

The Jockey Club CPS Limited

Central Police Station Conservation
and Revitalisation Project:
Third Quarterly EM&A Report
(1 May 2012 to 31 July 2012)

Issue Date: September 2012

Environmental Resources Management

16/F

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and Revitalisation Project:
Third Quarterly EM&A Report
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Reference 0095646

For and on behalf of ERM-Hong Kong, Limited
Approved by: <u>Frank Wan</u>
Signed: <u></u>
Position: <u>Partner</u>
Certified by: <u></u> (Environmental Team Leader – Winnie Ko)
Date: <u>September 2012</u>

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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Date: 4 September 2012

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Attn: Ms Winnie Ko

Dear Winnie,

**Central Police Station Conservation and Revitalization Project
Verification of Third Quarterly EM&A Report**

We refer to your letter dated 4 September 2012 regarding the Third Quarterly EM&A Report of the Project. Atkins China Ltd. verifies, in the capacity of Independent Environmental Checker, that the Third Quarterly EM&A 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. Mr. Kenneth Lee, HKJC
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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 third quarterly Environmental Monitoring and Audit (EM&A) summary report presenting the EM&A works carried out during the period from 1 May 2012 and 31 July 2012 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
- Joint Heritage Site Inspection 3 times
- Landscape & Visual Monitoring 3 times
- Tree Inspection 3 times
- Vibration monitoring for demolition works 40 times
- Vibration monitoring for trial piling works 46 times
- Vibration monitoring for other construction works 74 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. Three exceedances of Action Level of noise were recorded during the reporting period.

Cultural Heritage

40 vibration measurement events for Stage 1 and Stage 2 demolition works and 46 vibration measurement events for trial piling works were undertaken during the reporting period. Additionally, a total of 74 numbers of vibration monitoring events for underpinning, strengthening and structural alteration works at Block 8 were carried out throughout the reporting period.

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

Three monthly 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. 1093.42 tonnes of inert C&D materials and 86.96 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. 2,850 kg of metals and 568 kg of paper/cardboard packaging were produced and sent to recyclers for recycling. 40 kg of solid chemical waste and 45 L of liquid chemical waste were generated during the reporting period. No plastics waste was generated 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 Limit Level of construction noise was recorded at designated monitoring stations during the reporting period. Three exceedances of Action Level of noise were recorded during the reporting period.

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

One enquiry was received during the reporting period.

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

There were three complaints received during the reporting period.

No summons/prosecutions were received in this reporting period.

CONTENTS

	<i>EXECUTIVE SUMMARY</i>	<i>I</i>
<i>1</i>	<i>INTRODUCTION</i>	<i>1</i>
<i>1.1</i>	<i>PURPOSE OF THE REPORT</i>	<i>1</i>
<i>1.2</i>	<i>STRUCTURE OF THE REPORT</i>	<i>1</i>
<i>2</i>	<i>PROJECT INFORMATION</i>	<i>3</i>
<i>2.1</i>	<i>BACKGROUND</i>	<i>3</i>
<i>2.2</i>	<i>SITE DESCRIPTION</i>	<i>3</i>
<i>2.3</i>	<i>CONSTRUCTION ACTIVITIES</i>	<i>3</i>
<i>2.4</i>	<i>CONSTRUCTION PROGRAMME</i>	<i>4</i>
<i>2.5</i>	<i>PROJECT ORGANISATION AND MANAGEMENT STRUCTURE</i>	<i>4</i>
<i>2.6</i>	<i>STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS</i>	<i>4</i>
<i>3</i>	<i>ENVIRONMENTAL MONITORING REQUIREMENTS</i>	<i>6</i>
<i>3.1</i>	<i>NOISE MONITORING</i>	<i>6</i>
<i>3.2</i>	<i>CULTURAL HERITAGE</i>	<i>7</i>
<i>3.3</i>	<i>LANDSCAPE AND VISUAL MONITORING</i>	<i>9</i>
<i>4</i>	<i>IMPLEMENTATION STATUS ON ENVIRONMENTAL MITIGATION MEASURES</i>	<i>10</i>
<i>5</i>	<i>MONITORING RESULTS</i>	<i>11</i>
<i>5.1</i>	<i>NOISE</i>	<i>11</i>
<i>5.2</i>	<i>LANDSCAPE AND VISUAL MONITORING</i>	<i>11</i>
<i>5.3</i>	<i>CULTURAL HERITAGE</i>	<i>12</i>
<i>5.4</i>	<i>WASTE MANAGEMENT</i>	<i>13</i>
<i>5.5</i>	<i>EFFECTIVENESS OF MITIGATION MEASURES AND MONITORING</i>	<i>14</i>
<i>6</i>	<i>ENVIRONMENTAL SITE INSPECTION</i>	<i>15</i>
<i>7</i>	<i>ENVIRONMENTAL NON-CONFORMANCE</i>	<i>16</i>
<i>8</i>	<i>REVIEW OF THE EM&A DATA AND EIA PREDICTIONS</i>	<i>19</i>
<i>8.1</i>	<i>NOISE</i>	<i>19</i>
<i>8.2</i>	<i>WASTE MANAGEMENT</i>	<i>19</i>
<i>8.3</i>	<i>SUMMARY OF REVIEW</i>	<i>20</i>
<i>9</i>	<i>CONCLUSIONS</i>	<i>21</i>

LIST OF TABLES

<i>Table 2.1</i>	<i>Summary of Construction Activities undertaken in this Reporting Period</i>
<i>Table 2.2</i>	<i>Summary of Environmental Licensing, Notification and Permit Status</i>
<i>Table 3.1</i>	<i>Construction Phase Noise Monitoring Locations</i>
<i>Table 3.2</i>	<i>Noise Monitoring Equipment</i>
<i>Table 3.3</i>	<i>Action and Limit Levels for Construction Noise Monitoring</i>
<i>Table 3.4</i>	<i>Alert, Alarm and Action (AAA) Levels for Vibration Monitoring</i>
<i>Table 3.5</i>	<i>Event and Action Plan for vibration monitoring</i>
<i>Table 4.1</i>	<i>Status of Required Submissions</i>
<i>Table 5.1</i>	<i>Findings of Monthly Tree Inspection in the Reporting Period</i>
<i>Table 5.2</i>	<i>Quantities of Waste Generated from the Project</i>
<i>Table 8.1</i>	<i>Comparison of Construction Noise Standard and Noise Monitoring Results</i>
<i>Table 8.2</i>	<i>Quantity of Actual Amount of C&D Materials, General Wastes and Chemical Wastes Generated and EIA Estimation</i>

LIST OF ANNEXES

<i>Annex A</i>	<i>Locations of Works Areas and the Surroundings</i>
<i>Annex A1</i>	<i>Project Location</i>
<i>Annex A2</i>	<i>Declared Monuments within the Project Site</i>
<i>Annex A3</i>	<i>Site Layout Plan marked with Works</i>
<i>Annex B</i>	<i>Project Organization Chart and Contact Detail</i>
<i>Annex C</i>	<i>Locations of Noise Monitoring Stations and Noise Sensitive Receivers</i>
<i>Annex D</i>	<i>Monitoring Schedule of the Reporting Period</i>
<i>Annex E</i>	<i>Calibration Reports for Calibrators and Sound Level Meters</i>
<i>Annex F</i>	<i>Event/Action Plans for Noise</i>
<i>Annex G</i>	<i>Summary of Implementation Status</i>
<i>Annex H</i>	<i>Noise Monitoring Results</i>
<i>Annex I</i>	<i>Construction Programme of the Project</i>
<i>Annex J</i>	<i>Waste Flow Table</i>
<i>Annex K</i>	<i>Environmental Complaint, Enquiry, Environmental Summons and Prosecution Log</i>
<i>Annex L</i>	<i>Records of Vibration Monitoring for Demolition Works</i>
<i>Annex M</i>	<i>Records of Vibration Monitoring for Trial Piling Works</i>
<i>Annex N</i>	<i>Records of Vibration Monitoring for Other Construction Works</i>
<i>Annex O</i>	<i>A Summary of Current Condition of Character Defining Elements</i>

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 third 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 May and 31 July 2012.

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*.

Table 2.1 ***Summary of Construction Activities undertaken in this Reporting Period***

Construction Activities Undertaken
<ul style="list-style-type: none">• Demolition works (Stage 2)• Underpinning works, strengthening works and structural alteration works (Blocks 8 and Block 17);• Trial piling works (including grouting works); and• Preservation by record.

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 by EP-408/2001/A
	EP-408/2011/A	-	superseded by EP-408/2001/B
	EP-408/2011/B	Throughout the Contract	Permit granted on 22 March 2012
Notification of Construction Works as required under <i>Air Pollution Control (Construction Dust) Regulation</i>	Ref. No. 332920	Throughout the Contract	-
Registration of Waste Producer under <i>Waste Disposal Ordinance</i>	Waste Producer No.: 5213-122-G2347-25	Throughout the Contract	-
Effluent Discharge License under <i>Water Pollution Control Ordinance</i>	License No. WT00010633-2011	21 Oct 2011 - 31 Oct 2016	-
Notification of Commencement of Asbestos Abatement Work under <i>Air Pollution Control Ordinance</i>	-	Throughout the Contract	EPD's letter (EPD's ref.: (5) in EPAC/A/4/000/23 3 II) dated 2 December 2011 satisfied that the content of the asbestos abatement plan (Report No.: 0210/11/ED/0078A) is in accordance with the APCO
Approval of Asbestos Abatement Work (Phase 2)	-	Earliest commencement date on 26 January 2012.	EPD's letter (EPD's ref.:() in EPAC/A/4/000/23 3) dated 18 January 2012.
Construction Noise Permit (CNP)	GW-RS0734-12	11 July 2012 at 0200 hours to 2 August 2012 at 0400 hours	-

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 Construction Noise Monitoring Station			
	ID in EM&A Manual	ID	Type of Measurement	Remark
Rooftop of Ho Fook Building	N2	NM2	Façade	-
Rooftop of Chancery Mansion	---	NM6	Façade	Accesses to the original proposed monitoring location in the EM&A Manual, Chancery House (N5), were 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 10997142) <u>Sound Level Meter</u> Rion-NL52 (S/N 00710259)

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

Notes:

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

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

3.1.5 *Mitigation Measures*

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

3.2 *CULTURAL HERITAGE*

3.2.1 *Vibration Monitoring*

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

Baseline Monitoring

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

Vibration Monitoring for Demolition Works

There are five phases/stages of vibration monitoring to be carried out for demolition works, namely Initial Reading Phase, Monitoring Stage 1, Monitoring Stage 2, Monitoring Stage 3 and Monitoring Stage 4. The 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 Works

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

Vibration Monitoring for Other Construction Works

Vibration monitoring for specific construction works other than the demolition and trial piling works are also required in accordance with Building Department's requirement. The monitoring location is shown in *Annex N*. 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.

IMPLEMENTATION STATUS ON ENVIRONMENTAL MITIGATION MEASURES

The Contractor has generally implemented the environmental mitigation measures 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
<i>EP Condition</i>		
Conditions 3.4	• Sixth Monthly EM&A Report	14 May 2012
	• Seventh Monthly EM&A Report	14 June 2012
	• Eighth Monthly EM&A Report	17 July 2012
<i>EM&A manual</i>		
Section 10.4	Second Quarterly EM&A Report	14 June 2012

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. Three exceedances of Action Level of noise were recorded during the reporting period. Investigations of the exceedances 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 21 May 2012, 7 June 2012 and 19 July 2012 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
21 May 2012			
Tree -5	<i>Mangifera indica</i>	Good	<ul style="list-style-type: none"> • To trim the lower branches; and • To remove all undergrowth.
Tree -6	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> • To trim the lower branches.
Tree-7	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> • To trim the lower branches.
Tree-8	<i>Plumeria rubra</i>	Fair	<ul style="list-style-type: none"> • No further action required.
Tree-9	<i>Araucaria cunninghamia</i>	Fair	<ul style="list-style-type: none"> • Wounds of the tree have been recovered.
Tree-11	<i>Dracaena marginata</i>	Fair	<ul style="list-style-type: none"> • To remove the dead branches before typhoon seasons.
7 June 2012			
Tree -5	<i>Mangifera indica</i>	Good	<ul style="list-style-type: none"> • To trim the lower branches. • All the undergrowth was removed on 7 June 2012.
Tree -6	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> • Overgrown branches/leaves were pruned on 1 June 2012.

Tree No.	Botanical Name	Overall Health Condition	Arborist's Observation / Recommendations
Tree-7	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> Overgrown branches/leaves were pruned on 1 June 2012.
Tree-8	<i>Plumeria rubra</i>	Fair	<ul style="list-style-type: none"> No further action required.
Tree-9	<i>Araucaria cunninghamia</i>	Fair	<ul style="list-style-type: none"> The tree emits transparent juice on a cavity. Close observation is required in the coming months.
Tree-11	<i>Dracaena marginata</i>	Fair	<ul style="list-style-type: none"> To remove the dead branches before typhoon seasons.
19 July 2012			
Tree -5	<i>Mangifera indica</i>	Good	<ul style="list-style-type: none"> To trim the lower branches.
Tree -6	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> No further action required.
Tree-7	<i>Aleurites moluccana</i>	Fair	<ul style="list-style-type: none"> No further action required.
Tree-8	<i>Plumeria rubra</i>	Fair	<ul style="list-style-type: none"> No further action required.
Tree-9	<i>Araucaria cunninghamia</i>	Fair	<ul style="list-style-type: none"> No further action required.
Tree-11	<i>Dracaena marginata</i>	Fair	<ul style="list-style-type: none"> To remove the dead branches; To remove litter and weeds.

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. Most recommendations have been implemented by the Contractor during the reporting period, but some are yet to be implemented as presented in *Table 5.1*.

5.3 CULTURAL HERITAGE

5.3.1 Vibration Monitoring

26 numbers of vibration monitoring were taken in May 2012 for the Stage 1 and Stage 2 demolition works of Building M and Wall 12. In June 2012, a total of 14 vibration monitoring measurements were conducted for the Stage 2 demolition works of Building M and Building P. No demolition works were carried out in the subsequent month and thus no vibration monitoring for the demolition works were undertaken in July 2012. The records of vibration monitoring are shown in *Annex L*.

A total of 26 vibration monitoring measurements in May 2012 and 20 vibration monitoring measurements in June 2012 were conducted for the trial piling works. No trial piling works were reported by the Contractor in July 2012 and thus no vibration monitoring for the trial piling works were carried out in that month. The monitoring readings during the reporting period are presented in *Annex M*.

Vibration monitoring for underpinning, strengthening and structural alteration works at Block 8 has been conducted throughout the reporting period in which a total of 26, 25 and 23 numbers of vibration monitoring

measurements were taken in May, June and July, respectively. The records of vibration monitoring are presented in *Annex N*.

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

5.3.2 *Heritage Site Audit*

Three monthly heritage site audits were conducted on 16 May, 15 June, and 12 July 2012 by the Heritage Checker. 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.

16 May 2012

- Excessive amount of pigeon guano were observed in the Barrack Block. The Contractor was advised to clean the guano on a daily basis.

15 June 2012

- the Contractor was reminded to ensure that all demolition works at the interfaces with the historical buildings are conducted in accordance with the method statements; and
- Remove debris from the ladder store to Building 13.

12 July 2012

- The stacking of Building 8 doors in Building 06 was not adequate. The Contractor has been recommended to provide additional support to doors at high level or stack the doors on their long length.

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

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. 2,850 kg of metals and 568 kg of paper/cardboard packaging were produced and sent to recyclers for recycling. 40 kg of solid chemical waste and 45 L of liquid chemical waste were generated during the reporting period. No plastics waste was generated during the reporting period.

Table 5.2 Quantities of Waste Generated from the Project

Month / Year	Quantity						
	C&D Materials (inert) (tonnes) (a)	C&D Materials (non-inert) (tonnes) (b)	Chemical Waste		Recycled materials		
			Liquid (L)	Solid (kg)	Paper/cardboard (kg)	Plastics (kg)	Metals (kg)
May 2012	492.33	36.33	0	0	266	0	0
June 2012	383.11	27.41	45	40	0	0	1100
July 2012	217.98	23.22	0	0	302	0	1750
Total	1,093.42	86.96	45	40	568	0	2,850

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.

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 but three exceedances of Action Level of noise were recorded during the reporting period.

Three monthly environmental site inspections were conducted on 16 May, 15 June and 12 July 2012 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.

16 May 2012

- Stagnant water was observed in the yellow rubbish bin near the site office. The Contractor was reminded to remove the stagnant water and cover the holes on all rubbish bins on site with plastic sheet to prevent water entering the rubbish bins.
- Stockpile of soil was observed near the Arbuthnot Wing. The Contractor was recommended to cover the temporary stockpile of soil with impervious sheet to avoid fugitive dust emission and the generation of muddy water during raining season.
- No noise barrier or noise insulating sheet was provided for the trial piling works during the site inspection. The Contractor was reminded to implement proper noise mitigation measures to reduce the noise impact.

15 June 2012

- Nil.

12 July 2012

- Nil.

7 ENVIRONMENTAL NON-CONFORMANCE

7.1.1 Summary of Monitoring Exceedance

Three exceedances of Action Level of construction noise were recorded during the reporting period. No exceedance of Limit Level of construction noise or Alert, Alarm and Action Levels of vibration was recorded during this reporting period.

7.1.2 Summary of Enquiry

One enquiry was recorded during the reporting period. On 22 May 2012, an enquiry letter from residents at Mood@Soho on start time of construction work was received by Gammon Construction Limited (GCL). The enquiry was raised whether the construction works can be delayed 30 minutes to an hour each day for heavy/noisy machinery. GCL has liaised with the managing agent of Mood@Soho, and a written reply to the enquiry has been provided by GCL to the management office of Mood@Soho. The letter of reply is presented in *Annex K*.

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 about noise nuisance were received during reporting period. They are summarised in *Table 7.1*.

Table 7.1 Summary of Complaint Received

Date	Means by which complaint was received	Nature of complaint
14 June 2012	Environmental Protection Department	Noise nuisance
28 June 2012	Central Police Station Website, Enquiry System	Noise nuisance
20 July 2012	Police	Noise nuisance

Complaints Received on 14 June 2012 and 28 June 2012

On 14 June, the Contractor received a complaint from the EPD that a neighbourhood resident complained the noise nuisance from Project Site near the Chancery Lane at around 8:30 pm on 13 June 2012. According to the works summary provided by the Contractor, no major construction activities were carried out but only manual washing of pile tubes was conducted near Block 17 at around 8:30pm on 13 June 2012. In light of the proximity of the location of the complainant and that of the works taken, manual washing of pile tubes could be the possible source of noise nuisance.

On 28 June, the Contractor was informed of a complaint about the noise nuisance generated from the Project Site at 8:30 pm on 12 June 2012, which

was recorded on the Enquiry System of the Central Police Station Website on 12 June 2012. According to the information provided by the Contractor, no major construction activities were carried out but only manual washing of grouting tube and casing and site cleaning work were conducted near Block 17 at around 8:30 pm on 12 June 2012.

The Contractor was reminded to emphasize the legal requirement of working in the restricted hours to site management team and workers. The following measures have also been implemented by the Contractor to further minimise the noise nuisance to the adjacent users:

- Operation team (e.g. site agent, sub-agent) has conducted site inspection at 6:00 pm since 14 June 2012 to ensure all construction works cease and to switch off the operating PME (e.g. ventilation fan) if no valid CNP was granted by the EPD;
- Reminder letters regarding the legal requirement of working in the restricted hours, period of restricted hours, application of Construction Noise Permit (CNP) and in-house rules have been issued to each work package contractor on 18 June 2012;
- An internal meeting with manager of Gammon, the Engineer and site agent was carried out on 18 June 2012 to emphasize the application of CNP, period of restricted hours and in-house rules for working in the restricted hours;
- Tool Box Talk about good site practices, work during restricted hours and Permit to Work System has been conducted for frontline workers and operation supervisor team on 20 June 2012; and
- Electricity supply to the construction on site has been automatically switched off at 6:50 pm besides the supply for the office and emergency lighting since 25 June 2012.

Complaint Received on 20 July 2012

On 20 July 2012, the Police had received a complaint on a noise nuisance in the morning. Subsequent to the receipt of the complaint, a policeman carried out a site inspection at the Project Site at around 9:30am. According to the works summary provided by the Contractor, there were no major construction activities undertaken on 20 July 2012 and the works carried out on that day are not considered to give rise to significant noise due to the work nature and the equipment used for each work. Handheld electric grinder and electric welding machine were only used for five to ten minutes during the embellishing work for the concrete spiral staircase mockup. Ventilation fan was used during underpinning works, while hand tools such as shovels or trowels were used for manual back filling of archaeological pits. No major construction activities were carried out during the date of complaint.

