# QUARTERLY EM&A REPORT

The Jockey Club CPS Limited

Central Police Station Conservation and Revitalisation Project: Tenth Quarterly EM&A Report (1 February 2014 to 30 April 2014)

Issue Date: June 2014

# **Environmental Resources Management**

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# Central Police Station Conservation and Revitalisation Project: Tenth Quarterly EM&A Report (1 February 2014 to 30 April 2014)

Issue Date: June 2014 Reference 0095646

For and on behalf of					
ERM-Hong Kong, Limited					
8	<i>G</i> ,				
Approved by:	Frank Wan				
	Wardent.				
Signed:					
Position:	Partner				
Certified by:	Mar				
	onmental Team Leader – Winnie Ko)				
Date:	30 June 2014				

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

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Your ref. 0095646\_let\_Atkins\_20140716 Tenth Quarterly EM&A Report.doc 5121189/OC067/SO

Date: 16 July 2014

# By Email and Post

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

Attn: Ms Winnie Ko

Dear Winnie,

# Central Police Station Conservation and Revitalization Project Verification of Tenth Quarterly EM&A Report

We refer to your letter dated 16 July 2014 regarding the Tenth Quarterly EM&A Report. Atkins China Ltd. verifies, in the capacity of Independent Environmental Checker, that the report, in principle, conforms the requirements provided in Section 10.4 of the EM&A Manual.

Yours sincerely, For Atkins China Ltd.

Sharifah Or

**Independent Environmental Checker** 

c.c. HKJC – Mr. Kenneth Lee

Rocco Design Architect - Mr. Charles Kung

By Email 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 tenth quarterly Environmental Monitoring and Audit (EM&A) summary report presenting the EM&A works carried out during the period from 1 February 2014 and 30 April 2014 in accordance with the EM&A Manual.

# **Environmental Monitoring and Audit Progress**

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

•	Construction Noise Monitoring during normal weekdays at			
	each monitoring station	16 times		
•	Joint Environmental Site Inspection	3 times		
•	Heritage Site Inspection	60 times		
•	Landscape & Visual Monitoring	3 times		
•	Tree Inspection	3 times		
•	Vibration monitoring for piling works	340 times		
•	Vibration monitoring for other construction works	204 times		

#### Noise

16 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 Limit Level of construction noise was recorded during the reporting period. The Action Level of noise (complaint received) was triggered once during the reporting period and investigations were carried out.

# Cultural Heritage

Trial Piling and Piling works

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

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

Other Construction Works

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

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

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

60 heritage site inspections were conducted and the Contractor has generally implemented the necessary protection measures as recommended.

# Landscape & Visual

Landscape and visual monitoring has commenced since October 2011 on a monthly basis. Three monthly tree inspections have been conducted by the arborist during the reporting period. Most recommended actions have been performed by the Contractor as advised in the reporting period.

# Waste Management

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. 11,640.31 tonnes of inert C&D materials and 241.54 tonnes of non-inert C&D materials were generated during the reporting period. The non-inert C&D materials and general refuse generated from the Project were disposed of at the SENT Landfill. 33,750 kg of metal and 6,000 kg of paper/cardboard packaging were produced and sent to recyclers for recycling. No plastics waste was generated during the reporting period. No chemical waste was produced during the reporting period.

#### **Environmental Site Inspection**

Three joint environmental site inspections were carried out by the representatives of the Contractor, the IEC and the ET during the reporting period. The Contractor has generally implemented the mitigation measures as recommended.

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

No exceedance of Limit Level of construction noise was recorded at designated monitoring stations during the reporting period. The Action Level of construction noise (complaint received) was triggered once 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.

Three complaints were received during the reporting period.

No summons/prosecution was received in this reporting period.

#### 1 INTRODUCTION

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

#### 1.1 Purpose of the Report

This is the tenth quarterly EM&A summary report, which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1 February 2014 and 30 April 2014.

#### 1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

# Section 1: **Introduction**

details the scope and structure of the report.

#### Section 2: **Project Information**

summarises background and scope of the Project, site description, project organization and contract 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 Mitigation Measures

summarises the implementation of environmental protection measures during the reporting period.

### Section 5 : **Monitoring Results**

summarises the monitoring and waste management results obtained in the reporting period.

#### Section 6: **Environmental Site Inspection**

summarises the audit findings of the monthly site inspections undertaken within the reporting period.

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

Section 8: **Review of the EM&A Data and EIA Predictions** compares the monitoring data and waste quantity against predictions in the approved Project EIA report.

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 among 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 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*.

#### **Construction Activities Undertaken**

- Structural addition and alteration works at Block 2, Block 3, Block 4, Block 9, Block 10, Block 11, Block 12, Block 13, Block 14, Block 15, Block 17 and Block 19;
- Roof tiling replacement works at Block 2, Block 4, Block 9 and Block 10;
- Demolition works at Block 3, Block 10, Block 12, Block 13, Block 14 and Block 15;
- New structure construction at Block 3, Block 13, Block 14 and Block 15;
- Permanent steel works erection at Block 8;
- Underpinning works at Block 3 and Block 9;
- E&M opening, conceal conduit construction and E&M installation at Block 1;
- Construction of passageway from Parade Ground basement to Block 1 corridor;
- Revetment wall strengthening of R806 and R55;
- Basement construction at Parade Ground;
- Dismantle of the 1st layer of external lateral support system within the Parade Ground Basement Structure;
- Excavation works for construction of passageway from the Parade Ground basement to Block 1's corridor;
- Timber doors and windows repair works at Block 1, Block 2, Block 3, Block 4, Block 8, Block 9, Block 10, Block 13, Block 14 and Block 17;
- Paint stripping and plaster works at Block 1, Block 6, Block 7, Block 9 and Block 10;
- Metal works repair at Block 1, Block 12 and Block 13;
- E&M installation at Block 1;
- External and lateral support work at Old Bailey Wing;
- Removal of non-structural infill wall at Block 3 and Block 14;
- Façade cleaning and works at Block 1, Block 2, Block 3, Block 6, Block 7, Block 11 and Block 12;
- Façade repair at Block 1, Block 6 and Block 7;
- Facing brick and plastering repair on external facades at Block 1 and Block 7;
- Structural timber floor repair at Block 3, Block 6 and Block 7;
- Balcony repair at Block 1, Block 4, Block 6, Block 7, Block 9 and Block 10;
- Excavation of pottinger ramp;
- Installation of external and lateral support system, construction of manholes at the Pottinger ramp and laying of associated drainage pipes;
- Breaking of ground slab and carrying out of archaeological watching brief at MP3;
- Drawpit and service trench construction and E&M installation at the Prison Yard South (U1);
- Arbuthnot Road utilities diversion works and carriageway/footpathwork/crossing;;
- Drainage works at Block 17;
- Concreting of on-grade slab at Block 17;
- Strengthening works of existing column at Block 17;
- Pile cap construction at Arbuthnot Wing; and
- External and lateral support works at Old Bailey Wing.

#### 2.4 CONSTRUCTION PROGRAMME

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

# 2.5 PROJECT ORGANISATION AND MANAGEMENT STRUCTURE

The Project organization chart, hotline number and contact details are shown in *Annex B*.

# 2.6 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

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

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licences/ Notification	Reference	Validity Period	Remarks	
Environmental Permit (EP)	EP-408/2011	-	Superseded on 10 January 2012	
	EP-408/2011/A	-	Superseded on 22 March 2012	
	EP-408/2011/B	Throughout the Contract	Permit granted on 22 March 2012	
Notification of Construction Works as required under <i>Air</i> <i>Pollution Control</i> ( <i>Construction Dust</i> ) <i>Regulation</i>	Ref. No. 332920	Throughout the Contract	-	
Registration of Waste Producer under <i>Waste</i> <i>Disposal Ordinance</i>	Waste Producer No.: 5213-122-G2347-25	Throughout the Contract	-	
Effluent Discharge License under Water Pollution Control Ordinance	License No. WT00010633-2011	21 Oct 2011 – 31 Oct 2016	_	
Notification of Commencement of Asbestos Abatement Work under Air Pollution Control Ordinance	-	Throughout the Contract	EPD's letter (EPD's ref.: (5) in EPAC/A/4/000/23 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	Expired.	

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
Ttotification		0400 hours	
	GW-RS0839-12	13 August 2012 at 1900 hours to 31 December 2012 at 0700 hours	Expired.
	GW-RS1162-12	1 December 2012 at 0000 hours to 28 March 2013 at 0600 hours	Expired.
	GW-RS0113-13	1 February 2013 at 0200 hours to 31 May 2013 at 0400 hours	Expired.
	GW-RS1301-12	2 January 2013 at 1900 hours to 29 June 2013 at 2300 hours	Expired.
	GW-RS0084-13	24 January 2013 at 1900 hours to 29 June 2013 at 0700 hours	Expired.
	GW-RS0638-13	16 June 2013 at 0700 hours to 15 September 2013 at 1900 hours	Expired.
	GW-RS0901-13	14 August 2013 at 0000 hours to 31 October 2013 at 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	-
	GW-RS1461-13	29 December 2013 at 0000 hours to 28 June 2014 at 2400 hours.	-
	GW-RS0062-14	10 February 2014	-

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
		at 0000 hours to 31	
		March 2014 at	
		2400 hours.	
	GW-RS0271-14	1 April 2014 at	-
		0100 hours to 30	
		June 2014 at 0600	
		hours	

#### 3

# 3.1 Noise Monitoring

# 3.1.1 Monitoring Location

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

 Table 3.1
 Construction Phase Noise Monitoring Locations

Monitoring Location Proposed Cons			ruction 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 rejected; 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 IEC 651: 1979 and 804:1985 (Type 1) specification. The calibration certificates of the sound level meters are included in *Annex E*.

Table 3.2 Noise Monitoring Equipment

Monitoring Stations	Monitoring Equipment (Sound Level Meter and Calibrator)
NM2, NM6	<u>Calibrator</u> Rion NC-73 ( S/N 10786708)
	Sound Level Meter
	Rion NL-31 (S/N 00410224)

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.

#### 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 <sub>eq(30mins), dB(A)</sub>	Remark
NM2, NM6	When one documented complaint is received from any one of the sensitive receivers	75 (note)	Applicable during 0700 – 1900 hours on normal weekdays.

#### Notes:

- a) Acceptable Noise Levels for Area Sensitivity Rating of A/B/C. Limit Level is reduced to 70dB(A) for schools and 65dB(A) during school examination periods.
- b) If works are to be carried out during restricted hours, the conditions stipulated in the CNP issued by the NCA have to be followed.

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

# 3.1.5 Mitigation Measures

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

# 3.2 CULTURAL HERITAGE

# 3.2.1 Vibration Monitoring

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

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 monitoring location is shown in *Annex L*. The vibration monitoring should be conducted for duration of 5 minutes on the days with demolition works at each vibration monitoring location.

Vibration Monitoring for Trial Piling and Pipe/Bored Piling Works

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

Vibration Monitoring for Other Construction Works

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

Alert, Alarm and Action Levels

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

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

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

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

Table 3.5 Event and Action Plan for Vibration Monitoring

Events	Action
Exceedance of Alert Level	Notify Management Contractor
Exceedance of Alarm Level	Notify Authorised Person/Resident Engineer
Exceedance of Action Level	Cease Works and submit mitigation

# 3.2.2 Mitigation Measures

Cultural heritage 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*.

#### 3.3 LANDSCAPE AND VISUAL MONITORING

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

# 3.3.1 Mitigation Measures

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

#### 3.4 ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS

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

# 4 IMPLEMENTATION STATUS ON ENVIRONMENTAL MITIGATION MEASURES

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

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

Table 4.1 Status of Required Submissions

Submission		Submission Date
EP Condition		
Conditions 3.4	Twenty-seventh Monthly EM&A Report	17 February 2014
	Twenty-eighth Monthly EM&A Report	14 March 2014
	Twenty-ninth Monthly EM&A Report	11 April 2014
EM&A Manual		
Section 10.4	Second Annual EM&A Report	4 March 2014

#### 5.1 Noise

A total of 16 sets of 30-minute construction noise measurements were carried out at each monitoring station, 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 Limit Level of construction noise was recorded during the reporting period. The Action Level of construction noise (complaint received) was triggered once during the reporting period. An investigation for each reported case was carried out and the findings are presented in *Section 7.1.4*.

#### 5.2 LANDSCAPE AND VISUAL MONITORING

Three monthly tree inspections were conducted by the arborist during the reporting period on 6 February 2014, 3 March 2014 and 3 April 2014 and key findings and recommendations are summarised in *Table 5.1*.

Table 5.1 Findings of Monthly Tree Inspections in the Reporting Period

Tree No.	Botanical Name	Overall Health Condition	Arborist's Observation / Recommendations
6 February	2014		
Tree -5	Mangifera indica	Good	<ul> <li>To add mulch at the planter.</li> </ul>
Tree -6	Aleurites moluccana	Fair	<ul> <li>To add mulch at the planter.</li> </ul>
Tree-7	Aleurites moluccana	Fair	To add mulch at the planter.
Tree-8	Plumeria rubra	Fair	To add mulch at the planter.
Tree-9	Araucaria cunninghamia	Fair	To add mulch at the planter.
Tree-11	Dracaena marginata	Fair	<ul> <li>To add mulch at the planter.</li> </ul>
3 March 20	14		
Tree -5	Mangifera indica	Good	To remove litter at the planter.
Tree -6	Aleurites moluccana	Fair	<ul> <li>No further action required.</li> </ul>
Tree-7	Aleurites moluccana	Fair	<ul> <li>No further action required.</li> </ul>
Tree-8	Plumeria rubra	Fair	<ul> <li>No further action required.</li> </ul>
Tree-9	Araucaria cunninghamia	Fair	No further action required.

Tree No.	Botanical Name	Overall Health Condition	Arborist's Observation / Recommendations
Tree-11	Dracaena marginata	Fair	No further action required
3 April 2014	4		
Tree -5	Mangifera indica	Good	No further action required
Tree -6	Aleurites moluccana	Fair	No further action required
Tree-7	Aleurites moluccana	Fair	No further action required
Tree-8	Plumeria rubra	Fair	No further action required
Tree-9	Araucaria cunninghamia	Fair	No further action required
Tree-11	Dracaena marginata	Fair	No further action required

Follow-up actions needed to be implemented were recommended to the Contractor and the status of the follow-up actions was reviewed during the subsequent monthly site inspections. Recommendations have generally been implemented by the Contractor during the reporting period.

# 5.3 CULTURAL HERITAGE

# 5.3.1 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:

# February 2014:

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

#### March 2014:

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

• 26 vibration monitoring measurements at Block 17.

#### April 2014:

- 22 vibration monitoring measurements for the basement construction at Parade Ground;
- 22 vibration monitoring measurements at Block 8;
- 22 vibration monitoring measurements at Old Bailey Wing (Block 50);
- 22 vibration monitoring measurements at Block 51; and
- 22 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:

#### February 2014:

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

# March 2014:

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

# April 2014:

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

• 22 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 during the reporting period.

# 5.3.2 Heritage Site Audit

Heritage site audits were conducted on 4, 5, 6, 7, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27 and 28 February 2014; 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28 and 31 March 2014; 1, 2, 3, 4, 7, 8, 9, 10, 11, 14, 15, 16, 17, 22, 23, 24, 25, 28, 29 and 30 April 2014 by the Heritage Checker during the reporting period. Follow-up actions were undertaken as reported by the Contractor and observed in the subsequent monthly site inspections conducted in the reporting period. Key site audit findings and recommendations are summarised below.

# 20 February 2014

• Insufficient protection was observed for some CDEs, for example, some timber elements are yet to be provided with protection sheets.

### 25 February 2014

• It was observed that privacy film to Block 1 lower ground floor timber windows and doors did not comply with the contract documents. The Contractor was informed immediately.

# 3 March 2014

• It was observed that the brickwork was covered by the paint from the façade at Block 1 north elevation.

# 4 March 2014

• It was observed that the plaster cornice repair was not in compliance with the specification.

# 5 March 2014

• One of the mock-up sprinklers of Block 1 ground floor was observed clashing with ceiling hooks.

### 6 March 2014

- Door 01/DLG1/74 opening to new partition was in an incorrect height.
   The Contractor was informed to follow-up.
- It was observed that the staircase setting out in Block 11 was incorrect. The Contractor was informed to follow-up.

#### 7 March 2014

• Door 01/DG/72 opening size to new partition was incorrect. The Contractor was informed to follow-up.

# 11, 13 and 26 March 2014

• It was observed that new casements size of window has been made about 10mm smaller than the frame size at Block 1 north and west elevation windows, which is non-compliance with approved shop drawings and requires rectifications. It was also noted that some windows could not shut properly. Adjustment of casements is required.

#### 17 March 2014

• It was observed that the top coat paint to Block 1 north elevation was being applied without adequate protection to adjacent brickwork.

#### 2 April 2014

• It was observed that the contractor was painting the lower part of the north elevation of Block 1 in rain, which is not in accordance with specification. Paint subsequently failed and required to be re-painted.

# 2 and 10 April 2014

• It was observed that some Block 1 windows were not installed correctly. Windows do not shut and large gaps were seen between frame and window. The Contractor was informed to follow up.

A summary of the current condition of character defining elements, historic buildings and structures is contained in *Annex N*.

#### 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 summary of Waste Flow Table prepared by the Contractor is shown in *Annex J*. The non-inert C&D materials and general refuse generated from the Project were disposed of at the SENT Landfill. 33,750 kg of metal and 6,000 kg of paper/cardboard packaging was produced and sent to recyclers for recycling. No plastics 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	Quantity						
	C&D	C&D Chemical			Recycled materials		
	Materials	Materials	Waste				
	(inert)	(non-inert)	Liquid	Solid	Paper/cardboard	Plastics	Metals
	(tonnes) (a)	(tonnes) (b)	(L)	(kg)	(kg)	(kg)	(kg)
Feb 2014	3378.16	37.84	0	0	0	0	9,800
Mar 2014 (c)	5,256.15	89.39	0	0	6,000	0	19,030
Apr 2014	3,006	114.31	0	0	0	0	4,920
Total	11,640.31	241.54	0	0	6,000	0	33,750

#### Notes:

- (a) Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.
- (b) Non-inert C&D materials include wastes such as general refuse which were disposed of at SENT Landfill and recyclable materials are paper, cardboard, plastics and metals. The figure presented under non-inert C&D materials represents quantities of non-recyclable materials. Recycled materials are reported separately.
- (c) Figure for metal recycling for March 2014 was updated in April 2014.

# 5.5 EFFECTIVENESS OF MITIGATION MEASURES AND MONITORING

The mitigation measures recommended in the EIA report and required by the EP are considered effective in minimising environmental impacts.

The EM&A for the Project was conducted as scheduled during the reporting period. No non-compliance events were observed during site inspections and no exceedances of limit level were recorded during the reporting period. The EM&A programme is considered effective.

# 6 ENVIRONMENTAL SITE INSPECTION

Three monthly environmental site inspections were conducted on 20 February 2014, 20 March 2014 and 17 April 2014 during the reporting period. There was no non-compliance recorded during the site inspections. Key site audit findings and recommendations are summarised below. Monthly recommendations and observations were implemented and rectified by the Contractor in the subsequent monthly site inspections.

20 February 2014

• Nil.

20 March 2014

• Nil.

17 April 2014

• Fugitive dust was observed at Block 1 due to dusty façade work. The Contractor was reminded to implement appropriate mitigation measures to suppress fugitive dust emissions.

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#### 7 ENVIRONMENTAL NON-CONFORMANCE

#### 7.1.1 Summary of Monitoring Exceedance

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

# 7.1.2 Summary of Enquiry

No enquiry was received during the reporting period.

# 7.1.3 Summary of Environmental Non-Compliance

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

# 7.1.4 Summary of Environmental Complaint

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

# Table 7.1 Summary of Complaints Received

Date of Complaint Received by the Contractor	Means by which complaint was received	Nature of complaint
14 February 2014	EPD	Noise nuisance
3 March 2014	EPD	Noise nuisance
14 April 2014	EPD	Noise nuisance

On 14 February 2014, EPD received a complaint on noise nuisance from a resident living near the junction of Staunton Street and Old Bailey Street early February 2014. The complaint was transferred to the Environmental Team and Gammon Construction Limited (GCL) on 14 February 2014. The complainant mentioned that she had a direct view of the CPS construction site from her apartment and that the daytime construction noise affects her living even the apartment windows are double-glazed. According to the Contractor, all daytime construction activities are being carried out between 07:00 to 19:00 hours on normal weekdays (ie Monday to Saturday). The loud noise mentioned by the complainant may be related to the trimming down of the bored piles and foundation piles for the construction of the capping beam, as well as the breaking up of boulders during the excavation at Old Bailey These work activities commenced in December 2013 and are expected to be completed in February 2014. According to the requirement of the Environmental Permit (EP) of the Project, weekly daytime noise monitoring at designated noise monitoring stations (NM2 and NM6) should be conducted and the monitoring results showed compliance with the construction noise standard. On 14 February 2014, the Contractor has notified all workers and operation supervisor of the complaint and reminded them to minimise the potential noise generated as much as possible during any work activities.

Acoustic curtains are currently erected as noise mitigation measures to residents living close to Old Bailey Street and Staunton Street. Furthermore, the Contractor has been reminded to provide portable noise barriers, where applicable, to noisy operating power mechanical equipment in order to effectively reduce noise at source.

On 3 March 2014, EPD received a complaint on noise nuisance from a resident living near the Project Site. The complaint was transferred to the Project's Environmental Team and GCL on the same day. The complainant mentioned that construction noise was emanated from the Project Site between 06:00 and 06:30 hours many times recently.

According to the Contractor's works summary, no construction works were carried out from 06:00 to 06:30 hours any day in February 2014. Major construction activities are carried out during normal working hours between 07:00 and 19:00 hours on Monday to Saturday.

Only the underground water pumps were operating within the Project Site 24 hours and the Contractor processes a valid Construction Noise Permit (GW-RS1461-13) for the operation of the pumps outside the normal working hours. Since the water pumps are installed underground and it is not anticipated that the operating water pumps would generate considerable noise that may affect nearby residents.

According to the site access record from the Contractor, two workers were recorded to have entered the Project Site before 06:30 hour for 3 times in February 2014. These two workers were responsible for filling diesel to construction plant before other workers on duty. The filling of diesel into construction plant is not expected to cause considerable noise.

To maintain a good relationship with the nearby residents and further minimising noise nuisance, the Contractor has immediately notified all workers and operation supervisors of the complaint on 4 March 2014 and reminded them to ensure that all power mechanical equipment must be turned off when they are not in use.

On 14 April 2014, EPD received a complaint on noise nuisance from a resident living near the Project Site. The complaint was transferred to the Project's Environmental Team and GCL on 15 April 2014. The complainant mentioned that construction noise was emanated from construction works conducted near the junction of Arbuthnot Road and Hollywood Road between 02:00 to 04:00 hours in recent mornings.

Demobilisation of the 100-tonne mobile crane from Arbuthnot Wing of the Project Site was being conducted between 01:00 and 03:30 hours on 14 April 2014. A CNP (GW-RS0271-14) for the demobilisation of the mobile crane was issued by the EPD on 25 March 2014. The CNP was valid between 01:00 and 06:00 hours on Mondays to Fridays not being a general holiday from 1 April 2014 to 30 June 2014.

A 350-tonne mobile crane arrived at Arbuthnot Road at 01:00 hour and outriggers were being extended for the preparation of the lifting process of the 100-tonne mobile crane. The lifting of the 100-tonne mobile crane from Arbuthnot Wing to Arbuthnot Road was completed at around 02:00 hours. The 100-tonne mobile crane left Arbuthnot Road via Wyndham Street. The 350-tonne mobile crane retracted its outriggers and was required to back along Arbuthnot Road to depart via Upper Albert Road. The entire demobilisation process was completed at 03:30 hours.

It is suspected that the noise source was originated from the retracting of the 350-tonne mobile crane outriggers or the back alert during the backing of the 350-tonne mobile crane along Arbuthnot Road.

According to findings of investigation, the potential noise source may have been originated from the 350-tonne mobile crane during the retracting of its outriggers and its backing along Arbuthnot Road when the back alert was on. It should be noted that for safety reason, it is necessary to operate the back alert when the mobile crane is backing along the Arbuthnot Road. However, the Contractor was reminded to minimise potential noise sources by reducing work duration, as far as practicable, during restricted hours in order to minimise the likelihood of causing noise nuisance to nearby residents in the future. In addition, the Contractor has notified workers and operation supervisors of the complaint on 15 April 2014.

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

# 7.1.5 Summary of Environmental Summons and Successful Prosecution

No summons was received during the reporting period. The cumulative summons/prosecution log is shown in *Annex K*.

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#### 8

#### 8.1 NOISE

A comparison was made between the monitoring results in this reporting period and the Noise Standard for general construction works during 0700 – 1900 hrs on normal weekdays (*Table 8.1*).

Table 8.1 Comparison of Construction Noise Standard and Noise Monitoring Results

Reporting	Monitoring	Corresponding	Noise	Predicted	Measured
Month	<b>Stations</b>	NSR in EIA	Limit	Construction	Construction
			Level	Noise Level (With	Noise Level
				Mitigation) in EIA	
			L <sub>eq, 30 min</sub> dB(A)	L <sub>eq, 30 min</sub> dB(A)	L <sub>eq, 30 min</sub> dB(A)
Feb 2014	NM2	N2	75	67 - 72	63.0 – 72.2
	NM6	N6	75	73 - 75	63.8 - 73.3
Mar 2014	NM2	N2	75	67 - 72	68.2 – 72.1
	NM6	N6	75	73 - 75	66.7 - 73.4
Apr 2014	NM2	N2	75	67 - 72	66.8 – 71.9
	NM6	N6	75	73 - 75	67.2 – 68.6

The monitoring results recorded since the commencement of the construction works have been below the Limit Level and comparable to the predicted construction noise level in the approved EIA. Recommended mitigation measures in *Section 5.9.1* of EIA will continue to be implemented throughout the construction stage.

#### 8.2 WASTE MANAGEMENT

The estimated amount of waste generated in the approved EIA and the accumulated quantities of waste generated up to this reporting period are presented in *Table 8.2*. The accumulated amount of inert and non-inert C&D materials is within the estimated amount in EIA. The major chemical waste generated on site was primarily asbestos which was not estimated in the approved EIA and hence no data is available for comparison. Recommended mitigation measures in *Section 8.5.1* of the EIA will continue to be implemented throughout the construction stage.

Table 8.2 Quantity of Actual Amount of C&D Materials, General Wastes and Chemical Wastes Generated and EIA Estimation

Type of Material	Estimated Amount of Waste in EIA	Accumulated Actual Amount of Waste Recorded (a) (b)
Amount of C&D Materials (Inert) Arising	16,440 m <sup>3</sup>	23,902 m <sup>3</sup>
Amount of C&D Materials (Non-inert) Arising	890 m <sup>3</sup>	4,085 m <sup>3</sup>
General Refuse	130 kg per day	_ (c)
Chemical Waste	Less than 100L per month	<ul><li>57 L (liquid)</li><li>350 kg (solid)</li><li>7,000 kg of asbestos generated</li></ul>

#### Notes:

- (a) The accumulated actual amount of C&D Materials was recorded since the commencement of construction works.
- (b) The volume of waste materials are provided by the Contractor based on the updated waste record in April 2014.
- (c) The amount of general refuse generated was not recorded.

