree-8 is clean and tidy.



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

Tree-8



Fig. 12 Overall view of Tree-8 during inspection on 4<sup>th</sup> September 2015.



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

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

Name of Contractor :

Dated this :

Yan Wing (HK) Environment  
Management Ltd.

30<sup>th</sup> September 2015





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

I. TREE 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	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is fair.
2. The planter appears clean and tidy.
3. Green and vigorous leaves appear on the tree.
4. The site 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 2. Root collar is normal. The planter appears clean and tidy.



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





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



Fig. 5 Vigorous leaves are growing on the lower branches.





Fig. 6 Vigorous and green leaves also appear on the crown.



Fig. 7 The small cordon zone is in good order.





Fig. 8 The site near Tree-9 is clean and tidy.



Fig. 9 Many construction items are placed near the tree.



Fig. 10 Construction works are in progress outside the cordon zone.



Fig. 11 The access near Tree-9 is clean and tidy.





Fig. 12 Overall view of Tree-9 during inspection on 5<sup>th</sup> August 2015.



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

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

Name of Contractor :

Dated this :

  
\_\_\_\_\_  
Yan Wing (HK) Environment  
Management Ltd.  
\_\_\_\_\_  
30<sup>th</sup> September 2015  
\_\_\_\_\_



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

I. TREE 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	Poor
Date of Inspection	4 <sup>th</sup> September 2015	Last Inspection Date	5 <sup>th</sup> August 2015

III. COMMENTS :

1. Overall health condition of the tree is **poor**.
2. **Lots of cement are found on the bottom part of the tree.**
3. **Withered leaves still appear on the tree.**
4. The site outside the cordon zone is clean and tidy.

IV. RECOMMENDATIONS :

1. **To place sand bags on the edge of the planter.**
2. **To keep monitoring on the growth of the tree.**

V. PHOTO RECORD :





Fig. 2 Lots of cement are found on the bottom part of the tree.



Fig. 3 Lots of cement are found on the bottom part of the tree.



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



Fig. 5 Health condition of the upper trunk also is fair.





Fig. 6 Withered leaves still appear on the lower branches.



Fig. 7 A few withered leaves also remain on the upper branches.



Fig. 8 Renovation works are in progress near the planter.



Fig. 9 The small cordon zone is in order.





Fig. 10 Cleanliness of the site near Tree-11 is acceptable.



Fig. 11 The access outside the cordon zone is clean and tidy.



Fig. 12 Overall view of Tree-11 during inspection on 4<sup>th</sup> September 2015.



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

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

Name of Contractor :

Dated this :

Yan Wing (HK) Environment  
Management Ltd.

30<sup>th</sup> September 2015



Annex K

Environmental Complaint,  
Environmental Summons  
and Prosecution Log

*Annex K Cumulative Complaint and Summons/Prosecutions Log*

<b>Reporting Month</b>	<b>Number of Complaints in Reporting Month</b>	<b>Number of Summons/Prosecutions in Reporting Month</b>
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



<b>Reporting Month</b>	<b>Number of Complaints in Reporting Month</b>	<b>Number of Summons/Prosecutions in Reporting Month</b>
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
August 2014	3	0
September 2014	2	0
October 2014	1	0
November 2014	0	0

<b>Reporting Month</b>	<b>Number of Complaints in Reporting Month</b>	<b>Number of Summons/Prosecutions in Reporting Month</b>
December 2014	0	0
January 2015	0	0
February 2015	1	0
March 2015	1	0
April 2015	0	0
May 2015	1	0
June 2015	1	0
July 2015	1	0
August 2015	1	0
September 2015	0	0
<b>Overall Total</b>	<b>30</b>	<b>0</b>

## COMPLAINT INVESTIGATION REPORT

### *Basic Information of Complaint*

Log Number:	2015/08/001
Date of Complaint Received	4 August 2015
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Environmental Protection Department (EPD)
Complainant	Annie Cheung

### *Details of Complaint*

A noise complaint was received by EPD via email and transferred to the Project's Environmental Team and the Contractor (Gammon Construction Limited – GCL) on 4 August 2015. The complainant complained about noise nuisance in general and provided sound clips of the noise nuisance recorded by the complainant on different dates. Four sound clips on 28 January, 14 May, 20 May and 30 July 2015 were provided by the complainant. In addition, the complainant also complained about the noise nuisance from the back alert during the backing of construction vehicles.

## *Investigation Report*

1. According to sound clips dated 28 January, 14 May and 20 May 2015, the noise nuisance is suspected to be related to rock breaking works. According to the Contractor, site record showed that breakers have been used on these dates, indicating that there may be potential rock breaking or other demolition activities being carried out within the CPS Project Site during normal working hours on these dates.
2. According to the sound clip dated 30 July 2015, the noise nuisance is suspected to be related to rock breaking. According to the Contractor, no rock breaking work has been carried out within the CPS Project Site on 30 July 2015. It is understood that Hong Kong Electric has construction site at Old Bailey Street outside the CPS Project Site, where rock breaking works may have been carried out on 30 July 2015.
3. The noise nuisance as recorded on 28 January, 14 May and 20 May 2015 by the complainant may have been originated from rock breaking works within the CPS Project Site during normal working hours. However, the exact location, time and duration of the suspected rock breaking works within the CPS Project Site on these dates could not be traced back.
4. The noise nuisance as recorded on 30 July 2015 by the complainant was likely originated from rock breaking works within the construction site managed by Hong Kong Electric. No rock breaking work has been carried out within the CPS Project Site on 30 July 2015.
5. The complainant mentioned noise nuisance from the back alert during the backing of construction vehicles. It should be noted that the back alert must be on during the backing of construction vehicles for safety purposes.



**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 complaint investigation showed that the recorded noise of rock breaking works on some of the dates may have been originated from the CPS Project Site. To minimize potential noise nuisance arising from rock breaking activities within the CPS Project Site in the future, the Contractor was recommended to implement the following:

- (i) Wrap the breaker head using acoustic blanket during rock breaking works; and
- (ii) Install or erect acoustic curtain / noise barrier, where practicable, during rock breaking works or other noisy construction activities.

In addition, the volume of the back alert during the backing of construction vehicles will be adjusted lower to reduce the potential noise nuisance to nearby sensitive receivers.