The Contractor has been advised to notify all workers and operation supervisor of the complaint dated 20 July 2012 and to remind them to minimise the potential noise generated as much as possible during any work activities. The Contractor has also been recommended to provide Tool Box Training about good site practices, work during restricted hours and Permit to Work System to all frontline workers and operation supervisor. Additionally, the Contractor has been reminded to provide acoustic curtain, where applicable, to the handheld mechanical equipment and properly install noise barriers during major construction activities in the future.

The complaint investigation reports 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*.

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 Month	Monitoring Stations	Corresponding NSR in EIA	Noise Limit Level	Predicted Construction Noise Level (With Mitigation) in EIA	Measured Construction Noise Level
			L _{wq, 30 min} dB(A)	L _{wq, 30 min} dB(A)	L _{wq, 30 min} dB(A)
May 2012	NM2	N2	75	67 - 72	64.4 – 68.8
	NM6	N6	75	73 - 75	65.0 – 66.6
June 2012	NM2	N2	75	67 - 72	63.3 – 67.5
	NM6	N6	75	73 - 75	64.0 – 67.5
July 2012	NM2	N2	75	67 - 72	64.0 – 65.6
	NM6	N6	75	73 - 75	63.7 – 74.5

The monitoring results recorded since the commencement of the construction works have been well 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 ³	1560.0 m ³
Amount of C&D Materials (Non-inert) Arising	890 m ³	346.13 m ³
General Refuse	130 kg per day	- ^(c)
Chemical Waste	Less than 100L per month	- 45 L (June 2012) - 7,000 kg of asbestos generated

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 July 2012.
- (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 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.

This third Quarterly EM&A Report presents the EM&A works undertaken during the reporting period from 1 May 2012 to 31 July 2012 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 the monitoring stations during the reporting period. Three exceedances of Action Level of noise were recorded during the reporting period.

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 the Alert, Alarm and Action Levels of vibration was recorded during the reporting period.

One enquiry was received during the reporting period.

No non-compliance event for heritage and environmental site inspections was recorded during the reporting period.

There were three complaints received during the reporting period.

No summons/prosecution was received during the reporting period.

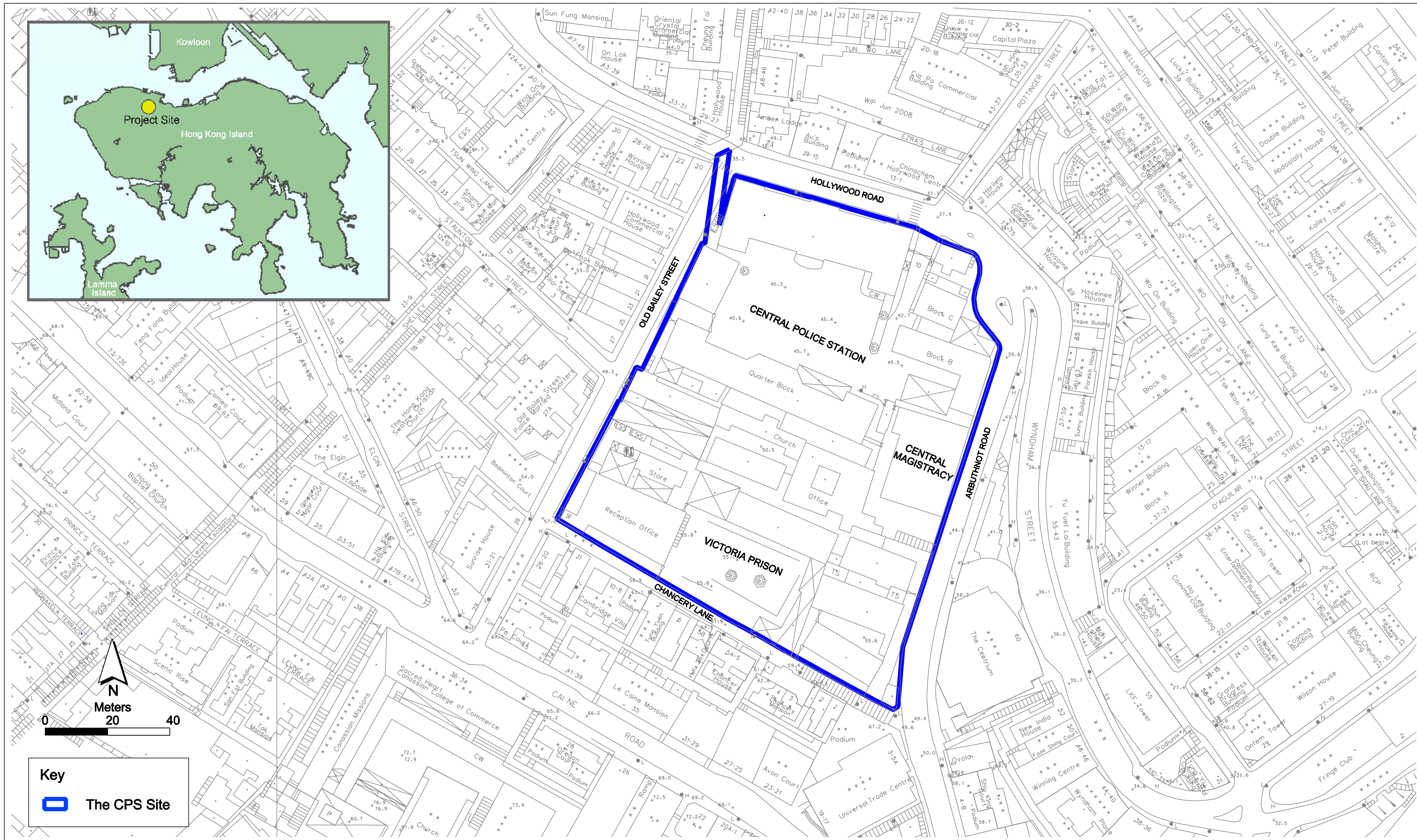
The monitoring programme was considered effective in reflecting the environmental conditions at the designated representative sensitive receivers. The monitoring results also indicate that the Project have not caused adverse impacts on the environment with implementation of appropriate mitigation measures. 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 A1

Project Location

**Environmental
Resources
Management**

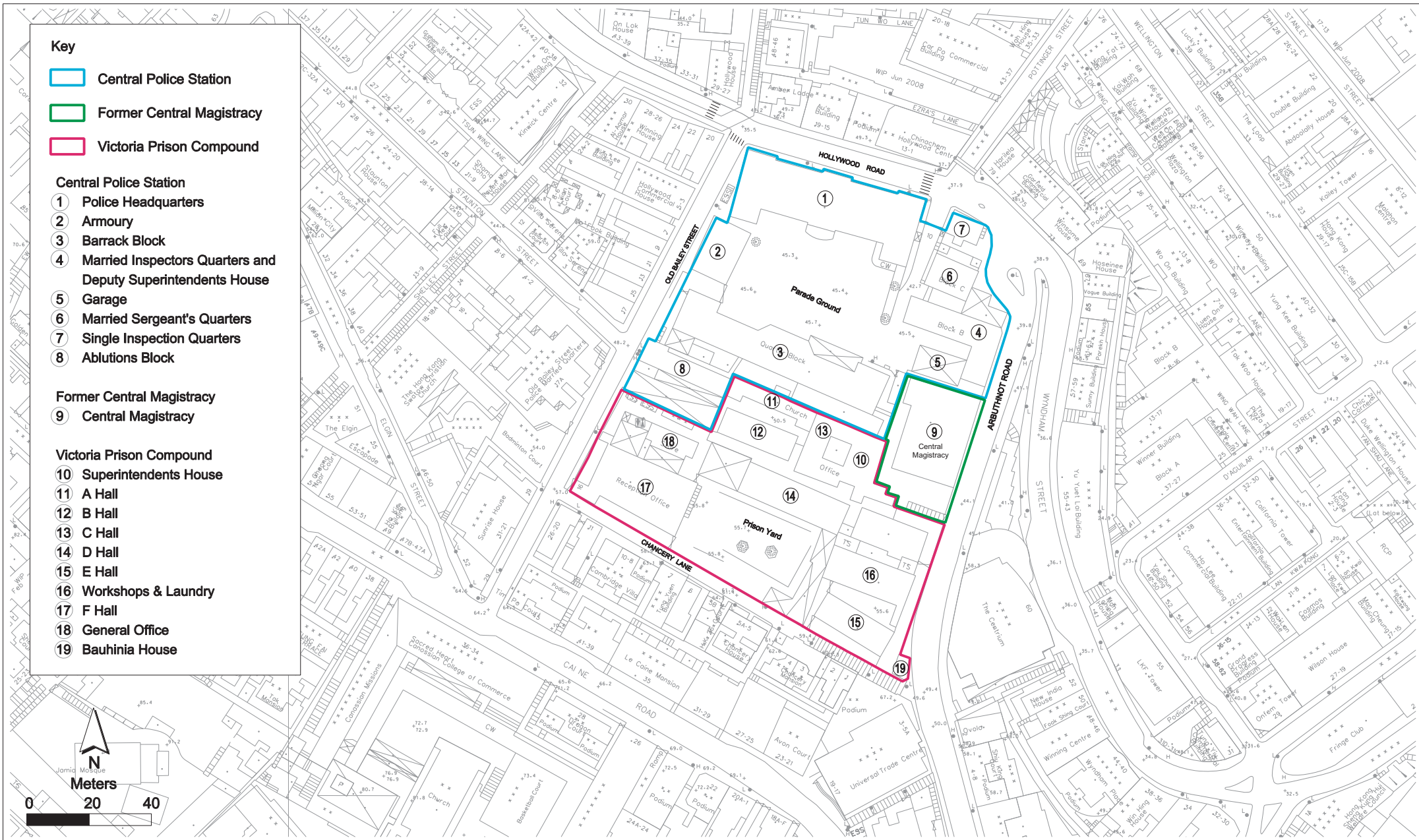


賽馬會文物保育有限公司
The Jockey Club CPS Limited

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DATE: 21/11/2011

Annex A2

Declared Monuments with the Project Site



Annex A2

Declared Monuments within the Project Site

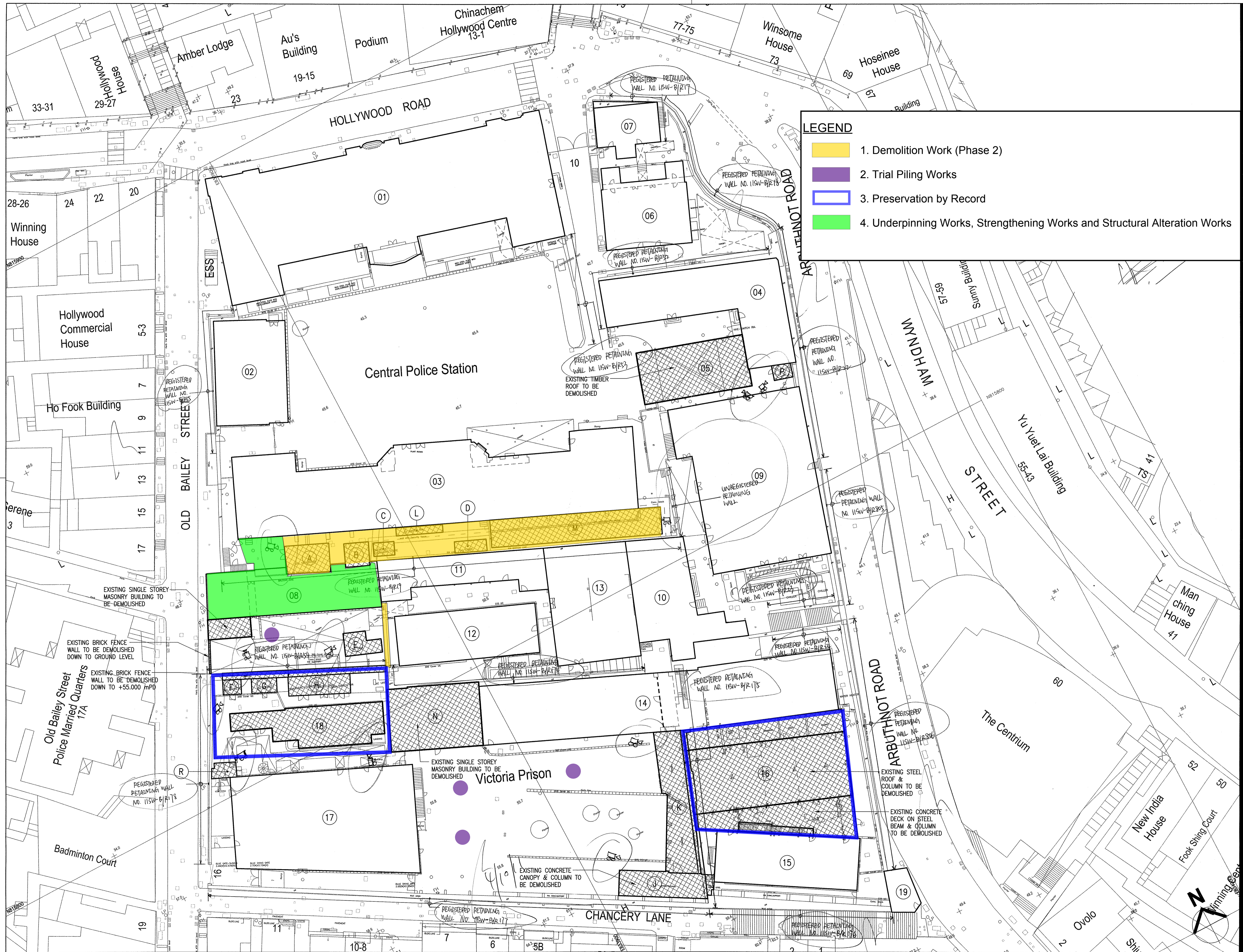
Environmental Resources Management



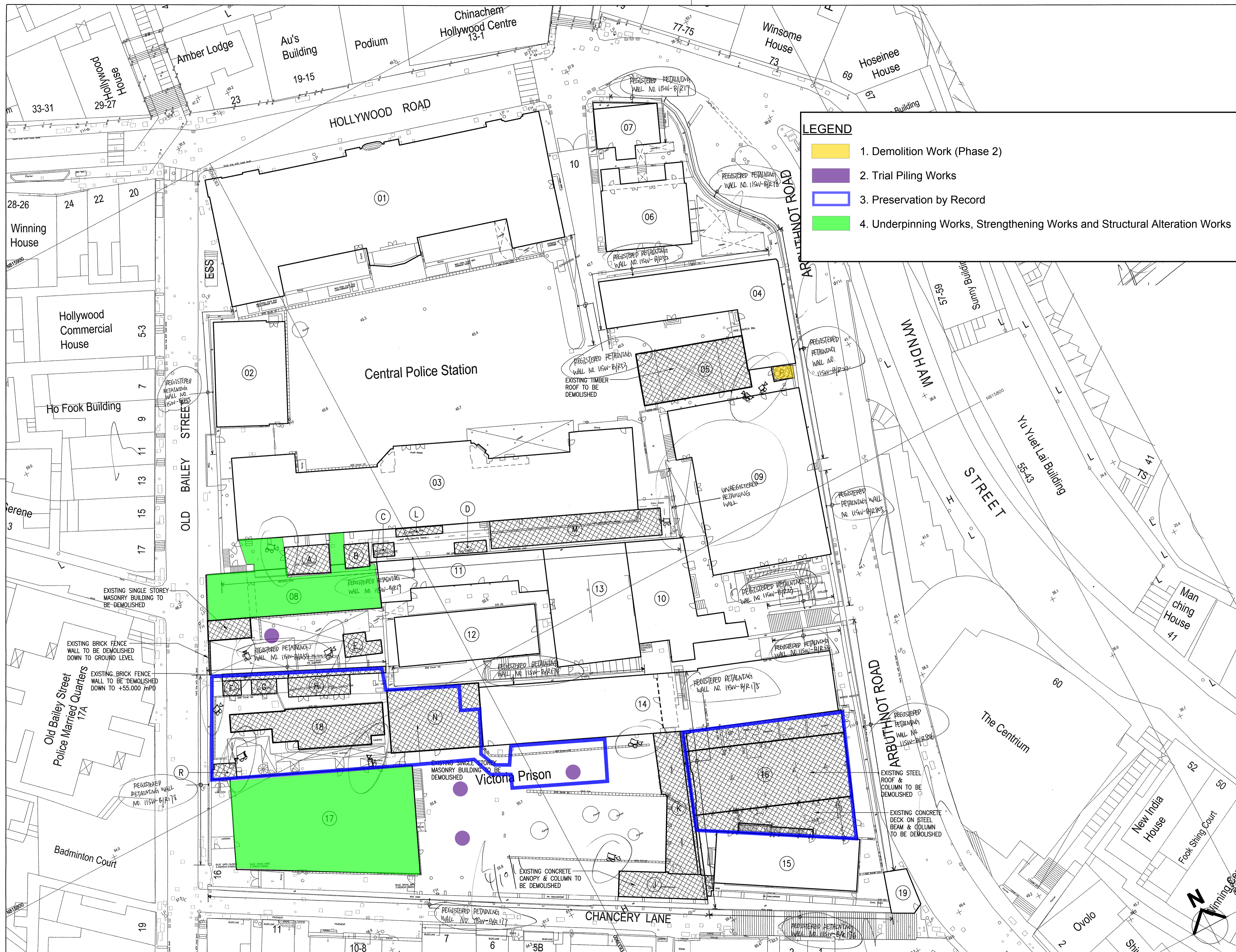
賽馬會文物保育有限公司
The Jockey Club CPS Limited

Annex A3

Site Layout Plan marked with Works



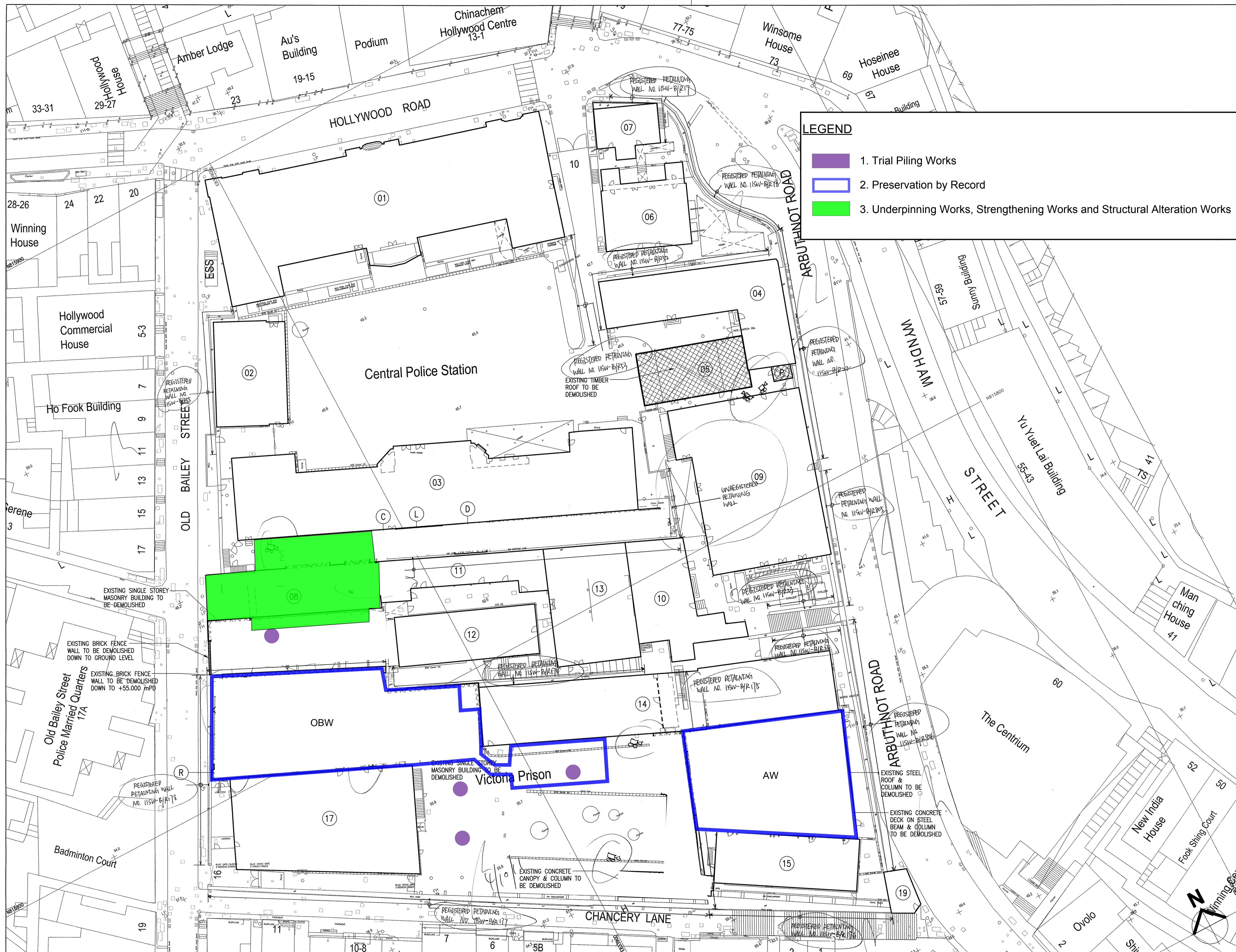
Annex A3 Site Layout Plan marked with Works (May - 2012)