#### 8.3 SUMMARY OF REVIEW

The EIA predictions and the monitoring results since the commencement of construction works have been reviewed. The EIA concluded that the Project would not cause adverse impacts to the environment and the monitoring results have also indicated the same so far. Mitigation measures (including those for archaeology) recommended in the EP, EIA and EM&A Manual were implemented by the Contractor as far as practicable and were considered effective. The recommended mitigation measures will continue to be implemented throughout the construction phase of the Project.

The effectiveness of the monitoring programme has been exhibited therefore change to the programme is not considered to be necessary.

#### 9 CONCLUSIONS

This tenth Quarterly EM&A Report presents the EM&A works undertaken during the reporting period from 1 February 2014 to 30 April 2014 in accordance with EM&A Manual and the requirements under EP-408/2011/B.

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

Tree inspections were conducted in this reporting period. Most of the necessary landscape and visual mitigation measures recommended in the EIA Report were implemented by the Contractor.

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 for heritage and environmental site inspections was recorded during the reporting period.

Three complaints were received during the reporting period.

No summons/prosecution was received during the reporting period.

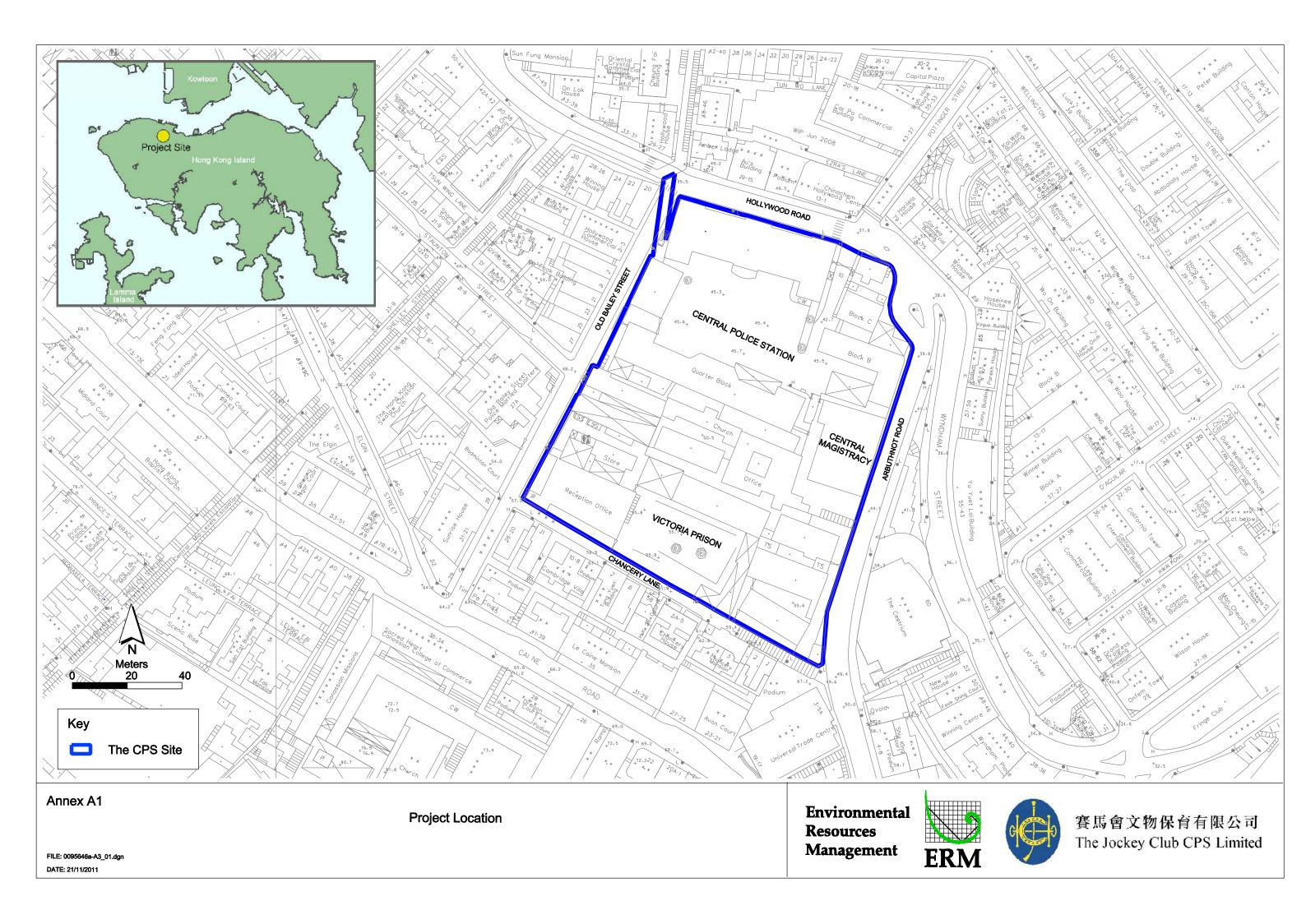
The monitoring programme was considered effective in reflecting the environmental conditions at the designated representative sensitive receivers. The monitoring results also indicate that the Project have not caused adverse impacts on the environment with implementation of appropriate mitigation measures. Change to the monitoring programme is not considered to be necessary. 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 in the coming periods.

# Annex A

# Location of Works Areas and the Surroundings

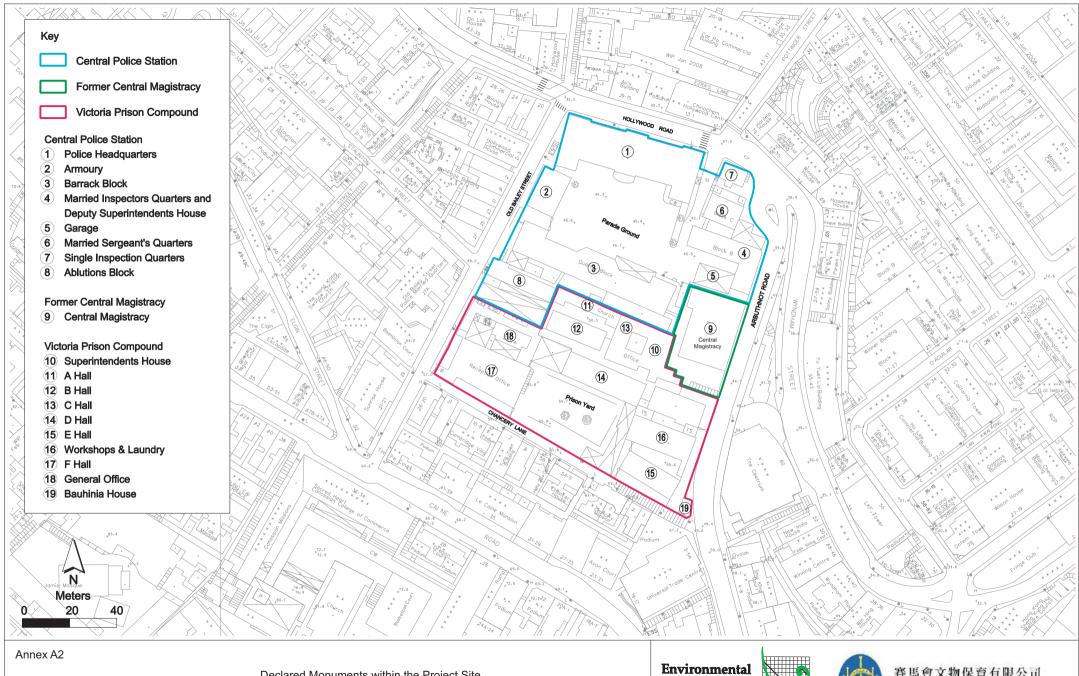
## Annex A1

# Project Location



## Annex A2

# Declared Monuments within the Project Site



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

Declared Monuments within the Project Site

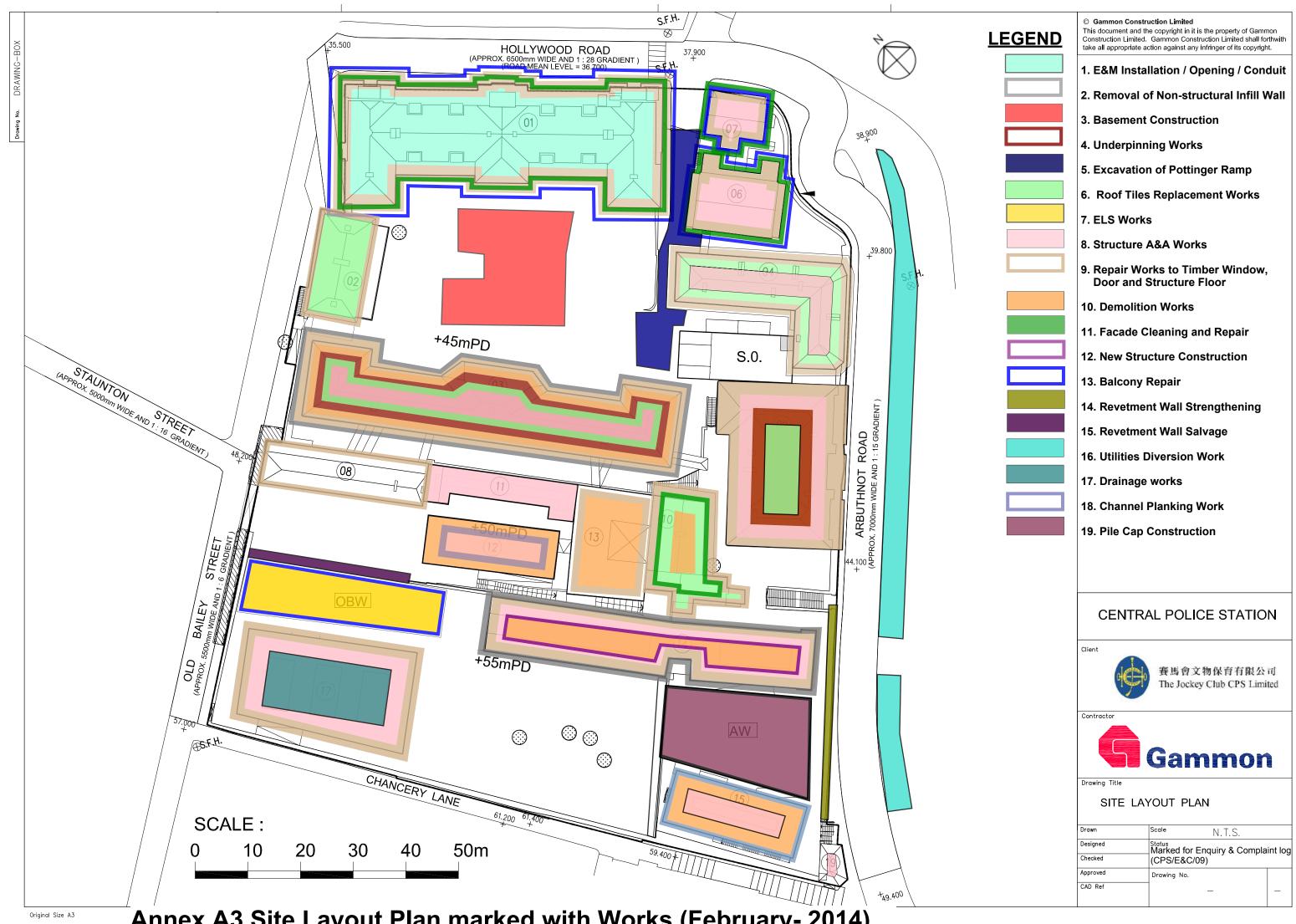
Resources Management



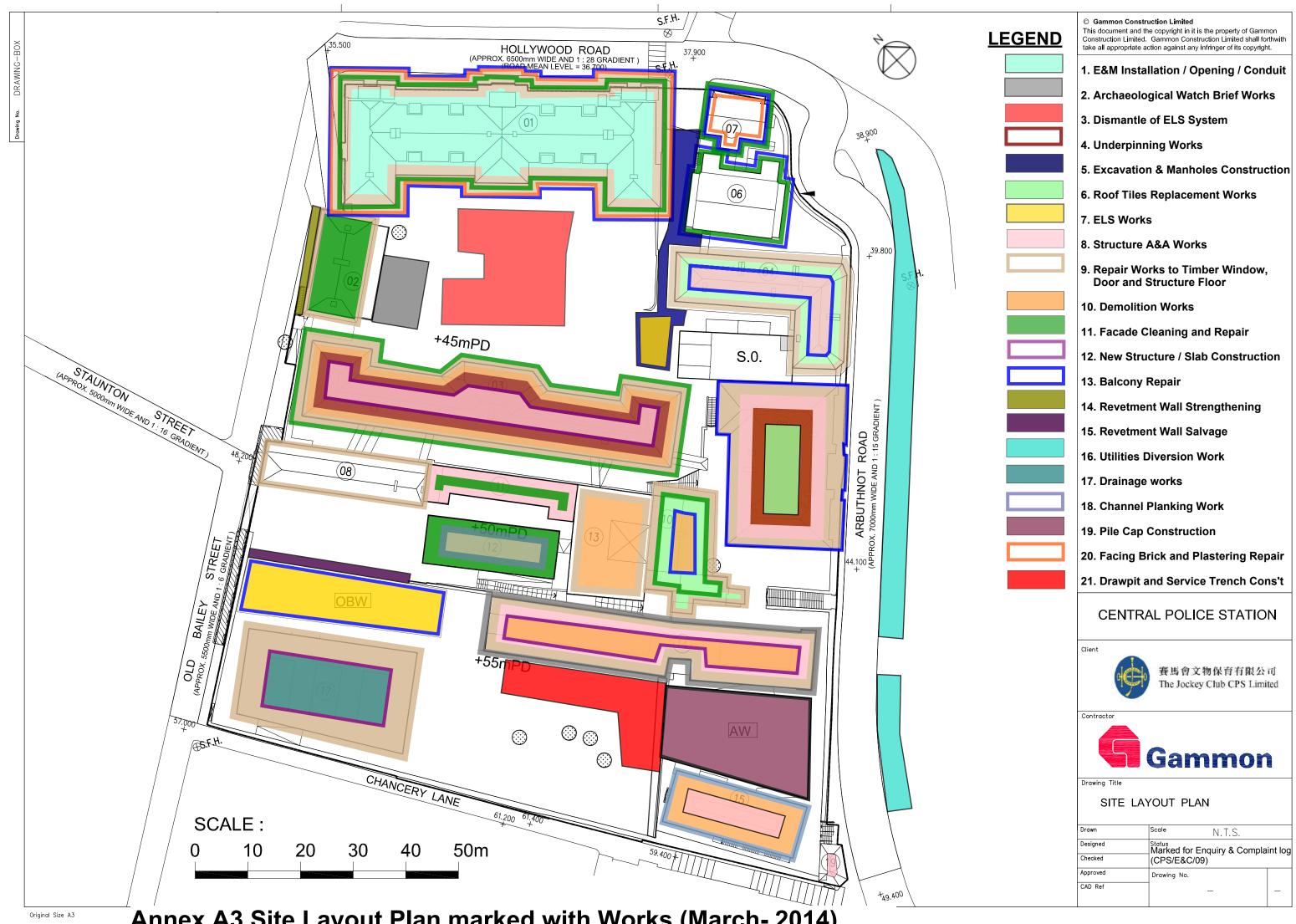


## Annex A3

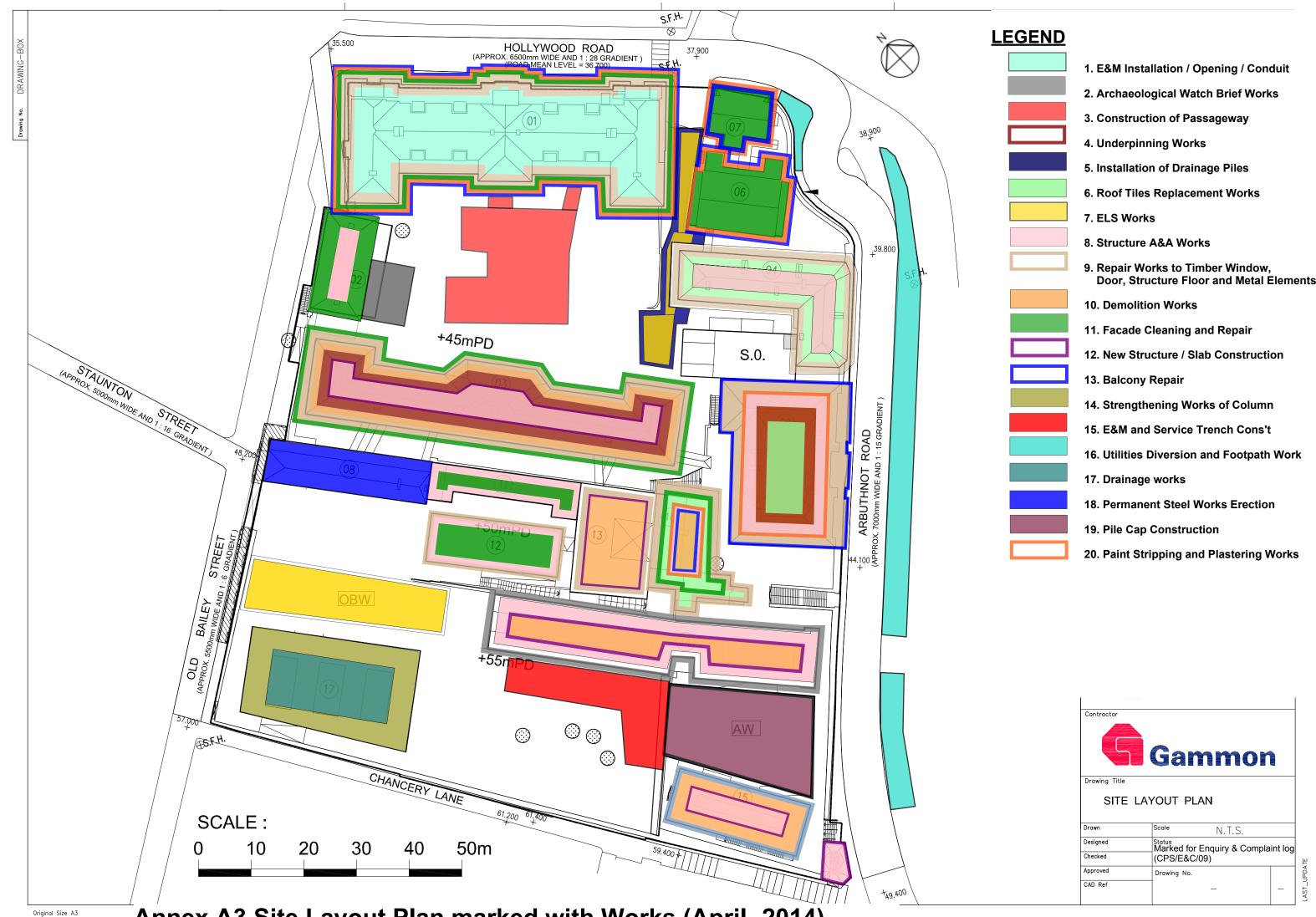
# Site Layout Plan marked with Works



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



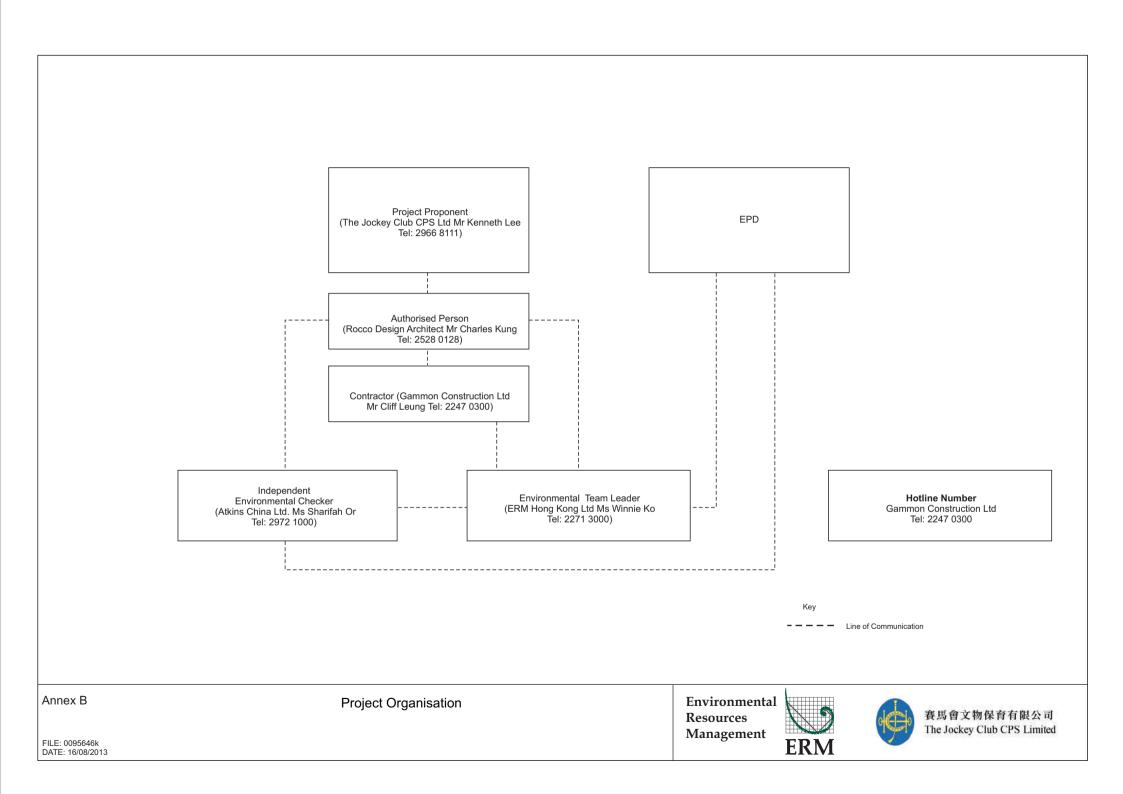
Annex A3 Site Layout Plan marked with Works (March- 2014)



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

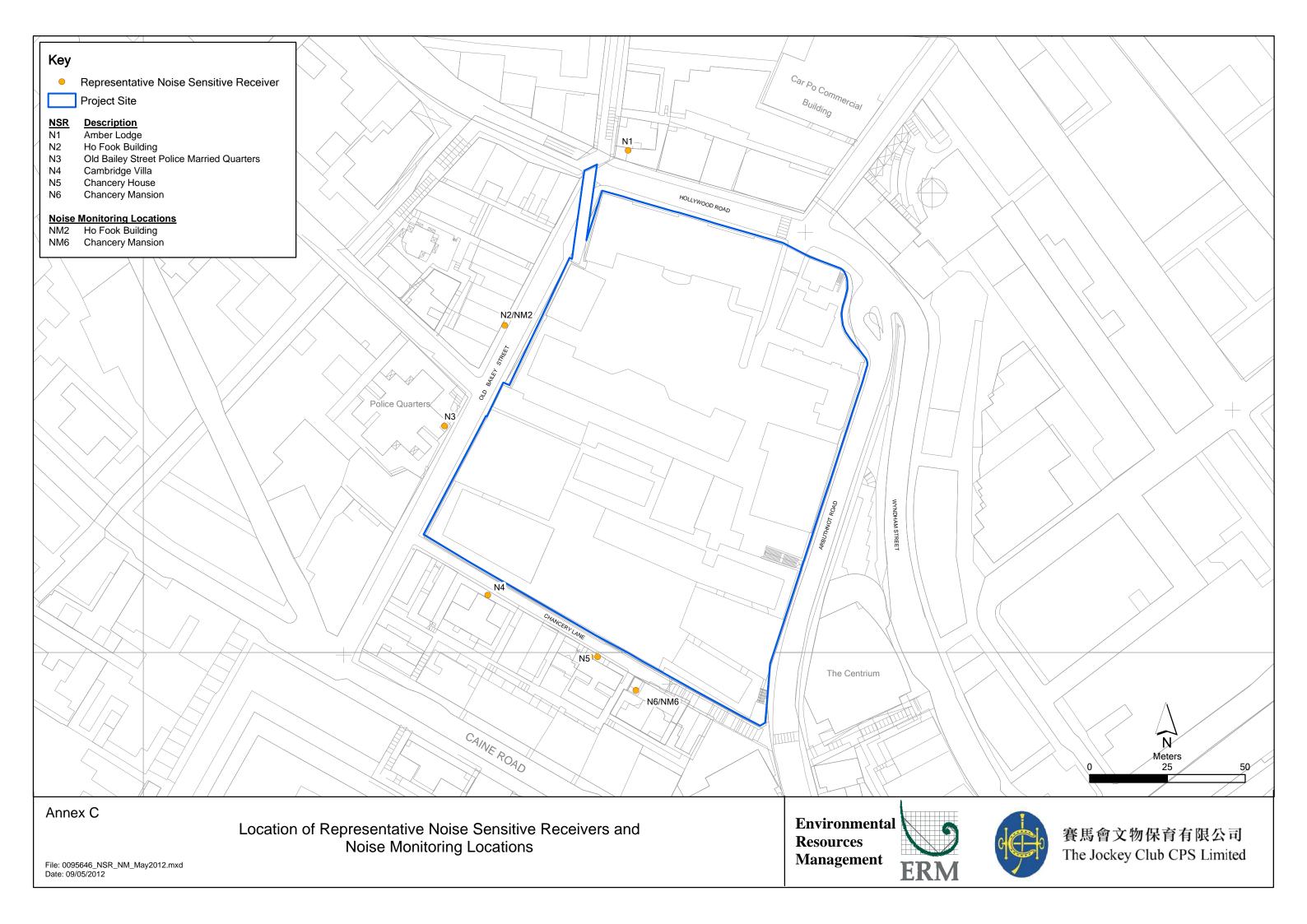
## Annex B

# Project Organization Chart and Contact Detail



## Annex C

Locations of Noise Monitoring Stations and Noise Sensitive Receivers



## Annex D

# Monitoring Schedule of the Reporting Period

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

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

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

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

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

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

#### Annex E

Calibration Reports for Calibrators and Sound Level Meters



Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration

校正證書

Certificate No.: C133573

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號: IC13-1422)

Description / 儀器名稱 :

Sound Level Meter

Manufacturer / 製造商

Rion NL-31

Model No./型號 Serial No. / 編號

00410224

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 :

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

Relative Humidity / 相對濕度 :

Line Voltage / 電壓 :

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期

14 June 2013

TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

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

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

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

Tested By

測試

Certified By

核證

K K Wong

Date of Issue

17 June 2013

簽發日期

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

e'o 4 F. Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 師創工程有限公司 - 校正及檢測實驗所

co香港新界屯門與安里一號青山灣機模四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986

E-mail 電郵; callab a suncreation.com

Website 網址: www.suncreation.com

Page 1 of 3



#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No.: C133573

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 was performed before the test. 2.

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

4. Test equipment:

> Equipment ID CL280 CL281

Description

40 MHz Arbitrary Waveform Generator

Multifunction Acoustic Calibrator

Certificate No.