Date of File Closed : 10 September 2015

Approved by:

ET Leader

IEC

JCCPS's  
Representative

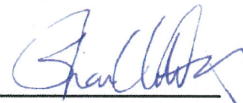
Rocco Design  
Architect's  
Representative



(Name: Winnie Ko)  
Date: 10 September 2015



(Name: Sharifah Or)  
Date: 11 September 2015

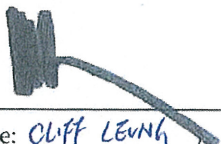


(Name: C. W. Sham)  
Date: 11 Sep 2015



(Name: CHARLES KUNG)  
Date: 11 SEPT 2015

Gammon's  
Representative



(Name: Cliff LEUNG)  
Date: 2015.09.11

Annex L

## Records of Vibration Monitoring for Piling works



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



22-1 306610H K011010S  
1:311 101 101 101 101 101

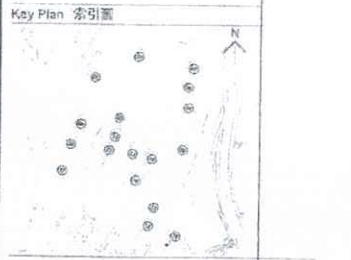
Revision/Update/修改/更新

No.	Description/說明	Date/日期	Prepared/備註
1	BD SUBMISSION	12/11	JS
2	A	03/12	JS

Note: This plan has been processed on a centralized check bar under the centralized processing system as promulgated in PNH A234-16. The output of the authorized person, registered structural 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 reference in this regard.

Plan Approved

NG Kim-shing  
Chief Structural Engineer  
for BUILDING AUTHORITY  
- 3 MAY 2012



BD SUBMISSION  
Drawing Status 製圖狀況

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切勿直接從圖紙上量取尺寸。

Check and verify all dimensions on site.  
於現場核對及核實所有尺寸。

Read this drawing in conjunction with the specifications and all other related drawings.  
此圖紙必須與圖則說明書及其他相關圖紙一併閱讀。

Notify the relevant consultants immediately of any discrepancy found herein.  
如發現圖紙內容有任何不一致之處，應立即通知有關設計顧問。

Client 業主:  
香港中文大學文物局  
The Chinese University of Hong Kong

Design Consultant  
**HERZOG & DEMEUREN**

Conservation Architect  
香港中文大學文物局

Execution Architect (AS)  
**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: 1:3000A1  
Drawing No. 圖號: 00-OAP209674-G-001  
Checked 校核: AL  
Prepared 備註: JS

**LEGEND**

	EXISTING FRESH WATER MAIN
	EXISTING SALT WATER MAIN
	EXISTING STREET LIGHTING NO. 33458-A1
	EXISTING STREET LIGHTING CABLE
	EXISTING GAS MAIN
	EXISTING HV ELECTRICITY CABLE
	EXISTING LV ELECTRICITY CABLE
	EXISTING TELECOMMUNICATION DUCT (HUTCHINSON 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/TILMETER
	PROPOSED RETAINING WALL SETTLEMENT POINTS/TILMETER
	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

**NOTES:**

- UTILITIES SETTLEMENT POINTS (UT1 TO UT9) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED. AS ALTERNATIVE SETTLEMENT POINTS (GS18 AND GS19) MAY BE INSTALLED.
- 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 AND GS19) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WING ELS WORKS.