LEGEND

- 1. Demolition Work (Phase 2)
- 2. Trial Piling Works
- 3. Preservation by Record
- 4. Underpinning Works, Strengthening Works and Structural Alteration Works

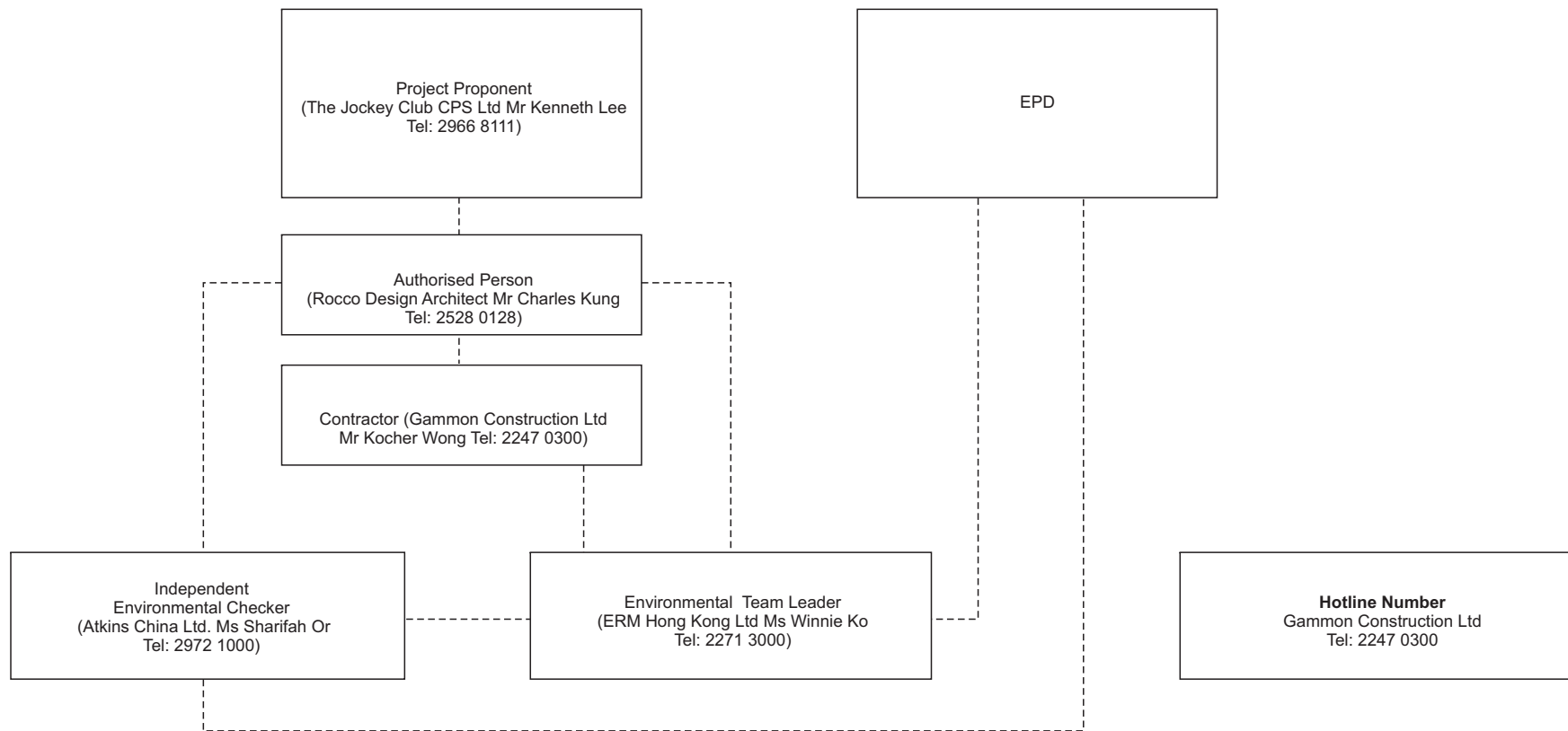
Annex A3 Site Layout Plan marked with Works (June - 2012)



Annex A3 Site Layout Plan marked with Works (July - 2012)

Annex B

Project Organization Chart and Contact Detail



Key
 - - - - - Line of Communication

Annex C

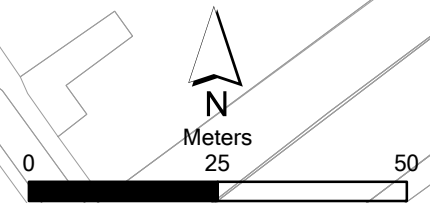
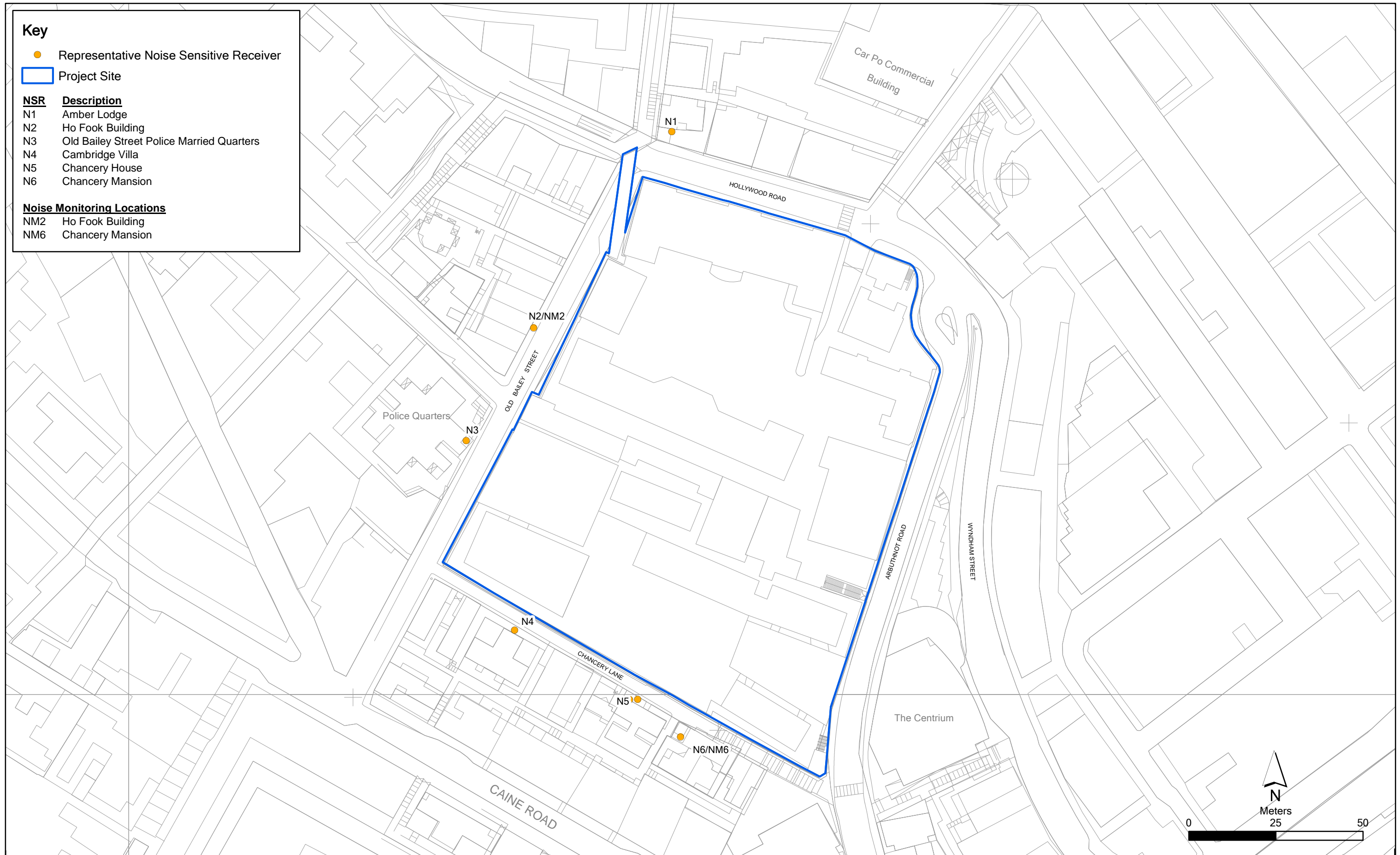
Locations of Noise
Monitoring Stations and
Noise Sensitive Receivers

Key

- Representative Noise Sensitive Receiver
- ▭ Project Site

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

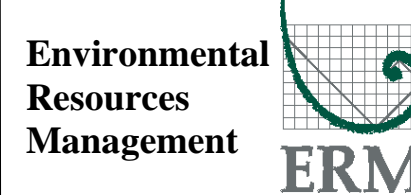
Noise Monitoring Locations	
NM2	Ho Fook Building
NM6	Chancery Mansion



Annex C

Location of Representative Noise Sensitive Receivers and Noise Monitoring Locations

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Date: 09/05/2012



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

Annex D

Monitoring Schedule of the Reporting Period

**Central Police Station Compound Coservation and Revitalisation
(Ho Fook Building - NM2 & Chancery Mansion - NM6)
Monitoring Schedule for Reporting Month - May 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-May	2-May	3-May	4-May	5-May
				Noise Monitoring at NM2 & NM6		
6-May	7-May	8-May	9-May	10-May	11-May	12-May
			Noise Monitoring at NM2 & NM6			
13-May	14-May	15-May	16-May	17-May	18-May	19-May
		Noise Monitoring at NM2 & NM6				
20-May	21-May	22-May	23-May	24-May	25-May	26-May
	Noise Monitoring at NM2 & NM6					Noise Monitoring at NM2 & NM6
27-May	28-May	29-May	30-May	31-May		

**Central Police Station Compound Coservation and Revitalisation
(Ho Fook Building - NM2 & Chancery Mansion - NM6)
Monitoring Schedule for Reporting Month - June 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Jun	2-Jun
					Noise Monitoring at NM2 & NM6	
3-Jun	4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun
				Noise Monitoring at NM2 & NM6		
10-Jun	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun
			Noise Monitoring at NM2 & NM6			
17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun
		Noise Monitoring at NM2 & NM6				
24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun
	Noise Monitoring at NM2 & NM6					Noise Monitoring at NM2 & NM6

**Central Police Station Compound Coservation and Revitalisation
(Ho Fook Building - NM2 & Chancery Mansion - NM6)
Monitoring Schedule for Reporting Month - July 2012**

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

Annex E

Calibration Reports for Calibrators and Sound Level Meters

Certificate No. : C113870

Certificate of Calibration

This is to certify that the equipment

Description : Sound Level Calibrator

Manufacturer : Rion

Model No. : NC-73

Serial No. : 10997142

has been calibrated for the specific items and ranges.

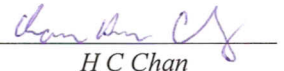
The results are shown in the Calibration Report No. C113870.

The equipment is supplied by

Co. Name : Envirotech Services Co.

*Address : Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong*

Date of Issue : 11 July 2011

Certified by : 
H C Chan

Report No. : C113870

Calibration Report

ITEM TESTED

DESCRIPTION : Sound Level Calibrator
MANUFACTURER : Rion
MODEL NO. : NC-73
SERIAL NO. : 10997142

TEST CONDITIONS

AMBIENT TEMPERATURE : $(23 \pm 2)^{\circ}\text{C}$ RELATIVE HUMIDITY : $(55 \pm 20)\%$
LINE VOLTAGE : ---

TEST SPECIFICATIONS

Calibration

DATE OF TEST : 11 July 2011

JOB NO. : IC11-1713

TEST RESULTS

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
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested by :


KC Lee

Date : 11 July 2011

The test equipment used for calibration are traceable to the National Standards as specified in this report.
This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration Report

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours before the commencement of the test.
2. The results presented are the mean of 3 measurements at each calibration point.
3. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
TST150A	Measuring Amplifier	C101008
CL130	Universal Counter	C113350
CL281	Multifunction Acoustic Calibrator	C1006860

4. Test procedure : MA100N.

5. Results :

- 5.1 Sound Level Accuracy

- 5.1.1 Before Adjustment

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.3	± 0.5	± 0.2

- 5.1.2 After Adjustment

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.5	± 0.2

- 5.2 Frequency Accuracy

- 5.2.1 Before Adjustment

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

- 5.2.2 After Adjustment

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

The test equipment used for calibration are traceable to the National Standards as specified in this report.
This report shall not be reproduced except in full and with prior written approval from this laboratory.

Report No. : C113870

Calibration Report

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

Note :

The values given in this Calibration Report 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.

Certificate of Calibration

校正證書

Certificate No. : C124011
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC12-1674)

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10997142
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 9 July 2012

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 : L K Yeung

Certified By : 
核證 : K C Lee

Date of Issue : 10 July 2012
簽發日期

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

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

Certificate of Calibration

校正證書

Certificate No. : C124011
證書編號

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

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C123541
CL281	Multifunction Acoustic Calibrator	DC110233
TST150A	Measuring Amplifier	C120886

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.5	± 0.2

5.2 Frequency Accuracy

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

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

Note :

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



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : Precision sound level meter
Model : NL-52 S/No. : 00710259
(NX-42EX installed)
Microphone : UC-59 S/No. : 02695
Preamplifier : NH-25 S/No. : 10253

Date of Calibration : September, 20, 2011

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.


RION CO., LTD.

T. Kano
Manager, Quality Control Department

Annex F

Event/Action Plans for Noise

Annex F Event and Action Plan for Noise

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

Annex G

Summary of Implementation Status

Annex G Implementation Schedule for Environmental Protection Measures (1 May to 31 May 2012)

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>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.</p>			
S3.7.1 & 3.7.2	-	<p>Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:</p> <ul style="list-style-type: none"> • 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. <p>One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.</p>	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the the reporting month. There were no updates for the CMP.

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation.</p> <p>Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. T10 has a DBH of 20 cm (Table 4.3), and it is proposed that six trees of heavy standard size be planted, each with a DBH of around 10 cm and root balls of not less than 0.75 m diameter and 0.75 m depth. Since the aggregate DBH of the new trees would be 60 cm, the rate of compensation is equivalent to three times the DBH of T10, far beyond the requirements</p> <p>The six replacement trees should be planted in the new tree strip in two staggered rows, maximising distance between each tree to avoid mutual interference in the future. It is recommended that the species selected should have a small final dimension of less than 10 m height given the proximity to built structures such as the retaining wall and buildings. Two each of the outstanding and related flowering tree species connected to local natural history are suggested::</p> <ul style="list-style-type: none"> - <i>Bauhinia</i> 'Blakeana' a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring. - <i>Bauhinia purpure</i>, a native evergreen with lighter purple flowers from late autumn to early winter. - <i>Bauhinia variegata</i>, an exotic deciduous species, with pale pinkish flowers in spring to early summer often when the tree has little or no leaves. 			
S4.7.2	S4	<p><u>Vertical Greening</u></p> <p>Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible. As such it is recommended that the inner southern wall of the Site be planted as a green wall. The plantings should be inserted in between each of the large protruding piers and an offset be made from both the</p>	Inner Southern Wall	During detailed design and construction	N/A – No vertical greening was conducted during the reporting month.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the existing wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	<i>New Custom Paving</i> New, Porous, 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	<i>In-situ Tree Protection - Quarterly inspection</i> 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.
<i>Noise</i>					
S5.9	-	The following site practices should be followed during the construction of the Project: <ul style="list-style-type: none"> • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; • Mobile plant, if any, will be sited as far away from NSRs as possible; 	Whole Site	During construction	N/A – Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 			
S5.9	-	Noise insulating sheet would be adopted for certain PME (eg drill rig, excavator for demolition of existing structures, etc). The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	During construction	√
S5.9	-	Use temporary noise barriers to mitigate the noise impact arising from the construction works, particularly for low-rise NSRs. Movable noise barriers of 3 m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have no openings or gaps.	Whole Site	During construction	N/A – Not observed.
S5.9	-	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	During construction	√
S5.9	-	Scheduling of construction activities with identified grouping of PMEs.	Whole Site	During construction	√
S5.11	S5	Weekly noise monitoring will be undertaken at the representative NSRs N2 Ho Fook Building and N5 Chancery House. Monthly site audits will be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.	Whole Site	During construction	√
<i>Air Quality</i>					
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	<>

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

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

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	<u>Reduction of Construction Waste Generation</u> C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	√
S8.5	S6	Containers used for storage of chemical waste shall: <ul style="list-style-type: none"> • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in <i>Schedule 2 of the Regulations</i>. 	Whole Site	During construction and operation	√
S8.5	S6	Storage areas for chemical waste shall: <ul style="list-style-type: none"> • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and • Be arranged so that incompatible materials are appropriately separated. 	Whole Site	During construction and operation	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical Waste Treatment Centre at Tsing Yi	During construction and operation	N/A – Not observed.
S8.5	S6 & Table 6.1	<u>General Refuse</u> General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	√
S8.5	S6	Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the Site. Materials recovered will be sold for recycling.	Whole site	During construction and operation	√
S8.5	S6	<u>Staff Training</u> At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	√

Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures

- ▲ Non-compliance of Mitigation Measures but rectified by Gammon Construction Ltd
- Δ 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 June to 30 June 2012)

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>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.</p>			
S3.7.1 & 3.7.2	-	<p>Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:</p> <ul style="list-style-type: none"> • 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. <p>One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.</p>	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the the reporting month. There were no updates for the CMP.

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation.</p> <p>Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. T10 has a DBH of 20 cm (Table 4.3), and it is proposed that six trees of heavy standard size be planted, each with a DBH of around 10 cm and root balls of not less than 0.75 m diameter and 0.75 m depth. Since the aggregate DBH of the new trees would be 60 cm, the rate of compensation is equivalent to three times the DBH of T10, far beyond the requirements</p> <p>The six replacement trees should be planted in the new tree strip in two staggered rows, maximising distance between each tree to avoid mutual interference in the future. It is recommended that the species selected should have a small final dimension of less than 10 m height given the proximity to built structures such as the retaining wall and buildings. Two each of the outstanding and related flowering tree species connected to local natural history are suggested::</p> <ul style="list-style-type: none"> - <i>Bauhinia</i> 'Blakeana' a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring. - <i>Bauhinia purpure</i>, a native evergreen with lighter purple flowers from late autumn to early winter. - <i>Bauhinia variegata</i>, an exotic deciduous species, with pale pinkish flowers in spring to early summer often when the tree has little or no leaves. 			
S4.7.2	S4	<p><u>Vertical Greening</u></p> <p>Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible. As such it is recommended that the inner southern wall of the Site be planted as a green wall. The plantings should be inserted in between each of the large protruding piers and an offset be made from both the</p>	Inner Southern Wall	During detailed design and construction	N/A – No vertical greening was conducted during the reporting month.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the existing wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	<p><i>New Custom Paving</i></p> <p>New, Porous, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.</p>	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	<p><u><i>In-situ Tree Protection - Quarterly inspection</i></u></p> <p>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.</p>	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
<i>Noise</i>					
S5.9	-	<p>The following site practices should be followed during the construction of the Project:</p> <ul style="list-style-type: none"> • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; • Mobile plant, if any, will be sited as far away from NSRs as possible; 	Whole Site	During construction	N/A – Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 			
S5.9	-	Noise insulating sheet would be adopted for certain PME (eg drill rig, excavator for demolition of existing structures, etc). The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	During construction	√
S5.9	-	Use temporary noise barriers to mitigate the noise impact arising from the construction works, particularly for low-rise NSRs. Movable noise barriers of 3 m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have no openings or gaps.	Whole Site	During construction	N/A – Not observed.
S5.9	-	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	During construction	√
S5.9	-	Scheduling of construction activities with identified grouping of PMEs.	Whole Site	During construction	√
S5.11	S5	Weekly noise monitoring will be undertaken at the representative NSRs N2 Ho Fook Building and N5 Chancery House. Monthly site audits will be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.	Whole Site	During construction	√
<i>Air Quality</i>					
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	√

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

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

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	<u>Reduction of Construction Waste Generation</u> C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	√
S8.5	S6	Containers used for storage of chemical waste shall: <ul style="list-style-type: none"> • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in <i>Schedule 2 of the Regulations</i>. 	Whole Site	During construction and operation	√
S8.5	S6	Storage areas for chemical waste shall: <ul style="list-style-type: none"> • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and • Be arranged so that incompatible materials are appropriately separated. 	Whole Site	During construction and operation	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical Waste Treatment Centre at Tsing Yi	During construction and operation	N/A – Not observed.
S8.5	S6 & Table 6.1	<u>General Refuse</u> General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	√
S8.5	S6	Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the Site. Materials recovered will be sold for recycling.	Whole site	During construction and operation	√
S8.5	S6	<u>Staff Training</u> At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	√

Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by Gammon Construction Ltd
- Δ 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 July to 31 July 2012)

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>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.</p>			
S3.7.1 & 3.7.2	-	<p>Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose:</p> <ul style="list-style-type: none"> • 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. <p>One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.</p>	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the the reporting month. There were no updates for the CMP.