C130019 DC110233

Test procedure: MA101N. 5.

Results: 6.

Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied	d Value	UUT	IEC 61672 Class 1	
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Spec. (dB)	
30 - 120	L <sub>A</sub>	A	Fast	94.00	1	93.6	± 1.1	

6.1.2 Linearity

	UUT Setting				Value	UUT	
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	
30 - 120	$L_A$	A	Fast	94.00	1	93.6 (Ref.)	
				104.00		103.6	
				114.00		113.6	

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

Time Weighting

UUT Setting			Applied	Applied Value		IEC 61672 Class 1		
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	Reading (dB)	Spec. (dB)	
30 - 120	L <sub>A</sub>	A	Fast	94.00	1	93.6	Ref.	
	1000		Slow			93.5	± 0.3	

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

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Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration

# 校正證書

Certificate No. : C133573

證書編號

#### 6.3 Frequency Weighting

6.3.1 A-Weighting

	UU	T Setting		App	lied Value	UUT	IEC 61672 Class 1
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level Freq. Reading (dB)		Spec. (dB)	
30 - 120	LA	A	Fast	94.00	63 Hz	67.3	$-26.2 \pm 1.5$
	155				125 Hz	77.3	$-16.1 \pm 1.5$
					250 Hz	84.9	$-8.6 \pm 1.4$
					500 Hz	90.3	$-3.2 \pm 1.4$
					1 kHz	93.6	Ref.
					2 kHz	94.9	$+1.2 \pm 1.6$
					4 kHz	94.8	$+1.0 \pm 1.6$
					8 kHz	92.6	-1.1 (+2.1; -3.1)
					12.5 kHz	89.7	-4.3 (+3.0; <b>-</b> 6.0)

6.3.2 C-Weighting

	UU	T Setting		App	lied Value	UUT	IEC 61672 Class 1
Range (dB)	Mode		Reading (dB)	Spec. (dB)			
30 - 120 L <sub>C</sub>	L <sub>C</sub>	C	Fast	94.00	63 Hz	92.7	$-0.8 \pm 1.5$
	270				125 Hz	93.4	$-0.2 \pm 1.5$
					250 Hz	93.6	$0.0 \pm 1.4$
					500 Hz	93.7	$0.0 \pm 1.4$
					1 kHz	93.7	Ref.
					2 kHz	93.5	$-0.2 \pm 1.6$
					4 kHz	93.0	$-0.8 \pm 1.6$
					8 kHz	90.7	-3.0 (+2.1; -3.1)
					12.5 kHz	87.9	-6.2 (+3.0; -6.0)

Remarks: - UUT Microphone Model No.: UC-53A & S/N: 307154

- Mfr's Spec. : IEC 61672 Class 1

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

250 Hz - 500 Hz : ± 0.30 dB 1 kHz : ± 0.20 dB 2 kHz - 4 kHz : ± 0.35 dB 8 kHz : ± 0.45 dB 12.5 kHz : ± 0.70 dB

12.5 kHz :  $\pm$  0.70 dB 104 dB : 1 kHz :  $\pm$  0.10 dB (Ref. 94 dB)

114 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)

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

#### Note .

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

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

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#### Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration

校正證書

Certificate No.: C134306

證書編號

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

Description / 儀器名稱 : Sound Level Calibrator

Manufacturer / 製造商 : Rion Model No. /型號 : NC-73 Serial No. /編號 : 10786708

Supplied By / 委託者 : Envirotech Services Co.

Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,

Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 :  $(23 \pm 2)^{\circ}$ C Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$ 

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 12 July 2013

#### TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

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

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

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

Tested By 測試

Certified By 核證 K C Lee

K M Wu

Date of Issue

15 July 2013

簽發日期

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Sun Creation Engineering Limited

Calibration and Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No.:

C134306

證書編號

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

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

3. Test equipment:

Equipment ID CL130 CL281 TST150A <u>Description</u> Universal Counter Multifunction Acoustic Calibrator

Measuring Amplifier

Certificate No. C133632 DC130171 C120886

4. Test procedure: MA100N.

5. Results:

5.1 Sound Level Accuracy

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

5.2 Frequency Accuracy

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

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

#### Note:

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

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## Annex F

Event/Action Plans for Noise

## Annex F Event and Action Plan for Noise

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

## Annex G

Summary of Implementation Status

## Annex G Implementation Schedule for Environmental Protection Measures (1 February to 28 February 2014)

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

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

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.			
\$3.7.1 & 3.7.2	-	Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:  • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and  • an updated inventory list of the historic features together with the cross referenced location plans and photo records.  One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the reporting month. There were no updates for the CMP.

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		means to wash the foliage of the accumulated dust when necessary, particularly in the dry season.			
S4.7.2	S4	In-situ Tree Protection - Monthly inspection  Monthly inspection of affected trees by an experienced and	Whole site	During construction	<b>√</b>
		appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office. All irregularities that deviate from the recommended tree protection measures, or could impose deleterious impacts on the protected trees, must be reported to the authorized person or the tree expert within two days.			
S4.7.2	-	<u>Light Control</u> Control of night-time lighting shall be implemented to minimise impact to adjacent VSRs.	Whole site	During construction and operation	<b>√</b>
S4.7.2	S4	Compensatory Tree Planting  A new planting site has been identified for compensatory tree planting in the Parade Ground. The planting is to compensate for felling of T10. The existing tree site will be enlarged to become a wide tree strip to accommodate at least six trees. The entire strip of land that accommodates T1 to T4 should be revamped to improve the soil condition for future tree growth.  The new tree strip should be 4 m wide and covered by porous unit	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.
		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			

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the exiting wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	New Custom Paving  New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	In-situ Tree Protection - Quarterly inspection  Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
Noise					
S5.9	-	<ul> <li>The following site practices should be followed during the construction of the Project:</li> <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> <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	1
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	√ ·
Air Qu S6.8.1	ality  -	Dust control measures stipulated in the <i>Air Pollution Control</i> ( <i>Construction Dust</i> ) <i>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	$\sqrt{}$
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	<b>√</b>
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	V
S6.8.1	-	Road sections between vehicle-wash areas and vehicular entrances will be paved.	Whole Site	During construction	V
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	V
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	V
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	<b>√</b>
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	V

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	V
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	V
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	<b>√</b>
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</i> of <i>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	V
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	V
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	V
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	V
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	<b>√</b>

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	<b>√</b>
Waste N	Manageme	nt			
S8.5	\$6.3.1 & Table 6.1	General  The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	√
S8.5	-	Management of Waste Disposal  The construction contractor will open a billing account with the EPD.  Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.	Whole Site	During construction	<b>√</b>

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	V
S8.5	S6.3	Reduction of Construction Waste Generation  C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Containers used for storage of chemical waste shall:</li> <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</i> of the <i>Regulations</i>.</li> </ul>	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Storage areas for chemical waste shall:</li> <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	General Refuse  General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	<b>V</b>
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	<b>√</b>
S8.5	S6	Staff Training  At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√ ·
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	<b>√</b>

#### 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
- $\Delta$  Deficiency of Mitigation Measures but rectified by Gammon Construction Ltd
- N/A Not Applicable in Reporting Period

# Annex G Implementation Schedule for Environmental Protection Measures (1 March to 31 March 2014)

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S3.7.1 & 3.7.2		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.  Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:  • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and  • an updated inventory list of the historic features together with the	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
	ъре & Visı	ıal			
S4.7.27	-	In-situ Tree Protection - Cordon Zone (CZ)  Cordon off each tree along its drip line (below the crown) with a chain-link fencing of 2.5 m height with padlocked gate, allowing limited access to area only to authorized persons. The base of the perimeter fence will be sealed up to 30 cm height to ensure that no construction drainage water will enter. If grouting is to be conducted less than 5 m from the edge of the CZ, a waterproof membrane will be installed below the ground to a depth of 1.5 m on the outer edge of the CZ to prevent the subsurface lateral movement of contaminated construction wastewater from intruding the soil inside the CZ.	Whole site	During construction	√ - Part of the cordon zone of Tree-5 has been used as a worker storage room. The Contractor was recommended to pay utmost attention to potential land pollution at the worker storage room at all times.  Scaffolding has been set up close to Tree-5 within the cordon zone. The Contractor was reminded to perform proper measures to protect Tree-5 during the carrying out of works within the cordon zone.
S4.7.2	-	In-situ Tree Protection - Advanced & Phased Root Pruning  All edges of the CZ that will be affected by excavation will undergo root pruning by a trained arborist or horticulturist, in advance of the earth work. The entire affected length of the CZ, plus 3 m additional length at both ends, shall be designated as the root pruning segment (RPS). The require trench will be opened manually in the RPS, be 1.5 m deep and 1 m wide, and closed on the same day after pruning with a good soil mix. All roots with a diameter >20 mm encountered in the course of trench opening shall be cut flushed with the inner wall of the trench. If the RPS exceeds one-quarter of the CZ circumference, the root pruning should be conducted in two stages. Each phase will tackle half of the RPS length. After the first phase, the tree will be allowed to recuperate for not less than four months before the second phase root pruning is conducted. The RPS shall be protected by sheet piles along the outer edge. The rig that installs the piles and the associated operations shall not intrude into the CZ or injure the protected tree.	Whole site	During construction	N/A – no root pruning has been conducted yet
S4.7.2	-	In-situ Tree Protection - Foliage cleansing system  A sprinkler cleansing system will be installed either in the crown of the tree or at a suitable location on an adjacent building to provide the	Whole site	During construction	<b>√</b>

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the exiting wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	New Custom Paving  New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	In-situ Tree Protection - Quarterly inspection  Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
Noise					
S5.9	-	<ul> <li>The following site practices should be followed during the construction of the Project:</li> <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> <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	√ ·
Air Qu S6.8.1		Dust control measures stipulated in the <i>Air Pollution Control</i> ( <i>Construction Dust</i> ) <i>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	V
S6.8.1	-	Impervious sheet will be provided for skip hoist for material transport.	Whole Site	During construction	V
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	V
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	V
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	V
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	V
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	V
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	V
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	N. Control of the con
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	V

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	V
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	V
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	<b>√</b>
Water (	Quality		•		
S7.6	-	Channels, earth bunds or sand bag barriers will be provided on site to direct stormwater to silt removal facilities. The design of silt removal facilities will make reference to the guidelines in <i>Appendix A1</i> of <i>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	<b>V</b>
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	<b>√</b>

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	V
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	V
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	V
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	<b>√</b>

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	<b>√</b>
Waste N	Manageme	nt			
S8.5	\$6.3.1 & Table 6.1	General  The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	√
S8.5	-	Management of Waste Disposal  The construction contractor will open a billing account with the EPD.  Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.	Whole Site	During construction	<b>√</b>

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	V
S8.5	S6.3	Reduction of Construction Waste Generation  C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Containers used for storage of chemical waste shall:</li> <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</i> of the <i>Regulations</i>.</li> </ul>	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Storage areas for chemical waste shall:</li> <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	General Refuse  General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	<b>V</b>
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	<b>√</b>
S8.5	S6	Staff Training  At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√ ·
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	<b>√</b>

#### 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
- $\Delta$  Deficiency of Mitigation Measures but rectified by Gammon Construction Ltd
- N/A Not Applicable in Reporting Period

# Annex G Implementation Schedule for Environmental Protection Measures (1 April to 30 April 2014)

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		checked and confirmed by the contractor. Non-percussive piling methods will be adopted for the construction of the foundation for the new buildings. Protective and precaution measures to the existing buildings and structure adjacent to the work area (including the proposed Grade 3 historic building (No. 20 Hollywood road) and the granite boundary walls between the Ablutions Block of the police station (building no. 08) and the General Office of the prison area (building no. 18) which is adjacent to the new construction of the Old Bailey Wing and for an old granite walls at Old Bailey Street within 15m from the new construction) shall be provided to avoid damage to the existing features and to safeguard the structural integrity during the course of construction. Small scale handheld pneumatic tools with minimal vibration impact to the existing buildings/ structures are selected so as to have a better logistic and handling at the existing buildings and structures, which usually have only narrow working areas. In cases of the local demolition of structural elements, demountable platforms will be erected to temporarily support the affected area and divert the loading from above to avoid instability and create excessive cracking and settlement of the building/structure.			
\$3.7.1 & 3.7.2	-	Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:  • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and  • an updated inventory list of the historic features together with the cross referenced location plans and photo records.  One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the reporting month. There were no updates for the CMP.

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation.			
		Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. T10 has a DBH of 20 cm ( <i>Table 4.3</i> ), and it is proposed that six trees of heavy standard size be planted, each with a DBH of around 10 cm and root balls of not less than 0.75 m diameter and 0.75 m depth,. Since the aggregate DBH of the new trees would be 60 cm, the rate of compensation is equivalent to three times the DBH of T10, far beyond the requirements			
		The six replacement trees should be planted in the new tree strip in two staggered rows, maximising distance between each tree to avoid mutual interference in the future. It is recommended that the species selected should have a small final dimension of less than 10 m height given the proximity to built structures such as the retaining wall and buildings. Two each of the outstanding and related flowering tree species connected to local natural history are suggested::			
		<ul> <li>Bauhinia 'Blakeana' a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring.</li> </ul>			
		<ul> <li>Bauhinia purpure, a native evergreen with lighter purple flowers from late autumn to early winter.</li> </ul>			
		<ul> <li>Bauhinia variegata, 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	Vertical Greening	Inner Southern Wall	During detailed design and	N/A – No vertical greening was conducted during the reporting month.
		Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible.		construction	- 0
		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			

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the exiting wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	New Custom Paving  New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	In-situ Tree Protection - Quarterly inspection  Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
Noise					
S5.9	-	<ul> <li>The following site practices should be followed during the construction of the Project:</li> <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> <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	√ ·
Air Qu S6.8.1		Dust control measures stipulated in the <i>Air Pollution Control</i> ( <i>Construction Dust</i> ) <i>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	V
S6.8.1	-	Impervious sheet will be provided for skip hoist for material transport.	Whole Site	During construction	V
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	V
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	V
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	V
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	V
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	V
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	V
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	N. Control of the con
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	V

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	V
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	V
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	<b>√</b>
Water (	Quality		•		
S7.6	-	Channels, earth bunds or sand bag barriers will be provided on site to direct stormwater to silt removal facilities. The design of silt removal facilities will make reference to the guidelines in <i>Appendix A1</i> of <i>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	V
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	<b>√</b>

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	V
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	V
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	V
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	<b>√</b>

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	<b>√</b>
Waste N	Manageme	nt			
S8.5	\$6.3.1 & Table 6.1	General  The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	√
S8.5	-	Management of Waste Disposal  The construction contractor will open a billing account with the EPD.  Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.	Whole Site	During construction	<b>√</b>

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	V
S8.5	S6.3	Reduction of Construction Waste Generation  C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Containers used for storage of chemical waste shall:</li> <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</i> of the <i>Regulations</i>.</li> </ul>	Whole Site	During construction and operation	V
S8.5	S6	<ul> <li>Storage areas for chemical waste shall:</li> <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	General Refuse  General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	<b>V</b>
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	<b>√</b>
S8.5	S6	Staff Training  At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√ ·
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	<b>√</b>

#### 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
- $\Delta$  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)	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90		Observed		(,		
04-Feb-14	13:38	14:08	Fine	63.8	65.5	60.6	-	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
10-Feb-14	9:50	10:20	Cloudy	66.4	68.1	64.2	Interior fitting, lifting (within the project site)	Traffic Noise	-	1.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
15-Feb-14	9:38	10:08	Cloudy	66.3	68.0	63.7	Interior fitting, lifting (within the project site)	Traffic Noise	-	1.2	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
21-Feb-14	9:48	10:18	Sunny	73.3	76.5	69.3	Breaker, crawler crane, interior fitting (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
27-Feb-14	9:40	10:10	Cloudy	69.4	70.8	66.2	Crawler crane, interior fitting, breaker (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
	Min. 63.8											
				73.3								

NM2 Ho Fook Building

	K Bullaling											
				Noise	level (dB(A)	), 30 min	Major Construction Noise	Other Noise		Wind Speed	Noise Meter	Calibrator
Date	Start Time	End Time	Weather	Leq	L10	L90	Source(s) Observed	Source(s) Observed	Remarks	(m/s)	Model / ID	Model / ID
04-Feb-14	14:15	14:45	Fine	63.0	64.7	59.0	-	Traffic noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
10-Feb-14	10:27	10:57	Cloudy	66.1	67.9	62.8	Interior fitting, lifting (within the project site)	Traffic Noise	-	1.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
15-Feb-14	10:15	10:45	Cloudy	65.8	67.4	63.1	Interior fitting, lifting (within the project site)	Traffic Noise	-	1.2	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
21-Feb-14	10:24	10:54	Sunny	72.2	73.4	69.8	Breaker, lifting, interior fitting (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
27-Feb-14	10:18	10:48	Cloudy	70.3	71.9	67.0	Crawler crane, interior fitting, breaker (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)

Min. 63.0 Max. 72.2

## **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)	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90		Observed		( /		
05-Mar-14	9:42	10:12	Fine	68.8	71.3	65.6	Interior fitting, lifting, hand- held breaker (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
11-Mar-14	13:37	14:07	Cloudy	73.4	75.6	69.4	Interior fitting, crawler crane, breaker (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
17-Mar-14	9:40	10:10	Cloudy	67.0	68.8	63.2	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
22-Mar-14	9:40	10:10	Sunny	66.7	68.5	63.2	lifting, interior fitting (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
28-Mar-14	9:44	10:14	Fine	69.2	71.1	65.9	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
			Min.	66.7								

Min. 66.7 Max. 73.4

NM2 Ho Fook Building

				Noise	level (dB(A)	), 30 min	Major Construction Noise	Other Noise		Wind Speed	Noise Meter	Calibrator
Date	Start Time	End Time	Weather	Source(s) Observed Source(s	Source(s) Observed	Remarks	(m/s)	Model / ID	Model / ID			
05-Mar-14	10:20	10:50	Fine	71.5	73.3	68.7	Interior fitting, lifting, hand- held breaker (within the project site)	Traffic noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
11-Mar-14	14:15	14:45	Cloudy	68.2	71.1	63.5	Interior fitting, lifting, hand- held breaker (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
17-Mar-14	10:18	10:48	Cloudy	72.0	74.1	67.3	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
22-Mar-14	10:17	10:47	Sunny	71.3	72.9	66.9	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
28-Mar-14	10:22	10:52	Fine	72.1	74.1	69.5	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
			Min.	68.2								

Min. 68.2 Max. 72.1

## **Annex H Noise Monitoring Results**

## **Daytime Noise Monitoring Results**

NM6 Chancery Mansion

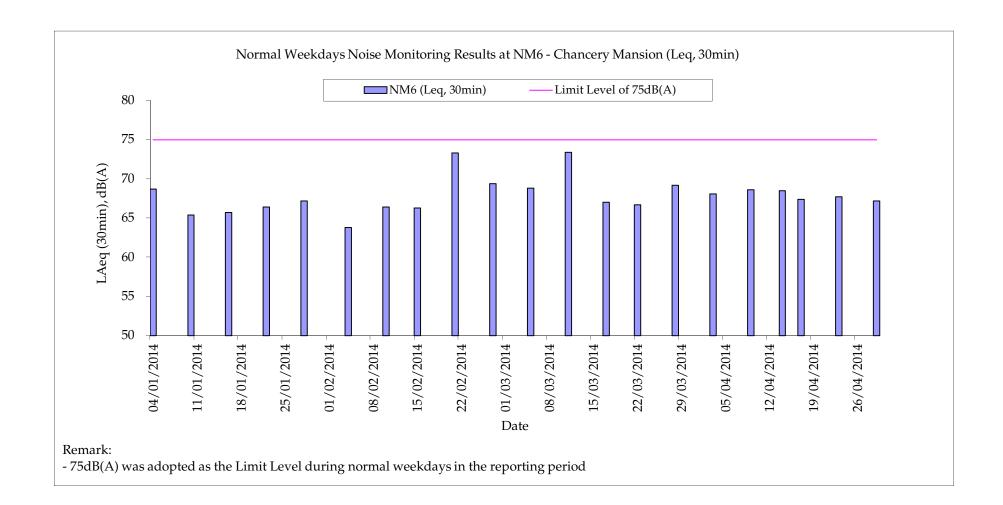
Date	Start Time	End Time	Weather	Noise	level (dB(A)	), 30 min	Major Construction Noise Source(s) Observed	Other Noise Source(s)	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90		Observed		()	Noise Meter Model / ID RION- NL.31 (S/N 00410224) RION- NL.31 (S/N 00410224) RION- NL.31 (S/N 00410224) RION- NL.31 (S/N 00410224) RION- NL.31 (S/N 00410224) RION- NL.31 (S/N 00410224)	
03-Apr-14	14:12	14:42	Cloudy	68.1	69.6	65.7	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.5	(S/N	RION - NC73 (S/N 10786708)
09-Apr-14	9:43	10:13	Sunny	68.6	69.7	66.4	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.4	(S/N	RION - NC73 (S/N 10786708)
14-Apr-14	9:42	10:12	Sunny	68.5	70.0	65.1	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.5	(S/N	RION - NC73 (S/N 10786708)
17-Apr-14	10:45	11:15	Fine	67.4	69.0	64.7	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.3	(S/N	RION - NC73 (S/N 10786708)
23-Apr-14	10:00	10:30	Cloudy	67.7	69.2	64.7	Interior fitting, crawler crane (within the project site)	Traffic Noise	-	0.5	(S/N	RION - NC73 (S/N 10786708)
29-Apr-14	10:10	10:40	Fine	67.2	68.9	64.7	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.3	(S/N	RION - NC73 (S/N 10786708)
			Min.	67.2								•

Min. 67.2 Max. 68.6

NM2 Ho Fook Building

NIVIZ NO FOO	k Dunung											
Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise	Other Noise	B	Wind Speed	Noise Meter	Calibrator
				Leq	L10	L90	Source(s) Observed	Source(s) Observed	Remarks	(m/s)	Model / ID	Model / ID
03-Apr-14	14:50	15:20	Cloudy	66.8	68.5	64.2	Interior fitting, lifting within the project site)	Traffic noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
09-Apr-14	10:20	10:50	Sunny	67.5	70.1	64.6	Interior fitting, lifting, concreting (within the project site)	Traffic Noise	-	0.4	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
14-Apr-14	10:20	10:50	Sunny	71.9	73.7	69.9	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
17-Apr-14	11:22	11:52	Fine	71.0	72.7	68.9	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
23-Apr-14	10:37	11:07	Cloudy	71.0	72.7	69.1	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.5	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)
29-Apr-14	10:47	11:17	Fine	70.7	72.3	68.4	Interior fitting, lifting (within the project site)	Traffic Noise	-	0.3	RION- NL31 (S/N 00410224)	RION - NC73 (S/N 10786708)

Min. 66.8 Max. 71.9





### Annex I

# Construction Programme of the Project

Activity ID	Activity Description	Duration in Days	2011 JJASONE	2012 D J F M A M J J	ASOND JFM	2013 MAMJJASONI	2014 DJFMAMJJASOND	2015 JFMAMJJASOND	2016 JFMAMJJASONE
GENERA	111		1 1 1 1 1 1	<del>'' ''' '' '' '' '' '' '' '' '' '' '' ''</del>	<del>""                                    </del>	<del>'                                      </del>	<del>                                      </del>	<del></del>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>
S110	PRECONSTRUCTION WORKS	592			PF	RECONSTRUCTION	WORKS		
EXISTING	BUILDINGS			1 1 1 1 1 1	111111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
160010	BLOCK 16 WORKSHOP & LAUNDRY (DEMOLITION WORKS)	198		BLOCK	16 WORKSHOF	P & LAUNDRY (DEI	MOLITION WORKS)		
180010	BLOCK 18/14 ANNEX/BLDG F/G/H/ (DEMOLITION WORKS)	149				OG F/G/H/ (PEMOL			
080010	BLOCK 08 ABLUTIONS BLOCK	731					BLOCK 08 ABLUT	TIONS BLOCK	
170005	BLOCK 17 F HALL	593					BLOCK 17 F HALL		
010005	BLOCK 01 POLICE HEADQUARTERS BLOCK	626					BLOCK 01 PO	LICE HEADQUARTERS E	BLOCK
140005	BLOCK 14 D HALL	645	1 1 1 1 1 1	1 1 1 1 1 1			BĽOCK 14	D HAĻL	
120010	BLOCK 12 B HALL	341				BLC	OCK 12 B HALL		
110010	BLOCK 11 A HALL	311					K 17 A HALL		
100010	BLOCK 10 SUPERINTENDENT'S HOUSE	517					BLOCK 10 SU	PERINTENDENT'S HOUS	\$E
130010	BLOCK 13 C HALL	517					BLOCK 13 C	HALL	
060005	BLOCK 06 MARRIED SERGEANTS' QUARTERS	223				BLOC	CK 06 MARRIED SERGEAN	ITS' QUARTERS	
070005	BLOCK 07 SINGLE INSPECTORS' QUARTERS	225				BLO	OCK 07 SINGLE INSPECTO	DRS' QUARTERS	
030005	BLOCK 03 BARRACK BLOCK	440					BLOCK 03 BAF	RRACK BLOCK	
020005	BLOCK 02 ARMOURY	425					BLOCK 02 ARI	MOURY	
090005	BLOCK 09 CENTRAL MAGISTRACY	425					BLOCK 09 ¢E	NTRAL MAGISTRACY	
150010	BLOCK 15 E HALL	304		1 1 1 1 1			BLOCK 15 E HALL		
040005	BLOCK 04 MARRIED INSPECTORS' QUARTERS	349					BLOCK 04	MARRIED INSPECTORS	QUARTERS
190005	BLOCK 19 BAUHINIA HOUSE	277					BLOCK 19	BAUHINIA HOUSE	
050002	BLOCK 05 (DEMOLITION WORKS)	119		1 1 1 1 1 1 1			BLOCK 05 (DEMOLI	TION WORKS)	
OTHER V	VORKS								
253110	REVETMENT WALL / U/G UTILITIES / ROAD WORKS	679	1 1 1 1 1 1	1 1 1 1 1 1			RE	VETMENT WALL / U/G U	TILITIES / ROAD WORKS
<b>NEW BUI</b>	LDINGS					<u>                                     </u>		<u> </u>	
S200	OBW OLD BAILEY WING	1,097						OBW OLD BAILEY	
S300	AW ARBUTHNOT WING	1,056						AW ARBUTHNOT I	WING
BASEME	NT PLANTROOM AND SERVICES TRENCH					1 1 1 1 1 1 1 1 1 1 1 1			
202005	BASEMENT PLANTROOM / SERVICES TRENCH	588					BASEMENT PLA	ANTROOM¦/ SERVICES T	RENCH; ; ; ; ; ; ; ;
NEW FOO	DTBRIDGE								
2300125	PROPOSED FOOTBRIDGE	699			PROF	POSED FOOTBRID	GE		
	T76M						Sheet 1 of 1	GCL / P / J3416 /SUM/CP01	



CENTRAL POLICE STATION CONSERVATION AND REVITALIZATION
(MANAGEMENT CONTRACT)
CONSTRUCTION PROGRAMME
SUMMARY PROGRAMME

1		GCL / P / J3416 /SUM/CP01										
	Date	Revision	Checked	Approved								
	13NOV12	for EPD										
	04MAR13	revised										

Annex J

Waste Flow Table

### Annex J - Waste Flow Table

Month / Year	Quantity												
	C&D Materials (inert) (tonnes) <sup>(a)</sup>	Number of Trucks for C&D Materials Disposal (inert)	Volume of C&D Materials (inert) (m³) (c)		Number of Trucks for C&D Materials Disposal (non-inert)			Chemical Waste (Liquid/L)	Recycled materials				
		Disposar (mert)	(1117)	(tollies)	Disposar (non mert)	mert) (m )	<i>y</i>	(Elquiu/ E)	Paper/cardboard (kg)	Plastics (kg)	Metals (kg)		
October 2011 –													
November 2011	0	0	0	33.5	12	58.50	0	0	38	6	36423		
December-11	0	0	0	18.25	6	29.25	0	0	112	0	24000		
January-12	354.14	40	195.00	16.88	5	24.38	2400	0	0	0	3820		
February-12	252.35	15	73.13	17.13	5	24.38	1400	0	223	0	8910		
March-12	666.43	62	302.25	28.56	9	43.88	3200	0	0	0	48490		
April-12	688.68	72	351.00	17.54	5	24.38	0	0	0	0	124030		
May-12	492.33	61	297.38	36.33	13	63.38	0	0	266	0	0		
June-12	383.11	45	219.38	27.41	8	39.00	40	45	0	0	1100		
July-12	217.98	25	121.88	23.22	8	39.00	0	0	302	0	1750		
August-12	341.87	42	204.75	48.87	16	78.00	0	0	0	0	2310		
September-12	227.7	29	141.38	37.99	12	58.50	0	0	383	0	1410		
October-12	290.58	44	214.50	30.34	8	39.00	0	0	86	0	3150		
November-12	843.86	100	487.50	47.44	15	73.13	0	0	0	0	5650		
December-12	207.5	27	131.63	88.66	28	136.50	0	0	0	0	27230		
January-13	273.64	34	165.75	276.17	74	360.75	0	0	172	0	8120		
February-13	945.97	131	638.63	177.54	46	224.25	0	0	0	0	1080		
March-13	1236.96	151	736.13	230.55	60	292.50	0	0	164	0	11300		
April-13	1406.79	187	911.63	232.27	63	307.13	135	12	225	0	21220		
May-13	2679.91	317	1545.38	176.68	44	214.50	0	0	62	0	17286		
June-13	3062.38	356	1735.50	212.63	56	273.00	0	0	0	0	7150		
July-13	3814.86	465	2266.88	114.36	43	209.63	0	0	168	0	14843		
August-13	2831.78	353	1720.88	89.23	25	121.88	0	0	0	0	7190		
September-13	979.49	141	687.38	103.73	29	141.38	40	0	0	0	4030		
October-13	2170.54	270	1316.25	157.48	41	199.88	135	0	0	0	3120		
November-13	836.74	109	531.38	191.58	44	214.50	0	0	202	0	18486		
December-13	2606.76	296	1443.00	192.54	49	238.88	0	0	0	0	10041		
January-14	3813.53	400	1950.00	97.87	36	175.50	0	0	0	0	14110		
February-14	3378.16	316	1540.50	37.84	14	68.25	0	0	0	0	9800		
March-14	5256.15	516	2515.50	89.39	31	151.13	0	0	6000	0	19030		
April-14	3006	299	1457.63	114.31	33	160.88	45	0	0	0	4920		
Tota		4903	23902.125	2966.29	838	4085.25	7395	57	8403	6	459999		

#### Notes:

<sup>(</sup>a) Inert C&D materials (public fill) include bricks, concrete, building debris, rubble and excavated soil.