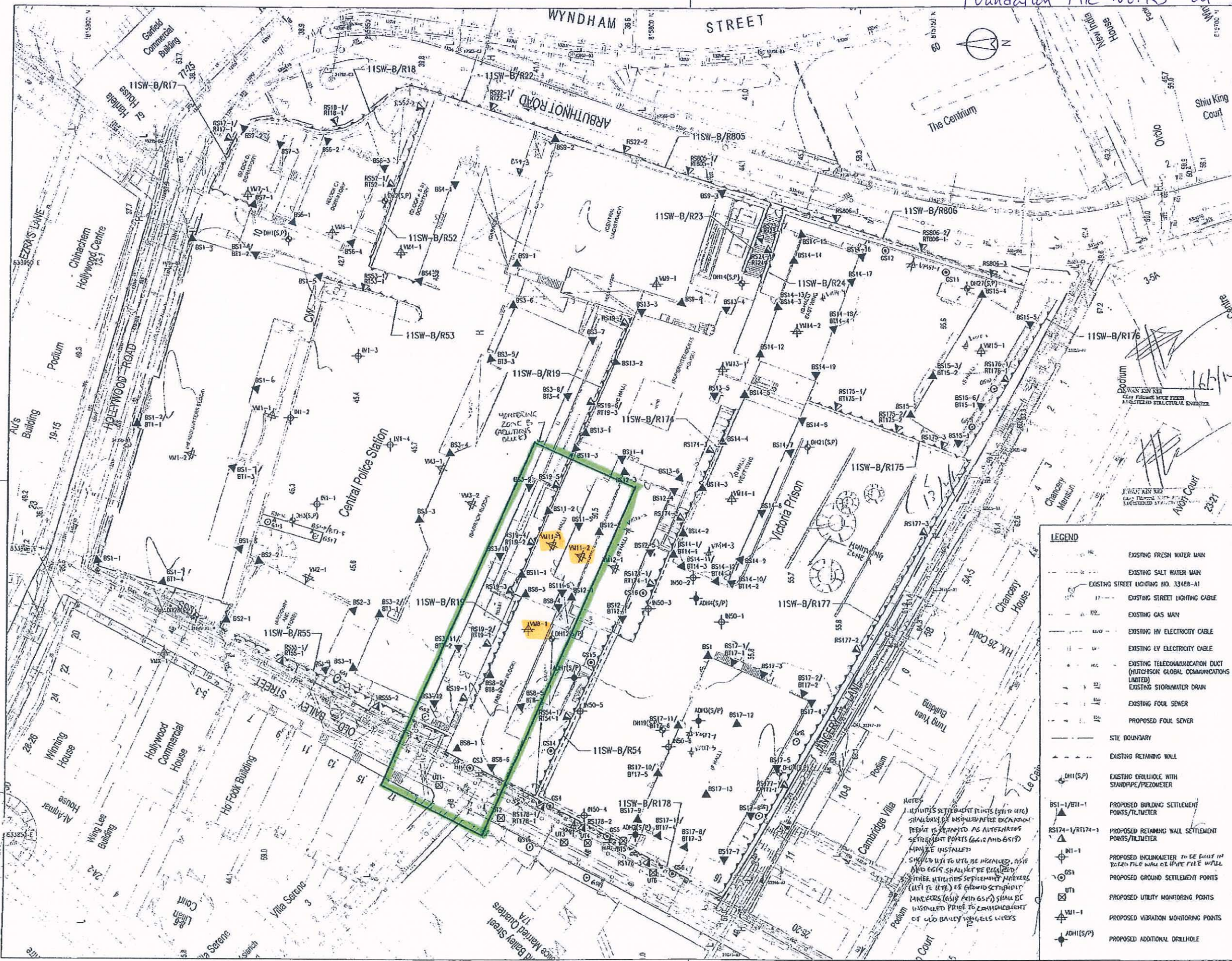


## Vibration Monitoring Record (September)

Point	<i>Parade Ground</i>				
	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2
Date	mm/s	mm/s	mm/s	mm/s	mm/s
01-Sep-15	0.101	0.105	0.106	0.109	0.115
02-Sep-15	0.105	0.096	0.103	0.107	0.106
03-Sep-15	<i>Holiday</i>				
04-Sep-15	0.102	0.100	0.107	0.108	0.110
05-Sep-15	0.107	0.102	0.105	0.115	0.104
06-Sep-15	<i>Sunday</i>				
07-Sep-15	0.109	0.105	0.107	0.117	0.105
08-Sep-15	0.102	0.107	0.102	0.128	0.109
09-Sep-15	0.106	0.102	0.108	0.106	0.105
10-Sep-15	0.100	0.106	0.105	0.115	0.103
11-Sep-15	0.107	0.102	0.100	0.109	0.104
12-Sep-15	0.103	0.109	0.102	0.123	0.105
13-Sep-15	<i>Sunday</i>				
14-Sep-15	0.103	0.107	0.105	0.108	0.100
15-Sep-15	0.109	0.103	0.101	0.107	0.103
16-Sep-15	0.105	0.101	0.106	0.110	0.103
17-Sep-15	0.103	0.100	0.109	0.107	0.108
18-Sep-15	0.109	0.102	0.105	0.109	0.102
19-Sep-15	0.101	0.105	0.102	0.105	0.109
20-Sep-15	<i>Sunday</i>				
21-Sep-15	0.106	0.108	0.101	0.114	0.102
22-Sep-15	0.102	0.105	0.104	0.108	0.105
23-Sep-15	0.109	0.102	0.110	0.105	0.107
24-Sep-15	0.101	0.107	0.102	0.109	0.103
25-Sep-15	0.103	0.100	0.105	0.109	0.107
26-Sep-15	0.101	0.106	0.107	0.115	0.106
27-Sep-15	<i>Sunday</i>				
28-Sep-15	<i>Holiday</i>				
29-Sep-15	0.109	0.102	0.102	0.107	0.103
30-Sep-15	0.103	0.105	0.102	0.112	0.100

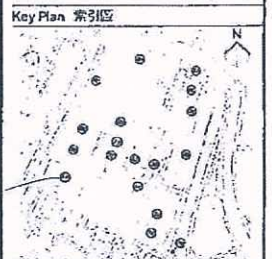


Foundation Pile Works at Block 8.



BD Ref No. 17-2024-002	
ESD Ref No. 2024-002	
Revision/Description/Date/By	
No. Rev. Description/Date/By	
1 - ED SUBMISSION	12/11 JS

Plan Approved  
 NG Kingling  
 Chief Structural Engineer  
 for BUILDING AUTHORITY  
 20 FEB 2012



**BD SUBMISSION**  
 Drawing Status 製圖狀況

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Client 業主  
  
 The Jersey Club Ltd  
 Design Consultant  
**HERZOG & DEMEUREN**  
 Conservation Architect  
 Conservation Architect  
 Executive Approved P.A.P.  
**ROCCO**  
 Structural Engineer / RSE  
 E & M Engineer  
**ARUP**  
 Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Title 圖名  
**MONITORING LAYOUT PLAN**

Scale 比例  
 1:3000 A1  
 Drawing No. 圖號  
 00-OAP209674-G-001

**LEGEND**

	EXISTING FRESH WATER MAIN
	EXISTING SALT WATER MAIN
	EXISTING STREET LIGHTING NO. 33428-A1
	EXISTING STREET LIGHTING CABLE
	EXISTING GAS MAIN
	EXISTING HV ELECTRICITY CABLE
	EXISTING LV ELECTRICITY CABLE
	EXISTING TELECOMMUNICATION DUCT (FUTURION GLOBAL COMMUNICATIONS LIMITED)
	EXISTING STORMWATER DRAIN
	EXISTING FOUL SEWER
	PROPOSED FOUL SEWER
	SITE BOUNDARY
	EXISTING RETAINING WALL
	EXISTING DRILLHOLE WITH STANDPIPE/PNEZOMETER
	PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
	PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
	PROPOSED INCLINOMETER TO BE FIXED IN TRENCH/FILE WALL OR PIPE/FILE WALL
	PROPOSED GROUND SETTLEMENT POINTS
	PROPOSED UTILITY MONITORING POINTS
	PROPOSED VIBRATION MONITORING POINTS
	PROPOSED ADDITIONAL DRILLHOLE

NOTES  
 1. ALL UTILITY SETTLEMENT POINTS (WITH OR WITHOUT STANDPIPE) SHOULD BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED AS ALTERNATIVE SETTLEMENT POINTS (E.G. BS1 AND BS15) MAY BE INSTALLED.  
 2. STANDPIPE UTILITY SETTLEMENT POINTS SHOULD NOT BE INSTALLED UNTIL ALL UTILITY SETTLEMENT POINTS (WITH OR WITHOUT STANDPIPE) HAVE BEEN INSTALLED PRIOR TO COMMENCEMENT OF ALL PILE WORKS.



( Block 8 Foundation )

**WW** 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-Sep-2015      to      30-Sep-2015

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-Sep-2015		0.11	0.11	0.10						
2-Sep-2015		0.11	0.11	0.11						
3-Sep-2015	Holiday									
4-Sep-2015		0.10	0.10	0.12						
5-Sep-2015		0.12	0.10	0.11						
6-Sep-2015	Sunday									
7-Sep-2015		0.10	0.11	0.10						
8-Sep-2015		0.10	0.10	0.11						
9-Sep-2015		0.10	0.11	0.12						
10-Sep-2015		0.11	0.10	0.11						
11-Sep-2015		0.10	0.11	0.10						
12-Sep-2015		0.11	0.11	0.10						
13-Sep-2015	Sunday									
14-Sep-2015		0.10	0.10	0.11						
15-Sep-2015		0.10	0.11	0.10						
16-Sep-2015		0.11	0.10	0.11						
17-Sep-2015		0.11	0.10	0.11						
18-Sep-2015		0.10	0.11	0.10						
19-Sep-2015		0.10	0.11	0.11						
20-Sep-2015	Sunday									
21-Sep-2015		0.10	0.10	0.11						
22-Sep-2015		0.09	0.11	0.11						
23-Sep-2015		0.10	0.11	0.11						
24-Sep-2015		0.10	0.10	0.12						
25-Sep-2015		0.10	0.10	0.11						
26-Sep-2015		0.10	0.10	0.11						
27-Sep-2015	Sunday									
28-Sep-2015	Holiday									
29-Sep-2015		0.10	0.10	0.11						
30-Sep-2015		0.10	0.11	0.11						