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<p>regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation.</p> <p>Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. T10 has a DBH of 20 cm (Table 4.3), and it is proposed that six trees of heavy standard size be planted, each with a DBH of around 10 cm and root balls of not less than 0.75 m diameter and 0.75 m depth. Since the aggregate DBH of the new trees would be 60 cm, the rate of compensation is equivalent to three times the DBH of T10, far beyond the requirements</p> <p>The six replacement trees should be planted in the new tree strip in two staggered rows, maximising distance between each tree to avoid mutual interference in the future. It is recommended that the species selected should have a small final dimension of less than 10 m height given the proximity to built structures such as the retaining wall and buildings. Two each of the outstanding and related flowering tree species connected to local natural history are suggested::</p> <ul style="list-style-type: none"> - <i>Bauhinia</i> 'Blakeana' a native evergreen species with deep mauve flowers and an exceptionally long flowering period from late autumn to early spring. - <i>Bauhinia purpure</i>, a native evergreen with lighter purple flowers from late autumn to early winter. - <i>Bauhinia variegata</i>, an exotic deciduous species, with pale pinkish flowers in spring to early summer often when the tree has little or no leaves. 			
S4.7.2	S4	<p><u>Vertical Greening</u></p> <p>Within the limitations of the conservation of the CPS character, greening of vertical structures should be provided where possible. As such it is recommended that the inner southern wall of the Site be planted as a green wall. The plantings should be inserted in between each of the large protruding piers and an offset be made from both the</p>	Inner Southern Wall	During detailed design and construction	N/A – No vertical greening was conducted during the reporting month.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		top and bottom edge so that old and new are equally visible. An independent frame should be strategically positioned in order to ensure minimal disturbance to the original wall, and provide the main structural support and planting surface for the green wall. The frame on to which the new green will be planted should contain its own irrigation system so that moisture for the plants will remain mainly on the planting surface and not the existing wall behind. The planting chosen should be appropriate to the Hong Kong climate, requiring relatively little maintenance to sustain the quality of both plants and wall.			
S4.7.2	-	<p><i>New Custom Paving</i></p> <p>New, Porous, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.</p>	Whole site	During detailed design and construction	N/A – No custom paving was conducted during the reporting month.
S4.7.2	S4	<p><u><i>In-situ Tree Protection - Quarterly inspection</i></u></p> <p>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.</p>	Whole site	During post construction and operation	N/A – The quarterly inspection will be conducted at later stage.
<i>Noise</i>					
S5.9	-	<p>The following site practices should be followed during the construction of the Project:</p> <ul style="list-style-type: none"> • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; • Mobile plant, if any, will be sited as far away from NSRs as possible; 	Whole Site	During construction	N/A – Not observed.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
		<ul style="list-style-type: none"> Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 			
S5.9	-	Noise insulating sheet would be adopted for certain PME (eg drill rig, excavator for demolition of existing structures, etc). The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	During construction	√
S5.9	-	Use temporary noise barriers to mitigate the noise impact arising from the construction works, particularly for low-rise NSRs. Movable noise barriers of 3 m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have no openings or gaps.	Whole Site	During construction	N/A – Not observed.
S5.9	-	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	During construction	√
S5.9	-	Scheduling of construction activities with identified grouping of PMEs.	Whole Site	During construction	√
S5.11	S5	Weekly noise monitoring will be undertaken at the representative NSRs N2 Ho Fook Building and N5 Chancery House. Monthly site audits will be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.	Whole Site	During construction	√
<i>Air Quality</i>					
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	√

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

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

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

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	<u>Reduction of Construction Waste Generation</u> C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<u>Chemical Waste</u> The contractor will register as a chemical waste producer with the EPD.	Whole Site	During construction and operation	√
S8.5	S6	Containers used for storage of chemical waste shall: <ul style="list-style-type: none"> • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in <i>Schedule 2 of the Regulations</i>. 	Whole Site	During construction and operation	√
S8.5	S6	Storage areas for chemical waste shall: <ul style="list-style-type: none"> • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and • Be arranged so that incompatible materials are appropriately separated. 	Whole Site	During construction and operation	√

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
S8.5	S6	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical Waste Treatment Centre at Tsing Yi	During construction and operation	N/A – Not observed.
S8.5	S6 & Table 6.1	<u>General Refuse</u> General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to the transfer station, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	Whole site	During construction	√
S8.5	S6	Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the Site. Materials recovered will be sold for recycling.	Whole site	During construction and operation	√
S8.5	S6	<u>Staff Training</u> At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including waste reduction, reuse and recycling.	Whole site	Commencement of construction	√
S8.7	S6.1 & 6.3	Monthly audits of the waste management practices will be carried out during the construction phases to determine if wastes are being managed in accordance with the recommended good site practices. The audits will examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	Whole site	During construction	√

Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by Gammon Construction Ltd
- Δ Deficiency of Mitigation Measures but rectified by Gammon Construction Ltd
- N/A Not Applicable in Reporting Period

Annex H

Noise Monitoring Results

Annex H Noise Monitoring Results

Daytime Noise Monitoring Results

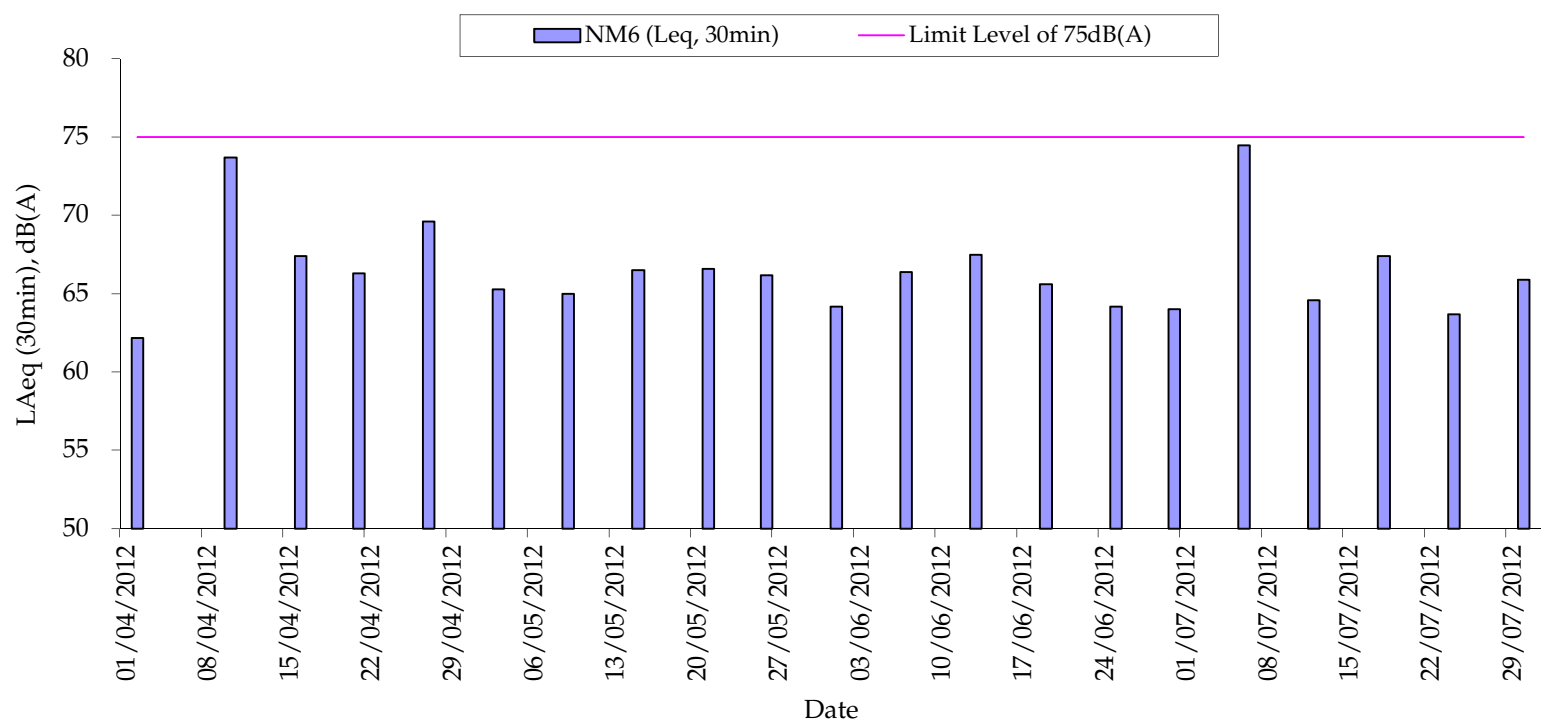
NM6 Chancery Mansion

Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
1-Jun-12	11:20	11:50	Fine	64.2	65.3	63.1	Lifting (within the project site)	Traffic Noise	-	0.3	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
7-Jun-12	10:25	10:55	Sunny	66.4	67.5	63.2	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.2	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
13-Jun-12	15:25	15:55	Trace rain	67.5	69.8	65.0	Breaker, lifting (within the project site)	Traffic Noise	-	0.3	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
19-Jun-12	10:30	11:00	Cloudy	65.6	67.2	63.4	Lifting (within the project site)	Traffic Noise	-	0.3	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
25-Jun-12	10:45	11:15	Cloudy	64.2	65.6	63.0	Lifting (within the project site)	Traffic Noise	-	0.5	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
30-Jun-12	11:30	12:00	Cloudy	64.0	65.3	63.0	-	Traffic Noise	-	0.5	RION - NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
Min.				64.0								
Max.				67.5								

NM2 Ho Fook Building

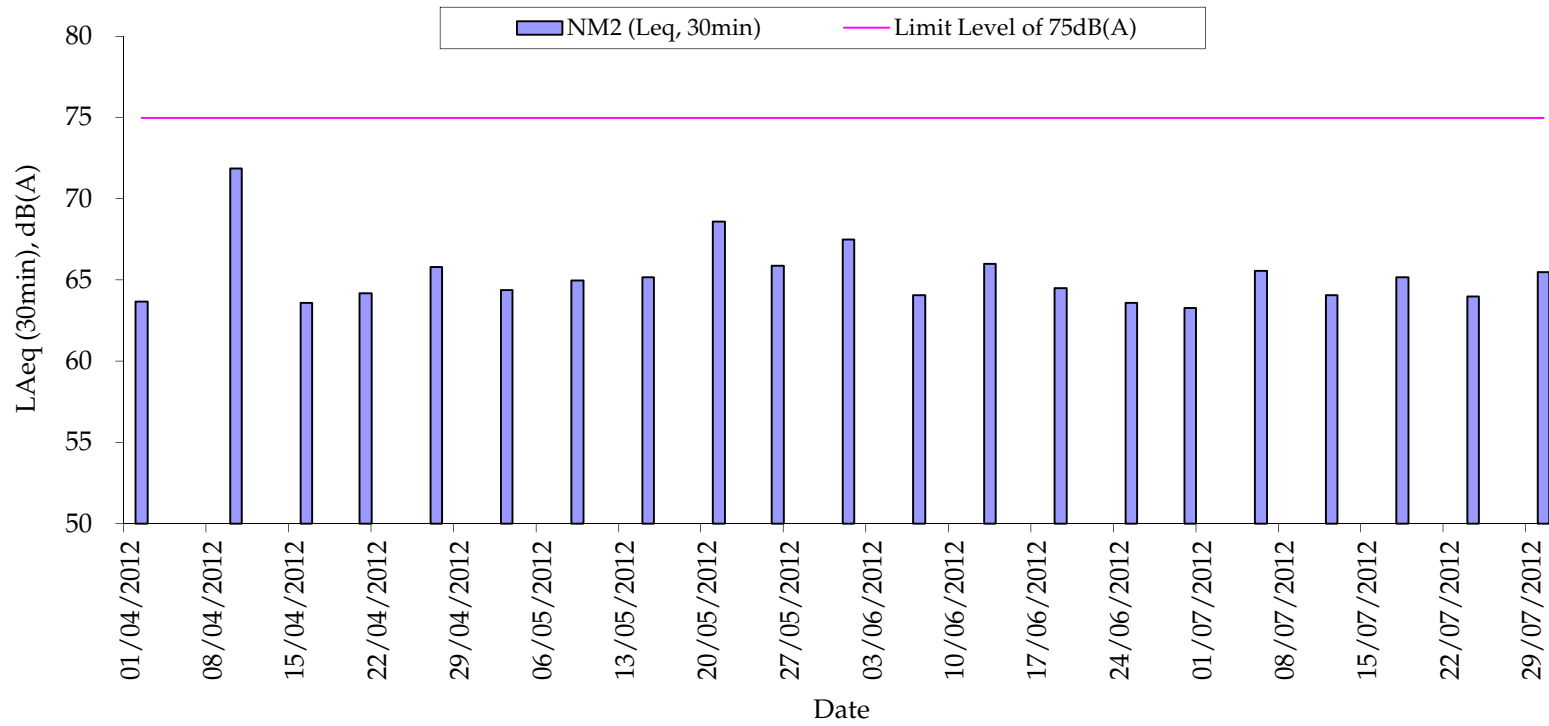
Date	Start Time	End Time	Weather	Noise level (dB(A)), 30 min			Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Remarks	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90						
1-Jun-12	10:42	11:12	Fine	67.5	69.2	65.1	Lifting (within the project site)	Traffic noise	-	0.2	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
7-Jun-12	9:48	10:18	Sunny	64.1	65.9	61.9	Lifting, interior fitting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
13-Jun-12	13:00	13:30	Trace rain	66.0	67.7	63.5	Breaker, lifting (within the project site)	Traffic Noise	-	0.3	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
19-Jun-12	11:08	11:38	Cloudy	64.5	66.4	61.9	Lifting (within the project site)	Traffic Noise	-	0.2	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
25-Jun-12	10:05	10:35	Cloudy	63.6	65.3	61.8	Lifting (within the project site)	Traffic Noise	-	0.5	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
30-Jun-12	10:50	11:20	Cloudy	63.3	64.5	61.8	-	Traffic Noise	-	0.2	RION- NL52 (S/N 00710259)	RION - NC73 (S/N 10997142)
Min.				63.3								
Max.				67.5								

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



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

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

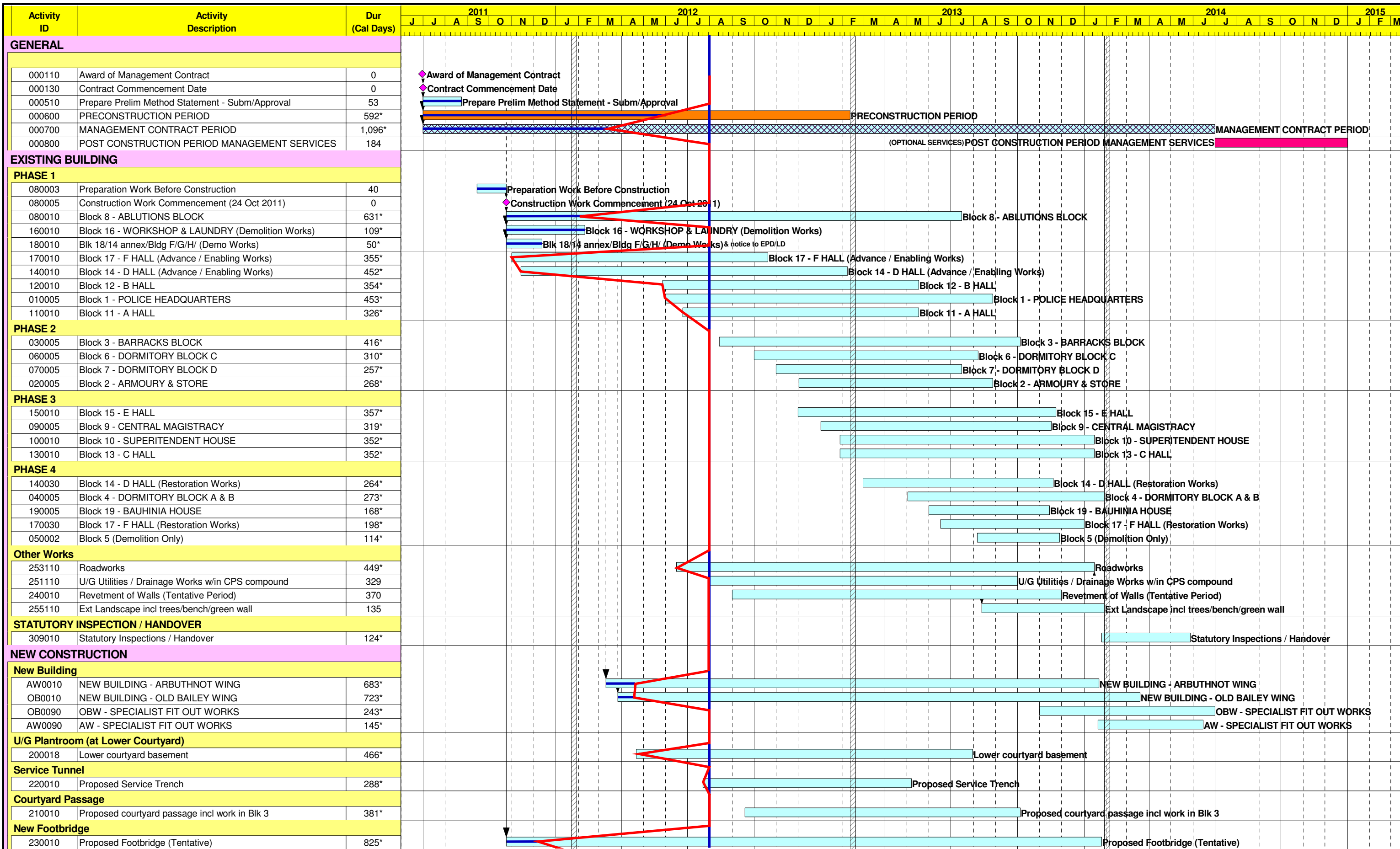


Remark:

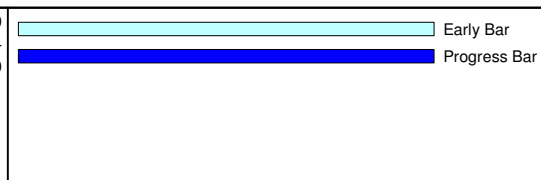
- 75dB(A) was adopted as the Limit Level during normal weekdays in the reporting period

Annex I

Construction Programme of the Project



Start Date 07JUL10
 Finish Date 31DEC14
 Data Date 07JUL10
 Run Date 07SEP11 09:41



Sheet 1 of 1

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



Date		Revision	Checked	Approved
05SEP11	EPD submission			
31JUL12	Progress markup as of 30Jun12			

Annex J

Waste Flow Table

Annex J – Waste Flow Table

Month / Year	Quantity										
	C&D Materials (inert) (tonnes) ^(a)	Number of Trucks for C&D Materials Disposal (inert)	Volume of C&D Materials (inert) (m ³) ^(c)	C&D Materials (non-inert) (tonnes) ^(b)	Number of Trucks for C&D Materials Disposal (non-inert)	Volume of C&D Materials (non-inert) (m ³) ^(c)	Chemical Waste (Solid /kg)	Chemical Waste (Liquid/L)	Recycled materials		
									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
Total	3055.02	320	1560.00	218.82	71	346.13	7040	45	941	6	248523

Notes:

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

(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.