<sup>(</sup>b) Non-inert C&D materials include steel, paper / cardboard packaging waste, plastics and other wastes such as general refuse. Steel materials generated from the Project are grouped into construction wastes as the materials were not disposed of with other inert C&D materials and were recycled. The non-inert C&D materials other than steel, plastics and paper/ cardboard packaging were disposed of at SENT Landfill.

<sup>(</sup>c) If necessary, use the conversion factor: 3/4 load of dumping truck being equivalent to 6.5 m<sup>3</sup> by volume.

### Annex K

Environmental Complaint, Environmental Summons and Prosecution Log

Annex K Cumulative Complaint and Summons/Prosecutions Log

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

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
May 2013	0	0
June 2013	0	0
July 2013	0	0
August 2013	0	0
September 2013	0	0
October 2013	0	0
November 2013	0	0
December 2013	0	0
January 2014	2	0
February 2014	1	0
March 2014	1	0
April 2014	1	0
Overall Total	16	0









### Central Police Station Conservation and Revitalisation Project



### **COMPLAINT INVESTIGATION REPORT**

### **Basic Information of Complaint**

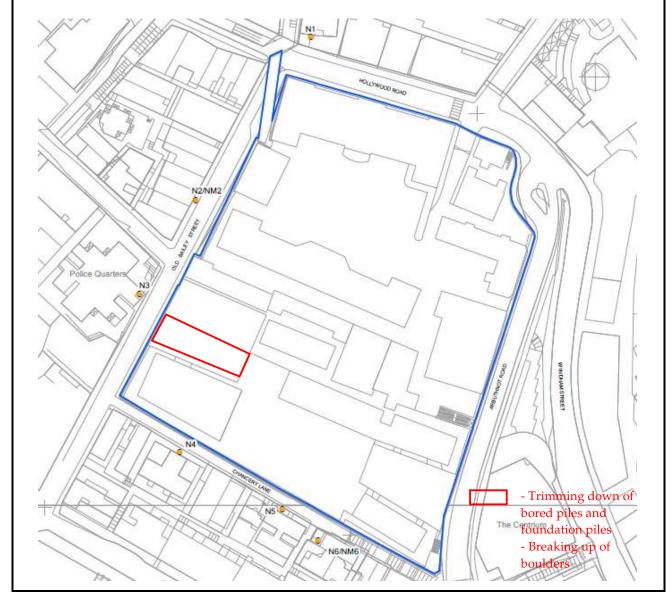
Log Number:	2014/02/001
Date of Complaint Received	14 February 2014
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Environmental Protection Department (EPD)
Complainant	Nearby resident

### **Details of Complaint**

EPD received a complaint on noise nuisance from a resident living near the junction of Staunton Street and Old Bailey Street early February 2014. The complaint was transferred to the Environmental Team and Gammon Construction Limited (GCL) on 14 February 2014. The complainant mentioned that she has a direct view of the CPS construction site from her apartment and that the daytime construction noise affects her living even the apartment windows are double-glazed.

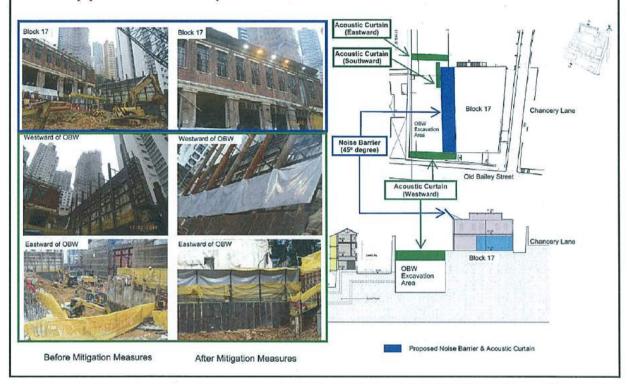
#### **Investigation Report**

- 1. All construction activities are being carried out between 0700 to 1900 hours on normal weekdays (ie, Monday to Saturday).
- 2. According to the Contractor, the loud noise mentioned by the complainant may be related to the trimming down of the bored piles and foundation piles for the construction of the capping beam, as well as the breaking up of boulders during excavation at Old Bailey Wing. These work activities commenced in December 2013 and are expected to be completed in February 2014. The mentioned work activities are shown in the figure below.
- 3. According to the requirement of the Environmental Permit (EP) of the Project, weekly daytime noise monitoring at designated noise monitoring stations (NM2 and NM6) should be conducted and the monitoring results showed compliance with the construction noise standard. The designated noise monitoring stations are shown in the figure below.
- 4. Noise monitoring results for the most recent three months (up until 15 Feb 2014) and the upcoming monitoring schedule in March 2014 are attached.



#### Mitigation Measures and Follow-up Actions Recommended to Contractor

Further to the findings of investigation, the noise generated from the construction activities complies with the noise criteria and the works are carried out strictly following the necessary requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor will continue to follow these requirements. On 14 February 2014, the Contractor has notified all workers and operation supervisor of the complaint and reminded them to minimise the potential noise generated as much as possible during any work activities. Acoustic curtains are currently erected as shown in the figure below as noise mitigation measures to residents living close to Old Bailey Street and Staunton Street. Furthermore, the Contractor has been reminded to provide portable noise barriers, where applicable, to noisy operating power mechanical equipment in order to effectively reduce noise at source.



Date of File Closed:

21 February 2014

Approved by:

ET Leader

**IEC** 

JCCPS's

Representative

Rocco Design Architect's

Representative

(Name: Winnie Ko)

Date: 21 February 2014

(Name: Sharifah Or) Date: 7 March 2014

Date: 7 March 14

(Name: C.W.Sham) (Name:

Date:

Gammon's Representative

(Name: Cut Lounh

Date:

								Limit Level,		
04-41	D-4-	O4 4 T !	Major Construction Noise Noise Levels, dB(A) 30 min			dB(A) 30 mins	0			
Station	Date 01-Nov-13	Start Time 14:14	End Time 14:44	Weather Sunnv	Source(s) Observed on Site  Crawler crane, interior fitting	<b>Leq</b> 67.5	<b>L10</b> 69.7	<b>L90</b> 65.7	Leq	Compliance
NM2 Ho Fook Building	07-Nov-13	10:18	10:48	Fine	Crawler crane, interior fitting	67.6	69.5	65.7	75	
NM2 Ho Fook Building	13-Nov-13	10:14	10:44	Cloudy	Crawler crane, interior fitting	72.0	75.6	66.6	75	
NM2 Ho Fook Building	19-Nov-13	10:14	10:45	Fine	Crawler crane, interior fitting	72.3	75.2	67.4	75	
NM2 Ho Fook Building	25-Nov-13	10:17	10:47	Sunny	Crawler crane, interior fitting	69.3	71.1	66.8	75	
NM2 Ho Fook Building	30-Nov-13	14:14	14:44			69.6	71.1	66.0	75	
NM2 Ho Fook Building	30-NOV-13	14.14	14.44	Sunny	Crawler crane, interior fitting	09.0	/1.0	66.0	75	Y
NM2 Ho Fook Building	06-Dec-13	9:37	10:07	Sunny	Crawler crane, interior fitting, hand held breaker	68.2	71.0	64.3	75	Υ
NM2 Ho Fook Building	12-Dec-13	10:12	10:42	Cloudy	Interior fitting, lifting	70.7	72.0	66.7	75	Υ
NM2 Ho Fook Building	18-Dec-13	15:00	15:30	Sunny	Crawler crane, interior fitting	70.7	73.4	67.1	75	Υ
NM2 Ho Fook Building	24-Dec-13	14:14	14:44	Sunny	Crawler crane, interior fitting	70.7	72.2	67.2	75	Υ
NM2 Ho Fook Building	30-Dec-13	10:20	10:50	Sunny	Crawler crane, interior fitting	67.0	69.1	63.4	75	Υ
NM2 Ho Fook Building	04-Jan-14	10:20	10:50	Sunny	Crawler crane, interior fitting	70.2	71.9	65.8	75	Υ
NM2 Ho Fook Building	10-Jan-14	14:15	14:45	Fine	Crawlier crane, concreting	67.0	69.5	63.2	75	Υ
NM2 Ho Fook Building	16-Jan-14	10:17	10:47	Sunny	Interior fitting, lifting	66.4	68.7	62.6	75	Y
NM2 Ho Fook Building	22-Jan-14	10:18	10:48	Sunny	Interior fitting	67.5	69.1	65.7	75	Y
NM2 Ho Fook Building	28-Jan-14	10:17	10:47	Sunny	Interior fitting	69.8	72.4	66.2	75	Υ
NM2 Ho Fook Building	04-Feb-14	14:15	14:45	Fine	-	63.0	64.7	59.0	75	Υ
NM2 Ho Fook Building	10-Feb-14	10:27	10:57	Cloudy	Interior fitting, lifting	66.1	67.9	62.8	75	Υ
NM2 Ho Fook Building	15-Feb-14	10:15	10:45	Cloudy	Interior fitting, lifting	65.8	67.4	63.1	75	Υ
NM6 Chancery Mansion	01-Nov-13	13:37	14:07	Sunny	Crawler crane, interior fitting	67.0	68.5	64.2	75	Y
NM6 Chancery Mansion	07-Nov-13	9:40	10:10	Fine	Crawler crane, breaker	73.4	75.2	70.4	75	
NM6 Chancery Mansion	13-Nov-13	9:37	10:07	Cloudy	Crawler crane, interior fitting	65.3	66.8	63.4	75	
NM6 Chancery Mansion	19-Nov-13	9:38	10:08	Fine	Crawler crane, interior fitting	67.1	68.6	65.0	75	
NM6 Chancery Mansion	25-Nov-13	9:40	10:10	Sunny	Crawler crane, interior fitting	67.3	69.3	64.5	75	
NM6 Chancery Mansion	30-Nov-13	13:37	14:07	Sunny	Crawler crane, interior fitting	67.0	69.1	64.9	75	
NM6 Chancery Mansion	06-Dec-13	9:00	9:30	Sunny	Crawler crane, interior fitting	67.2	68.6	63.2	75	Y
NM6 Chancery Mansion	12-Dec-13	9:36	10:06	Cloudy	Interior fitting, excavation	68.1	69.8	65.6	75	Y
NM6 Chancery Mansion	18-Dec-13	13:38	14:08	Sunny	Crawler crane, interior fitting	68.2	69.8	65.3	75	
NM6 Chancery Mansion	24-Dec-13	13:37	14:07	Sunny	Crawler crane, interior fitting	67.8	69.3	63.9	75	
NM6 Chancery Mansion	30-Dec-13	9:42	10:12	Sunny	Crawler crane, excavation	69.5	72.3	65.9	75	
NM6 Chancery Mansion	04-Jan-14	9:42	10:12	Sunny	Crawler crane, excavation	68.7	70.0	65.5	75	
Time on allocity manders	10-Jan-14	13:38	14:08	Fine	Crawler crane, excavation,	65.4	67.0	62.9		
NM6 Chancery Mansion	16-Jan-14	9:40	10:10	Sunny	concreting Interior fitting, lifting	65.7	67.8	62.8	75	
NM6 Chancery Mansion	22-Jan-14	9:40	10:10	Sunny	Interior fitting	66.4	68.1	63.8	75	
NM6 Chancery Mansion	28-Jan-14	9:40	10:10		Interior fitting	67.2	68.7	64.9	75	
NM6 Chancery Mansion	28-Jan-14 04-Feb-14	13:38	14:08	Sunny	milenor miling	63.8	65.5	60.6	75	
NM6 Chancery Mansion					Interior fitting lifting				75	
NM6 Chancery Mansion	10-Feb-14	9:50	10:20	Cloudy	Interior fitting, lifting	66.4	68.1	64.2	75	
NM6 Chancery Mansion	15-Feb-14	9:38	10:08	Cloudy	Interior fitting, lifting	66.3	68.0	63.7	75	Υ

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Mar
02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar
<u> </u>	oo ma	0 : ma.			<u> </u>	00 ma.
			Noise Monitoring			
			at NM2 & NM6			
09-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar
		Noise Monitoring				
		at NM2 & NM6				
16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar
	Noise Monitoring at NM2 & NM6					Noise Monitoring at NM2 & NM6
	at Minz a Mino					at Minz a Mino
			22.11		22.11	22.11
23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar
					Noise Monitoring	
					at NM2 & NM6	
30-Mar	31-Mar					









### Central Police Station Conservation and Revitalisation Project



### COMPLAINT INVESTIGATION REPORT

### Basic Information of Complaint

Log Number:	2014/03/001					
Date of Complaint Received	3 March 2014					
Location of Complaint	Project Site					
Nature of Complaint	Noise nuisance					
Complaint Received by	Environmental Protection Department (EPD)					
Complainant	Nearby resident					

### **Details of Complaint**

EPD received a complaint on noise nuisance from a resident living near the CPS Project Site on 3 March 2014. The complaint was transferred to the Project's Environmental Team and Gammon Construction Limited (GCL) on the same day. The complainant mentioned that construction noise was emanated from the CPS Project Site between 0600 and 0630 many times recently.

#### Investigation Report

- According to the Contractor's works summary, no major construction works were carried out from 0600 to 0630 hours any day in February 2014. All construction activities are carried out during normal working hours between 0700 and 1900 hours on Monday to Saturday.
- Only the underground water pumps were operating within the project site 24 hours and a Construction Noise Permit (GW-RS1461-13) is valid for the pumps operation outside the normal working hours. Since the water pumps are installed underground and it is not anticipated that the operating water pumps would generate considerable noise that may affect nearby residents.
- According to the site access record from the Contractor, two workers were recorded to have entered the Project Site before 0630 hour for 3 times in February 2014. These two workers were responsible for filling diesel to construction plant before other workers on duty. The filling of diesel into construction plant is not expected to cause considerable

#### 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. In addition, construction noise permit (CNP) is also valid for those necessary works conducted outside the normal working hours. According to findings of investigation, no major construction works were carried out during 0600 - 0630 but operating underground water pumps and filling diesel for the equipment several times were carried out. These minor works are not anticipated to generate considerable noise to affect the nearby residents.

To maintain a good relationship with the nearby residents and further minimizing noise nuisance, the Contractor has immediately notified all workers and operation supervisors of the complaint on 4 March 2014 and reminded them to ensure that all power mechanical equipment must be turned off when they are not in use.

Date of File Closed:

10 March 2014

Approved by:

ET Leader

IEC

ICCPS's

Representative

Rocco Design

Architect's Representative

(Name: Winnie Ko)

Date: 10 March 2014

(Name: Sharifah Or)

Date: 24 March 2014

(Name: (WSham) Date:

(Name:

Date:

Gammon's Representative

Date:

(Name: CLIFF LEUNI)









### Central Police Station Conservation and Revitalisation Project



### COMPLAINT INVESTIGATION REPORT

### **Basic Information of Complaint**

Log Number:	2014/04/001
Date of Complaint Received	14 April 2014
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Environmental Protection Department (EPD)
Complainant	Nearby resident

### **Details of Complaint**

EPD received a complaint on noise nuisance from a resident living near the CPS Project Site on 14 April 2014. The complaint was transferred to the Project's Environmental Team and Gammon Construction Limited (GCL) on 15 April 2014. The complainant mentioned that construction noise was emanated from construction works conducted near the junction of Arbuthnot Road and Hollywood Road between 0200 to 0400 hours in recent mornings.

### Investigation Report

- 1. Demobilisation of the 100-tonne mobile crane from Arbuthnot Wing of the CPS Project Site was being conducted between 010C and 0330 hours on 14 April 2014.
- A Construction Noise Permit (GW-RS0271-14) for the demobilisation of the mobile crane was issued by the EPD on 25 March 2014. The CNP is valid between 0100 and 0600 hours on Mondays to Fridays not being a general holiday from 1 April 2014 to 30 June 2014.
- 3. A 350-tonne mobile crane arrived at Arbuthnot Road at 0100 hour and outriggers were being extended for the preparation of the lifting process of the 100-tonne mobile crane. The lifting of the 100-tonne mobile crane from Arbuthnot Wing to Arbuthnot Road was completed at around 0200 hours. The 100-tonne mobile crane left Arbuthnot Road via Wyndham Street. The 350-tonne mobile crane retracted its outriggers and was required to back along Arbuthnot Road to depart via Upper Albert Road. The entire demobilisation process was completed at 0330 hours.
- It is suspected that the noise source was originated from the retracting of the 350-tonne mobile crane outriggers or the back alert during the backing of the 350-tonne mobile crane along Arbuthnot Road.

#### 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 construction noise permit (CNP) is also valid for the demobilisation of the mobile crane carried out during the mentioned restricted hours. According to findings of investigation, the potential noise source may have been originated from the 350-tonne mobile crane during the retracting of its outriggers and its backing along Arbuthnot Road when the back alert was on. It should be noted that for safety reason, it is necessary to operate the back alert when the mobile crane is backing along the Arbuthnot Road. However, the Contractor was reminded to minimise potential noise sources by reducing work duration, as far as practicable, during restricted hours in order to minimise the likelihood of causing noise nuisance to nearby residents in the future. In addition, the Contractor has notified workers and operation supervisors of the complaint on 15 April 2014.

Date of File Closed:

22 April 2014

Approved by:

ET Leader

IEC

JCCPS's

Representative

Rocco Design Architect's

Representative

(Name: Winnie Ko)

Date: 22 April 2014

(Name: Sharifah Or)

Date: 24 April 2014

(Name: CW

(Name:

Date: 14-05-2014

Gammon's Representative

(Name: CLIFF LEVAL

Date:

2014.04.23

### Annex L

Records of Vibration Monitoring for Trial Piling and Piling Works





	Parade Ground									
Point	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2					
Date	mm/s	mm/s	mm/s	mm/s	mm/s					
01-Feb-14			Holiday							
02-Feb-14			Sunday							
03-Feb-14			Holiday							
04-Feb-14			<b>Site Closed</b>							
05-Feb-14			Site Closed							
06-Feb-14	0.087	0.086	0.102	0.146	0.116					
07-Feb-14	0.087	0.138	0.143	0.094	0.086					
08-Feb-14	0.083	0.097	0.178	0.102	0.766					
09-Feb-14			Sunday							
10-Feb-14	0.228	0.132	0.103	0.160	0.102					
11-Feb-14	0.098	0.264	0.132	0.100	0.104					
12-Feb-14	0.456	0.383	0.132	0.254	0.329					
13-Feb-14	0.322	0.285	0.340	0.102	0.105					
14-Feb-14	0.355	0.176	0.281	0.466	0.259					
15-Feb-14	0.319	0.244	0.270	0.312	0.151					
16-Feb-14			Sunday							
17-Feb-14	0.131	0.225	0.163	0.146	0.098					
18-Feb-14	0.100	0.137	0.132	0.121	0.097					
19-Feb-14	0.383	0.102	0.414	0.318	0.209					
20-Feb-14	0.111	0.151	0.098	0.098	0.103					
21-Feb-14	0.325	0.175	0.175	0.214	0.119					
22-Feb-14	0.153	0.106	0.233	0.136	0.132					
23-Feb-14			Sunday							
24-Feb-14	0.176	0.147	0.159	0.103	0.178					
25-Feb-14	0.719	0.566	0.595	0.125	0.103					
26-Feb-14	0.151	0.160	0.097	0.128	0.147					
27-Feb-14	0.170	0.144	0.120	0.175	0.103					
28-Feb-14	0.112	0.105	0.111	0.223	0.184					



### **Vibration Monitoring Record (March)**

	Parade Ground										
Point	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2						
Date	mm/s	mm/s	mm/s	mm/s	mm/s						
01-Mar-14	0.091	0.100	0.105	0.091	0.116						
02-Mar-14			Sunday								
03-Mar-14	0.191	0.113	0.125	0.176	0.098						
04-Mar-14	0.159	0.151	0.106	0.121	0.202						
05-Mar-14	0.194	0.131	0.132	0.192	0.122						
06-Mar-14	0.129	0.742	1.020	0.120	0.102						
07-Mar-14	1.080	0.472	0.259	0.286	0.225						
08-Mar-14	0.537	0.214	0.362	0.211	0.185						
09-Mar-14			Sunday								
10-Mar-14	0.306	0.242	0.129	0.350	0.102						
11-Mar-14	0.251	0.198	0.322	0.281	0.147						
12-Mar-14	0.255	0.172	0.559	0.146	0.503						
13-Mar-14	0.103	0.117	0.194	0.678	0.192						
14-Mar-14	0.168	0.103	0.221	0.175	0.138						
15-Mar-14	0.182	0.142	0.281	0.168	0.114						
16-Mar-14			Sunday								
17-Mar-14	0.145	0.128	0.239	0.446	0.113						
18-Mar-14	0.168	0.117	0.183	0.228	0.114						
19-Mar-14	0.259	0.128	0.090	0.086	0.190						
20-Mar-14	0.864	0.258	0.870	0.217	0.236						
21-Mar-14	0.181	0.160	0.111	0.145	0.166						
22-Mar-14	0.105	0.290	0.218	0.094	0.098						
23-Mar-14			Sunday								
24-Mar-14	0.160	0.145	0.317	0.116	0.279						
25-Mar-14	0.144	0.129	0.348	0.098	0.357						
26-Mar-14	0.462	0.132	0.197	0.611	0.503						
27-Mar-14	0.163	0.086	0.094	0.197	0.128						
28-Mar-14	0.335	0.174	0.156	0.128	0.095						
29-Mar-14	0.120	0.111	0.176	0.429	0.382						
30-Mar-14			Sunday								
31-Mar-14	0.086	0.286	0.086	0.112	0.147						



### Vibration Monitoring Record (April)

		Pa	rade Grou	nd	
Point	VM1-1	VM1-2	VM2-1	VM3-1	VM3-2
Date	mm/s	mm/s	mm/s	mm/s	mm/s
01-Apr-14	0.102	0.139	0.093	0.422	0.350
02-Apr-14	0.098	0.087	0.093	0.087	0.245
03-Apr-14	0.157	0.114	0.138	0.251	0.167
04-Apr-14	0.202	0.175	0.152	0.371	0.128
05-Apr-14			Holiday		
06-Apr-14			Sunday		
07-Apr-14	0.265	0.126	0.316	0.203	0.185
08-Apr-14	0.102	0.658	0.171	0.122	0.151
09-Apr-14	0.272	0.237	0.108	0.351	0.383
10-Apr-14	0.186	0.115	0.201	0.286	0.126
11-Apr-14	0.129	0.160	0.113	0.087	0.117
12-Apr-14	0.502	0.327	0.434	0.397	0.426
13-Apr-14			Sunday		
14-Apr-14	0.217	0.168	0.135	0.231	0.118
15-Apr-14	0.112	0.086	0.087	0.098	0.175
16-Apr-14	0.163	0.116	0.208	0.158	0.182
17-Apr-14	0.493	0.243	0.187	0.169	0.247
18-Apr-14			Holiday		
19-Apr-14			Holiday		
20-Apr-14			Sunday		
21-Apr-14			Holiday		
22-Apr-14	0.169	0.137	0.147	0.166	0.162
23-Apr-14	0.944	0.192	0.117	0.258	0.432
24-Apr-14	0.111	0.145	0.120	0.242	0.588
25-Apr-14	0.178	0.243	0.159	0.166	0.122
26-Apr-14	0.137	0.147	0.870	0.237	0.242
27-Apr-14			Sunday		
28-Apr-14	0.182	0.221	0.164	0.128	0.177
29-Apr-14	0.236	0.526	0.241	0.487	0.163
30-Apr-14	0.241	0.212	0.177	0.163	0.160