Mini-piles with post-pressurized grout in CDG and steel shear H-piles at Block 1



Project No.	00-OAP209674-G-001
Revision/Description	03/12 JS
Author	DD SUBMISSION
Checker	03/12 JS
Approver	03/12 JS

Plan Approved  
 NG Kuhnberg  
 Chief Structural Engineer  
 for BUILDING AUTHORITY  
 19 MAR 2012



**BD SUBMISSION**  
 Drawing Status 製圖狀況

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Client 業主  
 香港文物保育有限公司  
 The Heritage Conservation Unit

Design Consultant  
**HERZOG & DEMEUREN**  
 Conservation Architect

Executive Architect / AP  
**ROCCO**  
 Structural Engineer / RSC  
**ARUP**  
 JRP

Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Title 圖名  
**MONITORING LAYOUT PLAN**

Scale 比例尺  
 1:3000A1  
 Drawing No. 圖號  
**00-OAP209674-G-001**  
 Revision 修訂  
**B**

**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 (HATCHSON & ORIAL COMMUNICATIONS LIMITED)
	EXISTING STORMWATER DRAIN
	EXISTING FOUL SEWER
	PROPOSED FOUL SEWER
	SITE BOUNDARY
	EXISTING RETAINING WALL
	EXISTING DRILLHOLE WITH STANDPIPE/PREZOMETER
	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

**NOTES:**

- 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.
- 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 AND GS19) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WING ELS 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

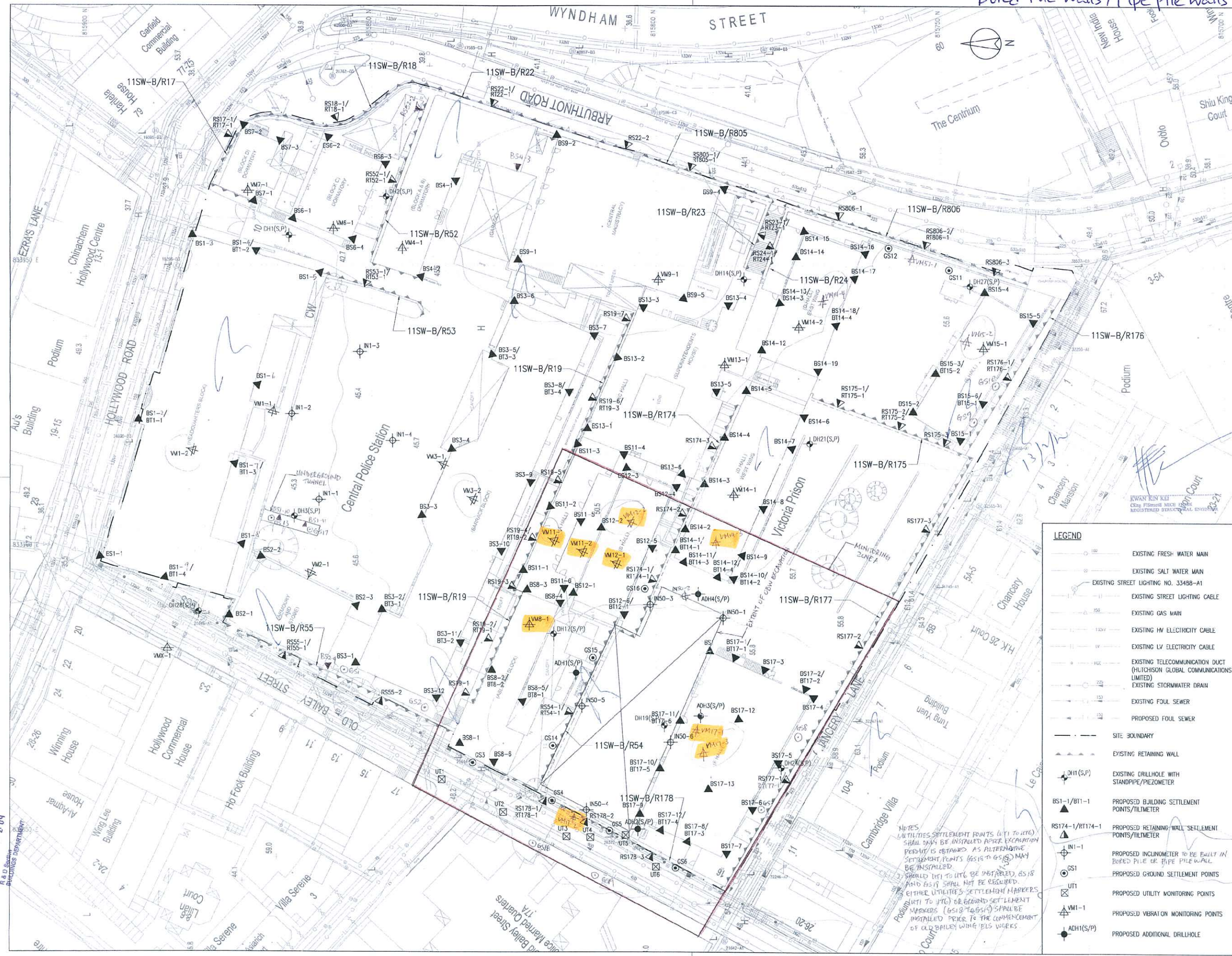
**Vibration Record**

Project Title: Central Police Station Conservation & Revitalization      Project No: WP201      1-Sep-2015      to      30-Sep-2015