(c) If necessary, use the conversion factor: 3/4 load of dumping truck being equivalent to 6.5 m³ by volume.

Annex K

Environmental Complaint,
Enquiry, Environmental
Summons and Prosecution
Log

Annex K Cumulative Complaint, Enquiry and Summons/Prosecutions Log

Reporting Month	Number of Complaints in Reporting Month	Number of Enquiries in Reporting Month	Number of Summons/Prosecutions in Reporting Month
November 2011	0	0	0
December 2011	0	0	0
January 2012	0	0	0
February 2012	0	0	0
March 2012	4	0	0
April 2012	0	0	0
May 2012	0	1	0
June 2012	2	0	0
July 2012	1	0	0
Overall Total	7	1	0

Ref : J3416/2014.2/D01583

22 June 2012

金門建築有限公司
香港英皇道979號太古坊
德宏大廈廿八樓Tel 電話 (852) 2516 8823
Fax 傳真 (852) 2516 6260
www.gammonconstruction.com

Attn : [REDACTED]

Email : [REDACTED]

Dear [REDACTED]

Central Police Station Revitalization**[REDACTED] Central, Hong Kong**

Thank you for your enquiry regarding construction noise coming from our CPS Revitalization project site.

Please accept my sincerely apology for having caused inconvenience to your tenants. To reduce construction noise, we have adopted various measures including but not limited to the following:-

1. Use pneumatic crusher instead of breaker for demolition works as far as practicable.
2. Cover the demolition area with acoustic blankets.
3. Cover the breaker with acoustic blankets.

In addition, we have delayed the start time of heavy machinery operation from 7:00am (per Noise Control Ordinance) to around 8.30am and 9.00am so, as to minimize disturbing the neighbourhood.

We also monitor noise levels of construction works regularly and the noise levels are within statutory limits. In accordance with our current works schedule, heavy machinery work for this project will be completed by mid 2014.

We shall endeavour to apply noise alleviation measures to minimize the disturbance. We also appreciate your continuous feedbacks.

Yours faithfully
For and on behalf of
Gammon Construction Limited



Cliff Leung
Senior Project Manager

CL/ic





**Central Police Station
Conservation and Revitalisation Project**



COMPLAINT INVESTIGATION REPORT

Basic Information of Complaint

Log Number:	2012/06/001
Date of Complaint Received	14 June 2012
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Environmental Protection Department (EPD), Mr Tang
Complainant	A neighborhood resident

Details of Complaint

EPD has received a complaint from a neighbourhood resident of Central Police Station on the noise nuisance came from Chancery Lane at 8:30pm on 13 June 2012.

Investigation Report

1. According to the works summary provided by the Contractor, no major construction activities were carried out but only manual washing of pile tube was conducted near block 17 at around 8:30pm on 13 June 2012. The location of the work area is presented in the Figure 1.

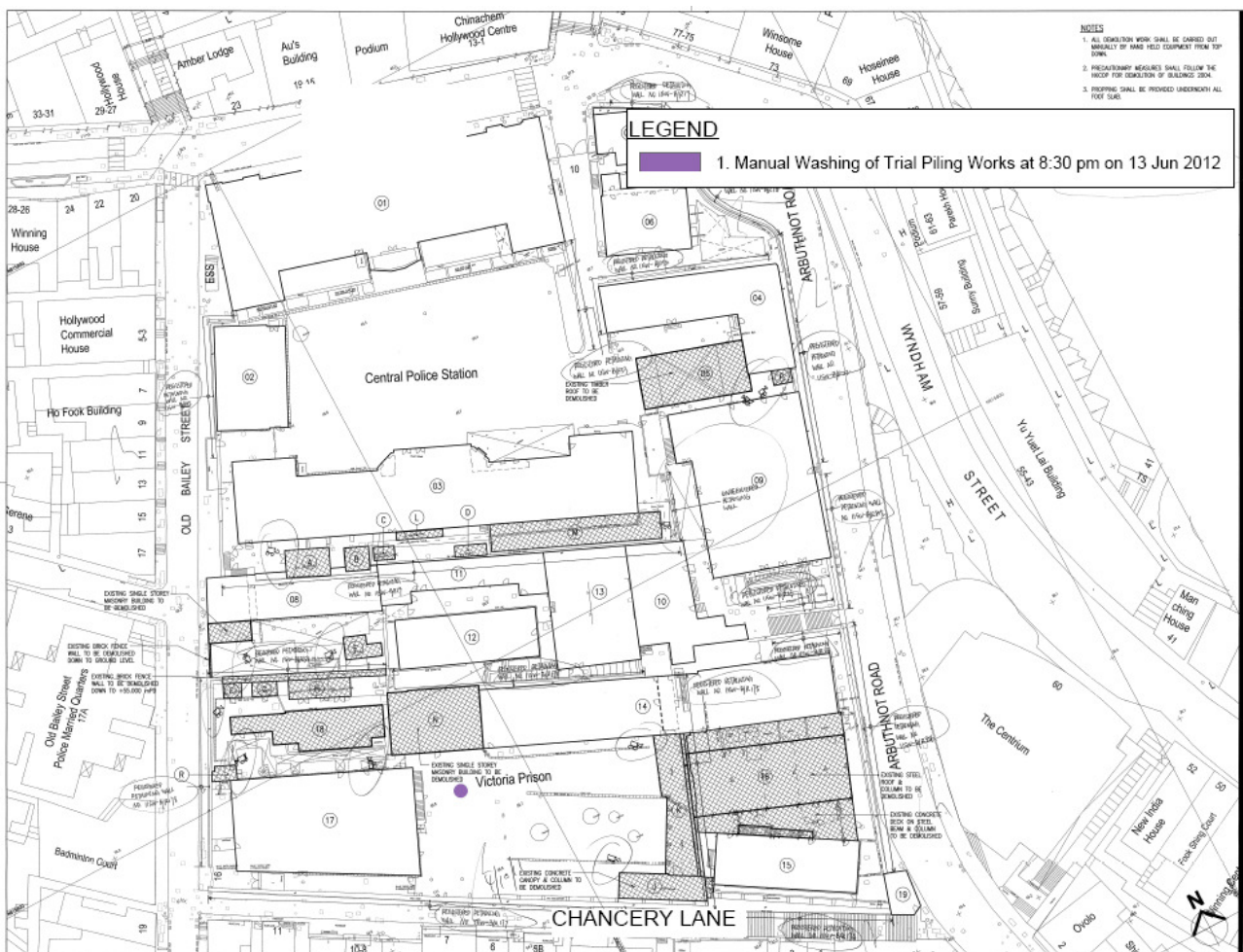


Figure 1 Site layout plan marking for Enquiry & Complaint log (CPS/E&C/06)

2. In view of the location of the information of the complaint and the location of the works taken, manual washing of pipe tube could be the possible source of noise nuisance. Follow-up action is recommended.

Mitigation Measures and Follow-Up Actions Recommended to Contractor

The Contractor should follow all relevant noise requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor has been reminded to emphasize the legal requirement of working in the restricted hours to site management team and workers.

The following measures have been implemented by the Contractor to further minimize the noise nuisance to the adjacent users after receiving the complaint immediately:

- Reminder letters concerning the legal requirement of working in the restricted hours, period of restricted hours, application of Construction Noise Permit (CNP) and in-house rules have been issued to each work package contractor on 18 June 2012.
- An internal meeting with manager of Gammon, the Engineer and site agent has been conducted on 18 June 2012 to emphasize the application of CNP, period of restricted hours and in-house rules for working in the restricted hours.
- Besides, Tool Box Talk about good site practices, work during restricted hours and Permit to Work System will be conducted for frontline workers and operation supervisor team on 20 June 2012.

Date of File Closed : 20 June 2012

Approved by:

ET Leader

IEC

JCCPS's
Representative

Rocco Design
Architect's
Representative



(Name: Winnie Ko)
Date: 20 June 2012



(Name: Sharifah Or)
Date: 20 June 2012

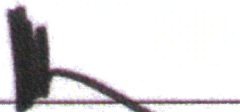


(Name: C. W. Sham)
Date: 20 Jun 2012



(Name: CHARLES KUNG)
Date: 20 Jun 2012

Gammon's
Representative



(Name: CLIFF LEUNG)
Date: 2012-06-20



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



**Central Police Station
Conservation and Revitalisation Project**



COMPLAINT INVESTIGATION REPORT

Basic Information of Complaint

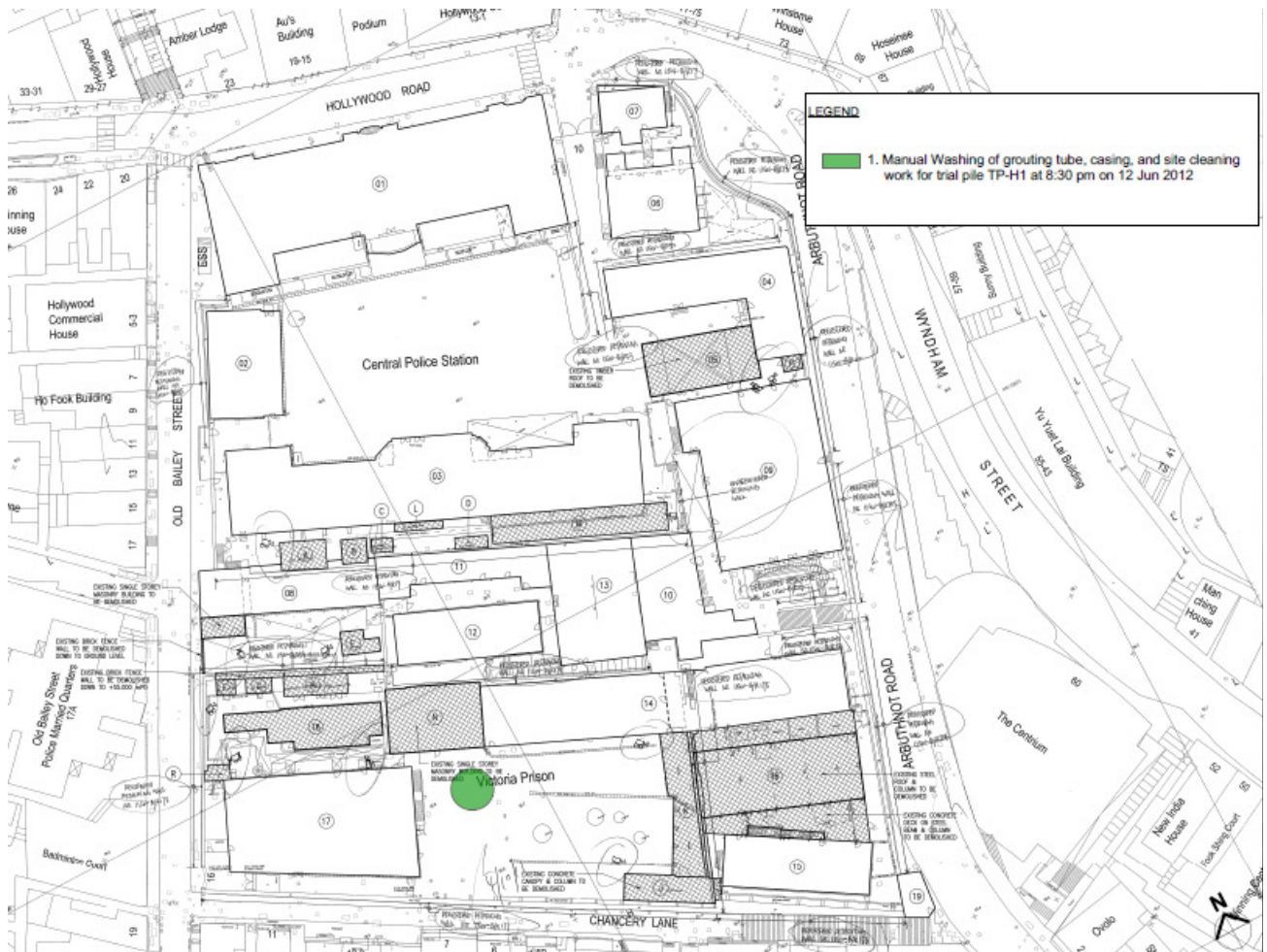
Log Number:	2012/06/002
Date of Complaint Received	28 June 2012
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Central Police Station Website, Enquiry System
Complainant	██████████

Details of Complaint

The Enquiry System of Central Police Station Website has recorded a complaint on the noise nuisance generated from the Project Site at 8:30pm on 12 June 2012. The complaint was received by Gammon Construction Limited on 28 June 2012.

Investigation Report

1. According to the information provided by the Contractor, no major construction activities were carried out, but only manual washing of grouting tube and casing and site cleaning work were conducted near Block 17 at around 8:30pm on 12 June 2012. The location of the work area is presented in the Figure 1.



2. Manual washing of grouting tube and casing and site cleaning work could be the possible source of noise nuisance. Follow-up action is recommended.

Mitigation Measures and Follow-Up Actions Recommended to Contractor

The Contractor should follow all relevant noise requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor has been reminded to emphasize the legal requirement of working in the restricted hours to site management team and workers.

A similar complaint was received on 14 June 2012 by EPD about noise nuisance came from project site near Chancery Lane at 8:30pm on 13 June 2012, which is one day after receiving the complaint on CPS website. The following measures have been implemented by the Contractor to further minimize the noise nuisance to the adjacent users after receiving the complaint dated 14 June 2012:

- Operation team (e.g. site agent, sub-agent) has conducted site inspection at 6:00 pm since 14 June 2012 to ensure all construction works cease and to switch off the operating PME (e.g. ventilation fan) if no valid CNP was granted by the EPD;
- Reminder letters concerning the legal requirement of working in the restricted hours, period of restricted hours, application of Construction Noise Permit (CNP) and in-house rules have been issued to each work package contractor on 18 June 2012;
- Tool Box Talk about good site practices, work during restricted hours and Permit to Work System has been conducted for frontline workers and operation supervisor team on 20 June 2012;
- An internal meeting with manager of Gammon, the Engineer and site agent has been conducted to emphasize the application of CNP, period of restricted hours and in-house rules for working in the restricted hours on 18 June 2012;
- Electricity supply to the construction site has been automatically switched off at 6:50 pm besides the supply for the office and emergency lighting since 25 June 2012.

Date of File Closed : 09 July 2012

Approved by:

ET Leader

IEC

JCCPS's
Representative

Rocco Design
Architect's
Representative



(Name: Winnie Ko)
Date: 9 July 2012



(Name: Sharifah Or)
Date: 10 July 2012



(Name: KENNETH LEE)
Date: 16/7/2012



(Name: CHARLES KING)
Date: 16/7/2012

Gammon's
Representative



(Name: CLIFF (Cliff))
Date: 9 July 2012

COMPLAINT INVESTIGATION REPORT

Basic Information of Complaint

Log Number:	2012/07/001
Date of Complaint Received	20 July 2012
Location of Complaint	Project Site
Nature of Complaint	Noise nuisance
Complaint Received by	Police
Complainant	Not provided

Details of Complaint

Police has received a complaint on a noise nuisance in the morning on 20 July 2012. Subsequent to the receipt of the complaint, a policeman carried out a site inspection at the Project Site at 9:30am. The complaint was transferred to Gammon Construction Limited on 20 July 2012.

Investigation Report

1. According to the information provided by the Contractor, the following activities were carried out on 20 July 2012:
 - Installation of handrails and other embellishing work for the concrete spiral staircase mockup in the vicinity of the site office;
 - Underpinning works of Block 8 (i.e. outdoor rebar fixing work); and
 - Manual back filling using hand tools at the Preservation by Record Area adjoining Block 17 with the aid of a light lorry.
2. The locations of the work areas are presented in Figure 1.

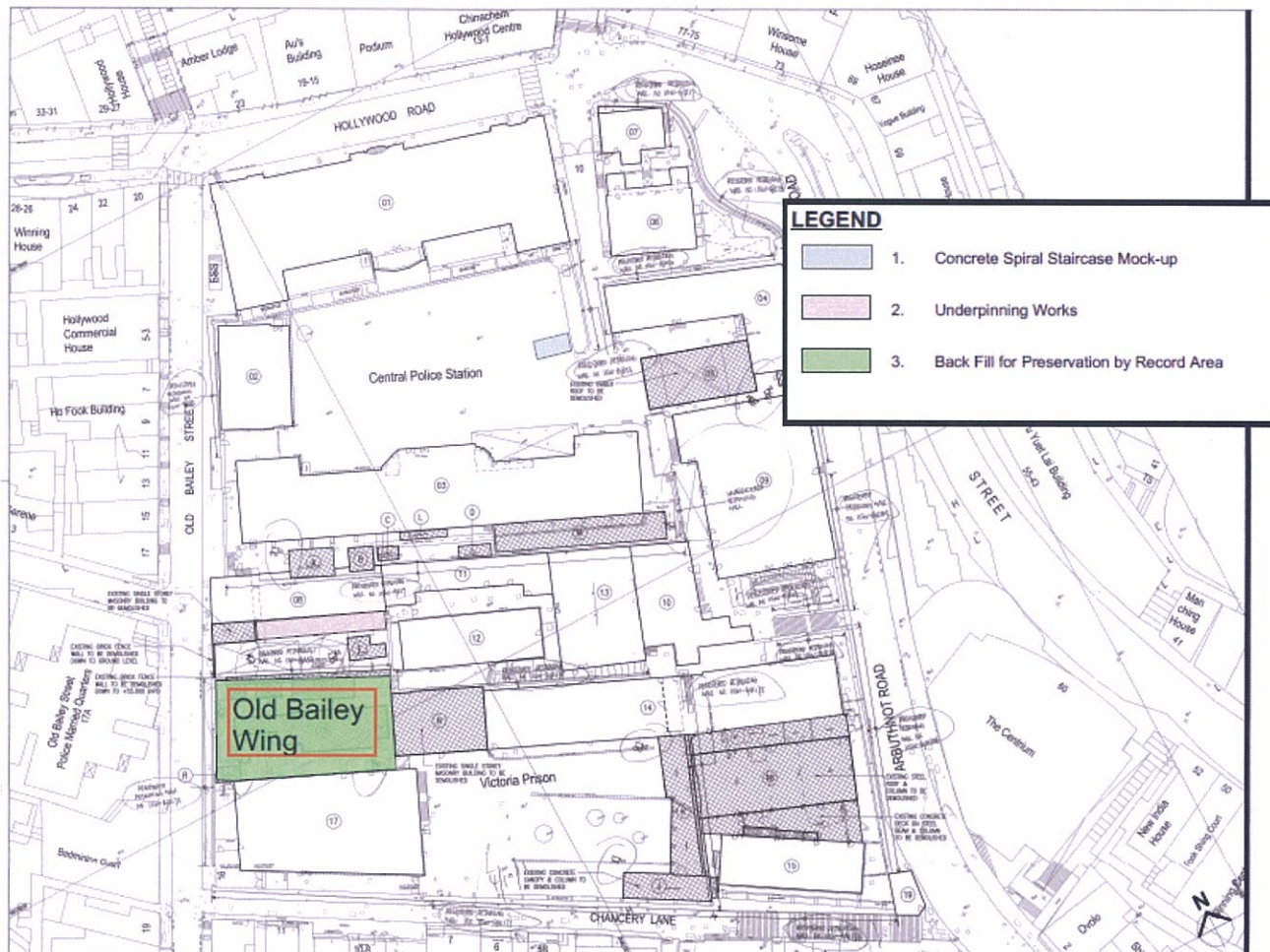


Figure 1. Locations of works being carried out on 20 July 2012

3. The above works carried out on 20 July 2012 are not considered to give rise a significant noise due to the work nature and the equipment used for each work. Handheld electric grinder and electric welding machine were only used for five to ten minutes during the embellishing work for the concrete spiral staircase mockup. Ventilation fan was used during underpinning works, while hand tools such as shovels or trowels were used for manual back filling. No major construction activities were carried out during the date of complaint. However, to avoid potential noise nuisance in the future, follow-up action is recommended.