### ( Block 8 Foundation )

Monitoring Check Pts.	Trigger Levels				
Literates and the second second	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		

Project Title: (	Project Title: Central Police Station Conservation & Revitalization		Revitalization	Project No: WP201	2-Feb-2014	to	15-Feb-2014	
POINT		VM8-1	<b>VM</b> 11-1#	VM11-2				
DATE	PD/(m)	mm/s	mm/s	mm/s				
19-Jun-2012 (	Initial)	0.56	0.13	0.19				
2-Feb-2014	1		<u> </u>		Sunday			
3-Feb-2014					Public Holiday			
4-Feb-2014					Site Closed			
5-Feb-2014					Site Closed			
6-Feb-2014		0.410	0.106	0.153				
7-Feb-2014		0.380	0.209	0.242				
8-Feb-2014		0.370	0.131	0.145				
9-Feb-2014	•		-	•	Sunday		•	
10-Feb-2014		0.430	0.727	0.616				
11-Feb-2014		0.410	0.572	0.642				
12-Feb-2014		0.400	0.328	0.414				
13-Feb-2014		0.430	0.172	0.093				
14-Feb-2014		0.450	0.175	0.302				
15-Feb-2014		0.470	0.204	0.157				

# 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

( Block 8 Foundation )

Project Title: 0	Project Title: Central Police Station Conservation & Revitalization		Project No: WP201		16-Feb-2014	to	1-Mar-2014		
POINT		<b>VM</b> 8-1	<b>VM</b> 11-1#	VM11-2					
DATE	PD/(m)	mm/s	mm/s	mm/s					
19-Jun-2012 (	Initial)	0.56	0.13	0.19					
16-Feb-2014					Sunday				
17-Feb-2014		0.460	0.091	0.164	· ·				
18-Feb-2014		0.450	0.108	0.091					
19-Feb-2014		0.450	0.145	0.086					
20-Feb-2014		0.500	0.352	0.597					
21-Feb-2014		0.510	0.131	0.209					
22-Feb-2014		0.470	0.125	0.105					
23-Feb-2014					Sunday				
24-Feb-2014		0.480	0.261	0.320					
25-Feb-2014		0.520	0.087	0.143					
26-Feb-2014		0.570	0.119	0.091					
27-Feb-2014		0.590	0.207	0.086					
28-Feb-2014		0.520	0.144	0.343					
1-Mar-2014		0.610	0.116	0.233					

# ( Block 8 Foundation )

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		

Project Title: C	Project Title: Central Police Station Conservation & Revitalization		 Project No: WP201 2-Mar-201		2-Mar-2014	to	15-Mar-2014		
POINT		<b>VM</b> 8-1	VM11-1#	VM11-2					
DATE	PD/(m)	mm/s	mm/s	mm/s					
19-Jun-2012 (I	nitial)	0.56	0.13	0.19					
2-Mar-2014					Sunday				
3-Mar-2014		0.460	0.108	0.113					
4-Mar-2014		0.450	0.106	0.119					
5-Mar-2014		0.450	0.108	0.191					
6-Mar-2014		0.500	0.164	0.191					
7-Mar-2014		0.510	0.158	0.151					
8-Mar-2014		0.470	0.135	0.128					
9-Mar-2014					Sunday				
10-Mar-2014		0.480	0.243	0.501					
11-Mar-2014		0.520	0.162	0.138					
12-Mar-2014		0.570	0.607	0.530					
13-Mar-2014		0.590	0.086	0.102				_	
14-Mar-2014		0.520	0.351	0.232					
15-Mar-2014		0.610	0.195	0.210					

### ( Block 8 Foundation )



Monitoring Check Pts.	Trigger Levels				
months cheen the	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		

Project Title: Centra	oject Title: Central Police Station Conservation & Revitalization		Revitalization	Project No: WP201	16-Mar-2014	to 29	29-Mar-2014
POINT	VM8-1	<b>VM</b> 11-1#	VM11-2				
DATE PD/(	(m) mm/s	mm/s	mm/s				
19-Jun-2012 (Initial)	0.56	0.13	0.19				
16-Mar-2014			<u> </u>	Sunday			
17-Mar-2014	0.710	0.392	0.436				
18-Mar-2014	0.740	0.216	0.211				
19-Mar-2014	0.750	0.095	0.093				
20-Mar-2014	0.760	0.316	0.122				
21-Mar-2014	0.730	0.550	0.125				
22-Mar-2014	0.740	0.156	0.106				
23-Mar-2014		_		Sunday			
24-Mar-2014	0.770	0.251	0.324				
25-Mar-2014	0.850	0.302	0.139				
26-Mar-2014	0.820	0.240	0.907				
27-Mar-2014	0.840	0.217	0.095				
28-Mar-2014	0.850	0.185	0.137				
29-Mar-2014	0.810	0.087	0.145				
30-Mar-2014				Sunday			
31-Mar-2014	0.820	0.146	0.086				

### ( Block 8 Foundation )

Monitoring Check Pts.	Trigger Levels				
Monitoring Chock 1 to	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		

ject Title: Ce	entral Poli	ce Station Co	onservation & R	evitalization	Project No: WP201	1-Apr-2014	to	30-Apr-
POINT		VM8-1	<b>VM</b> 11-1#	<b>VM</b> 11-2				
DATE	PD/(m)	mm/s	mm/s	mm/s				
19-Jun-2012 (In		0.56	0.13	0.19				
1-Apr-2014		0.83	0.51	0.36				
2-Apr-2014		0.84	0.50	0.35				
3-Apr-2014		0.83	0.52	0.34				
4-Apr-2014		0.82	0.50	0.33				
5-Apr-2014				•	Holiday			
6-Apr-2014					Sunday			
7-Apr-2014		0.76	0.52	0.52				
8-Apr-2014		0.75	0.52	0.50				
9-Apr-2014		0.75	0.51	0.52				
0-Apr-2014		0.74	0.49	0.51				
1-Apr-2014		0.73	0.47	0.47				
2-Apr-2014		0.72	0.48	0.49				
3-Apr-2014					Sunday			
4-Apr-2014		0.73	0.46	0.48				
5-Apr-2014		0.72	0.44	0.47				
6-Apr-2014		0.70	0.43	0.46				
7-Apr-2014		0.75	0.48	0.48				
8-Apr-2014				<u> </u>	Holiday			
9-Apr-2014					Holiday			
20-Apr-2014					Sunday			
21-Apr-2014					Holiday			
22-Apr-2014		0.74	0.50	0.51				
3-Apr-2014		0.75	0.51	0.52				
4-Apr-2014		0.73	0.50	0.53				
25-Apr-2014		0.76	0.53	0.54				
6-Apr-2014		0.72	0.56	0.52				
7-Apr-2014				•	Sunday			
8-Apr-2014		0.74	0.54	0.53				
9-Apr-2014		0.75	0.52	0.51				
30-Apr-2014		0.73	0.51	0.50				

Mini-piles with post-pressurized grout in CDG and Steel Shear H-piles at Block 1, STREET 11SW-B/R18 11SW-B/R17-Shirt King The Centrium CONT 11SW-B/R806 11SW-B/R23-11SW-B/R52 NG Kin-shing Chief Successal Engineer for BUILING AITHORD 11SW-B/R24 ₩ 1 5 MAR 2012 11SW-B/R53 11SW-B/R19-115W-B/R174 / bH21(5,P) 11SW-B/R175-BD SUBMISSION wing Status 影腦狀況 LEGEND Symple Community (1) The Lake Check Art 406% id directores to sar 再發尺寸必能加工地链增有多益量核 EXISTING STREET LICHTING NO. 33488-AL BSS-2/ 11SW-B/R19-11SW-B/R177 115W-B/R55 HERZOG & DE MEURON EXISTING TELECOMMUNICATION DUCT (HISTORISION OF DEAL COMMUNICATIONS LAMITED) EXISTING STOPHWATER DRAIN ROCCO R. JRP ARUP Proper PATE CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT EXISTING DRILLHOLE WITH 11SW-B/R54 STANDPIPE/PIEZOMETER Descring Tells 重包 MONITORING LAYOUT PLAN 11SW-B/R178 PROPOSED BUILDING SETTLEMENT POINTS/TRUTMETER RS\$74-1/RT174-PROPOSED INCLINOMETER TO BE BUILT IN BORIED PILE WALL OR PIPE PILE WALL INJUST.

J. UTRITIES SETTLEMENT POINTS (UTI TO UTIS)

SHALL ONLY BE HISTALLED AFTER ETCANATION
PERMIT IS OBTAINED, AS ALTERNATIVE.
SETTLEMENT POINTS (CS18 AND CS19) MAY BE
INSTALLED.

Z. SHOULD UTI TO UTIS BE HISTALLED, GS18 AND
CS18 SHALL NOT BE REQUIRED. 00-0AP209674-G-001 PROPOSED GROUND SETTLEMENT POINTS ⊠ uni PROPOSED UTILITY MONITORING POINTS CSTO SAAL NOT BE BEQUIRED.

JETHER UTLINES SETTLEMENT MARKERS (UT1 TO

UT5) OR GROUND SETTLEMENT MARKETS (CSTB
AND GSTD) SHALL BE INSTALLED PROP TO

COMMENCEMENT OF OLD BALLY WING ELS

WORKS. PROPOSED MERATION MONITORING POINTS MONITORING ZONE A PROPOSED ADDITIONAL DRIFLIHOLE

	( Block 17 Fou	ındation Works	)		
Monitoring Check Pts.	Trigger Levels				
Monitoring Check Fts.	Alert level	Alarm level	Action level		
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s		
# Vibration at largest span of	5.0mm/s	6.0mm/s	7.5mm/s		
highest Structural level	5.011111/8	0.01111178			

Project Title: Co	ject Title: Central Police Station Conservation & Revitalization		Revitalization	Project No: WP201	2-Feb-2014	to	15-Feb-2014	
POINT		VM17-1	VM17-3 #					
DATE	PD/(m)	mm/s	mm/s					
19-Jun-2012 (In	nitial)	0.13	0.37					
Surveying Date								
2-Feb-2014					Sunday		_	
3-Feb-2014					Public Holiday			
4-Feb-2014					Site Closed			
5-Feb-2014					Site Closed			
6-Feb-2014		0.250	0.240					
7-Feb-2014		0.290	0.220					
8-Feb-2014		0.240	0.210					
9-Feb-2014					Sunday			
10-Feb-2014		0.220	0.210					
11-Feb-2014		0.500	0.460					
12-Feb-2014		0.580	0.530					
13-Feb-2014		0.610	0.500					
14-Feb-2014		0.620	0.560					
15-Feb-2014		0.600	0.540					

	•		,		
Manitoning Chaole Dto	Trigger Levels				
Monitoring Check Pts.	Alert level	Alarm level	Action level		
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s		
# Vibration at largest span of	<b>5.0</b> mm/s	6.0mm/s	7.5mm/s		
highest Structural level	3.0mm/s	0.011111/5	7.51111178		

( Block 17 Foundation Works )

Project Title: C	Project Title: Central Police Station Conservation & Revitalization		Revitalization	Project No: WP2	01 16-Feb-2014	to	1-Mar-2014	
POINT		VM17-1	VM17-3 #					
DATE	PD/(m)	mm/s	mm/s					
19-Jun-2012 (I	nitial)	0.13	0.37					
Surveying Date								
16-Feb-2014				•	Sunday			
17-Feb-2014		0.570	0.210					
18-Feb-2014		0.580	0.460					
19-Feb-2014		0.620	0.530					
20-Feb-2014		0.650	0.500					
21-Feb-2014		0.600	0.560					
22-Feb-2014		0.620	0.540					
23-Feb-2014					Sunday			
24-Feb-2014		0.680	0.640					
25-Feb-2014		0.670	0.700					
26-Feb-2014		0.650	0.740					
27-Feb-2014		0.710	0.720					
28-Feb-2014		0.680	0.710					
1-Mar-2014		0.700	0.720					

	•		,		
Manitaring Charle Dtg	Trigger Levels				
Monitoring Check Pts.	Alert level	Alarm level	Action level		
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s		
# Vibration at largest span of	<b>5.0</b> mm/s	<b>6.0</b> mm/s	7.5mm/s		
highest Structural level	5.011111/3	0.011111/8	7.511111/8		

( Block 17 Foundation Works )

Project Title: C	roject Title: Central Police Station Conservation & Revitalization			Project No: W	Project No: WP201 2-Mar-2014			15-Mar-2014	
POINT		VM17-1	VM17-3 #						
DATE	PD/(m)	mm/s	mm/s						
19-Jun-2012 (I	nitial)	0.13	0.37						
Surveying Date									
2-Mar-2014					Sunday				
3-Mar-2014		0.710	0.750						
4-Mar-2014		0.660	0.740						
5-Mar-2014		0.700	0.710						
6-Mar-2014		0.760	0.680						
7-Mar-2014		0.770	0.700						
8-Mar-2014		0.710	0.710						
9-Mar-2014					Sunday				
10-Mar-2014		0.210	0.500						
11-Mar-2014		0.250	0.510						
12-Mar-2014		0.283	0.480						
13-Mar-2014		0.320	0.510						
14-Mar-2014		0.280	0.510			_			
15-Mar-2014		0.260	0.470			_			

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

( Block 17 Foundation Works )

### Vibration Record

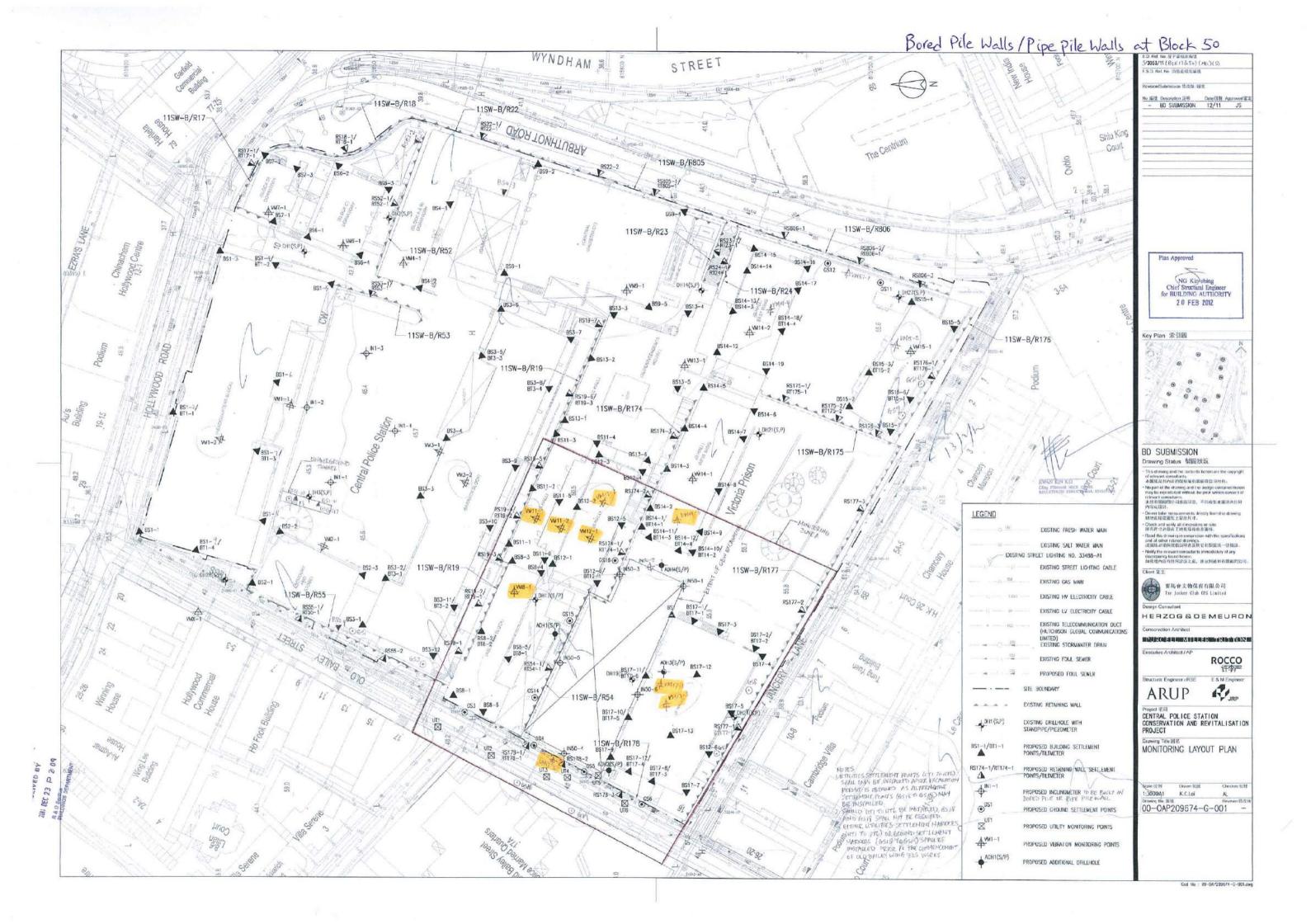
Project Title: C	oject Title: Central Police Station Conservation & Revitalization		lization	Project No: WP2	201 16-Mar-2014	to	29-Mar-2014	
POINT		VM17-1	VM17-3 #					
DATE	PD/(m)	mm/s	mm/s					
19-Jun-2012 (I	nitial)	0.13	0.37					
Surveying Date								
16-Mar-2014					Sunday			
17-Mar-2014		0.300	0.490					
18-Mar-2014		0.350	0.550					
19-Mar-2014		0.320	0.510					
20-Mar-2014		0.390	0.480					
21-Mar-2014		0.400	0.510					
22-Mar-2014		0.450	0.510					
23-Mar-2014					Sunday			
24-Mar-2014		0.280	0.650					
25-Mar-2014		0.350	0.710					
26-Mar-2014		0.340	0.750					
27-Mar-2014		0.360	0.720					
28-Mar-2014		0.350	0.700					
29-Mar-2014		0.290	0.650					
30-Mar-2014					Sunday			
31-Mar-2014		0.380	0.720					

Prepared by :Lo wing yue (Surveyor)



	( BIOCK 17 FOL	undation works	)	
Manitonina Chaole Dto	Trigger Levels			
Monitoring Check Pts.	Alert level	Alarm level	Action level	
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s	
#Vibration at largest span of	5.0mm/s	<b>6.0</b> mm/s	7.5mm/s	
highest Structural level	5.011111/5	0.01111178	7.311111/8	

Project Title: C	roject Title: Central Police Station Conservation & Revitalization		Revitalization	Project No: WP20	et No: WP201 1-Apr-2014 to						
POINT		VM17-1	VM17-3 #								
DATE	PD/(m)	mm/s	mm/s								
19-Jun-2012 (I	nitial)	0.13	0.37								
Surveying Date											
1-Apr-2014		0.34	0.70								
2-Apr-2014		0.37	0.71								
3-Apr-2014		0.35	0.70								
4-Apr-2014		0.33	0.68								
5-Apr-2014		0.55	0.00		Holiday			1			
6-Apr-2014					Sunday						
7-Apr-2014		0.31	0.64								
8-Apr-2014		0.28	0.66								
9-Apr-2014			0.64								
		0.29									
10-Apr-2014		0.28	0.61								
11-Apr-2014		0.19	0.50								
12-Apr-2014		0.15	0.47								
13-Apr-2014			1		Sunday	1					
14-Apr-2014		0.13	0.42								
15-Apr-2014		0.15	0.45								
16-Apr-2014		0.16	0.43								
17-Apr-2014		0.14	0.44								
18-Apr-2014					Holiday						
19-Apr-2014					<del>-</del>	Holiday					
20-Apr-2014 21-Apr-2014					Sunday Holiday						
22-Apr-2014		0.28	0.65		Honday						
23-Apr-2014 23-Apr-2014		0.28	0.64								
24-Apr-2014		0.30	0.68								
25-Apr-2014		0.29	0.67								
26-Apr-2014		0.31	0.65								
27-Apr-2014					Sunday						
28-Apr-2014		0.30	0.64								
29-Apr-2014		0.27	0.61								
30-Apr-2014		0.28	0.56								





Monitoring Check Pts.		Trigger Levels					
Monttoring Check Fts.	Alert level	Alarm level	Action level				
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s				
# Vibration at largest span of	5.0mm/s	<b>6.0</b> mm/s	7.5mm/s				
highest Structural level	5.011111/5	0.011111/5					

Project Title:	ct Title: Central Police Station Conservation & Revitalization		on	Project No: WP201			to	15-Feb-2014				
POINT		<b>VM</b> 8-1	<b>VM</b> 11-1#	VM11-2	VM12-1#	VM12-2	<b>VM</b> 14-3	VM17-1	V <b>M</b> 17-2	VM17-3 #		
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s		
19-Jun-2012 (	Initial)	0.56	0.13	0.19	0.22	0.13	0.21	0.13	0.13	0.37		
Surveying Date												
2-Feb-2014	_	Sunday										
3-Feb-2014		Public Holiday										
4-Feb-2014		Site Closed										
5-Feb-2014						Site Closed						
6-Feb-2014		0.410	0.106	0.153	0.081	0.181	0.350	0.250	0.180	0.240		
7-Feb-2014		0.380	0.209	0.242	0.108	0.100	0.310	0.290	0.200	0.220		
8-Feb-2014		0.370	0.131	0.145	0.087	0.098	0.320	0.240	0.160	0.210		
9-Feb-2014						Sunday						
10-Feb-2014		0.430	0.727	0.616	0.461	0.799	0.370	0.220	0.180	0.210		
11-Feb-2014		0.410	0.572	0.642	0.550	0.522	0.480	0.500	0.470	0.460		
12-Feb-2014		0.400	0.328	0.414	0.353	0.282	0.520	0.580	0.510	0.530		
13-Feb-2014		0.430	0.172	0.093	0.250	0.091	0.540	0.610	0.570	0.500		
14-Feb-2014		0.450	0.175	0.302	0.169	0.209	0.560	0.620	0.580	0.560		
15-Feb-2014		0.470	0.204	0.157	0.137	0.119	0.580	0.600	0.550	0.540		
Remark												



Monitoring Check Pts.	Trigger Levels					
Monttoling Check Fts.	Alert level	Alarm level	Action level			
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s			
# Vibration at largest span of	5.0mm/s	<b>6.0</b> mm/s	<b>7.5</b> mm/s			
highest Structural level	5.011111/5	0.01111178				

Project Title:	Project Title: Central Police Station Conservation & Revitalization					Project No: W	/P201	16-Feb-2014	16-Feb-2014 to	
POINT		VM8-1	<b>VM</b> 11-1#	VM11-2	VM12-1#	VM12-2	VM14-3	VM17-1	V <b>M</b> 17-2	VM17-3 #
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
19-Jun-2012 (	Initial)	0.56	0.13	0.19	0.22	0.13	0.21	0.13	0.13	0.37
Surveying Date										
16-Feb-2014						Sunday				
17-Feb-2014		0.460	0.091	0.164	0.095	0.098	0.610	0.570	0.570	0.210
18-Feb-2014		0.450	0.108	0.091	0.122	0.098	0.670	0.580	0.590	0.460
19-Feb-2014		0.450	0.145	0.086	0.174	0.087	0.690	0.620	0.620	0.530
20-Feb-2014		0.500	0.352	0.597	0.309	0.102	0.700	0.650	0.630	0.500
21-Feb-2014		0.510	0.131	0.209	0.163	0.129	0.670	0.600	0.700	0.560
22-Feb-2014		0.470	0.125	0.105	0.091	0.091	0.700	0.620	0.650	0.540
23-Feb-2014						Sunday				
24-Feb-2014		0.480	0.261	0.320	0.113	0.100	0.690	0.680	0.640	0.640
25-Feb-2014		0.520	0.087	0.143	0.307	0.093	0.750	0.670	0.660	0.700
26-Feb-2014		0.570	0.119	0.091	0.105	0.083	0.790	0.650	0.680	0.740
27-Feb-2014		0.590	0.207	0.086	0.132	0.095	0.790	0.710	0.680	0.720
28-Feb-2014		0.520	0.144	0.343	0.223	0.087	0.810	0.680	0.650	0.710
1-Mar-2014		0.610	0.116	0.233	0.355	0.111	0.780	0.700	0.690	0.720
Remark										



Monitoring Check Pts.	Trigger Levels					
Monitoring Check Fis.	Alert level	Alarm level	Action level			
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s			
# Vibration at largest span of	5 Oma en /a	6 Omeres la	<b>7.5</b> mm/s			
highest Structural level	5.0mm/s	6.0mm/s				

Project Title:	Project Title: Central Police Station Conservation & Revitalization						P201	2-Mar-2014	to	15-Mar-2014
POINT		VM8-1	<b>VM</b> 11-1#	VM11-2	V <b>M12-1</b> #	VM12-2	VM14-3	VM17-1	V <b>M</b> 17-2	VM17-3 #
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
19-Jun-2012 (	Initial)	0.56	0.13	0.19	0.22	0.13	0.21	0.13	0.13	0.37
Surveying Date										
2-Mar-2014						Sunday				
3-Mar-2014		0.580	0.108	0.113	0.137	0.111	0.820	0.710	0.690	0.750
4-Mar-2014		0.570	0.106	0.119	0.125	0.264	0.800	0.660	0.680	0.740
5-Mar-2014		0.560	0.108	0.191	0.154	0.103	0.780	0.700	0.650	0.710
6-Mar-2014		0.560	0.164	0.191	0.151	0.083	0.800	0.760	0.720	0.680
7-Mar-2014		0.580	0.158	0.151	0.143	0.113	0.800	0.770	0.710	0.700
8-Mar-2014		0.540	0.135	0.128	0.138	0.105	0.820	0.710	0.680	0.710
9-Mar-2014						Sunday				
10-Mar-2014		0.750	0.243	0.501	0.208	0.095	0.520	0.210	0.710	0.500
11-Mar-2014		0.710	0.162	0.138	0.126	0.142	0.550	0.250	0.750	0.510
12-Mar-2014		0.730	0.607	0.530	0.137	0.094	0.500	0.283	0.740	0.480
13-Mar-2014		0.720	0.086	0.102	0.180	0.111	0.490	0.320	0.750	0.510
14-Mar-2014		0.730	0.351	0.232	0.168	0.143	0.520	0.280	0.760	0.510
15-Mar-2014		0.740	0.195	0.210	0.209	0.161	0.560	0.260	0.750	0.470
Remark										



Monitoring Check Pts.	Trigger Levels						
Widintoring Check Fts.	Alert level	Alarm level	Action level				
Vibration Monitoring	2mm/s	3mm/s					
# Vibration at largest span of	5.0mm/s	6.0mm/s	7.5mm/s				
highest Structural level	5.011111/8	0.011111/5	7.311111/5				