POINT		VM17-1	VM17-3 #						
DATE	PD/(m)	mm/s	mm/s						
19-Jun-2012 (Initial)		<b>0.13</b>	<b>0.37</b>						
Surveying Date									
1-Sep-2015		<b>0.09</b>	<b>0.08</b>						
2-Sep-2015		<b>0.10</b>	<b>0.11</b>						
3-Sep-2015	Holiday								
4-Sep-2015		<b>0.12</b>	<b>0.11</b>						
5-Sep-2015		<b>0.11</b>	<b>0.10</b>						
6-Sep-2015	Sunday								
7-Sep-2015		<b>0.10</b>	<b>0.10</b>						
8-Sep-2015		<b>0.11</b>	<b>0.09</b>						
9-Sep-2015		<b>0.11</b>	<b>0.10</b>						
10-Sep-2015		<b>0.12</b>	<b>0.10</b>						
11-Sep-2015		<b>0.10</b>	<b>0.11</b>						
12-Sep-2015		<b>0.11</b>	<b>0.10</b>						
13-Sep-2015	Sunday								
14-Sep-2015		<b>0.10</b>	<b>0.11</b>						
15-Sep-2015		<b>0.11</b>	<b>0.11</b>						
16-Sep-2015		<b>0.11</b>	<b>0.11</b>						
17-Sep-2015		<b>0.10</b>	<b>0.10</b>						
18-Sep-2015		<b>0.11</b>	<b>0.11</b>						
19-Sep-2015		<b>0.12</b>	<b>0.11</b>						
20-Sep-2015	Sunday								
21-Sep-2015		<b>0.11</b>	<b>0.10</b>						
22-Sep-2015		<b>0.11</b>	<b>0.10</b>						
23-Sep-2015		<b>0.11</b>	<b>0.11</b>						
24-Sep-2015		<b>0.10</b>	<b>0.10</b>						
25-Sep-2015		<b>0.11</b>	<b>0.11</b>						
26-Sep-2015		<b>0.10</b>	<b>0.10</b>						
27-Sep-2015	Sunday								
28-Sep-2015	Holiday								
29-Sep-2015		<b>0.10</b>	<b>0.11</b>						
30-Sep-2015		<b>0.11</b>	<b>0.11</b>						



Bored Pile Walls / Pipe pile Walls at Block 50



E.D. Ref. No. 2009/11 (2) (17.3.5) (H.C.) (S)  
 F.S.D. Ref. No. 2009/11 (2) (17.3.5) (H.C.) (S)

Revision/Submission 修改版/ 版本  
 No. 編號 Description 說明 Date 日期 Approved 審定  
 - BD SUBMISSION 12/11 JS

Plan Approved  
 NG Kimshing  
 Chief Structural Engineer  
 for BUILDING AUTHORITY  
 20 FEB 2012



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

Design Consultant  
**HERZOG & DEMEURON**

Conservation Architect  
 Rocco Yip

Executive Architect / AP  
 Rocco Yip

Structural Engineer / RSE E & M Engineer  
**ARUP**

Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Title 圖名  
**MONITORING LAYOUT PLAN**

Scale 比例 1:3000  
 Drawn 繪圖 K.C.Loi  
 Checked 校對 AL  
 Drawing No. 圖號 00-OAP209674-G-001  
 Revision 修改版

**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 (HILICHSON GLOBAL COMMUNICATIONS LIMITED)
	EXISTING STORMWATER DRAIN
	EXISTING FOUL SEWER
	PROPOSED FOUL SEWER
	SITE BOUNDARY
	EXISTING RETAINING WALL
	EXISTING DRILLHOLE WITH STANDPIPE/PNEZOMETER
	PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
	PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
	PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE OR PIPE PILE WALL
	PROPOSED GROUND SETTLEMENT POINTS
	PROPOSED UTILITY MONITORING POINTS
	PROPOSED VIBRATION MONITORING POINTS
	PROPOSED ADDITIONAL DRILLHOLE

NOTES  
 UTILITIES SETTLEMENT POINTS (UT1 TO UT6) SHALL ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED AS ALTERNATIVE SETTLEMENT POINTS (GS16 TO GS19) MAY BE INSTALLED.  
 應於取得挖掘許可後，方可安裝 UT1 至 UT6 之管線沉降點，因為可安裝之替代沉降點 (GS16 至 GS19) 可能已安裝。  
 GS18 AND GS19 SHALL NOT BE REQUIRED.  
 GS18 及 GS19 均不須安裝。  
 EITHER UTILITY SETTLEMENT MARKERS (UT1 TO UT6) OR GROUND SETTLEMENT MARKERS (GS18 TO GS19) SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF OLD BAILEY WALLS WORKS.

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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-Sep-2015      to      30-Sep-2015

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)		<b>0.56</b>	<b>0.13</b>	<b>0.19</b>	<b>0.22</b>	<b>0.13</b>	<b>0.21</b>	<b>0.13</b>	<b>0.13</b>	<b>0.37</b>
Surveying Date										
1-Sep-2015		<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.09</b>	<b>0.10</b>	<b>0.08</b>
2-Sep-2015		<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>
3-Sep-2015		Holiday								
4-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.12</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.12</b>	<b>0.11</b>	<b>0.11</b>
5-Sep-2015		<b>0.12</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>
6-Sep-2015		Sunday								
7-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>
8-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.09</b>
9-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.12</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>
10-Sep-2015		<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.12</b>	<b>0.12</b>	<b>0.10</b>
11-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>
12-Sep-2015		<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>
13-Sep-2015		Sunday								
14-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>
15-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>
16-Sep-2015		<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>
17-Sep-2015		<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.12</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>
18-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>
19-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.12</b>	<b>0.10</b>	<b>0.11</b>
20-Sep-2015		Sunday								
21-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.12</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>
22-Sep-2015		<b>0.09</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.09</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>
23-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.08</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>
24-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.12</b>	<b>0.10</b>	<b>0.10</b>	<b>0.14</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>
25-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.14</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>
26-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.16</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>
27-Sep-2015		Sunday								
28-Sep-2015		Holiday								
29-Sep-2015		<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.08</b>	<b>0.11</b>	<b>0.10</b>	<b>0.12</b>	<b>0.11</b>
30-Sep-2015		<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.12</b>	<b>0.11</b>



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



No.	Description	Date	Approved
A	BO SUBMISSION (50)	12/11	JS
B	BO SUBMISSION (01)	03/12	JS
C	BO SUBMISSION (17)	03/12	JS
D	BO SUBMISSION REV BATCH 1	03/12	JS
E	FOR INFORMATION (50)	03/12	JS
F	BO SUBMISSION (51)	05/12	JS

Note: This plan has been prepared on a standard which does not include the services of a professional engineer as permitted by the PRACTICE ACTS. The user of the information herein is responsible for its accuracy and for its use. The user of the information herein is responsible for its accuracy and for its use. The user of the information herein is responsible for its accuracy and for its use.

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



BD SUBMISSION

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 - Notify the relevant consultants immediately of any discrepancy found herein.