Mitigation Measures and Follow-Up Actions Recommended to Contractor

The Contractor should follow all relevant noise requirements specified in EIA, EM&A Manual, EMP, Method Statements, General and Particular Specifications of this Project. The Contractor has been advised to notify all workers and operation supervisor of the complaint dated 20 July 2012 and to remind them to minimise the potential noise generated as much as possible during any work activities. The Contractor has also been recommended to provide Tool Box Training about good site practices, work during restricted hours and Permit to Work System to all frontline workers and operation supervisor. Additionally, the Contractor has been reminded to provide acoustic curtain, where applicable, to the handheld mechanical equipment and properly install noise barriers during major construction activities in the future.

Date of File Closed : 26 July 2012

Approved by:

ET Leader

IEC

JCCPS's
Representative

Rocco Design
Architect's
Representative



(Name: Winnie Ko)
Date: 26 July 2012



(Name: Sharifah Or)
Date: 26 July 2012



(Name: C.W. Sham)
Date: 26 July



(Name: CHARLES KUNG)
Date: 26 July 2012

Gammon's
Representative



(Name: CLIFF LEUNG)
Date: 2012-07-26

Annex L

Records of Vibration
Monitoring for Demolition
Works

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

**Record of
Vibration Monitoring for
Demolition Works at
Central Police Station Compound at
No. 10, Hollywood Road**

Report no.8

(16 April 2012 ~ 5 May 2012)

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Stage: Initial Stage (Baseline) for stage 1

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 Dec 2011	11:05	VM1	0.51	5	No demolition activity
23 Dec 2011	14:18	VM4	0.25	5	
23 Dec 2011	14:27	VM5	0.63	5	
23 Dec 2011	13:30	VM6	0.13	5	
23 Dec 2011	14:40	VM7	0.13	5	
23 Dec 2011	14:06	VM8	0.13	5	
23 Dec 2011	13:21	VM9	0.13	5	
23 Dec 2011	13:41	VM10	0.13	5	

Stage: Initial Stage (Baseline) for stage 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24 February 2012	17:41	VM1	0.25	5	No demolition activity
24 February 2012	17:17	VM3	0.25	5	
24 February 2012	17:50	VM5	0.25	5	
24 February 2012	17:53	VM6	0.32	5	
24 February 2012	17:57	VM8	0.35	5	
24 February 2012	18:02	VM9	0.35	5	
24 February 2012	15:01	VM11	0.13	5	
24 February 2012	15:57	VM12	0.13	5	
24 February 2012	15:37	VM13	1.14	5	
24 February 2012	15:20	VM14	0.13	5	
24 February 2012	15:48	VM15	0.13	5	
24 February 2012	16:18	VM16	0.89	5	
24 February 2012	16:02	VM17	0.13	5	
24 February 2012	16:51	VM18	0.13	5	
24 February 2012	16:39	VM19	0.13	5	

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Stage: stage 1 & 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
16 Apr 2012	10:59	VM1	0.54	5	Demolition of Building 16, Revetment Wall 10
	11:13	VM3	0.32	5	
	10:39	VM5	0.41	5	
	08:42	VM6	0.78	5	
	10:28	VM7	0.32	5	
	08:33	VM8	0.64	5	
	08:51	VM9	0.98	5	
	10:20	VM11	0.75	5	
	13:12	VM12	0.25	5	
	10:03	VM13	0.57	5	
	10:11	VM14	0.52	5	
	13:19	VM15	0.25	5	
	11:18	VM16	0.25	5	
	11:48	VM17	0.13	5	
	11:37	VM18	0.25	5	
11:26	VM19	0.13	5		

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
17Apr 2012	14:56	VM1	0.76	5	Demolition of Building B, 16, Revetment Wall 10
	15:08	VM3	0.52	5	
	14:39	VM5	0.25	5	
	13:19	VM6	0.89	5	
	14:27	VM7	0.46	5	
	13:13	VM8	0.72	5	
	13:27	VM9	0.63	5	
	13:43	VM11	0.54	5	
	16:03	VM12	0.25	5	
	14:10	VM13	0.46	5	
	13:54	VM14	0.38	5	
	16:17	VM15	0.25	5	
	15:21	VM16	0.38	5	
	15:47	VM17	0.13	5	
	15:39	VM18	0.25	5	
15:28	VM19	0.13	5		

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
18 Apr 2012	15:58	VM1	0.54	5	Revetment Wall 10
	15:42	VM6	0.32	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work	
19 Apr 2012	09:12	VM1	0.57	5	Demolition of Building C, Revetment Wall 10	
	09:33	VM3	0.76	5		
	08:47	VM6	0.32	5		
	09:42	VM16	0.13	5		
	10:08	VM17	0.13	5		
	09:59	VM18	0.25	5		
	09:50	VM19	0.25	5		

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
20 Apr 2012	09:07	VM1	0.52	5	Demolition of Building C,D,L Revetment Wall 10
	09:19	VM3	0.63	5	
	08:43	VM6	0.89	5	
	09:34	VM16	0.32	5	
	10:02	VM17	0.13	5	
	09:51	VM18	0.25	5	
	09:43	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
21 Apr 2012	08:34	VM1	0.67	5	Demolition of Building C,D,L, Revetment Wall 10
	08:56	VM3	0.54	5	
	08:17	VM6	0.75	5	
	09:04	VM16	0.37	5	
	09:22	VM17	0.25	5	
	09:31	VM18	0.25	5	
	09:13	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 Apr 2012	09:12	VM1	0.25	5	Demolition of Building M,
	09:25	VM3	0.54	5	
	08:53	VM6	0.25	5	
	09:44	VM16	0.13	5	
	10:23	VM17	0.23	5	
	10:07	VM18	0.25	5	
	09:53	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24Apr 2012	13:44	VM1	0.25	5	Demolition of Building M,
	14:03	VM3	0.54	5	
	13:17	VM5	0.37	5	
	14:12	VM16	0.25	5	
	14:34	VM17	0.13	5	
	14:28	VM18	0.25	5	
	14:20	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
25 Apr 2012	09:32	VM1	0.54	5	Demolition of Building M
	09:55	VM3	0.25	5	
	09:17	VM5	0.25	5	
	10:06	VM16	0.13	5	
	10:43	VM17	0.13	5	
	10:27	VM18	0.25	5	
	10:14	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
26 Apr 2012	08:45	VM1	0.64	5	Demolition of Building M,
	09:03	VM3	0.32	5	
	10:07	VM5	0.25	5	
	09:17	VM16	0.13	5	
	09:42	VM17	0.13	5	
	09:36	VM18	0.25	5	
	09:28	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
27 Apr 2012	10:57	VM1	0.37	5	Demolition of Building M,
	09:38	VM3	0.32	5	
	09:17	VM5	0.46	5	
	09:55	VM16	0.25	5	
	10:42	VM17	0.13	5	
	10:28	VM18	0.25	5	
	10:07	VM19	0.13	5	

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
30 Apr 2012	08:34	VM1	0.25	5	Demolition of Building M
	09:43	VM3	0.13	5	
	09:23	VM5	0.25	5	
	09:58	VM16	0.13	5	
	10:13	VM17	0.13	5	
	09:51	VM18	0.13	5	
	10:06	VM19	0.13	5	
	09:01	VM7	0.63	5	Preparation Wall 12
	09:10	VM9	0.25	5	

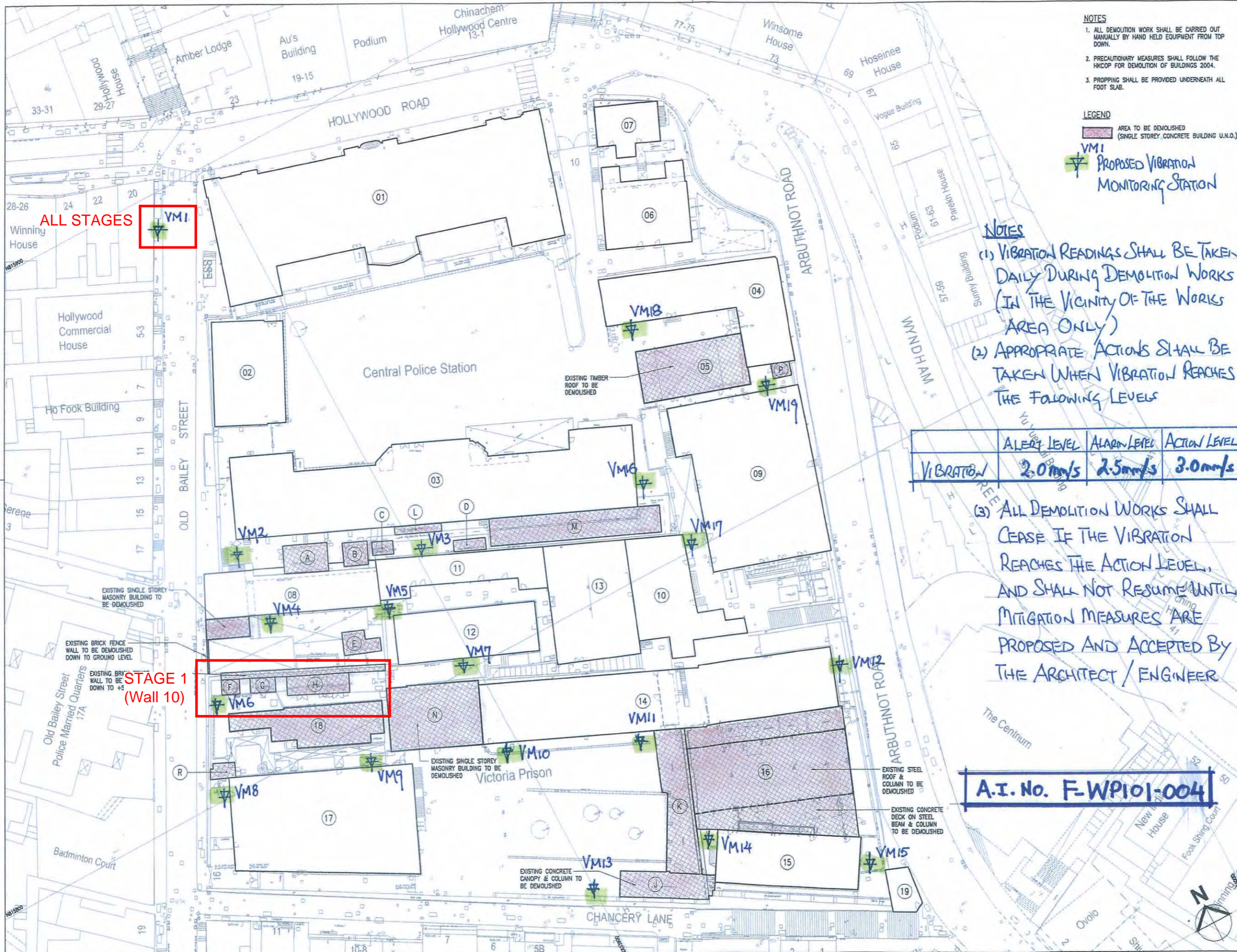
Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
02 May 2012	09:13	VM1	0.25	5	Demolition of Building M
	09:35	VM3	0.32	5	
	08:47	VM5	0.25	5	
	09:46	VM16	0.17	5	
	10:16	VM17	0.28	5	
	10:07	VM18	0.25	5	
	09:54	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
03 May 2012	10:23	VM1	0.54	5	Demolition of Building M
	10:34	VM3	0.25	5	
	10:07	VM5	0.25	5	
	10:42	VM16	0.25	5	
	11:16	VM17	0.32	5	
	11:08	VM18	0.27	5	
	10:57	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
04 May 2012	09:03	VM1	0.25	5	Demolition of Building M
	09:27	VM3	0.27	5	
	08:47	VM5	0.25	5	
	09:44	VM16	0.13	5	
	10:12	VM17	0.22	5	
	10:01	VM18	0.16	5	
	09:53	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
05 May 2012	09:38	VM1	0.62	5	Demolition of Building M
	09:56	VM3	0.26	5	
	09:22	VM5	0.24	5	
	10:08	VM16	0.22	5	
	10:42	VM17	0.21	5	
	10:28	VM18	0.16	5	
	10:19	VM19	0.16	5	



NOTES

- ALL DEMOLITION WORK SHALL BE CARRIED OUT MANUALLY BY HAND HELD EQUIPMENT FROM TOP DOWN.
- PRECAUTIONARY MEASURES SHALL FOLLOW THE HKCOP FOR DEMOLITION OF BUILDINGS 2004.
- PROPPING SHALL BE PROVIDED UNDERNEATH ALL FOOT SUB.

LEGEND

■ AREA TO BE DEMOLISHED (SINGLE STOREY CONCRETE BUILDING U.N.O.)

VM1 PROPOSED VIBRATION MONITORING STATION

NOTES

(1) VIBRATION READINGS SHALL BE TAKEN DAILY DURING DEMOLITION WORKS (IN THE VICINITY OF THE WORKS AREA ONLY)

(2) APPROPRIATE ACTIONS SHALL BE TAKEN WHEN VIBRATION REACHES THE FOLLOWING LEVELS

VIBRATION	ALERT LEVEL	ALARM LEVEL	ACTION LEVEL
	2.0mm/s	2.5mm/s	3.0mm/s

(3) ALL DEMOLITION WORKS SHALL CEASE IF THE VIBRATION REACHES THE ACTION LEVEL, AND SHALL NOT RESUME UNTIL MITIGATION MEASURES ARE PROPOSED AND ACCEPTED BY THE ARCHITECT / ENGINEER

A.I. No. F-WP101-004

B.D. Ref. No. 22-1/3056/10 (H)

Revised/Submission 修改/提交

No. 編號	Description 說明	Date 日期	Approved 核准
01	TENDER	08/11	T.H.
02	BD SUBMISSION	08/11	T.H.



BD SUBMISSION
Drawing Status 製圖狀況

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Client 業主
 香港賽馬會慈善信託基金
 The Hong Kong Jockey Club Charities Trust

Design Consultant
 HERZOG & DE MEURON

Conservation Architect
 香港賽馬會古物及古蹟辦事處

Architect / AP
 ROCCO 許孝

Structural Engineer / RSE E & M Engineer
 ARUP JRP

Project 項目
 CENTRAL POLICE STATION
 CONSERVATION AND REVITALISATION

Drawing Title 圖名
 DEMOLITION SITE PLAN (OVERALL)
 VIBRATION MONITORING

Scale 比例
 1:3000A1 P.C. T.H.

Drawing No. 圖號
 DE-OAP209674-L-100 02

11 NOV 2011
 Cod file : DE-OAP209674-L-100.dwg

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

**Record of
Vibration Monitoring for
Demolition Works at
Central Police Station Compound at
No. 10, Hollywood Road**

Report no.9

(07 May 2012 ~ 19 May 2012)

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Stage: Initial Stage (Baseline) for stage 1

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 Dec 2011	11:05	VM1	0.51	5	No demolition activity
23 Dec 2011	14:18	VM4	0.25	5	
23 Dec 2011	14:27	VM5	0.63	5	
23 Dec 2011	13:30	VM6	0.13	5	
23 Dec 2011	14:40	VM7	0.13	5	
23 Dec 2011	14:06	VM8	0.13	5	
23 Dec 2011	13:21	VM9	0.13	5	
23 Dec 2011	13:41	VM10	0.13	5	

Stage: Initial Stage (Baseline) for stage 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24 February 2012	17:41	VM1	0.25	5	No demolition activity
24 February 2012	17:17	VM3	0.25	5	
24 February 2012	17:50	VM5	0.25	5	
24 February 2012	17:53	VM6	0.32	5	
24 February 2012	17:57	VM8	0.35	5	
24 February 2012	18:02	VM9	0.35	5	
24 February 2012	15:01	VM11	0.13	5	
24 February 2012	15:57	VM12	0.13	5	
24 February 2012	15:37	VM13	1.14	5	
24 February 2012	15:20	VM14	0.13	5	
24 February 2012	15:48	VM15	0.13	5	
24 February 2012	16:18	VM16	0.89	5	
24 February 2012	16:02	VM17	0.13	5	
24 February 2012	16:51	VM18	0.13	5	
24 February 2012	16:39	VM19	0.13	5	

Stage: Initial Stage (Baseline) for stage 2a

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
30 April 2012	09:01	VM7	0.63	5	No demolition activity
30 April 2012	09:10	VM9	0.25	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Stage: stage 2 & 2a

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
7 May 2012	14:52	VM 1	0.25	5	Demolition of Building M,
	13:57	VM 3	0.56	5	
	13:42	VM 5	0.55	5	
	14:08	VM16	0.13	5	
	14:41	VM17	0.34	5	
	14:29	VM18	0.13	5	
	14:18	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
8 May 2012	10:43	VM 1	0.43	5	Demolition of Building M,
	09:42	VM 3	0.25	5	
	09:17	VM 5	0.29	5	
	09:53	VM16	0.36	5	
	10:19	VM17	0.25	5	
	10:11	VM18	0.13	5	
	10:02	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
9 May 2012	11:03	VM 1	0.62	5	Demolition of Building M, Wall 12
	09:11	VM 3	0.43	5	
	08:57	VM 5	0.25	5	
	08:44	VM 7	0.25	5	
	08:32	VM 9	0.36	5	
	09:19	VM16	0.41	5	
	09:38	VM17	0.25	5	
	09:44	VM18	0.25	5	
09:28	VM19	0.13	5		

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
10 May 2012	10:17	VM 1	0.34	5	Demolition of Building M, Wa12
	09:12	VM 3	0.42	5	
	08:59	VM 5	0.38	5	
	08:43	VM 7	0.25	5	
	08:32	VM 9	0.28	5	
	09:24	VM16	0.36	5	
	09:41	VM17	0.27	5	
	09:58	VM18	0.25	5	
09:47	VM19	0.25	5		

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
11 May 2012	16:12	VM 1	0.53	5	Demolition of Building M, Wall 12
	14:53	VM 3	0.37	5	
	14:39	VM 5	0.32	5	
	14:18	VM 7	0.25	5	
	14:07	VM 9	0.25	5	
	15:12	VM16	0.38	5	
	15:37	VM17	0.25	5	
	15:48	VM18	0.25	5	
	15:26	VM19	0.25	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
12 May 2012	14:32	VM1	0.25	5	Demolition of Building M
	13:34	VM3	0.13	5	
	13:17	VM5	0.25	5	
	13:46	VM16	0.13	5	
	13:56	VM17	0.13	5	
	14:13	VM18	0.13	5	
	14:04	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
14 May 2012	10:38	VM1	0.25	5	Demolition of Building M,
	09:36	VM3	0.36	5	
	09:17	VM5	0.25	5	
	09:47	VM16	0.35	5	
	09:58	VM17	0.28	5	
	10:19	VM18	0.25	5	
	10:08	VM19	0.25	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
15 May 2012	10:06	VM1	0.56	5	Demolition of Building M,
	09:04	VM3	0.32	5	
	08:43	VM5	0.25	5	
	09:17	VM16	0.47	5	
	09:28	VM17	0.25	5	
	09:52	VM18	0.35	5	
	09:39	VM19	0.25	5	