Project Title:	oject Title: Central Police Station Conservation & Revitalization						/P201	16-Mar-2014	to	29-Mar-2014
POINT		VM8-1	VM11-1#	VM11-2	VM12-1#	VM12-2	VM14-3	VM17-1	V <b>M</b> 17-2	VM17-3 #
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
19-Jun-2012 (	Initial)	0.56	0.13	0.19	0.22	0.13	0.21	0.13	0.13	0.37
Surveying Date										
16-Mar-2014						Sunday				
17-Mar-2014		0.710	0.600	0.340	0.510	0.420	0.550	0.210	0.710	0.500
18-Mar-2014		0.740	0.610	0.360	0.520	0.460	0.560	0.250	0.750	0.510
19-Mar-2014		0.750	0.550	0.370	0.530	0.480	0.550	0.280	0.740	0.480
20-Mar-2014		0.760	0.650	0.350	0.540	0.420	0.590	0.320	0.750	0.510
21-Mar-2014		0.730	0.580	0.370	0.550	0.480	0.650	0.280	0.760	0.510
22-Mar-2014		0.740	0.570	0.380	0.520	0.490	0.620	0.260	0.750	0.470
23-Mar-2014						Sunday				
24-Mar-2014		0.770	0.480	0.350	0.520	0.480	0.560	0.280	0.780	0.650
25-Mar-2014		0.850	0.520	0.350	0.580	0.520	0.610	0.350	0.850	0.710
26-Mar-2014		0.820	0.540	0.370	0.560	0.510	0.620	0.340	0.810	0.750
27-Mar-2014		0.840	0.530	0.350	0.550	0.490	0.650	0.360	0.840	0.720
28-Mar-2014		0.850	0.490	0.340	0.540	0.480	0.660	0.350	0.800	0.700
29-Mar-2014		0.810	0.460	0.300	0.500	0.420	0.590	0.290	0.760	0.650
30-Mar-2014	•					Sunday		_		
31-Mar-2014		0.820	0.540	0.380	0.570	0.500	0.680	0.380	0.810	0.720
Remark										



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

Project Title:	Central F	Police Station	Conservation	& Revitalization	on	Project No: W	P201	1-Apr-2014	to	30-Apr-2014
POINT	[	VM8-1	VM11-1#	<b>V</b> M11-2	VM12-1#	VM12-2	VM14-3	VM17-1	VM17-2	VM17-3 #
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	mm/s
19-Jun-2012	(Initial)	0.56	0.13	0.19	0.22	0.13	0.21	0.13	0.13	0.37
Surveying Date										
1-Apr-2014		0.83	0.51	0.36	0.56	0.49	0.65	0.34	0.82	0.70
2-Apr-2014		0.84	0.50	0.35	0.56	0.49	0.67	0.37	0.81	0.71
3-Apr-2014		0.83	0.52	0.34	0.54	0.47	0.62	0.35	0.80	0.70
4-Apr-2014		0.82	0.50	0.33	0.55	0.46	0.63	0.33	0.81	0.68
5-Apr-2014			•		•	Holiday	•	•		•
6-Apr-2014						Sunday				
7-Apr-2014		0.76	0.52	0.52	0.55	0.49	0.57	0.31	0.82	0.64
8-Apr-2014		0.75	0.52	0.50	0.54	0.46	0.55	0.28	0.71	0.66
9-Apr-2014		0.75	0.51	0.52	0.52	0.45	0.49	0.29	0.75	0.64
10-Apr-2014		0.74	0.49	0.51	0.53	0.44	0.54	0.28	0.76	0.61
11-Apr-2014		0.73	0.47	0.47	0.47	0.43	0.49	0.19	0.56	0.50
12-Apr-2014		0.72	0.48	0.49	0.45	0.45	0.47	0.15	0.51	0.47
13-Apr-2014						Sunday				
14-Apr-2014		0.73	0.46	0.48	0.44	0.43	0.46	0.13	0.55	0.42
15-Apr-2014		0.72	0.44	0.47	0.42	0.40	0.48	0.15	0.56	0.45
16-Apr-2014		0.70	0.43	0.46	0.45	0.41	0.47	0.16	0.58	0.43
17-Apr-2014		0.75	0.48	0.48	0.46	0.40	0.46	0.14	0.54	0.44
18-Apr-2014						Holiday				
19-Apr-2014						Holiday				
20-Apr-2014						Sunday				
21-Apr-2014						Holiday				
22-Apr-2014		0.74	0.50	0.51	0.51	0.43	0.55	0.28	0.72	0.65
23-Apr-2014		0.75	0.51	0.52	0.52	0.45	0.52	0.31	0.73	0.64
24-Apr-2014		0.73	0.50	0.53	0.56	0.44	0.54	0.30	0.75	0.68
25-Apr-2014		0.76	0.53	0.54	0.54	0.46	0.57	0.29	0.74	0.67
26-Apr-2014		0.72	0.56	0.52	0.52	0.45	0.52	0.31	0.73	0.65
27-Apr-2014				•	•	Sunday	•			·
28-Apr-2014		0.74	0.54	0.53	0.51	0.43	0.53	0.30	0.71	0.64
29-Apr-2014		0.75	0.52	0.51	0.50	0.42	0.51	0.27	0.70	0.61
30-Apr-2014		0.73	0.51	0.50	0.48	0.40	0.48	0.28	0.67	0.56

Shaft Granted Pre-boved H-piles at Block 51 (Arbithnot Wing) WYNDHAM & STREET 115W-B/R18 11SW-B/R17-Shiu King The Centrium Court 11SW-B/R23-11SW-B/R52 (NG Kin-shing Chief Streetwal Engineer for BUILDING AUTHOUT) -11SW-B/R24 N BS13-4 13 JUL 2012 - 11SW-B/R53 -11SW-B/R176 11SW-B/R19-851-14 871-7 11SW-B/R174-MONITORING ZONE/A 11SW-B/R175 BD SUBMISSION Drawing Status 製鑑狀況 Do net take measurements d 以內質持续關係上無違決寸。 DECK and worly at Developions on M 形式可含混合工物化模模包含温度 Head this answing in conjunction with the injunification and all other related showings.
此類版史包含與此類由的代表了以下的新聞版一樣開議。 EXISTING SALT WATER WAIN EXISTING STREET LICHTING NO. 33488-AT Sacrepancy found below, 如我認內存在在科學協之處。無点於這級有數學所否則 115W-8/R19-11SW-B/R177 EXISTING STREET LIGHTING CABLE 電路管 東京院 20 名前では Ng Yee Jorday Class Cris kinlings 11SW-B/R55-HERZOG & DE MEURON EXISTING FOUL SEWER R. JRP ARUP EXISTING RETAINING WALL Project FIEE
CENTRAL POLICE STATION
CONSERVATION AND REVITALISATION
PROJECT 11SW-B/R54 MONITORING LAYOUT PLAN BS1-1/BI1-1 PROPOSED BUILDING SETTLEMENT FORTS/TICINETER RS174-1/RT174-1 PROPOSED RETAINING WALL SETTLEMENT POINTS/TILLIMETER PROPOSED GROUND SETTLEMENT POINTS E III PROPOSED UTILITY MONITORING POINTS ₩1-1 PROPOSED VERATION MONITORING POINTS CREATER ASSOCIATION PROPOSED ADDITIONAL ORILHOLE Historia Marinary operate With

# /// 恆誠建築工程有限公司

## Win Win Way Construction Company Ltd.

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

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

Project Title:	Project Title: Central Police Station Conservation & Revitalization							2-Feb-2014	to	15-Feb-2014		
POINT		VM14-4	VM15-2	<b>VM</b> 51-1								
DATE	PD/(m)	mm/s	mm/s	mm/s								
03-Dec-2012 (	(Initial)	0.14	0.21	0.3								
2-Feb-2014	Sunday											
3-Feb-2014		Public Holiday										
4-Feb-2014		Site Closed										
5-Feb-2014					S	Site Closed						
6-Feb-2014		0.280	0.117	0.130								
7-Feb-2014		0.260	0.230	0.160								
8-Feb-2014		0.210	0.093	0.140								
9-Feb-2014						Sunday						
10-Feb-2014		0.240	0.175	0.150								
11-Feb-2014		0.230	0.709	0.130								
12-Feb-2014		0.290	0.200	0.140								
13-Feb-2014		0.290	0.087	0.140								
14-Feb-2014		0.300	0.163	0.180								
15-Feb-2014		0.280	0.090	0.190								
Remarks												

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

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

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

## Vibration Record

Project Title:	Central	Police Station	n Conservation	& Revitalization	Proje	ct No: WP201	16-Feb-2014	to	1-Mar-2014
POI <b>N</b> T		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					
16-Feb-2014						Sunday			
17-Feb-2014		0.290	0.122	0.200					
18-Feb-2014		0.310	0.270	0.190					
19-Feb-2014		0.280	0.095	0.220					
20-Feb-2014		0.300	0.086	0.250					
21-Feb-2014		0.290	0.087	0.270					
22-Feb-2014		0.350	0.150	0.200					
23-Feb-2014						Sunday			
24-Feb-2014		0.320	0.100	0.290					
25-Feb-2014		0.290	0.112	0.350					
26-Feb-2014		0.310	0.108	0.320					
27-Feb-2014		0.320	0.102	0.280					
28-Feb-2014		0.290	0.108	0.270					
1-Mar-2014		0.310	0.086	0.320					
Remarks									

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

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

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

## Vibration Record

Project Title:	Central	Police Station	n Conservation	& Revitalization	Project No: WP201	2-Mar-2014	to	15-Mar-2014
POINT		VM14-4	<b>VM</b> 15-2	<b>VM</b> 51-1				
DATE	PD/(m)	mm/s	mm/s	mm/s				
03-Dec-2012	(Initial)	0.14	0.21	0.3				
2-Mar-2014					Sunday			
3-Mar-2014		0.350	0.100	0.220		 		
4-Mar-2014		0.380	0.081	0.250		 		
5-Mar-2014		0.370	0.113	0.250				
6-Mar-2014		0.360	0.125	0.330				
7-Mar-2014		0.340	0.083	0.340				
8-Mar-2014		0.370	0.193	0.390				
9-Mar-2014					Sunday			
10-Mar-2014		0.410	0.102	0.400				
11-Mar-2014		0.380	0.109	0.350				
12-Mar-2014		0.360	0.103	0.390				
13-Mar-2014		0.390	0.087	0.410				
14-Mar-2014		0.400	0.124	0.400				
15-Mar-2014		0.370	0.117	0.390				
Remarks								

(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.

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

## Vibration Record

Project Title:	Central	Police Station	n Conservation	& Revitalization	Project No: WP201	16-Mar-2014	to	29-Mar-2014
POINT		VM14-4	VM15-2	VM51-1				
DATE	PD/(m)	mm/s	mm/s	mm/s				
03-Dec-2012 (	(Initial)	0.14	0.21	0.3				
16-Mar-2014					Sunday			
17-Mar-2014		0.390	0.320	0.400				
18-Mar-2014		0.400	0.380	0.380				
19-Mar-2014		0.380	0.360	0.420				
20-Mar-2014		0.420	0.400	0.420				
21-Mar-2014		0.450	0.420	0.480				
22-Mar-2014		0.480	0.450	0.470				
23-Mar-2014					Sunday			
24-Mar-2014		0.470	0.430	0.450				
25-Mar-2014		0.460	0.450	0.510				
26-Mar-2014		0.450	0.420	0.480				
27-Mar-2014		0.460	0.440	0.490				
28-Mar-2014		0.440	0.410	0.470				
29-Mar-2014		0.420	0.380	0.460				
30-Mar-2014					Sunday	<u>,                                      </u>		
31-Mar-2014		0.420	0.290	0.360				
Remarks								

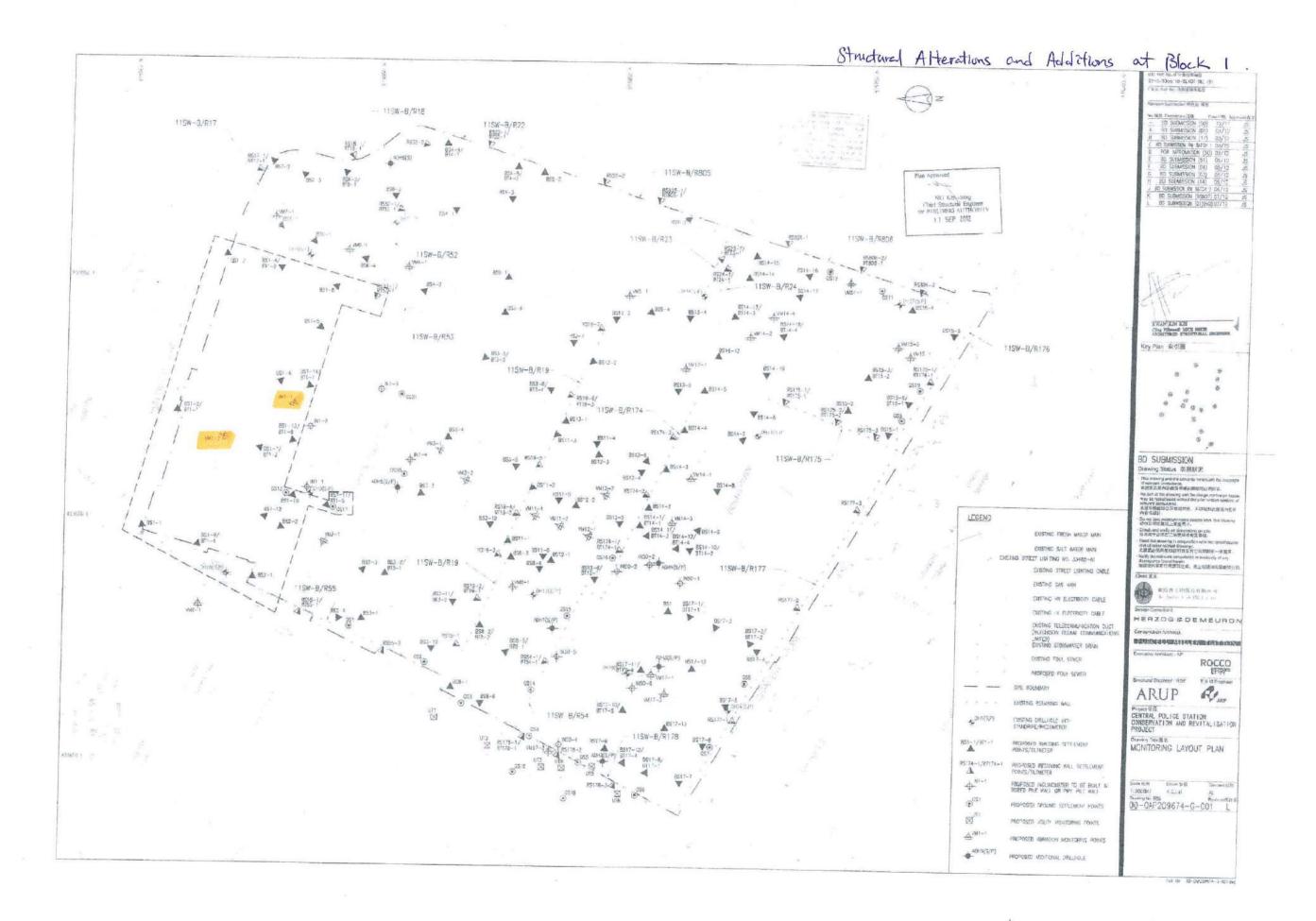
#### (Shaft Grouted Pre-bored H-piles at Block 51)

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

Project Title: Central	Police Station	n Conservation	& Revitalization	Project No: WP201	1-Apr-2014	to	30-Apr-201
POINT	<b>VM</b> 14-4	VM15-2	<b>V</b> M51-1				
DATE PD/(m)	mm/s	mm/s	mm/s				
03-Dec-2012 (Initial)	0.14	0.21	0.3				
1-Apr-2014	0.41	0.30	0.32				
2-Apr-2014	0.43	0.26	0.30				
3-Apr-2014	0.39	0.25	0.29				
4-Apr-2014	0.40	0.28	0.31				
5-Apr-2014	00	0.20	0.01	Holiday	l l		1
6-Apr-2014				Sunday			
7-Apr-2014	0.38	0.27	0.31	1 1			
8-Apr-2014	0.37	0.25	0.28				
9-Apr-2014	0.37	0.26	0.29				
10-Apr-2014	0.37	0.28	0.27				
11-Apr-2014	0.37	0.24	0.21				
12-Apr-2014							
	0.35	0.19	0.18	Sunday			ļ
13-Apr-2014		1 0.40		Sunday			1
14-Apr-2014	0.35	0.18	0.17				
15-Apr-2014 16-Apr-2014	0.34 0.36	0.19 0.18	0.18 0.14				
17-Apr-2014	0.34	0.17	0.14				
18-Apr-2014	0.54	0.17	0.10	Holiday			ı
19-Apr-2014				Holiday			
20-Apr-2014				Sunday			
21-Apr-2014				Holiday			
22-Apr-2014	0.39	0.19	0.18				
23-Apr-2014	0.35	0.20	0.17				
24-Apr-2014	0.34	0.18	0.16				
25-Apr-2014	0.33	0.16	0.14				
26-Apr-2014	0.32	0.16	0.14	Sunday			<u> </u>
27-Apr-2014 28-Apr-2014	0.31	0.15	0.13	Sunday			1
29-Apr-2014	0.31	0.13	0.13				
30-Apr-2014	0.30	0.13	0.11				

### Annex M

Records of Vibration Monitoring for Other Construction Works



Structural Additions and Alterations at Block 11 WYNDHAM \$ STREET 22-3/3066/10/BLR11 (HU) (5) 11SW-B/R17 Shiu King The Centrium Court BO SUBMISSION (14) 05/12 BO SUBMISSION RW BATCH 7 06/12 - 11SW-B/R806 11SW-B/R23-11SW-B/R52 11SW-B/R24 8514-17 CHIONS Kam-yueng Jack) Chief Structural Engineers for BUILDING AUTHORITY - 3 OCT 2612 11SW-B/R53 11SW-B/R176 11SW-B/R19 BS1-14/ BT1-7 WII-LA 115W-B/R174 ₩BS14-6 DH21(S,P) BD SUBMISSION 115W-B/R175-Drawing Status 製肥狀況 GS20 of reterant consultants. 本職就及其內容的版析展均數數數公的所引 No part of the drawing and the design contain may be reproduced without the prior written o rdevani consultatis。 未經有精體開公司養而回复,不可認對此區底內部同 LEGEND Do not take measurements directly from th 切勿直接设备纸上量度尺寸。 Check and worthy and mensions on site 筋物尺寸还器在工地规划控度及套接。 EXISTING FRESH WATER MAIN Read this drawing in conjunction with the specification and all other related drawings.
此關某的發射契約投票數其它有關關係一件問題。 EXISTING STREET LIGHTING NC. 33488-A1 INS0-2 -3 - ADH4(S/F) description found berein, 约号现为存存任何建筑之高,建立到透加有魏朝商企 11SW-B/R19 EXISTING STREET LIGHTING CABLE 11SW-B/R177-Olient 英主 EXISTING CAS MAIN 11SW-B/R55 EXISTING MY ELECTRICITY CABLE Design Consulter EXISTING IV FLECTRICITY CABLE HERZOG & DEMEURON EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COUMUNICATIONS **を表現している。中国は25回中国 は (利益 から)** LIMITED)
EXISTING STORWWATER DRAIN Executive Architect / AP EXISTING FOUL SEWER ROCCO PROPOSED FOUL SEWER inuctural Engineer / RSE E & M Engineer RUJRP ARUP EXISTING RETAINING WALL Project 되면 CENTRAL POLICE STATION CONSERVATION AND REVITALISATION PROJECT DH1(SP) EXISTING DRILLHOLE WITH 11SW-B/R54 BS17-13 - 11SW-B/R178 STANDPIPE/PIEZOMETER Drawing Tale 關名 BS1-1/BT1-1 PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER MONITORING LAYOUT PLAN RS174-1/RT174-PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER PROPOSED INCLINOMETER TO BE BUILT IN BORED PILE WALL OR PIPE PILE WALL K.G.Lai Drawling No. 國班 Revision 所改 00 — OAP 209 674 — G — 00 1 M PROPOSED GROUND SETTLEMENT POINTS UT1 PROPOSED UTILITY MONITORING POINTS \_\_\_\_\_VM1−1 PROPOSED VIBRATION MONITORING POINTS ADH1(S/P) PROPOSED ADDITIONAL DRILLHOLE Cod Re - 00-6AP2096/A-G-601.deg



## Vibration Monitoring Record (Feb)

	Blo	ck 1 Block 2		Blo	ck 3	Block 4	Block	6 & 7	Block 9	Bloc	k 11	Bloc	k 12	Block 13	Bloc	k 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-Feb-14								Hol	iday							
02-Feb-14								Sun	ıday							
03-Feb-14								Hol	iday							
04-Feb-14		Site Closed														
05-Feb-14	Site Closed															
06-Feb-14	0.087	0.086	0.102	0.146	0.116	0.225	0.133	0.166	0.200	0.106	0.153	0.081	0.181	0.201	0.189	0.117
07-Feb-14	0.087	0.138	0.143	0.094	0.086	0.355	0.136	0.209	0.125	0.209	0.242	0.108	0.100	0.201	0.214	0.230
08-Feb-14	0.083	0.097	0.178	0.102	0.766	0.304	0.207	0.165	0.160	0.131	0.145	0.087	0.098	0.102	0.256	0.093
09-Feb-14								Sun	ıday							
10-Feb-14	0.228	0.132	0.103	0.160	0.102	0.122	0.221	0.300	0.162	0.727	0.616	0.461	0.799	0.676	0.211	0.175
11-Feb-14	0.098	0.264	0.132	0.100	0.104	0.285	0.137	0.290	0.240	0.572	0.642	0.550	0.522	0.129	0.522	0.709
12-Feb-14	0.456	0.383	0.132	0.254	0.329	0.196	0.239	0.132	0.502	0.328	0.414	0.353	0.282	0.406	0.106	0.200
13-Feb-14	0.322	0.285	0.340	0.102	0.105	0.263	0.351	0.318	1.000	0.172	0.093	0.250	0.091	0.687	0.093	0.087
14-Feb-14	0.355	0.176	0.281	0.466	0.259	0.225	0.234	0.166	0.293	0.175	0.302	0.169	0.209	0.303	0.177	0.163
15-Feb-14	0.319	0.244	0.270	0.312	0.151	0.194	0.156	0.398	0.137	0.204	0.157	0.137	0.119	0.258	0.086	0.090
16-Feb-14								Sun	ıday							
17-Feb-14	0.131	0.225	0.163	0.146	0.098	0.178	0.177	0.139	0.531	0.091	0.164	0.095	0.098	0.592	0.079	0.122
18-Feb-14	0.100	0.137	0.132	0.121	0.097	0.211	0.139	0.192	0.395	0.108	0.091	0.122	0.098	0.275	0.111	0.270
19-Feb-14	0.383	0.102	0.414	0.318	0.209	0.436	0.094	0.104	0.103	0.145	0.086	0.174	0.087	0.087	0.091	0.095
20-Feb-14	0.111	0.151	0.098	0.098	0.103	0.452	0.194	0.351	0.831	0.352	0.597	0.309	0.102	0.833	0.171	0.086
21-Feb-14	0.325	0.175	0.175	0.214	0.119	0.352	0.166	0.233	0.130	0.131	0.209	0.163	0.129	0.166	0.117	0.087
22-Feb-14	0.153	0.106	0.233	0.136	0.132	0.146	0.163	0.172	0.098	0.125	0.105	0.091	0.091	0.098	0.172	0.150
23-Feb-14						-		Sun	ıday	-						
24-Feb-14	0.176	0.147	0.159	0.103	0.178	0.225	0.781	0.448	0.227	0.261	0.320	0.113	0.100	0.496	0.091	0.100
25-Feb-14	0.719	0.566	0.595	0.125	0.103	0.240	0.209	0.191	0.333	0.087	0.143	0.307	0.093	0.334	0.225	0.112
26-Feb-14	0.151	0.160	0.097	0.128	0.147	0.212	0.201	0.184	0.349	0.119	0.091	0.105	0.083	0.534	0.087	0.108
27-Feb-14	0.170	0.144	0.120	0.175	0.103	0.536	0.420	0.260	0.095	0.207	0.086	0.132	0.095	0.332	0.318	0.102
28-Feb-14	0.112	0.105	0.111	0.223	0.184	0.232	0.256	0.418	0.232	0.144	0.343	0.223	0.087	0.106	0.175	0.108



## **Vibration Monitoring Record (March)**

	Blo	ck 1	Block 2	Blo	ck 3	Block 4	Block	6 & 7	Block 9	Bloc	k 11	Bloc	k 12	Block 13	Bloc	k 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-Mar-14	0.091	0.100	0.105	0.091	0.116	0.326	0.303	0.316	0.221	0.116	0.233	0.355	0.111	0.125	0.087	0.086
02-Mar-14								Sur	ıday							
03-Mar-14	0.191	0.113	0.125	0.176	0.098	0.421	0.997	0.538	0.129	0.108	0.113	0.137	0.111	0.135	0.108	0.100
04-Mar-14	0.159	0.151	0.106	0.121	0.202	0.822	0.706	0.409	0.182	0.106	0.119	0.125	0.264	0.146	0.223	0.081
05-Mar-14	0.194	0.131	0.132	0.192	0.122	0.287	0.498	0.398	0.180	0.108	0.191	0.154	0.103	0.196	0.094	0.113
06-Mar-14	0.129	0.742	1.020	0.120	0.102	0.573	0.717	0.987	0.108	0.164	0.191	0.151	0.083	0.108	0.112	0.125
07-Mar-14	1.080	0.472	0.259	0.286	0.225	0.978	0.321	0.209	0.129	0.158	0.151	0.143	0.113	0.120	0.217	0.083
08-Mar-14	0.537	0.214	0.362	0.211	0.185	0.351	0.216	0.233	0.162	0.135	0.128	0.138	0.105	0.143	0.225	0.193
09-Mar-14								Sur	day							
10-Mar-14	0.306	0.242	0.129	0.350	0.102	0.419	0.563	0.343	0.131	0.243	0.501	0.208	0.095	0.304	0.087	0.102
11-Mar-14	0.251	0.198	0.322	0.281	0.147	0.364	0.382	0.251	0.117	0.162	0.138	0.126	0.142	0.153	0.192	0.109
12-Mar-14	0.255	0.172	0.559	0.146	0.503	0.212	0.335	0.651	0.321	0.607	0.530	0.137	0.094	0.262	0.093	0.103
13-Mar-14	0.103	0.117	0.194	0.678	0.192	0.335	0.276	0.321	0.192	0.086	0.102	0.180	0.111	0.136	0.091	0.087
14-Mar-14	0.168	0.103	0.221	0.175	0.138	0.231	0.301	0.238	0.132	0.351	0.232	0.168	0.143	0.184	0.168	0.124
15-Mar-14	0.182	0.142	0.281	0.168	0.114	0.253	0.277	0.186	0.158	0.195	0.210	0.209	0.161	0.133	0.211	0.117
16-Mar-14								Sur	ıday							
17-Mar-14	0.145	0.128	0.239	0.446	0.113	0.239	0.190	0.400	0.117	0.392	0.436	0.412	0.227	0.370	0.102	0.098
18-Mar-14	0.168	0.117	0.183	0.228	0.114	0.204	0.294	0.215	0.153	0.216	0.211	0.225	0.157	0.138	0.132	0.101
19-Mar-14	0.259	0.128	0.090	0.086	0.190	0.847	0.259	0.163	0.087	0.095	0.093	0.125	0.128	0.103	0.086	0.079
20-Mar-14	0.864	0.258	0.870	0.217	0.236	0.390	0.113	0.172	0.526	0.316	0.122	0.091	0.117	0.471	0.087	0.087
21-Mar-14	0.181	0.160	0.111	0.145	0.166	0.139	0.166	0.172	0.117	0.550	0.125	0.117	0.079	0.438	0.087	0.086
22-Mar-14	0.105	0.290	0.218	0.094	0.098	0.612	0.595	0.290	0.106	0.156	0.106	0.302	0.091	0.120	0.950	0.116
23-Mar-14								Sur	ıday							
24-Mar-14	0.160	0.145	0.317	0.116	0.279	0.196	0.172	0.512	0.151	0.251	0.324	0.225	0.303	0.204	0.147	0.090
25-Mar-14	0.144	0.129	0.348	0.098	0.357	0.810	0.337	0.922	0.209	0.302	0.139	0.087	0.119	0.555	0.128	0.086
26-Mar-14	0.462	0.132	0.197	0.611	0.503	0.710	0.464	0.319	0.203	0.240	0.907	0.087	0.086	0.087	0.097	0.081
27-Mar-14	0.163	0.086	0.094	0.197	0.128	1.090	0.912	0.722	0.131	0.217	0.095	0.706	0.579	0.097	0.605	0.132
28-Mar-14	0.335	0.174	0.156	0.128	0.095	0.461	0.369	0.211	0.155	0.185	0.137	0.201	0.168	0.138	0.279	0.118
29-Mar-14	0.120	0.111	0.176	0.429	0.382	0.641	0.540	0.714	0.160	0.087	0.145	0.227	0.098	0.112	0.273	0.093
30-Mar-14								Sur	ıday							
31-Mar-14	0.086	0.286	0.086	0.112	0.147	0.259	0.239	0.144	0.087	0.146	0.086	0.083	0.086	0.093	0.316	0.083