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 (HITCHISON 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

Client 業主: 寶馬會文娛有限公司 The Jockey Club CFS Limited

Design Consultant: HERZOG & DEMEURON

Conservation Architect: 羅傑建築師有限公司

Executive Architect / AP: ROCCO

Structural Engineer / RSE: E & M Engineer

ARUP

Project 項目: CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT

Drawing Title 圖名: MONITORING LAYOUT PLAN

Scale 比例: 1:3000A1  
 Drawn 繪圖: K.C.L.S.  
 Checked 校核: AL  
 Drawing No. 圖號: 00-OAP209674-G-001  
 Revision 修訂: E

2/4



( 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-Sep-2015      to      30-Sep-2015

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-Sep-2015		<b>0.107</b>	<b>0.109</b>	<b>0.105</b>						
2-Sep-2015		<b>0.103</b>	<b>0.102</b>	<b>0.107</b>						
3-Sep-2015		Holiday								
4-Sep-2015		<b>0.109</b>	<b>0.101</b>	<b>0.102</b>						
5-Sep-2015		<b>0.104</b>	<b>0.105</b>	<b>0.107</b>						
6-Sep-2015		Sunday								
7-Sep-2015		<b>0.103</b>	<b>0.107</b>	<b>0.104</b>						
8-Sep-2015		<b>0.110</b>	<b>0.101</b>	<b>0.107</b>						
9-Sep-2015		<b>0.105</b>	<b>0.105</b>	<b>0.109</b>						
10-Sep-2015		<b>0.119</b>	<b>0.104</b>	<b>0.102</b>						
11-Sep-2015		<b>0.102</b>	<b>0.107</b>	<b>0.107</b>						
12-Sep-2015		<b>0.101</b>	<b>0.105</b>	<b>0.103</b>						
13-Sep-2015		Sunday								
14-Sep-2015		<b>0.107</b>	<b>0.101</b>	<b>0.106</b>						
15-Sep-2015		<b>0.109</b>	<b>0.103</b>	<b>0.101</b>						
16-Sep-2015		<b>0.101</b>	<b>0.109</b>	<b>0.105</b>						
17-Sep-2015		<b>0.105</b>	<b>0.100</b>	<b>0.107</b>						
18-Sep-2015		<b>0.102</b>	<b>0.108</b>	<b>0.101</b>						
19-Sep-2015		<b>0.106</b>	<b>0.101</b>	<b>0.103</b>						
20-Sep-2015		Sunday								
21-Sep-2015		<b>0.101</b>	<b>0.109</b>	<b>0.102</b>						
22-Sep-2015		<b>0.109</b>	<b>0.102</b>	<b>0.104</b>						
23-Sep-2015		<b>0.103</b>	<b>0.102</b>	<b>0.102</b>						
24-Sep-2015		<b>0.105</b>	<b>0.105</b>	<b>0.100</b>						
25-Sep-2015		<b>0.111</b>	<b>0.107</b>	<b>0.102</b>						
26-Sep-2015		<b>0.106</b>	<b>0.101</b>	<b>0.107</b>						
27-Sep-2015		Sunday								
28-Sep-2015		Holiday								
29-Sep-2015		<b>0.105</b>	<b>0.106</b>	<b>0.102</b>						
30-Sep-2015		<b>0.101</b>	<b>0.105</b>	<b>0.107</b>						



Annex M

Records of Vibration  
Monitoring for Other  
Construction Works



Structural Alteration and Additions at Block 14



U.O. Ref. No. 基字編號/編號  
22/2007/11 (BL, R1, 1, 4&18) (C) (S)  
P.S.D. Ref. No. 申請編號/編號

Revision/Description/修改/說明	Date/日期	Approval/審批
- 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 INFORMATION (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

Note: This plan has been processed on a computerized check table under the automated processing system as prescribed in PNAIP Act-18. The owner of the subject building, registered structural engineer and registered professional engineer consent to specified under section 4(7)(a) and the provision of section 14(2)(b) of the Buildings Ordinance as of practice reference in this regard.

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



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Client 業主  
 寶鴻實業有限公司  
 The Jockey Club (CP) Limited

Design Consultant  
**HERZOG & DEMEUREN**

Conservation Architect  
 建築師/古蹟顧問  
**ROCCO**

Executive Architect / AP  
**ARUP**

Structural Engineer / RSE  
 E & M Engineer  
**JRP**

Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Title 圖名  
**MONITORING LAYOUT PLAN**

Scale 比例  
 1:300BA1  
 Drawing No. 圖號  
 00-OAP209674-G-001  
 Checked 校核  
 AL  
 Issued 發出  
 H

SWAN KIN 322  
 Chief Professional Engineer  
 REGISTERED STRUCTURAL ENGINEER  
 Code No. 00-OAP209674-G-001-001

**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/PNEUMETER
	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



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-Sep-2015      to      30-Sep-2015

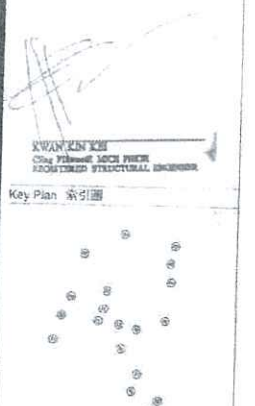
POINT		VM14-1#	VM14-2 #	VM14-3	VM14-4					
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s					
19-Nov-12 (Initial)		0.103	0.112	0.147	0.136					
1-Sep-2015		0.10	0.11	0.11	0.11					
2-Sep-2015		0.10	0.10	0.11	0.10					
3-Sep-2015	Holiday									
4-Sep-2015		0.09	0.10	0.11	0.11					
5-Sep-2015		0.10	0.11	0.10	0.10					
6-Sep-2015	Sunday									
7-Sep-2015		0.10	0.11	0.11	0.10					
8-Sep-2015		0.10	0.10	0.10	0.11					
9-Sep-2015		0.11	0.11	0.11	0.11					
10-Sep-2015		0.10	0.10	0.11	0.12					
11-Sep-2015		0.11	0.11	0.10	0.10					
12-Sep-2015		0.10	0.11	0.10	0.10					
13-Sep-2015	Sunday									
14-Sep-2015		0.11	0.10	0.11	0.11					
15-Sep-2015		0.10	0.10	0.11	0.11					
16-Sep-2015		0.10	0.11	0.11	0.10					
17-Sep-2015		0.10	0.11	0.12	0.11					
18-Sep-2015		0.10	0.11	0.10	0.10					
19-Sep-2015		0.10	0.11	0.10	0.11					
20-Sep-2015	Sunday									
21-Sep-2015		0.10	0.10	0.12	0.10					
22-Sep-2015		0.09	0.10	0.10	0.11					
23-Sep-2015		0.09	0.10	0.10	0.10					
24-Sep-2015		0.10	0.10	0.14	0.11					
25-Sep-2015		0.11	0.10	0.14	0.11					
26-Sep-2015		0.09	0.10	0.16	0.11					
27-Sep-2015	Sunday									
28-Sep-2015	Holiday									
29-Sep-2015		0.09	0.11	0.11	0.11					
30-Sep-2015		0.09	0.11	0.10	0.10					