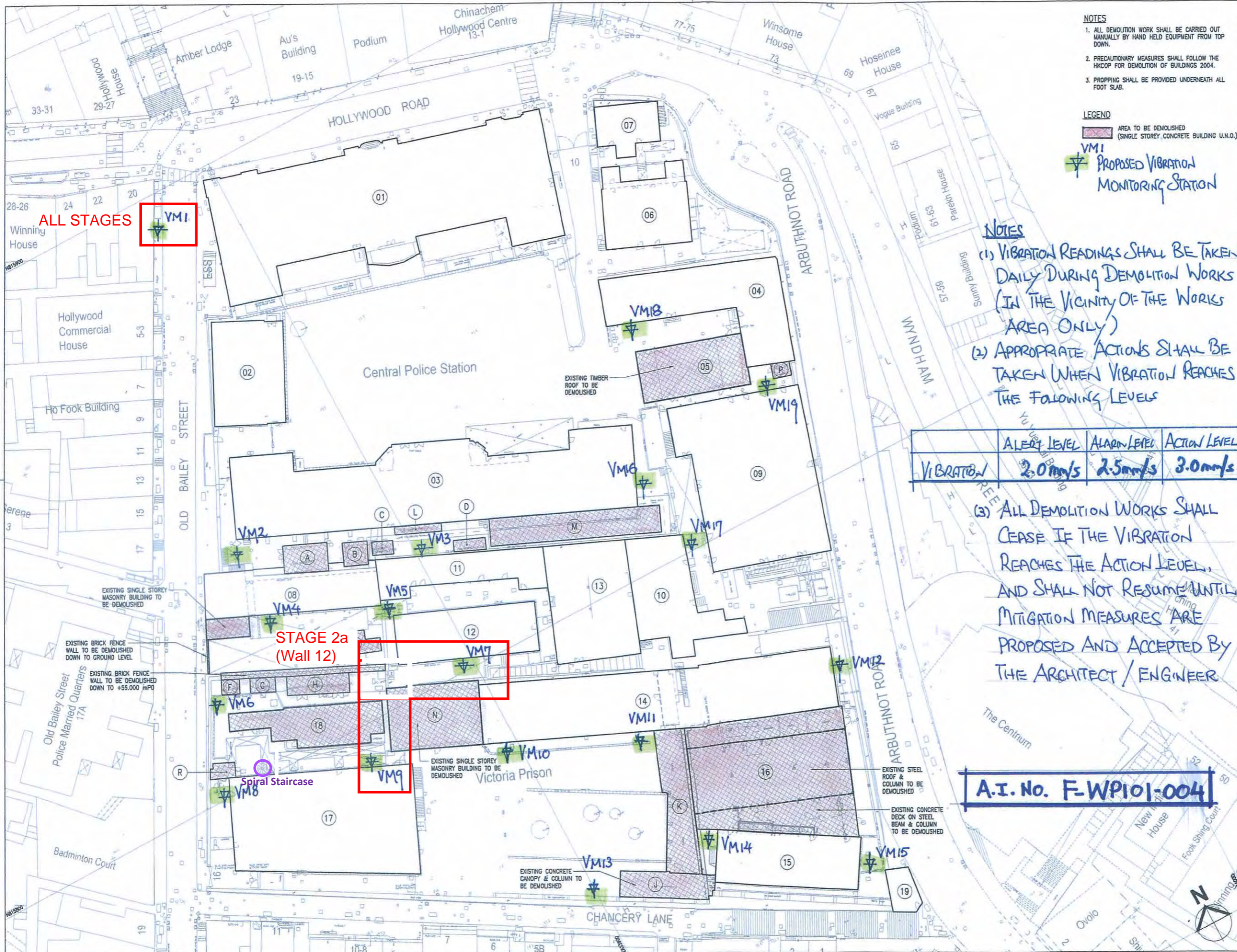
Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
16 May 2012	09:47	VM1	0.32	5	Demolition of Building M
	08:45	VM3	0.32	5	
	08:32	VM5	0.25	5	
	08:58	VM16	0.42	5	
	09:07	VM17	0.25	5	
	09:29	VM18	0.25	5	
	09:19	VM19	0.25	5	

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
17 May 2012	11:32	VM1	0.42	5	Demolition of Building M,
	11:08	VM3	0.36	5	
	10:57	VM5	0.25	5	
	10:17	VM16	0.38	5	
	10:29	VM17	0.25	5	
	10:44	VM18	0.27	5	
	10:36	VM19	0.25	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
18 May 2012	10:15	VM1	0.36	5	Demolition of Building M,
	09:49	VM3	0.37	5	
	10:03	VM5	0.28	5	
	09:13	VM16	0.40	5	
	09:21	VM17	0.25	5	
	09:38	VM18	0.27	5	
	09:30	VM19	0.25	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
19 May 2012	09:47	VM1	0.25	5	Demolition of Building M
	09:19	VM3	0.32	5	
	09:33	VM5	0.36	5	
	08:42	VM16	0.36	5	
	08:50	VM17	0.25	5	
	09:07	VM18	0.25	5	
	08:58	VM19	0.25	5	



NOTES

- ALL DEMOLITION WORK SHALL BE CARRIED OUT MANUALLY BY HAND HELD EQUIPMENT FROM TOP DOWN.
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- PROPPING SHALL BE PROVIDED UNDERNEATH ALL FOOT SUB.

LEGEND

■ AREA TO BE DEMOLISHED (SINGLE STOREY CONCRETE BUILDING U.N.O.)

VM1 PROPOSED VIBRATION MONITORING STATION

NOTES

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VIBRATION	ALERT LEVEL	ALARM LEVEL	ACTION LEVEL
	2.0mm/s	2.5mm/s	3.0mm/s

(3) ALL DEMOLITION WORKS SHALL CEASE IF THE VIBRATION REACHES THE ACTION LEVEL, AND SHALL NOT RESUME UNTIL MITIGATION MEASURES ARE PROPOSED AND ACCEPTED BY THE ARCHITECT / ENGINEER

A.I. No. F-WP101-004

B.D. Ref. No. 22-1/3056/10 (H)

Rev. No. / Submission 修改版 / 編號

No. 編號	Description 說明	Date 日期	Approved 審批
01	TENDER	08/11	T.H.
02	BD SUBMISSION	08/11	T.H.



BD SUBMISSION
Drawing Status 製圖狀況

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Client 業主
The Hong Kong Jockey Club Charities Trust

Design Consultant
HERZOG & DE MEURON

Conservation Architect
ARUP

Architect / AP
ROCCO 許學

Structural Engineer / RSE E & M Engineer
ARUP

Project 項目
CENTRAL POLICE STATION
CONSERVATION AND REVITALISATION

Drawing Title 圖名
DEMOLITION SITE PLAN (OVERALL)
VIBRATION MONITORING

Scale 比例
1:3000A1 P.C. T.H.

Drawing No. 圖號
DE-OAP209674-L-100 02

11 NOV 2011
Cod file : DE-OAP209674-L-100.dwg

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

**Record of
Vibration Monitoring for
Demolition Works at
Central Police Station Compound at
No. 10, Hollywood Road**

Report no.10

(21 May 2012 ~ 2 June 2012)

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Stage: Initial Stage (Baseline) for stage 1

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 Dec 2011	11:05	VM1	0.51	5	No demolition activity
23 Dec 2011	14:18	VM4	0.25	5	
23 Dec 2011	14:27	VM5	0.63	5	
23 Dec 2011	13:30	VM6	0.13	5	
23 Dec 2011	14:40	VM7	0.13	5	
23 Dec 2011	14:06	VM8	0.13	5	
23 Dec 2011	13:21	VM9	0.13	5	
23 Dec 2011	13:41	VM10	0.13	5	

Stage: Initial Stage (Baseline) for stage 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24 February 2012	17:41	VM1	0.25	5	No demolition activity
24 February 2012	17:17	VM3	0.25	5	
24 February 2012	17:50	VM5	0.25	5	
24 February 2012	17:53	VM6	0.32	5	
24 February 2012	17:57	VM8	0.35	5	
24 February 2012	18:02	VM9	0.35	5	
24 February 2012	15:01	VM11	0.13	5	
24 February 2012	15:57	VM12	0.13	5	
24 February 2012	15:37	VM13	1.14	5	
24 February 2012	15:20	VM14	0.13	5	
24 February 2012	15:48	VM15	0.13	5	
24 February 2012	16:18	VM16	0.89	5	
24 February 2012	16:02	VM17	0.13	5	
24 February 2012	16:51	VM18	0.13	5	
24 February 2012	16:39	VM19	0.13	5	

Stage: Initial Stage (Baseline) for stage 2a

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
30 April 2012	09:01	VM7	0.63	5	No demolition activity
30 April 2012	09:10	VM9	0.25	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Stage: stage 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
21 May 2012	10:42	VM1	0.25	5	Demolition of Building M,
	09:41	VM3	0.13	5	
	09:22	VM5	0.13	5	
	09:52	VM16	0.25	5	
	10:03	VM17	0.13	5	
	10:24	VM18	0.22	5	
	10:13	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
22 May 2012	10:16	VM1	0.56	5	Demolition of Building M,
	09:14	VM3	0.13	5	
	08:53	VM5	0.15	5	
	09:27	VM16	0.15	5	
	09:58	VM17	0.15	5	
	09:42	VM18	0.25	5	
	09:49	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 May 2012	09:42	VM1	0.32	5	Demolition of Building M
	08:40	VM3	0.25	5	
	08:27	VM5	0.25	5	
	08:53	VM16	0.25	5	
	09:02	VM17	0.13	5	
	09:24	VM18	0.25	5	
	09:15	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24 May 2012	10:32	VM1	0.42	5	Demolition of Building M,
	10:08	VM3	0.25	5	
	09:57	VM5	0.25	5	
	09:17	VM16	0.25	5	
	09:29	VM17	0.13	5	
	09:44	VM18	0.25	5	
	09:36	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
25 May 2012	09:15	VM1	0.36	5	Demolition of Building M,
	08:49	VM3	0.37	5	
	09:03	VM5	0.25	5	
	08:13	VM16	0.27	5	
	08:21	VM17	0.13	5	
	08:38	VM18	0.25	5	
	08:30	VM19	0.23	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
26 May 2012	09:37	VM1	0.25	5	Demolition of Building M
	09:19	VM3	0.32	5	
	09:23	VM5	0.36	5	
	08:32	VM16	0.36	5	
	08:40	VM17	0.25	5	
	09:07	VM18	0.25	5	
	08:49	VM19	0.25	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
28 May 2012	10:47	VM1	0.25	5	Demolition of Building M,
	09:46	VM3	0.12	5	
	09:27	VM5	0.12	5	
	09:57	VM16	0.24	5	
	10:08	VM17	0.12	5	
	10:29	VM18	0.21	5	
	10:18	VM19	0.12	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
29 May 2012	10:11	VM1	0.56	5	Demolition of Building M,
	09:09	VM3	0.13	5	
	08:48	VM5	0.15	5	
	09:22	VM16	0.15	5	
	09:53	VM17	0.15	5	
	09:37	VM18	0.25	5	
	09:44	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
30 May 2012	10:42	VM1	0.32	5	Demolition of Building M
	09:40	VM3	0.25	5	
	09:27	VM5	0.25	5	
	09:53	VM16	0.25	5	
	10:02	VM17	0.13	5	
	10:24	VM18	0.25	5	
	10:15	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
31 May 2012	10:35	VM1	0.42	5	Demolition of Building M,
	10:13	VM3	0.25	5	
	10:03	VM5	0.25	5	
	09:22	VM16	0.25	5	
	09:34	VM17	0.13	5	
	09:49	VM18	0.25	5	
	09:41	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
1 June 2012	09:15	VM1	0.36	5	Demolition of Building M,
	08:49	VM3	0.32	5	
	09:03	VM5	0.25	5	
	08:13	VM16	0.27	5	
	08:21	VM17	0.13	5	
	08:38	VM18	0.25	5	
	08:30	VM19	0.23	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
2 June 2012	09:37	VM1	0.25	5	Demolition of Building M
	09:19	VM3	0.28	5	
	09:23	VM5	0.32	5	
	08:32	VM16	0.25	5	
	08:40	VM17	0.13	5	
	09:07	VM18	0.25	5	
	08:49	VM19	0.13	5	

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

**Record of
Vibration Monitoring for
Demolition Works at
Central Police Station Compound at
No. 10, Hollywood Road**

Report no.11

(4 June 2012 ~ 16 June 2012)

Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring

Stage: Initial Stage (Baseline) for stage 1

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
23 Dec 2011	11:05	VM1	0.51	5	No demolition activity
23 Dec 2011	14:18	VM4	0.25	5	
23 Dec 2011	14:27	VM5	0.63	5	
23 Dec 2011	13:30	VM6	0.13	5	
23 Dec 2011	14:40	VM7	0.13	5	
23 Dec 2011	14:06	VM8	0.13	5	
23 Dec 2011	13:21	VM9	0.13	5	
23 Dec 2011	13:41	VM10	0.13	5	

Stage: Initial Stage (Baseline) for stage 2 and 3

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
24 February 2012	17:41	VM1	0.25	5	No demolition activity
24 February 2012	17:17	VM3	0.25	5	
24 February 2012	17:50	VM5	0.25	5	
24 February 2012	17:53	VM6	0.32	5	
24 February 2012	17:57	VM8	0.35	5	
24 February 2012	18:02	VM9	0.35	5	
24 February 2012	15:01	VM11	0.13	5	
24 February 2012	15:57	VM12	0.13	5	
24 February 2012	15:37	VM13	1.14	5	
24 February 2012	15:20	VM14	0.13	5	
24 February 2012	15:48	VM15	0.13	5	
24 February 2012	16:18	VM16	0.89	5	
24 February 2012	16:02	VM17	0.13	5	
24 February 2012	16:51	VM18	0.13	5	
24 February 2012	16:39	VM19	0.13	5	

Stage: Initial Stage (Baseline) for stage 2a

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
30 April 2012	09:01	VM7	0.63	5	No demolition activity
30 April 2012	09:10	VM9	0.25	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Stage: stage 2

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
4 June 2012	10:47	VM1	0.25	5	Demolition of Building P
	09:46	VM3	0.12	5	
	09:27	VM5	0.12	5	
	09:57	VM16	0.24	5	
	10:08	VM17	0.12	5	
	10:29	VM18	0.21	5	
	10:18	VM19	0.12	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
5 June 2012	10:11	VM1	0.56	5	Demolition of Building P
	09:09	VM3	0.13	5	
	08:48	VM5	0.15	5	
	09:22	VM16	0.15	5	
	09:53	VM17	0.15	5	
	09:37	VM18	0.25	5	
	09:44	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
6 June 2012	10:42	VM1	0.32	5	Demolition of Building P
	09:40	VM3	0.25	5	
	09:27	VM5	0.25	5	
	09:53	VM16	0.25	5	
	10:02	VM17	0.13	5	
	10:24	VM18	0.25	5	
	10:15	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
7 June 2012	10:35	VM1	0.42	5	Demolition of Building P
	10:13	VM3	0.25	5	
	10:03	VM5	0.25	5	
	09:22	VM16	0.25	5	
	09:34	VM17	0.13	5	
	09:49	VM18	0.25	5	
	09:41	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
8 June 2012	09:15	VM1	0.36	5	Demolition of Building P
	08:49	VM3	0.32	5	
	09:03	VM5	0.25	5	
	08:13	VM16	0.27	5	
	08:21	VM17	0.13	5	
	08:38	VM18	0.25	5	
	08:30	VM19	0.23	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
9 June 2012	09:37	VM1	0.25	5	Demolition of Building P
	09:19	VM3	0.28	5	
	09:23	VM5	0.32	5	
	08:32	VM16	0.25	5	
	08:40	VM17	0.13	5	
	09:07	VM18	0.25	5	
	08:49	VM19	0.13	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
11 June 2012	11:13	VM1	0.57	5	Demolition of Building P
	10:39	VM3	0.52	5	
	08:42	VM5	0.25	5	
	10:28	VM16	0.25	5	
	08:33	VM17	0.13	5	
	08:51	VM18	0.25	5	
	10:20	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
12 June 2012	14:56	VM1	0.46	5	Demolition of Building P
	15:08	VM3	0.38	5	
	14:39	VM5	0.25	5	
	13:19	VM16	0.38	5	
	14:27	VM17	0.13	5	
	13:13	VM18	0.25	5	
	13:27	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
13 June 2012	09:12	VM1	0.57	5	Demolition of Building P
	09:33	VM3	0.76	5	
	08:47	VM5	0.32	5	
	09:42	VM16	0.13	5	
	10:08	VM17	0.13	5	
	09:59	VM18	0.25	5	
	09:50	VM19	0.25	5	

**Demolition Works
Central Police Station Compound at No. 10, Hollywood Road
Record of Vibration Monitoring**

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
14 June 2012	09:07	VM1	0.52	5	Demolition of Building P
	09:19	VM3	0.63	5	
	08:43	VM5	0.89	5	
	09:34	VM16	0.32	5	
	10:02	VM17	0.13	5	
	09:51	VM18	0.25	5	
	09:43	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
15 June 2012	14:10	VM1	0.67	5	Demolition of Building P
	13:54	VM3	0.54	5	
	16:17	VM5	0.75	5	
	15:21	VM16	0.37	5	
	15:47	VM17	0.25	5	
	15:39	VM18	0.25	5	
	15:28	VM19	0.13	5	

Date	Time	Location of Check Points	Result (Max. Point) (mm/s)	Monitoring Duration (Mins)	Location of Demolition Work
16 June 2012	15:01	VM1	0.25	5	Demolition of Building P
	15:57	VM3	0.54	5	
	15:37	VM5	0.25	5	
	15:20	VM16	0.13	5	
	15:48	VM17	0.23	5	
	16:18	VM18	0.25	5	
	16:02	VM19	0.13	5	

Annex M

Records of Vibration
Monitoring for Trial Pile
Works

Vibration Record

Project Title: Central Police Station Conservation & Revitalization

Project No: WP201

Date: 2012-4-22 To 2012-5-5

POINT		VM1	VM2	VM3	VM4	VM5	VM6	VM7	VM8	VM9	VM10	VM11	VM12	VM13	VM14	VM15
DATE	PD/(m)	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
2/4/2012	(Initial)	0.58	0.18	0.18	0.66	1.4	0.25	1.14	0.65	0.28	0.22	0.18	0.22	0.18	0.22	0.22
23/4/2012		0.54	0.19	0.75	1.01	0.24	0.91	0.18	0.13	0.22	0.36	0.68	0.21	0.67	0.27	0.13
24/4/2012		0.63	0.13	0.81	1.21	1.01	1.08	0.19	0.27	0.22	0.64	0.38	0.13	1.01	0.19	0.22
25/4/2012		0.27	0.13	0.19	0.98	1.08	0.67	0.81	0.23	0.61	0.13	0.13	0.27	0.22	0.13	0.13
26/4/2012		0.13	0.19	0.62	0.81	0.71	0.53	0.13	0.13	0.19	0.22	0.47	0.13	0.19	0.13	0.13
27/4/2012		0.19	0.22	0.13	0.13	0.13	0.13	0.19	0.21	0.13	0.27	0.13	0.33	0.13	0.19	0.13
28/4/2012		Public Holiday														
30/4/2012		0.23	0.21	0.37	0.31	0.34	0.41	0.22	0.33	0.27	0.19	0.32	0.21	0.35	0.25	0.13
1/5/2012		Public Holiday														
2/5/2012		0.23	0.13	0.19	0.21	0.63	0.13	0.22	0.13	0.19	0.13	0.13	0.19	0.31	0.13	0.22
3/5/2012		0.19	0.27	0.61	0.13	0.13	0.17	0.21	0.36	0.63	0.17	0.22	0.21	0.63	0.13	0.24
4/5/2012		0.63	0.27	0.6	0.22	0.23	0.61	0.71	0.21	0.13	0.61	0.79	0.81	0.13	0.13	0.13
5/5/2012		0.61	0.21	0.13	0.13	0.19	0.13	0.27	0.13	0.23	0.34	0.13	0.61	0.69	0.14	0.88

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

Vibration Record

Project Title: Central Police Station Conservation & Revitalization

Project No: WP201

Date: 2012-5-6 To 2012-5-19

POINT		VM1	VM2	VM3	VM4	VM5	VM6	VM7	VM8	VM9	VM10	VM11	VM12	VM13	VM14	VM15
DATE	PD/(m)	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
2/4/2012	(Initial)	0.58	0.18	0.18	0.66	1.4	0.25	1.14	0.65	0.28	0.22	0.18	0.22	0.18	0.22	0.22
6-May-2012																
7-May-2012		0.22	0.13	0.61	0.13	0.17	0.21	0.22	0.63	0.13	0.92	0.13	0.22	0.27	0.19	0.40
8-May-2012		0.13	0.27	0.55	0.19	0.27	0.61	0.27	0.63	0.23	0.81	0.27	0.62	0.19	0.22	0.22
9-May-2012		0.23	0.61	0.37	0.27	0.31	0.13	0.13	0.19	0.61	0.51	0.51	0.41	0.27	0.27	0.13
10-May-2012		0.13	0.24	0.26	0.91	0.11	0.13	0.27	0.13	0.60	0.27	0.19	0.50	0.27	0.19	0.13
11-May-2012		0.27	0.30	0.21	0.13	0.13	0.69	0.13	0.27	0.19	0.61	0.30	0.40	0.17	0.19	0.21
12-May-2012		0.71	0.60	0.13	0.23	0.17	0.21	0.27	0.44	0.39	0.90	0.13	0.40	0.19	0.27	0.61
13-May-2012																
14-May-2012		0.21	0.3	0.27	0.19	0.13	0.22	0.19	0.52	0.17	0.51	0.23	0.6	0.37	0.13	0.13
15-May-2012		0.3	0.55	0.19	0.31	0.13	0.27	0.19	0.23	0.51	0.79	0.4	0.19	0.22	0.22	0.13
16-May-2012		0.22	0.13	0.23	0.27	0.37	0.11	0.61	0.13	0.13	0.61	0.51	0.63	0.27	0.42	0.9
17-May-2012		0.27	0.19	0.13	0.23	0.61	0.55	0.6	0.61	0.3	0.79	0.79	0.81	0.22	0.19	0.13
18-May-2012		0.5	0.21	0.13	0.6	0.17	0.61	0.27	0.19	0.21	0.51	0.4	0.62	0.19	0.13	0.69
19-May-2012		0.23	0.22	0.13	0.19	0.27	0.23	0.62	0.27	0.26	0.13	0.81	0.23	0.13	0.27	0.33



恆誠建築工程有限公司

Win Win Way Construction Company Ltd.