## Vibration Monitoring Record (April)

	Blo	ck 1	Block 2	Blo	ck 3	Block 4	Block	6 & 7	Block 9	Bloc	k 11	Bloc	k 12	Block 13	Bloc	k 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-Apr-14	0.102	0.139	0.093	0.422	0.350	0.367	0.461	0.593	0.556	0.166	0.479	0.177	0.221	0.206	0.105	0.087
02-Apr-14	0.098	0.087	0.093	0.087	0.245	0.353	0.098	0.098	0.091	0.163	0.136	0.337	0.342	0.132	0.083	0.100
03-Apr-14	0.157	0.114	0.138	0.251	0.167	0.294	0.183	0.225	0.172	0.205	0.149	0.166	0.142	0.186	0.132	0.105
04-Apr-14	0.202	0.175	0.152	0.371	0.128	0.168	0.267	0.392	0.122	0.283	0.176	0.135	0.089	0.168	0.288	0.164
05-Apr-14								Hol	iday							
06-Apr-14								Sur	nday							
07-Apr-14	0.265	0.126	0.316	0.203	0.185	0.392	0.216	0.195	0.117	0.357	0.218	0.138	0.109	0.172	0.165	0.096
08-Apr-14	0.102	0.658	0.171	0.122	0.151	0.328	0.592	0.608	0.140	0.175	0.591	0.083	0.102	0.132	0.091	0.206
09-Apr-14	0.272	0.237	0.108	0.351	0.383	0.921	0.598	0.494	0.209	0.146	0.125	0.194	0.120	0.143	0.081	0.087
10-Apr-14	0.186	0.115	0.201	0.286	0.126	0.421	0.334	0.196	0.221	0.207	0.158	0.152	0.115	0.185	0.123	0.104
11-Apr-14	0.129	0.160	0.113	0.087	0.117	0.703	0.964	0.720	0.271	0.552	0.104	0.087	0.203	0.281	0.825	0.087
12-Apr-14	0.502	0.327	0.434	0.397	0.426	0.791	0.366	0.819	0.334	0.364	0.444	0.321	0.146	0.309	0.496	0.289
13-Apr-14	Sunday															
14-Apr-14	0.217	0.168	0.135	0.231	0.118	0.264	0.352	0.306	0.189	0.403	0.211	0.166	0.150	0.223	0.251	0.130
15-Apr-14	0.112	0.086	0.087	0.098	0.175	0.268	0.413	0.820	0.166	0.217	0.154	0.086	0.095	0.231	0.106	0.086
16-Apr-14	0.163	0.116	0.208	0.158	0.182	0.383	0.230	0.194	0.132	0.154	0.240	0.209	0.258	0.199	0.526	0.509
17-Apr-14	0.493	0.243	0.187	0.169	0.247	0.163	0.183	0.318	0.214	0.147	0.238	0.303	0.151	0.124	0.154	0.127
18-Apr-14		-						Hol	iday	-		,		•	,	
19-Apr-14								Hol	iday							
20-Apr-14								Sur	nday							
21-Apr-14								Hol	iday							
22-Apr-14	0.169	0.137	0.147	0.166	0.162	0.133	0.197	0.177	0.178	0.174	0.178	0.169	0.484	0.147	0.281	0.343
23-Apr-14	0.944	0.192	0.117	0.258	0.432	0.165	0.614	0.194	0.128	0.090	0.117	0.095	0.139	0.098	0.188	0.081
24-Apr-14	0.111	0.145	0.120	0.242	0.588	0.160	0.824	0.712	0.169	0.192	0.150	0.221	0.143	0.258	0.570	0.266
25-Apr-14	0.178	0.243	0.159	0.166	0.122	0.311	0.380	0.209	0.166	0.137	0.136	0.137	0.102	0.120	0.317	0.132
26-Apr-14	0.137	0.147	0.870	0.237	0.242	0.732	0.307	0.217	0.378	0.275	0.102	0.086	0.121	0.541	0.122	0.102
27-Apr-14	Sunday															
28-Apr-14	0.182	0.221	0.164	0.128	0.177	0.607	0.399	0.278	0.147	0.166	0.277	0.274	0.282	0.166	0.287	0.184
29-Apr-14	0.236	0.526	0.241	0.487	0.163	0.394	0.811	0.527	0.763	0.265	0.302	0.290	0.163	0.216	0.094	0.593
30-Apr-14	0.241	0.212	0.177	0.163	0.160	0.233	0.528	0.166	0.652	0.650	0.178	0.575	0.583	0.656	0.564	0.575



	( Block 14 Str	ructural A&A )				
Monitorina Chaole Dta	Trigger Levels					
Monitoring Check Pts.	Alert level	Alarm level	Action level			
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s			
# Vibration at largest span of	50 /	60 1	7.5mm/s			
highest Structural level	5.0mm/s	6.0mm/s				

Project Title:	Central	Police Station	Conservation	& Revitalizati	on Projec	ct No: WP201	2-Feb-2014	to	15-Feb-2014
POINT		<b>VM14-1</b> #	VM 14-2 #	VM14-3	VM14-4				
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s				
19-Nov-12 (1	nitial)	0.103	0.112	0.147	0.136				
2-Feb-2014						Sunday			
3-Feb-2014					Pı	ıblic Holiday			
4-Feb-2014						Site Closed			
5-Feb-2014						Site Closed			
6-Feb-2014		0.180	0.240	0.350	0.280				
7-Feb-2014		0.170	0.230	0.310	0.260				
8-Feb-2014		0.200	0.180	0.320	0.210				
9-Feb-2014						Sunday	 		
10-Feb-2014		0.130	0.220	0.370	0.240				
11-Feb-2014		0.200	0.210	0.480	0.230				
12-Feb-2014		0.220	0.220	0.520	0.290				
13-Feb-2014		0.250	0.220	0.540	0.290				
14-Feb-2014		0.280	0.250	0.560	0.300				
15-Feb-2014		0.290	0.270	0.580	0.280				
Remarks									

	( Block 14 Str	ructural A&A )				
Monitoring Chook Dtg	Trigger Levels					
Monitoring Check Pts.	Alert level	Alarm level	Action level			
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s			
# Vibration at largest span of	<b>5.0</b> mm/s	<b>6.0</b> mm/s	7.5mm/s			
highest Structural level	3.0mm/s	0.011111/5				

Project Title:	Central	Police Station	n Conservation	& Revitalizati	on Proje	ct No: WP201		16-Feb-2014	to	1-Mar-2014
	1		ı		ı	T	Г	1		ı
POI <b>N</b> T		<b>VM14-</b> 1#	VM 14-2 #	VM14-3	VM14-4					
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s					
19-Nov-12 (I	nitial)	0.103	0.112	0.147	0.136					
16-Feb-2014						Sunday				
17-Feb-2014		0.270	0.260	0.610	0.290					
18-Feb-2014		0.260	0.260	0.670	0.310					
19-Feb-2014		0.280	0.290	0.690	0.280					
20-Feb-2014		0.300	0.280	0.700	0.300					
21-Feb-2014		0.250	0.270	0.670	0.290					
22-Feb-2014		0.220	0.210	0.700	0.350					
23-Feb-2014						Sunday				
24-Feb-2014		0.230	0.230	0.690	0.320					
25-Feb-2014		0.230	0.320	0.750	0.290					
26-Feb-2014		0.300	0.310	0.790	0.310					
27-Feb-2014		0.260	0.300	0.790	0.320					
28-Feb-2014		0.240	0.300	0.810	0.290					
1-Mar-2014		0.290	0.270	0.780	0.310					
Remarks										

	( Block 14 Sti	ructural A&A )				
Monitoring Chaple Dtg	Trigger Levels					
Monitoring Check Pts.	Alert level	Alarm level	Action level			
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s			
# Vibration at largest span of	5 Over 100 /0	6.0mm/s	7.5mm/s			
highest Structural level	5.0mm/s	0.0mm/s	7.5mm/s			

Project Title:	Central	Police Station	n Conservation	& Revitalizati	on Proje	ct No: WP201	2-Mar-2014	to	15-Mar-2014
	T		1		1			1	
POINT	•	<b>VM14</b> -1#	VM 14-2 #	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				
2-Mar-2014						Sunday			
3-Mar-2014		0.330	0.220	0.820	0.350				
4-Mar-2014		0.320	0.230	0.800	0.380				
5-Mar-2014		0.280	0.280	0.780	0.370				
6-Mar-2014		0.300	0.260	0.800	0.360				
7-Mar-2014		0.260	0.260	0.800	0.340				
8-Mar-2014		0.230	0.300	0.820	0.370				
9-Mar-2014						Sunday			
10-Mar-2014		0.240	0.250	0.520	0.410				
11-Mar-2014		0.240	0.290	0.550	0.380				
12-Mar-2014		0.310	0.310	0.500	0.360				
13-Mar-2014		0.280	0.310	0.490	0.390				
14-Mar-2014		0.300	0.330	0.520	0.400				
15-Mar-2014		0.330	0.320	0.560	0.370				
Remarks									

	( Block 14 Str	ructural A&A )		
Monitorina Chaole Dto		Trigger Levels		
Monitoring Check Pts.	Alert level	Alarm level	Action level	
Vibration Monitoring	2mm/s	2.5mm/s	3mm/s	
# Vibration at largest span of	5.0mm/s	<b>6.0</b> mm/s	7.5mm/s	
highest Structural level	5.011111/8	0.0111111/5	7.5111111/8	

## Vibration Record

Project Title:	Central	Police Station	n Conservation	& Revitalizati	on Proje	ect No: WP201	16-Mar-2014	to	29-Mar-2014
POINT		<b>VM14-1</b> #	VM 14-2 #	VM14-3	VM14-4				
DATE	PD/(m)	mm/s	mm/s	mm/s	mm/s				
19-Nov-12 (I	nitial)	0.103	0.112	0.147	0.136				
16-Mar-2014						Sunday			
17-Mar-2014		0.340	0.220	0.550	0.390				
18-Mar-2014		0.310	0.240	0.560	0.400				
19-Mar-2014		0.290	0.220	0.550	0.380				
20-Mar-2014		0.310	0.250	0.590	0.420				
21-Mar-2014		0.250	0.270	0.650	0.450				
22-Mar-2014		0.240	0.310	0.620	0.480				
23-Mar-2014						Sunday			
24-Mar-2014		0.210	0.150	0.160	0.470				
25-Mar-2014		0.220	0.180	0.170	0.460				
26-Mar-2014		0.250	0.160	0.180	0.450				
27-Mar-2014		0.240	0.170	0.190	0.430				
28-Mar-2014		0.250	0.160	0.180	0.450				
29-Mar-2014		0.240	0.170	0.190	0.430				
30-Mar-2014						Sunday			
31-Mar-2014		0.240	0.160	0.150	0.430				
Remarks									



	( Block 14 Str	ructural A&A )	l .			
Manitarina Charle Dta	Trigger Levels					
Monitoring Check Pts.	A lert 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			

Project Title: Central	Police Statio	n Conservation	& Revitalizat	ion Proj	ect No: WP201		1-Apr-2014	to	30-Apr-2014
POINT	<b>VM</b> 14-1#	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-Apr-2014	0.25	0.12	0.18	0.48					
2-Apr-2014	0.23	0.11	0.16	0.45					
3-Apr-2014	0.25	0.12	0.18	0.48					
4-Apr-2014	0.23	0.14	0.17	0.46					
5-Apr-2014					Holiday	•			
6-Apr-2014					Sunday				
7-Apr-2014	0.25	0.16	0.18	0.45					
8-Apr-2014	0.23	0.16	0.20	0.43					
9-Apr-2014	0.22	0.14	0.18	0.42					
10-Apr-2014	0.24	0.11	0.16	0.41					
11-Apr-2014	0.21	0.13	0.14	0.40					
12-Apr-2014	0.20	0.10	0.13	0.39					
13-Apr-2014		•		•	Sunday	•	·		•
14-Apr-2014	0.19	0.12	0.11	0.37					
15-Apr-2014	0.20	0.14	0.13	0.36					
16-Apr-2014	0.18	0.11	0.13	0.35					
17-Apr-2014	0.19	0.11	0.15	0.32					
18-Apr-2014		•		•	Holiday	•	•		•
19-Apr-2014					Holiday				
20-Apr-2014					Sunday				
21-Apr-2014					Holiday				
22-Apr-2014	0.21	0.15	0.19	0.40					
23-Apr-2014	0.22	0.14	0.17	0.41					
24-Apr-2014	0.20	0.13	0.18	0.42					
25-Apr-2014	0.19	0.12	0.17	0.40					
26-Apr-2014	0.21	0.12	0.17	0.41			_		
27-Apr-2014					Sunday	-			
28-Apr-2014	0.22	0.10	0.15	0.36					
29-Apr-2014	0.19	0.11	0.16	0.37					
30-Apr-2014	0.21	0.09	0.14	0.35					

#### Annex N

A Summary of Current Condition of Character Defining Elements

#### **Schedule of Character Defining Elements**

#### **CENTRAL POLICE STATION, HONG KONG**

#### SCHEDULE OF CHARACTER DEFINING ELEMENTS

This Schedule of Character Defining Elements has been prepared at the request of the Antiquities and Monuments Office (AMO) to support applications for S.6 approval under the Antiquities and Monuments Ordinance and the Environmental Impact assessment Ordinance. The levels of significance and their meanings are derived from the work of James Semple Kerr.

For each element, the level of significance is stated, together with the planned outcome and associated mitigation measure, where applicable, and the resultant impact upon the significance. Generally, only those items subject to change are noted, and the impacts should be read as negative. Where elements are deemed currently to be adverse, the impact of the changes should be read as positive.

The levels of significance and definitions as defined by Kerr are stated below. The criteria used to assess the significance of each element are, as directed by AMO: (i) the association with the operation of the Central Police Station Compound; and (ii) its architectural quality. Where these criteria conflict, the resultant assessment score is aggregated.

Each entry in the schedule is accompanied by a photograph of a sample of the item described. The location of each photograph is noted on the floor plans attached in the appendix to the schedule. Similar examples of each item can be seen by observation.

## **Schedule of Character Defining Elements**

	Level of significance	Meaning
	Exceptional	Where an individual space or element is assessed as displaying a strong contribution to the overall significance of the place. Spaces, elements or fabric exhibit a high degree of intactness and quality, though minor alterations or degradation may be evident.
	High	Where an individual space or element is assessed as making a substantial contribution to the overall significance of the place. Spaces, elements or fabric originally of substantial quality, yet may have undergone considerable alteration or adaption resulting in presentation which is either incomplete or ambiguous. The category also includes spaces, elements or fabric of average quality in terms of design and materials, but which exhibit a high degree of intactness.
Positive	Moderate	Where an individual space or element is assessed as making a moderate contribution to the overall significance of the place. Spaces, elements or fabric originally of some intrinsic quality, and may have undergone alteration or degradation. In addition, elements of relatively new construction, where the assessment of significance is difficult, may be included. This category also includes original spaces, elements or fabric of any quality which have undergone extensive alteration or adaption.
	Low	Where an individual space or element is assessed as making a minor contribution to the overall significance of the place, especially when compared to other features. Spaces, elements or fabric originally of little intrinsic quality, any may have undergone alteration or degradation. This category also includes original spaces, elements or fabric of any quality which have undergone extensive alteration or adaption to the extent that only isolated remnants survive (resulting in a low degree of intactness and quality of presentation).
	Neutral	Where an individual space or element is assessed as having an unimportant relationship with the overall significance of the place. Spaces, elements or fabric are assessed as having little or no significance.
	Adverse	Where an individual space or element detracts from the appreciation of cultural significance, by adversely affecting or obscuring other significant areas, elements or items.

## **Central Police Station**

### **Schedule of Character Defining Elements**

## **Central Police Station**

Addendum	Date
Item no. 10.029 edited entry	18 June 2013
Item no. 10.030 added	18 June 2013

## **01 Police Headquarters**

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.001	Flat plywood ceiling lining with plain rectangular cover battens		Adverse	Replace with T&G boarding to match existing	Not applicable	High
01.002	Plaster coving at abutments of walls and ceilings		Low	Remove in exceptional cases eg, where adjacent new lift shaft	Cut back neatly to a square edge and ensure remaining section is secure.	Low

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.003	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
01.004	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low	Remove to enable level access	Splice extensions to door jambs, extend width of bottom rail of doors to match existing	Low

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.005	Plaster box cornice		Moderate	Remove in exceptional cases eg. where adjacent new lift shafts	Cut back neatly to a square edge and ensure remaining section is secure.	Moderate
01.006	Panelled doors		Moderate	Replace where necessary to achieve fire resistance to comply with Code	Re-use where possible. Record design on survey drawings where element cannot be re- used.	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.007	External shutters		High	Reinstate to match existing pattern	Not applicable	High
01.008	External terraces at 1/F		High	Overlay existing concrete paving with timber deck to provide level access	New deck to be reversible	Low

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.009	Plaster ceilings on GF and LG1		Moderate	Install cloud ceilings to accommodate new services	Install fixed grid to minimise damage to ceiling	High
01.010	Timber door frames and architraves		Moderate	Conceal in exceptional cases eg. where adjacent new lift shaft	Retain architrave and door frame in situ. Avoid damage to joinery.	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.011	Concrete floor		Low	Replace where new kitchens and plant rooms to be installed	Carefully remove and retain existing floorboards for re-use. Ensure controlled demolition of concrete structure and removal of debris from building to avoid damage to adjacent surfaces. Protect or carefully remove and set aside adjacent elements such as skirting boards	Low

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.012	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	Not applicable	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.013	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.014	Existing door openings		Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate
01.015	Existing walls		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.016	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High
01.017	Mezzanine floor in room 01/LG1/13		Adverse	Remove floor and supporting columns to re-create original double-height space	Not applicable	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.018	Cast iron grilles above Service Corridor 01/LG1/35		High	Remove existing steel sheet covering [alterations to grilles awaiting confirmation from HdM]		
01.019	Perforated concrete deck above lightwell		Adverse	Remove deck and make good brickwork at abutments	Not applicable	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.020	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
01.021	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate non-compliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.022	Main corridors		High	Install new lighting, fire sprinklers, fire doors to comply with Fire Services Code	New fittings to be mounted in a manner that is of its time and reversible. Avoid physical intervention with existing plaster box cornices, architraves, dado rails	High
01.023	Painted signs	拉左 LOOKLEFT	High	Protect in situ	Not applicable	N/A

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.024	Fixed signs	The state of the s	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.025	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised.  Finish the new ducts in a non-reflective material in a neutral mid-tone.	High

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.026	Enclosure at First Floor landing of main stair		Adverse	Remove	Not applicable	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.027	Steel railing enclosure at FF level	Service of the servic	Low	Remove	Record on measured drawings and photographs	Low
01.028	Tongued and grooved flat and sloped timber boarded ceilings		Moderate	Repair where necessary and reinstate where missing	Not applicable	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.029	Modern partitions		Adverse	Remove	Not applicable	High
01.030	Tiled dado		High	Cut away for enlargement of existing windows to form new doorways	Cut back to joint line and adjust tiling pattern to suit new opening.  New tiles to match existing sizes and colours.	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.031	Reinforced concrete canopy and sash windows		Moderate	Remove canopy and replace sash windows with new windows to match original	Make good brickwork where canopy removed, Reinstate rendered architraves around new window to match similar window facing on West wing	Moderate

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.032	Arched opening in brick wall above ceiling line		Low	Retain insitu and use to pass through future services. Infill only where opening is within a fire compartment	Use non-combustible material to block opening.	Low

Element no.	Description	Photo ref	Significance	Proposal	Mitigation	Impact
01.033	Ceiling void service installation (Cast Iron Water Tank and pipework)		Low	Remove and make good adjacent surfaces	N/A	Low

## **02** Armoury

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
02.002	Modern internal doors	-	Adverse	Remove	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.003	Modern partitions		Adverse	Remove	Not applicable	High
02.004	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High

## **Schedule of Character Defining Elements**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.005	Brickwork walls enclosing rooms at GF and FF East side		Low	Remove and reinstate verandah	Not applicable	High
02.006	Concrete floors		Low	Selected removal to accommodate new stairs and lift shaft	Carefully form openings to ensure structural stability	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.007	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	No applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.008	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.009	Concrete stairs		Adverse	Remove stairs	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
02.010	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts to reduce impact.  Finish ducts in a non-reflective material that is neutral in colour and mid-tone.	High
02.011	Roof structure and tiled soffit		High	Repair and retain.	N/A	Neutral

## 03 Barracks Block

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
3.002	Panelled doors		Moderate	Replace where necessary to achieve fire resistance to comply with Code	Re-use where possible. Record design on survey drawings where item cannot be re-used.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.003	External shutters		High	Reinstate to match existing pattern	Not applicable	High
03.004	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low	Remove to enable level access	Splice extensions to door jambs, extend width of bottom rail of doors to match existing	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.005	Timber spandrel panels below windows		Low	Conceal in exceptional cases eg. where adjacent new lift shaft	Retain frame and spandrel panel where possible. Remove only where necessary in connection with replanning of interiors. Record on measured survey drawings.	Low
03.006	Timber floors		High	Replace where new kitchens and plant rooms to be installed	Limit extent of removal as much as possible. Carefully remove and retain existing floorboards for re-use. Ensure controlled dismantling of timber structure and set aside for possible re-use. Protect or carefully remove and set aside adjacent elements such as skirting boards	Medium

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.007	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	No applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.008	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High
03.009	Block existing door openings		Low	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.010	Form new door openings		Low	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance. Re-open original openings where possible. Retain original reveals and arches.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.011	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.012	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
03.013	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.014	Painted signs	NO VISITOR WILL BE ADMITTED WITHOUT THE PERMISSION OF THE D.O. OR FORMATION COMMANDER 或官管主律未知者珍様 进榜 得不可許官警位當	High	Protect in situ	Not applicable	N/A
03.015	Fixed signs	NO. 3 PLATOON R. & F CHANGING ROOM 第三隊更衣室	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.016	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised. Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High
03.017	Lean-to structure adjacent North wall		Moderate	Remove	Record on measured survey drawings. Make good walls where roof structure abuts	Moderate

## **Schedule of Character Defining Elements**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.018	Metal-frames windows at GF North elevation		Adverse	Remove window frames, masonry spandrel panels below and reinstate verandah	Not applicable	High
03.019	Internal walls at Ground Floor level		Moderate	Remove selected internal walls where strictly necessary as part of replanning of interiors	Walls of early or original date to be retained in part eg. by leaving a "nib" where the wall is bonded to another wall. At the point where the wall is cut away, form the cut-line on the line of a vertical joint in alternate courses. Bricks in the remaining courses to be left "as cut", and not rebonded. Record walls on measured survey dwgs.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.020	Assembly rooms at centre of building (all floors)		Moderate	Sub-divide two rooms on each floor to provide service core, comprising: lifts, toilets, plant rooms, stores	Form new sub-visions using lightweight partitions to achieve reversibility. Form straight joints at abutments with existing retained walls. Notch new partitions around existing brick corbels at high level as a reminder of current condition.	Moderate
03.021	Exposed soffits of timber floors		Moderate	Underline existing floors to achieve specified fire resistance stated in Code	Avoid unnecessary damage to existing structure.  New lining will reduce extent of intervention into existing structure.  Keep level of new linings well clear of window heads.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.022	Existing window frames/openings		High	Open up selected openings to form new fire escape doors	Retain any salvageable material for possible reuse elsewhere. Retain existing window jambs intact. Cut away masonry to form door openings along same line as window jamb; do not re-bind cut brickwork. Record existing condition on measured survey drawings.	Low
03.023	Single storey outbuildings on south side		Adverse	Demolish	Check for evidence of early route from Magistracy to Prison.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.024	Bridge at east end		Moderate	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.025	Chimneypiece on Ground Floor		Low	Repair and retain in current location	Not applicable	Neutral
03.026	Window in south wall; original dormitory space		Moderate	Remove window and take down brickwork spandrel; subdivide space to form new fire-protected escape route.	Record existing condition on measured survey drawings.  New partition wall to be reversible.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
03.027	Clay-tiled floor in store room adjacent stairs		Low	Remove as part of replanning of interiors	Record on measured survey drawings	Low

## 04 Dormitory Block A & B

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
04.002	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low	Remove to enable level access	Splice extensions to door jambs, extend width of bottom rail of doors to match existing	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.003	Plaster box cornice		Moderate	Remove in exceptional cases where eg. where adjacent new lift shafts	Cut back neatly to a square edge and ensure remaining section is secure.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.004	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	No applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.005	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.006	Block existing door openings		Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.007	Form new door openings		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.008	Altered doors and windows	BLOOK B	Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.009	Window frames in arcades of North and East elevations		Adverse	Remove window frames and make good masonry reveals and reinstate verandah	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.010	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.011	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.012	Stair from First to Second Floor		High	Replace stair to improve safety	New stair to be built of steel to comply with Code and to distinguish it as being "of its time".	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.013	External verandahs		High	Install new lighting, fire sprinklers, fire doors to comply with Fire Services Code, extract ducting to external walls	New fittings to be mounted in a manner that is of its time and reversible. Avoid physical intervention with existing plaster box cornices in rooms, architraves, dado rails. Position outlet grilles in extneral walls on centreline of arcade arches and above structural arch	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.014	Painted signs	BLOCK A	High	Protect in situ	Not applicable	N/A
04.015	Fixed signs		Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.016	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised.  Finish the new ducts in a non-reflective material that is neutral in colour.	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.017	Toilets at ends of verandahs		Adverse	Remove and make good finishes	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.018	Partitions at GF Dormitory A		High	Remove to make way for Interpretation	Prepare measured drawings and photographs before removal.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.019	Switchgear in old porch 04/G/13		Adverse	Open up porch, remove electrical switchgear and make good	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.020	Flat plywood ceiling lining with plain rectangular cover battens		Adverse	Replace with T&G boarding to match existing	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.021	Steps up to doorway on FF verandah	EXIT HIS	Moderate	Remove steps and doorway to form new fore escape route	Record steps and doorway on measured drawings	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.022	Timber boarded floors with moulded skirtings		High	Retain all boarded floors and skirtings	Reinstate floor boards and skirtings after fire proofing works	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.023	Cantilever balconies		High	Retain and repair as necessary.  Reinstate balcony on west elevation.	Avoid highly visible intervention to enhance structural integrity and/or compliance with building codes. Restrict access if necessary to achieve this objective.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.024	Clay tile floor		Low	Retain and repair as necessary	Not applicable	Neutral
04.025	Matched- boarded ceiling with perforated border		Moderate	Repair and retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
04.026	Ceiling rose		Low	Repair and retain insitu	Not applicable	Neutral