# Structural Alterations and Additions at Block 1



Plan Approved  
 NGI Kiewit  
 Chief Structural Engineer  
 for BUILDING AUTHORITY  
 11 SEP 2012

No.	Description	Date	Appr. By
B	ED SUBMISSION (S0)	12/11	JS
A	RD SUBMISSION (01)	03/12	JS
H	RD SUBMISSION (11)	03/12	JS
C	RD SUBMISSION IN BATCH 1	03/12	JS
D	FOR INFORMATION (S0)	05/12	JS
E	RD SUBMISSION (S1)	05/12	JS
F	RD SUBMISSION (S4)	05/12	JS
G	RD SUBMISSION (C3)	05/12	JS
H	ED SUBMISSION (14)	05/12	JS
J	RD SUBMISSION IN BATCH 2	05/12	JS
K	RD SUBMISSION (S607)	07/12	JS
L	RD SUBMISSION (01)(H0)	07/12	JS



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Design Consultant  
**HERZOG & DEMEUREN**  
 Conservation Architect

Executive Architect: AP  
**ROCCO**  
 許耀宗

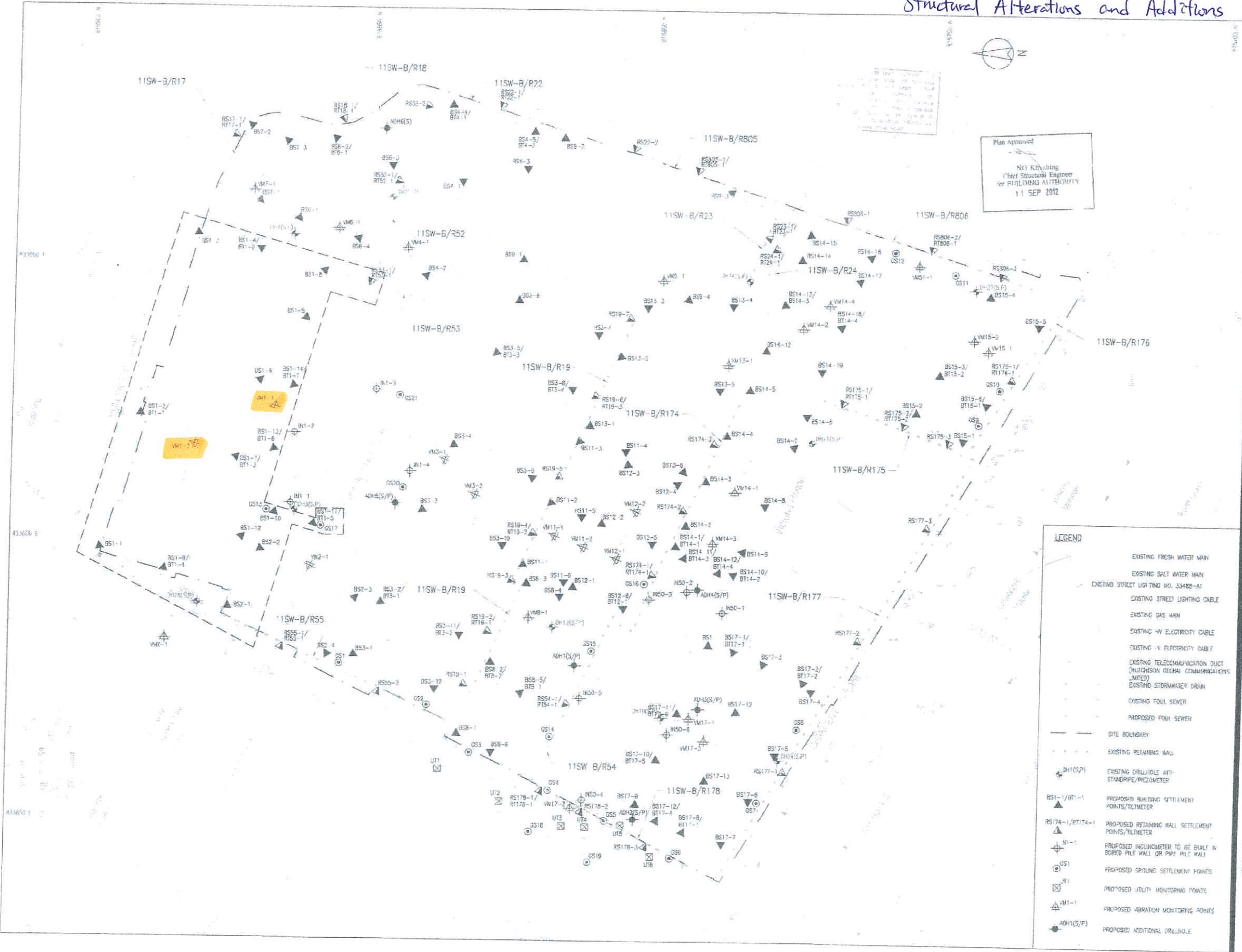
Structural Engineer: RSE  
**ARUP**  
 吳國強

Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Title 圖名  
**MONITORING LAYOUT PLAN**

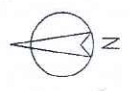
Scale 比例尺  
 Drawing No. 圖號  
**00-0AP209674-G-C01 L**

- LEGEND**
- EXISTING FRESH WATER MAIN
  - EXISTING SALT WATER MAIN
  - EXISTING STREET LIGHTING NO. 33485-4A1
  - EXISTING STREET LIGHTING CABLE
  - EXISTING GAS MAIN
  - EXISTING HV ELECTRICITY CABLE
  - EXISTING LV ELECTRICITY CABLE
  - EXISTING TELECOMMUNICATION DUCT (HIGH/LOW VOLTAGE COMMUNICATIONS JUMPS)
  - EXISTING STORMWATER DRAIN
  - EXISTING FOUL SEWER
  - PROPOSED FOUL SEWER
  - SITE BOUNDARY
  - EXISTING RETAINING WALL
  - EXISTING DRILLHOLE WITH STANDPIPE/PIEZOMETER
  - PROPOSED BUILDING SETTLEMENT POINTS/TILMETER
  - PROPOSED RETAINING WALL SETTLEMENT POINTS/TILMETER
  - PROPOSED INCLINOMETER TO BE INSTALLED IN BORED PILE WALL OR PIPE PILE WALL
  - PROPOSED GROUND SETTLEMENT POINTS
  - PROPOSED QUALITY MONITORING POINTS
  - PROPOSED VIBRATION MONITORING POINTS
  - PROPOSED ADDITIONAL DRILLHOLE





Structural Additions and Alterations at Block 11



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Revision/Submission 修改/提交

No. 编号	Description 说明	Date 日期	Approved 审批
-	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 INFORMATION (50)	03/12	JS
E	BD SUBMISSION (51)	05/12	JS
F	BD SUBMISSION (04)	05/12	JS
G	BD SUBMISSION (14)	05/12	JS
H	BD SUBMISSION (14)	05/12	JS
J	BD SUBMISSION RW BATCH 2	05/12	JS
K	BD SUBMISSION (06&07)	07/12	JS
L	BD SUBMISSION (01)	07/12	JS
M	BD SUBMISSION (11)	07/12	JS

Plan Approved  
**CHIONG Kam-yung Jacky**  
 Chief Structural Engineer  
 for BUILDING AUTHORITY  
 - 3 OCT 2012



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**LEGEND**

	EXISTING FRESH WATER MAIN
	EXISTING SALT WATER MAIN
	EXISTING STREET LIGHTING NC. 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

Client 業主  

 寶馬會文物保育有限公司  
 The Jersey Club CP Limited

Design Consultant  
**HERZOG & DEMEUREN**

Conservation Architect

Executive Architect / AP  
**ROCCO**

Structural Engineer / RSE E & M Engineer  
**ARUP**

Project 項目  
**CENTRAL POLICE STATION  
 CONSERVATION AND REVITALISATION  
 PROJECT**

Drawing Table 圖名  
**MONITORING LAYOUT PLAN**

Scale 比例  
 1:300 @ A1

Drawn 繪圖  
 K.C. Lai

Checked 校對  
 AL

Drawing No. 圖號  
 00-OAP209674-G-001

Revision 修改  
 M

Cost file 00-OAP209674-G-001.dwg





## Vibration Monitoring Record (September)

	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-Sep-15	0.101	0.105	0.106	0.109	0.115	0.097	0.101	0.097	0.097	0.107	0.102	0.103	0.099	0.104	0.105	0.109
02-Sep-15	0.105	0.096	0.103	0.107	0.106	0.085	0.112	0.099	0.103	0.107	0.109	0.102	0.112	0.112	0.107	0.102
03-Sep-15	Holiday															
04-Sep-15	0.102	0.100	0.107	0.108	0.110	0.092	0.105	0.107	0.095	0.104	0.117	0.106	0.102	0.102	0.102	0.101
05-Sep-15	0.107	0.102	0.105	0.115	0.104	0.086	0.107	0.101	0.101	0.100	0.109	0.102	0.103	0.105	0.107	0.105
06-Sep-15	Sunday															
07-Sep-15	0.109	0.105	0.107	0.117	0.105	0.097	0.105	0.102	0.106	0.107	0.103	0.105	0.100	0.100	0.104	0.107
08-Sep-15	0.102	0.107	0.102	0.128	0.109	0.092	0.101	0.107	0.103	0.101	0.112	0.103	0.103	0.105	0.107	0.101
09-Sep-15	0.106	0.102	0.108	0.106	0.105	0.105	0.107	0.102	0.107	0.106	0.119	0.103	0.107	0.109	0.109	0.105
10-Sep-15	0.100	0.106	0.105	0.115	0.103	0.095	0.109	0.105	0.101	0.102	0.112	0.106	0.105	0.102	0.102	0.104
11-Sep-15	0.107	0.102	0.100	0.109	0.104	0.103	0.103	0.097	0.096	0.109	0.101	0.105	0.107	0.104	0.107	0.107
12-Sep-15	0.103	0.109	0.102	0.123	0.105	0.100	0.107	0.102	0.112	0.109	0.102	0.101	0.098	0.109	0.103	0.105
13-Sep-15	Sunday															
14-Sep-15	0.103	0.107	0.105	0.108	0.100	0.096	0.106	0.106	0.109	0.102	0.105	0.102	0.101	0.102	0.106	0.101
15-Sep-15	0.109	0.103	0.101	0.107	0.103	0.105	0.105	0.101	0.103	0.108	0.102	0.103	0.106	0.129	0.101	0.103
16-Sep-15	0.105	0.101	0.106	0.110	0.103	0.103	0.102	0.100	0.105	0.100	0.109	0.109	0.099	0.112	0.105	0.109
17-Sep-15	0.103	0.100	0.109	0.107	0.108	0.099	0.105	0.102	0.101	0.102	0.107	0.103	0.104	0.105	0.107	0.100
18-Sep-15	0.109	0.102	0.105	0.109	0.102	0.107	0.102	0.105	0.103	0.107	0.102	0.105	0.105	0.105	0.101	0.108
19-Sep-15	0.101	0.105	0.102	0.105	0.109	0.095	0.105	0.100	0.100	0.106	0.108	0.101	0.106	0.101	0.103	0.101
20-Sep-15	Sunday															
21-Sep-15	0.106	0.108	0.101	0.114	0.102	0.103	0.102	0.105	0.109	0.101	0.106	0.102	0.101	0.104	0.102	0.109
22-Sep-15	0.102	0.105	0.104	0.108	0.105	0.097	0.107	0.103	0.103	0.112	0.107	0.102	0.092	0.105	0.104	0.102
23-Sep-15	0.109	0.102	0.110	0.105	0.107	0.088	0.105	0.101	0.101	0.105	0.107	0.105	0.084	0.109	0.102	0.102
24-Sep-15	0.101	0.107	0.102	0.109	0.103	0.107	0.102	0.107	0.103	0.102	0.119	0.103	0.100	0.116	0.100	0.105
25-Sep-15	0.103	0.100	0.105	0.109	0.107	0.103	0.105	0.102	0.105	0.103	0.109	0.102	0.102	0.125	0.102	0.107
26-Sep-15	0.101	0.106	0.107	0.115	0.106	0.092	0.102	0.109	0.100	0.103	0.107	0.103	0.097	0.137	0.107	0.101
27-Sep-15	Sunday															
28-Sep-15	Holiday															
29-Sep-15	0.109	0.102	0.102	0.107	0.103	0.076	0.103	0.100	0.102	0.100	0.105	0.100	0.082	0.104	0.102	0.106
30-Sep-15	0.103	0.105	0.102	0.112	0.100	0.091	0.105	0.103	0.105	0.107	0.105	0.102	0.109	0.102	0.107	0.105