## 06 Dormitory C

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.001	Granite thresholds at external doors		Low	Retain; install timber deck flush with level of step where necessary	Avoid alteration to step.	Low
06.002	Pitched roof		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised.  Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.003	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	Not applicable	High
06.004	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.005	Altered doors and windows		Adverse	Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable
06.006	External airconditioning units and other external services		Adverse	Adverse	Remove and make good brickwork	Not applicable

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.007	Painted signs	C. CC.	High	Protect in situ	Not applicable	N/A
06.008	Fixed signs	衛生署 DEPARTMENT OF HEALTH 中央警署診疫所 POLICE MEDICAL POST CENTRAL POLICE STATUS	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.009	Cantilever balconies		High	Retain and repair as necessary.	Avoid highly visible intervention to enhance structural integrity and/or compliance with building codes. Restrict access if necessary to achieve this objective.	Low
06.010	Iron balustrades		High	Retain and repair as necessary.	Avoid highly visible intervention to enhance structural integrity and/or compliance with building codes. Restrict access if necessary to achieve this objective.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.011	Perforated margin at perimeter of ceiling	EUTED	Low	Repair and retain.	Where fire-proofing of floor is required, use a product that can be installed within the floor void, leaving the ceiling lining intact.	Low
06.012	Block existing door openings	EXIT	Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.013	Form new door openings		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate
06.014	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.015	Timber floors		High	Retain all boarded floors and skirtings	Reinstate floor boards and skirtings after fire proofing works	Low
06.016	Vinyl tile floor		Adverse	Remove tiles; renew boarded floor boards if necessary	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
06.017	Batten and panel ceiling lining		Low	Replace with lath and plaster ceiling	Not applicable	Low
06.018	Exposed roof covering		Moderate	Retain as existing	Consider insulating between upper and lower layers of roof tiles to provide thermal insulation and vapour barrier	Low

## 07 Dormitory D

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.001	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised. Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High
07.002	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	No applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.003	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High
07.004	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.005	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
07.006	Clothes drying racks		Adverse	Remove	Not applicable	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.008	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
07.009	Corbelled brickwork at perimeter of room		Low	Remove in exceptional cases where eg. where adjacent new lift shafts	Cut back neatly to a square edge and ensure remaining section is secure.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.010	Plywood floor		Adverse	Replace with hardwood floor boards	Not applicable	High
07.011	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low	Remove to enable level access	Splice extensions to door jambs, extend width of bottom rail of doors to match existing	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.012	Form new door openings		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate
07.013	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.014	Fixed signs	The state of the s	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
07.015	Exposed roof tiling		Moderate	Retain as existing	Consider insulating between upper and lower layers of roof tiles to provide thermal insulation and vapour barrier	Low
07.016	Concrete floor		Adverse	Overlay with hardwood floor boards	Not applicable	Moderate

## **08 Ablutions Block**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.001	Panelled doors		Low	Replace where necessary to achieve compliance with Building Code	Re-use where possible. Record design on survey drawings where element cannot be re-used.	Moderate
08.002	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	No applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.003	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High
08.004	Block existing door openings		Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.005	Timber roof structure		High	Retain	Not applicable	Neutral
08.006	External stair at west end		Moderate	Retain	Repair as necessary.  Alter balustrade to achieve reasonable level of operational safety.  Restrict access to repairs and maintenance and means of escape.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.007	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
08.008	Painted signs	MO VISITOR WILL BE ADMITTED WITHOUT THE PERMISSION OF THE D.O. OR FORMALION COMMADER 支管工業等和言分析 进程件不可补管型位金	High	Protect in situ	Not applicable	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.009	Wire mesh screens		Adverse	Remove	Not applicable	Low
08.010	Internal walls and concrete floors		Low	Remove and rebuild in new configuration to suit new use	Ensure retained facades are fully supported during construction operations.  Protect retained walls against damage during demolition works. Install new walls and floors to respect fenestration; avoid	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
					clashes.	
08.011	Cantilever balconies on north side		Moderate	Repair and retain insitu	Not applicable	

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.012	Bridge access to Barrack Block		Moderate	Retain	Repair as necessary.  Alter balustrade to achieve reasonable level of operational safety.  Restrict access to repairs and maintenance and means of escape.	Low
08.013	Balcony balustrades		Low	Repair as necessary and retain.  Remove selected sections to enable installation of new bridge connections to Barrack Block.	Avoid removal of associated iron columns.  Form interventions at selected positions so as to maintain the rhythm of the balustrades and ensure proper support at ends.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
08.014	Single-storey outbuilding with pitched roof over		Low	Demolish to make way for new loading bay.	Record on measured survey drawings.  Infill existing internal opening leaving reveals exposed.  Tooth-in new brickwork at abutments after existing walls removed.  Salvage cast iron columns for possible re-use.	Low
08.015	Corrugated steel sheet on balcony balustrades		Adverse	Remove	Not applicable	Low

**Schedule of Character Defining Elements** 

**Central Police Station** 

## 09 Magistracy

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
09.002	Modern partitions		Adverse	Remove	Not applicable	N/A

## **Schedule of Character Defining Elements**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.003	Internal walls		Moderate	Remove selected internal walls where strictly necessary as part of replanning of interiors	Walls or early or original date to be retained in part eg. By leaving a "nib" where the wall is bonded to another wall. At the point where the wall is cut away, form the cut-line on the line of a vertical joint in alternate courses. Bricks in the remaining courses to be left "as cut", and not rebonded, as evidence of the current condition.	Moderate
09.004	Plaster box cornice		Moderate	Remove in exceptional cases eg. Where adjacent new lift shafts	Cut back neatly to a square edge and ensure remaining section is secure.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.005	Panelled doors		Moderate	Replace where necessary to achieve fire resistance to comply with Code	Re-use where possible. Record design on survey drawings where element cannot be re-used.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.006	Block existing door openings		Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate
09.007	Form new door openings		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.008	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate
09.009	Fixed signs	SECURITY OF SECURI	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.010	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
09.011	Pitched roofs	Boo	High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised. Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.012	Rainwater goods		Moderate	Replace with larger sizes/closer spacing to improve performance	Use cast iron to match original pattern Make good all redundant fixing holes	High
09.013	Metal walkways across lightwell		Adverse	Remove walkways and make good brickwork at abutments	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.014	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High
09.015	Sloping canopy over external stair on west side		Adverse	Remove canopy and supporting structure	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.016	Single storey secure shelter at North West corner		Low	Demolish	Make good brickwork at abutments.	Low
09.017	Iron railing adjacent south side of item 09.016 above		Moderate	Retain; including remains of bars (now removed) between existing railings and east side of Barracks Block.	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.018	Public toilets in 09/LG1/17, 24		Adverse	Strip out sanitaryware, and fit-out for pottery display/service access. Form new door openings in east walls.	Retain existing door openings and metal- barred gates. Retain external granite steps and existing ground level.	Low
09.019	Cell doors		High	Re-open to provide access to Retail space	Retain existing iron gate	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.020	Meeting room at G/02-05		Moderate	Remove timber panelling from walls and sub divide to form new toilets and lift shaft	Record existing wall linings, and any earlier lining behind, on measured survey drawings.	Moderate
09.021	Lobbies within entrance hall G/12		Adverse	Remove	Not applicable	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.022	Public galleries on FF		Adverse	Strip out plant, remove partition walls and restore galleries	Not applicable	High
09.023	Chimney piece		Moderate	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.024	Lanterns above entrance hall		Adverse	Remove existing lanterns and install single lantern	Not applicable	Moderate
09.025	Boarded ceilings on Second Floor		High	Repair and retain where possible	Limit extent of penetrations as far as practicable. Record on measured survey drawings where ceilings have exceptionally to be removed.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
09.026	Iron gates at top of external stair		Moderate	Retain	No applicable	Neutral
09.027	Iron balustrade adjacent terrace at First Floor east side		High	Retain; install structural glass balustrade inboard of ironwork to provide compliance with Building Codes	Avoid penetration of existing tiled pavement when fixing glass balustrade.	Low

## 10 Assistant Superintendent's Office

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High
10.002	Plaster box cornice		Moderate	Remove in exceptional cases eg. Where adjacent new lift shafts	Cut back neatly to a square edge and ensure remaining section is secure.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.003	Panelled doors and linings		Moderate	Replace where necessary to achieve fire resistance to comply with Code	Re-use where possible. Record design on survey drawings where element cannot be re-used.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.004	Timber boarded floor with moulded skirtings		High	Repair as necessary and retain	Lift carefully and refix upon completion of fire- proofing and services installation	Low
10.005	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.006	Block existing door openings		Moderate	Block opening as part of re-planning of interior	Retain existing door frame and architraves. Use framing and noncombustible sheet linings to block opening.	Moderate
10.007	Form new door openings		Moderate	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.008	Altered doors and windows		Adverse	Repair or renew as necessary existing frames to match original patterns	Not applicable	High
10.009	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.010	Stair balustrades		High	Balustrades to be supplemented with additional handrails and supports to mitigate noncompliance with code	New fittings to be of their time and made reversible. Physical intervention to existing stairs and balustrades to be kept to the minimum.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.011	Fixed signs	「「「「「」」」」「「」」」「「」」」「「」」」「「」」」「「」」」「「」	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A
10.012	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof.  Model the size and shape of the new ducts so that the impact on the roofscape is minimised. Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.013	Internal walls		Moderate	Remove selected internal walls where strictly necessary as part of replanning of interiors	Walls or early or original date to be retained in part eg. By leaving a "nib" where the wall is bonded to another wall. At the point where the wall is cut away, form the cut-line on the line of a vertical joint in alternate courses. Bricks in the remaining courses to be left "as cut", and not rebonded, as evidence of the current condition.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.014	Partitions on SF		Moderate	Remove partitions	Record partitions on measured drawings	Moderate
10.015	Blocked windows on south elevation of south-east wing		Adverse	Re-open window openings and reinstate window frames and glazing	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.016	Open-joisted ceiling on Ground Floor of south- east wing		Moderate	Underline floor to provide fire protection.	Avoid intrusive alteration. Use fire-proofing products and methods that enable existing structure and boarding to be retained.	Low
10.017	Moulded timber picture rail		Low	Repair and retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.018	Timber roof structure above south-east wing		Moderate	Repair as necessary and retain	Avoid intrusive alteration. Retain open appearance/	Low
10.019	Timber stair		Moderate	Underline with fire- resisting lining	Repair as necessary and retain.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.020	Clay/terrazzo tile floor on Ground Floor and steps		Adverse	Adjust levels to enable level access and replace floor finish	Not applicable	Low
10.024	Granite wall on North elevation		High	Construct new external steps adjacent wall	Keep new stair clear of wall; avoid any physical connection between steps and wall.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.025	Single storey outbuilding at South East corner		Moderate	Demolish outbuilding and make good at abutments	Record outbuilding on measured drawings	Low
10.026	Blocked archway on East elevation		Adverse	Demolish infilling and reopen archway	Protect original arch and jambs against damage during demolition	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.027	Chimney on east elevation		Low	Retain	Not applicable	Neutral
10.028	Cantilever balconies		High	Repair as necessary and retain	Avoid intrusive interventions. Restrict access if necessary to retain existing appearance.	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
10.029	Steps on east elevation		Moderate	Repair as necessary and retain	Not applicable	Neutral
10.030	Decorative metal screen (See also item 10.026)		Low	Repair and retain	Not applicable	Positive

#### 11 A Hall

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.001	Form new door openings		Low	Form new opening as part of re-planning of interiors	New doors and frames to be of their time to avoid confusion about provenance	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.002	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
11.003	Painted signs		High	Protect in situ	Not applicable	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.004	Fixed signs	ALAEM CAUTION SLIPPERY FLOOR	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A
11.005	Concrete stairs		Low	Remove and rebuild as part of re-planning of interiors	None	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.006	Flat roof		Low	Form new rooftop extension at West end to accommodate fire escape stair	Form straight joint at abutment with building 08 Ablutions Block	Low
11.007	Security screen at roof level		Low	Remove	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.008	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.009	Rainwater goods		Low	Remove embedded cast iron pipework set into wall to reduce long term maintenance burden	Record on measured survey drawings. Make good cavity.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.010	Timber doors		Low	Repair and retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.011	Security screen and door at First Floor	C ENTHED	Low	Remove	Record on measured survey drawings	Low
11.012	Door thresholds and plinth		Low	Retain; remove paint media from plinth and brickwork	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
11.013	Metal louvres on window openings		Adverse	Remove	Not applicable	Low

#### 12 B Hall

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
12.001	Flat roof		Moderate	Repair and retain	Avoid roof penetrations as far as possible	Low
12.002	Cells at GF level		High	Remove cells in selected locations to accommodate new North-South route across site	Record existing layout on measured survey drawings. Limit number of cells affected to the minimum necessary. Retain floor structure above. Retain remainder of cells at this level for interpretation	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
12.003	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
12.004	Painted signs		High	Protect in situ	Not applicable	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
12.005	Fixed signs	Control of the contro	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A
12.006	Rainwater goods		Adverse	Replace with cast iron in pattern to match original and in correct locations	Not applicable	High

# **Schedule of Character Defining Elements**

## **Central Police Station**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
12.007	Corbelled brickwork at high level in cells		Low	Retain	Not applicable	Neutral
12.008	Barbed wire		Moderate	Remove	Record wire on measured drawings	Low

# **Schedule of Character Defining Elements**

## **Central Police Station**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
12.009	External walls		Moderate	Form openings in North and South walls in conjunction with new North-South route across site	Cut brickwork to form openings in North and South walls; do not re-bond brickwork.	Moderate

#### 13 C Hall

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.001	External airconditioning units and other external services		Adverse	Remove	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.002	Door to Ladder Store		Low	Retain	Not applicable	Neutral
13.003	Security bars at window openings		Low	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.004	Flat roof		Low	Retain	Avoid roof penetrations as far as possible.	Low
13.005	Eaves detail		Low	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.006	Cantilever reinforced concrete canopy		Low	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.007	Internal partition walls		Low	Remove as part of replanning of interiors	Record on measured survey drawings	Low
13.008	Fixed signs	The second secon	Low-High	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	N/A

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.009	Metal window frames		Moderate	Repair and retain	Not applicable	Neutral
13.010	Internal security screens		Moderate	Retain where possible	Where necessary record on measured survey drawings prior to removal	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.011	Coving at abutments between RC beams and walls		Low	Avoid penetrations for services installations as far as possible.	Cut away neatly for services penetrations and make good at abutments.	Low
13.012	Communal cells at Ground Floor		Moderate	Remove as part of re- planning of interiors	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.013	Rooflight and security bars over communal cells		Moderate	Remove as part of replanning of interiors	Record on measured survey drawings	Low
13.014	Granite threshold at external door openings		Low	Retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
13.015	Timber boarded doors with fanlight over		Low	Repair as necessary and retain	Not applicable	Neutral
13.015	Vinyl tile floor		Adverse	Replace	Not applicable	Low

# **Schedule of Character Defining Elements**

# **Central Police Station**

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact

#### 14 D Hall East Wing

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.001	West entrance at Lower Ground Floor		Moderate	Retain as public entrance at this level.	Retain security gate and granite threshold.  Adjust adjacent ground level as necessary to achieve barrier-free access.  Pin gate back against adjacent wall in the open position if necessary.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.002	Half-round headed doorway and side lights		Moderate	Retain	Remove air duct and make good masonry above arch.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.003	Granite surround to cells (generally north side, alternating with brick surrounds – see next item)	3	Moderate	Retain door surround and gate wherever possible.	Pin back gate against wall.  Remove paint media to expose granite material.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.004	Brick reveals with bull-nosed arrisses and segmental arch over (generally north side, alternating with granite surrounds – see previous item)		High	Retain door surround and gate wherever possible	Pin back gate against wall	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.005	Arched opening at East end First Floor		Low	Retain as existing	Not applicable	Low
14.006	Concrete floor generally at Lower Ground Floor		Low	Excavate entire floor to install piled underpinning	Record levels on measured survey drawings.  Install new floor at the same level.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.007	Part-blocked windows at Lower Ground Floor - extent of blocking varies.		Moderate	Open up window opening to full extent.	Record existing condition on measured survey drawings. Add further detail during demolition works.	Low
14.008	External granite stair from Lower Ground to Ground Floor level		Moderate	Remove stair to make way for new stair in similar position	Review design proposals to see whether existing stair can be retained.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.009	Ashlar pattern on external walls		Moderate	Form new openings for entrance/exit to building	Set out new openings to cause minimum disruption to ashlar pattern.  Record existing pattern on measured survey drawings.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.010	Blocked doorway at south-east corner		Low	Preserve blocked opening intact.	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.011	Metal security gate and screen		Low	Retain insitu	Pin gate in open position if necessary	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.012	Half-round headed doorway and side lights at Ground Floor west end		Moderate	Retain insitu	Not applicable	Neutral
14.013	Structural steelwork bracing and temporary access stair		Adverse	Remove upon completion of underpinning	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.014	RC staircase at north-east corner		Low	Remove	Record on measured drawings	Low
14.015	Vinyl tile floor on suspended timber floor		Adverse	Remove vinyl tiles and restore boards if possible; alternatively, replace boards with new timber to match other boarded floors elsewhere on the site.	Not applicable	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.016	Cell walls at Ground Floor		Moderate	Retain insitu	Use existing door openings wherever possible.  Avoid further alteration to existing altered openings where feasible.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.017	Mortuary		High	Preserve insitu	Avoid any service penetrations from adjacent spaces	Neutral
14.018	Brickwork surrounds to doorways with segmental arches over		Moderate	Increase width in selected locations to allow wheelchairs to pass	Record on measured survey drawings.  Limit interventions as far as possible.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.019	Granite surrounds to doorways with lintels over		Moderate	Increase width in selected locations to allow wheelchairs to pass	Record on measured survey drawings.  Limit interventions as far as possible.	Low
14.020	Flat ceilings at Ground Floor	A	Low	Form penetrations for services installations where necessary	Avoid disruption of beams.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.021	Arched opening at east end		Low	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.022	Top-lit central hall		High	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.023	Arches across central hall at First Floor		Moderate	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.024	Inset security gate and screen in First Floor cells		Low	Remove to suit new use	Remove where necessary.  Record on measured drawings.	Low

## 14 D Hall West Wing

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.030	Main stair		High	Remove wire mesh and framing	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.031	Brick vault over central hall at Ground Floor		High	Retain insitu	Not applicable	Neutral
14.032	Terrazzo floor in central hall at Ground floor		Moderate	Remove to enable piled underpinning	Record on measured survey drawings	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.033	Brick vaults above cells		High	Retain insitu	Avoid penetrations for services	Neutral
14.034	Cell walls (later additions)		Moderate	Remove where necessary to accommodate new cafe	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.035	Brickwork spandrels below cell windows on south side at Ground Floor		Moderate	Remove to accommodate new cafe	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.036	Cell walls flanking central hall		High	Remove to accommodate new cafe	Record on measured survey drawings.  Retain selected cells for interpretation purposes.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.037	Cell floors		Low	Remove to enable piled underpinning	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.038	Partition wall across central hall at Ground Floor		Low	Remove to accommodate new cafe	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.039	Granite pavement in cross-passage between East and West Wings		Moderate	Repair as necessary and retain insitu	Not applicable	Neutral
14.040	Granite threshold at doorway between cross- passage and East Wing		Moderate	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.041	Brick vault over cross-passage		High	Retain insitu	Avoid any services penetrations	Neutral
14.042	Granite floor in central hall at First Floor		Moderate	Retain insitu	Repair where necessary	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.043	Cell walls flanking central hall at First Floor		High	Retain insitu	Not applicable	Neutral
14.044	Brickwork spandrels below cell windows at Second Floor		Moderate	Remove to enable new use	Record on measured drawings.  Confine changes to one elevation, north or south.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.045	Metal security screen adjacent main stair		Moderate	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.046	Double-height central hall at Second Floor		High	Retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.047	View ports adjacent entrance doors		Moderate	Retain insitu	Not applicable	Neutral
14.048	Services installations		Adverse	Remove	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.049	Metalwork and structural steel framing on exterior (typical)		Adverse	Remove	Not applicable	High
14.050	Blind arcade, south elevation		Low	Remove infill brickwork within arched openings at ground level to enable new cafe	Record on measured survey drawings.  Observe and record any evidence that brickwork infills were built at the same time as the arched openings or added later	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
14.051	Blind arcade, north elevation		Low	Retain insitu	Not applicable	Neutral
14.052	Fence wall, east end of D Hall Yard		Low	Remove to reinstate access to granite stair to Lower Ground Floor level	Record on measured drawings	Low

## 15 E Hall

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.001	Dividing walls at Lower Ground Floor		Moderate	Remove to enable multi- purpose use	Record on measured survey drawings	Low
15.002	Dividing walls at Lower Ground Floor		Moderate	Remove to enable multi- purpose use	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.003	Staircase within Laundry Yard		Moderate	Remove to enable construction of Arbuthnot Wing	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.004	Services installations		Adverse	Remove	Not applicable	Moderate
15.005	Metal louvres over cell window openings		Low	Remove	Record on measured survey drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.006	Raised ground level adjacent entrance		Low	Remove to enable level access	Record on measured survey drawings	Low
15.007	Access balconies and apertures		Moderate	Retain apertures	Provide temporary closure as required for operational reasons	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.008	Central staircase		High	Retain	Provide secondary staircase within cell blocks to achieve code compliance	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.009	Cell walls flanking central hall		High	Retain	Pin back cell doors against walls.	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.010	Services installations	38.000.00	Adverse	Remove	Not applicable	Moderate
15.011	Balcony balustrades		Moderate	Retain	Install wire net across aperture to avoid need to upgrade balustrade to meet Building Code requirements	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
15.012	Second Floor central hall		High	Retain	Not applicable	Neutral

## 17 F Hall

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.001	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.002	Rainwater goods		Low	Remove existing RWPs and install new RWPs externally on North and South Elevations	Improve roof drainage to avoid ponding	Low
17.003	Exterior decorations		Adverse	Strip off and redecorate	Sample and analyse existing paint media; select new media to suit substrate and significance	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.004	External airconditioning units and other external services		Adverse	Remove and make good brickwork	Not applicable	High
17.005	Fixed signs	PRISONERS' PRIVATE CLOTHING STORE 犯人私家衣服儲藏室	Moderate	Remove and refix/display in visitors' centre/discard	Record each sign and assess significance individually and treat accordingly	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.006	Security screen at First Floor entrance		Low	Remove	Record on measured drawings	Low
17.007	Metal windows		Moderate	Remove at First Floor to accommodate gallery space and block structural openings with blockwork	Record on measured drawings.	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.008	Fixed furniture		Moderate	Remove to accommodate gallery space	None	Low
17.009	Security screens		Moderate	Remove to accommodate gallery space	Record on measured drawings	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.010	Timber windows		Moderate	Remove at First Floor to accommodate gallery space and block structural openings with blockwork	Record on measured drawings	Moderate
17.011	Communal washing/lavatory facilities		Moderate	Remove to accommodate gallery space	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.012	Blocked up lantern light		Low	Unblock lantern and fit glazing	Record on measured drawings	Low
17.013	Security gates at Ground openings		Moderate	Remove to enable access to Ground Floor gallery space	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.014	Interview booths		High	Remove to accommodate new gallery	Rebuild in new location	Moderate
17.015	External stair to First Floor		Moderate	Upgrade balustrade to comply with Building Code	Record on measured drawings. Supplement existing balustrade elements with minimal elements if necessary.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.016	Ground Floor main entrance		Low	Retain as existing.	Keep fixed shut if not required for operational use.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.017	Security screen at Ground Floor main entrance	The desire of the second secon	Low	Remove to accommodate gallery space	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.018	Blue Entrance Gate (facing Old Bailey Street)		High	Retain in situ	Maintain in working order	Neutral
17.019	Blue Entrance Gate (inner) and enclosed yard		Moderate	Retain gate and enclosing walls and roof in situ; remove cupboards.	Repair and maintain gate in working order	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.020	Blue Entrance Gate (inner) facing Prison Yard		Moderate	Retain gate and enclosing frame	Repair and maintain in working order	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.021	Barbed wire		Moderate	Remove	Record on measured drawings.  Make good fixing points where attached to brickwork.	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.022	Metal security bars at windows		Moderate	Remove as part of blocking up window openings to accommodate gallery space at First Floor	Record on measured drawings	Low
17.023	External toilets at Ground Floor adjacent East elevation		Low	Remove	Record on measured drawings	Low

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
17.024	Open Visit Room		Low	Space reallocated to other uses	Record on measured drawings. Salvage entrance sign and re-use in new layout of interview booths.	Low

### 19 Bauhinia House

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.001	Pitched roofs		High	New penetrations through roofs for ventilation ducts and other services	Arrange new penetrations so that they conform with the geometry of the existing roof. Model the size and shape of the new ducts so that the impact on the roofscape is minimised. Finish the new ducts in a non-reflective material that is neutral in colour and mid-tone.	High
19.002	Chimney		High	Repair and retain	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.003	Rainwater goods and other external services		Adverse	Remove and make good wall surface. Replace defective and non-matching rainwater goods with cast iron fittings to match original.	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.004	External stone wall facing		High	Carry out close inspection of painted areas to determine extent of original granite facing and remove paint media where applicable.	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.005	Gun loops		High	Remove concrete infilling and make good stonework where necessary.	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.006	Look-out turret		High	Repair and retain insitu	Not applicable	Neutral

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.007	Windows		Moderate	Remove and make good stonework as necessary	Record existing windows on measured survey drawings	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.008	Modern partitions		Adverse	Remove	Not applicable	Moderate

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.009	Electrical services		Adverse	Remove	Not applicable	Moderate
19.010	Lay-in grid suspended ceiling		Adverse	Remove	Not applicable	High

Element no.	Description	Photo ref.	Significance	Proposal	Mitigation	Impact
19.011	Exposed timber roof structure		High	Repair and retain insitu	Not applicable	Neutral
19.012	Timber stair		Moderate	Remove	Record on measured surveys drawings	Low