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

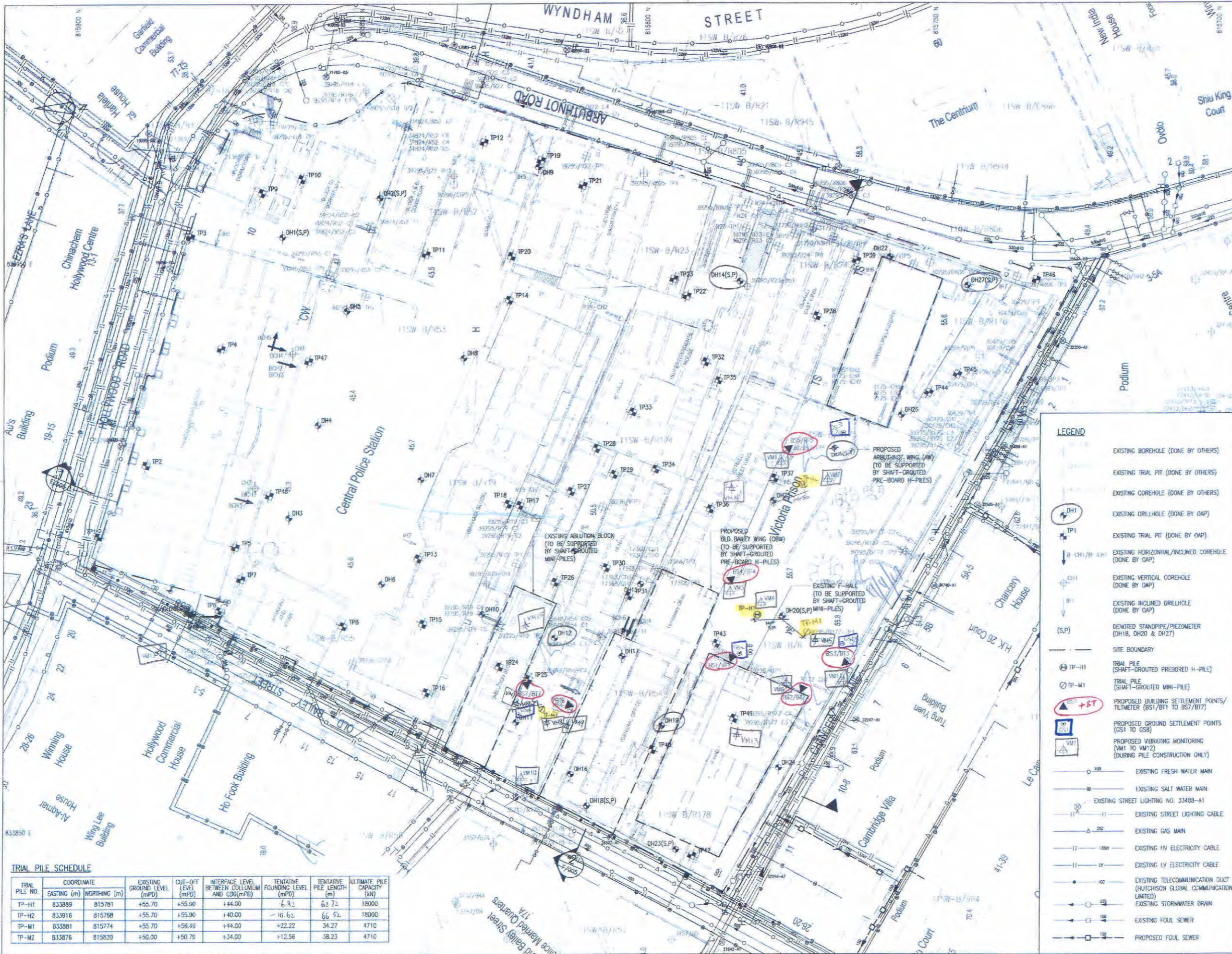
Vibration Record

Project Title: Central Police Station Conservation & Revitalization

Project No: WP201

Date: 20-5-2012 To 2-6-2012

POINT		VM1	VM2	VM3	VM4	VM5	VM6	VM7	VM8	VM9	VM10	VM11	VM12	VM13	VM14	VM15
DATE	PD/(m)	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
2-Apr-2012	(Initial)	0.58	0.18	0.18	0.66	1.4	0.25	1.14	0.65	0.28	0.22	0.18	0.22	0.18	0.22	0.22
20-May-2012																
21-May-2012		0.24	0.26	0.31	0.13	0.23	0.31	0.69	0.62	0.90	0.79	0.27	0.27	0.13	0.13	0.19
22-May-2012		0.61	0.13	0.27	0.69	0.51	0.22	0.40	0.30	0.71	0.27	0.13	0.37	0.19	0.60	0.30
23-May-2012		0.13	0.27	0.19	0.21	0.31	0.69	0.30	0.23	0.60	0.51	0.27	0.41	0.16	0.44	0.31
24-May-2012		0.26	0.22	0.27	0.31	0.21	0.27	0.27	0.30	0.33	0.51	0.19	0.81	1.01	0.69	1.27
25-May-2012		0.13	0.27	0.19	0.22	0.63	0.81	0.61	0.27	0.31	0.98	1.01	0.13	1.21	0.62	0.19
26-May-2012		0.30	0.21	0.71	0.61	0.13	0.69	0.31	0.27	0.71	0.13	0.19	1.13	0.22	0.26	0.22
27-May-2012																
28-May-2012		0.27	0.13	0.27	0.17	0.19	0.52	0.61	1.08	0.71	0.13	0.24	0.17	1.22	0.69	0.23
29-May-2012		0.31	0.22	0.19	0.13	0.13	0.41	0.19	0.91	0.51	0.21	0.19	0.51	0.19	0.13	0.27
30-May-2012		0.61	0.13	0.72	0.19	0.13	0.19	0.82	1.11	0.27	0.17	0.24	0.23	0.61	0.55	0.13
31-May-2012		0.22	0.19	0.41	0.57	0.32	0.81	0.69	0.90	1.05	1.07	0.13	0.13	0.19	0.22	0.41
1-Jun-2012		0.23	0.28	0.13	0.13	0.67	0.52	0.33	0.13	0.19	0.27	0.18	1.08	0.61	0.21	0.13
2-Jun-2012		0.22	0.61	0.88	0.34	0.13	0.13	0.13	0.19	0.27	0.22	0.18	0.90	1.02	0.73	0.90



B.O. Ref. No. 07/005

F.S.D. Ref. No. 07/005

Revision/Station/Modification/Description

No.	Description	Date	By	Approved
1	BD SUBMISSION	07/11	JS	
A	TENDER DRAWING	08/11	JS	
B	TENDER ADDENDUM	09/11	JS	
C	BD RE-SUBMISSION	09/11	JS	



LEGEND

- EXISTING BOREHOLE (DONE BY OTHERS)
- EXISTING TRIAL PIT (DONE BY OTHERS)
- EXISTING COREHOLE (DONE BY OTHERS)
- EXISTING DRILLHOLE (DONE BY OAP)
- EXISTING TRIAL PIT (DONE BY OAP)
- EXISTING HORIZONTAL/INCLINED COREHOLE (DONE BY OAP)
- EXISTING VERTICAL COREHOLE (DONE BY OAP)
- EXISTING INCLINED DRILLHOLE (DONE BY OAP)
- DENOTED STANDPIPE/PIEZOMETER (DH18, DH20 & DH27)
- SITE BOUNDARY
- TRIAL PILE (SHAFT-GROUTED PREBORED H-PILE)
- TRIAL PILE (SHAFT-GROUTED MINI-PILE)
- PROPOSED BUILDING SETTLEMENT POINTS/TILMETER (BS1/BS11 TO BS7/BS17)
- PROPOSED GROUND SETTLEMENT POINTS (GS1 TO GS8)
- PROPOSED VIBRATING MONITORING (VM1 TO VM12) (DURING PILE CONSTRUCTION ONLY)
- EXISTING FRESH WATER MAIN
- EXISTING SALT WATER MAIN
- EXISTING STREET LIGHTING NO. 33488-A1
- EXISTING STREET LIGHTING CABLE
- EXISTING GAS MAIN
- EXISTING HV ELECTRICITY CABLE
- EXISTING LV ELECTRICITY CABLE
- EXISTING TELECOMMUNICATION DUCT (HUTCHISON GLOBAL COMMUNICATIONS LIMITED)
- EXISTING STORMWATER DRAIN
- EXISTING FOUL SEWER
- PROPOSED FOUL SEWER

BD SUBMISSION
Drawing Status 繪圖狀況

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Client 業主
The Hong Kong Jockey Club Charities Trust
香港賽馬會慈善信託基金

Design Consultant
HERZOG & DE MEURON
Conservation Architect

Architect / AP
ROCCO
Structural Engineer / RSE
ARUP
E & M Engineer
JRP

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

Drawing Title 圖名
**LAYOUT PLAN FOR SHAFT
GROUTED PILE FOUNDATION
(TRIAL PILE & MONITORING)**

Scale 比例
1:300(A1)
Drawing No. 圖號
F/005

Checked 校核
K.C. Lee
Revision 修訂
C

TRIAL PILE SCHEDULE

TRIAL PILE NO.	COORDINATE	EXISTING GROUND LEVEL (mPD)	CUT-OFF LEVEL (mPD)	INTERFACE LEVEL BETWEEN COLLUM AND CDG (mPD)	TENTATIVE FOUNDING LEVEL (mPD)	TENTATIVE PILE LENGTH (m)	ULTIMATE PILE CAPACITY (kN)
TP-H1	833889 815781	+55.70	+55.90	+44.00	-6.82	62.72	18000
TP-H2	833916 815788	+55.70	+55.90	+40.00	-10.62	66.52	18000
TP-M1	833881 815774	+55.70	+56.48	+44.00	+22.22	34.27	4710
TP-M2	833876 815820	+50.90	+50.79	+34.00	+12.56	38.23	4710

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BUILDINGS DEPARTMENT



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Win Win Way Construction Company Ltd.

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

Vibration Record

Project Title: Central Police Station Conservation & Revitalization

Project No: WP201

Date: 3-6-2012 To 16-6-2012

POINT		VM1	VM2	VM3	VM4	VM5	VM6	VM7	VM8	VM9	VM10	VM11	VM12	VM13	VM14	VM15
DATE	PD/(m)	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
2-Apr-2012	(Initial)	0.58	0.18	0.18	0.66	1.4	0.25	1.14	0.65	0.28	0.22	0.18	0.22	0.18	0.22	0.22
3-Jun-2012																
4-Jun-2012		0.13	0.29	0.13	0.19	0.13	0.61	0.22	0.27	0.30	0.38	0.27	0.38	0.61	0.13	0.17
5-Jun-2012		0.21	0.13	0.69	0.71	0.33	0.16	0.23	0.79	0.32	0.22	0.13	0.23	0.63	0.14	0.19
6-Jun-2012		0.31	0.33	0.22	0.27	0.13	0.61	0.51	0.13	0.21	1.01	0.21	0.34	0.27	0.38	0.61
7-Jun-2012		0.29	0.13	0.18	0.17	0.13	0.19	0.29	0.28	0.30	0.61	0.33	0.22	0.81	0.31	0.13
8-Jun-2012		0.13	0.21	0.29	0.81	0.21	0.23	0.33	0.60	0.18	0.55	0.23	0.31	0.79	0.13	0.16
9-Jun-2012		0.61	0.13	0.31	0.29	0.21	0.34	0.61	0.19	0.22	0.21	0.23	0.19	0.70	1.05	0.69
10-Jun-2012																
11-Jun-2012		0.27	0.13	0.60	0.71	0.33	0.16	0.29	0.66	0.32	0.22	0.19	0.23	0.61	0.19	0.26
12-Jun-2012		0.33	0.21	0.46	0.32	0.13	0.23	1.12	0.56	0.21	0.34	0.69	0.32	0.55	0.39	0.25
13-Jun-2012		0.66	0.19	0.16	0.23	0.79	0.32	0.22	0.13	0.23	0.71	0.13	0.19	0.29	0.28	0.30
14-Jun-2012		0.61	0.79	0.32	0.22	0.13	0.23	0.63	0.14	0.13	0.21	0.16	0.29	0.66	0.32	0.22
15-Jun-2012		0.22	0.27	0.30	0.38	0.27	0.28	0.71	0.33	0.13	0.61	0.51	0.13	0.21	1.01	0.21
16-Jun-2012		0.33	0.16	0.23	0.79	0.32	0.22	0.63	0.56	0.34	0.27	0.21	0.29	0.81	0.21	0.23

Annex N

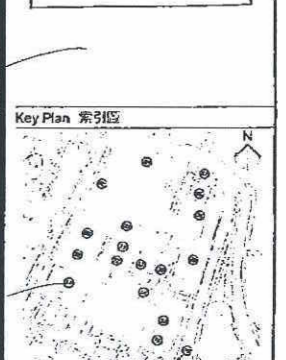
Records of Vibration Monitoring for Other Construction Works



BD Ref No: 00-0209674-G-001
 F.S.D. Ref No: 00-0209674-G-001

Revision/Description	Date
ED SUBMISSION	12/11 JS

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



BD SUBMISSION
 Drawing Status: 製圖狀況

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Client 業主
 The Jockey Club Ltd

Design Consultant
HERZOG & DEMEUREN

Conservation Architect
 HUTCHINSON GLOBAL COMMUNICATIONS LIMITED

Executive Architect IAP
ROCCO

Structural Engineer / RSE
ARUP

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

Drawing Title 圖紙名稱
MONITORING LAYOUT PLAN

Scale 比例尺
 1:3000A1
 Drawing No. 圖紙編號
 00-0209674-G-001

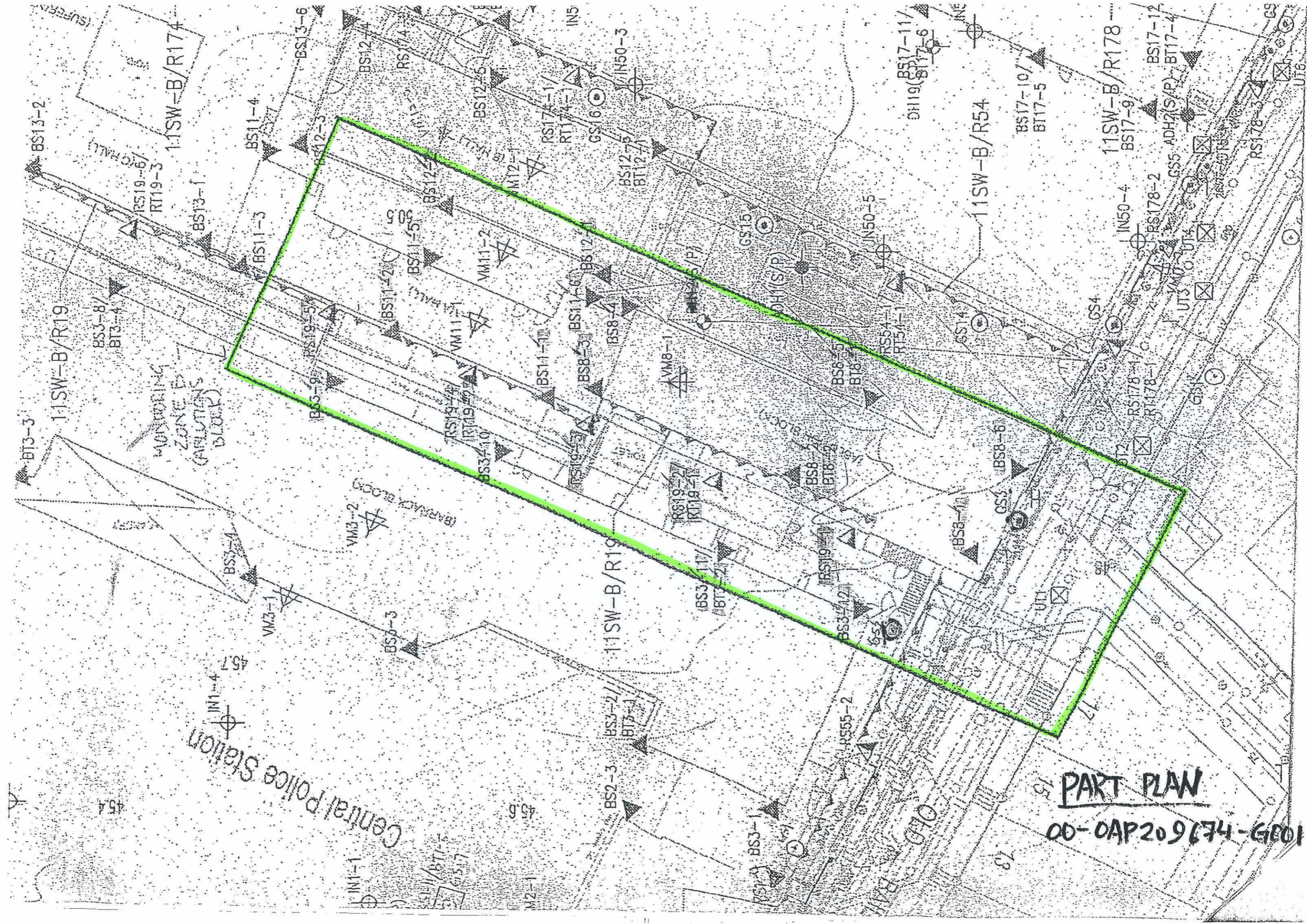
LEGEND

	EXISTING FRESH WATER MAIN
	EXISTING SALT WATER MAIN
	EXISTING STREET LIGHTING NO. 3348B-A1
	EXISTING STREET LIGHTING CABLE
	EXISTING GAS MAIN
	EXISTING HV ELECTRICITY CABLE
	EXISTING LV ELECTRICITY CABLE
	EXISTING TELECOMMUNICATION DUCT (HUTCHINSON GLOBAL COMMUNICATIONS LIMITED)
	EXISTING STORMWATER DRAIN
	EXISTING FOUL SEWER
	PROPOSED FOUL SEWER
	SITE BOUNDARY
	EXISTING RETAINING WALL
	EXISTING DRILLHOLE WITH STANDPIPE/PNEUMETER
	PROPOSED BUILDING SETTLEMENT POINTS/TILTMETER
	PROPOSED RETAINING WALL SETTLEMENT POINTS/TILTMETER
	PROPOSED INCLINOMETER TO BE DRILLED IN TO 1.5m PILE WALL OR 1.5m PILE WALL
	PROPOSED GROUND SETTLEMENT POINTS
	PROPOSED UTILITY MONITORING POINTS
	PROPOSED VIBRATION MONITORING POINTS
	PROPOSED ADDITIONAL DRILLHOLE

NOTES
 1. ALL UTILITIES SETTLEMENT POINTS (WITH UTI) SHOULD ONLY BE INSTALLED AFTER EXCAVATION PERMIT IS OBTAINED AS ALTERNATIVE SETTLEMENT POINTS (GAS AND GAS) MAY BE INSTALLED.
 2. SHOULD UTI TO UTI BE INSTALLED, SITE AND GROUND SETTLEMENT SHOULD BE MONITORED BY REGISTERED PROFESSIONAL ENGINEERS (RPE) AND GROUND SETTLEMENT MONITORS (GSM) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF OLD BAILEY WORKS WORKS.

Central Police Station

MONITORING ZONE (AVIATION BLOCK)



PART PLAN
00-OAP209674-00



仁利建築有限公司
Yan Lee Construction Co., Ltd.

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

Vibration Record

Project Title: Central Police Station Conservation & Revitalization Project No: WP203 Date: 20-5-2012 To 2-6-2012

POINT		VM8-1	VM11-1	VM11-2											
DATE	PD(m)	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
23-Apr-2012	(Initial)	0.212	0.087	0.116											
20-May-2012															
21-May-2012		0.210	0.085	0.120											
22-May-2012		0.053	0.124	0.142											
23-May-2012		0.121	0.186	0.132											
24-May-2012		0.098	0.068	0.128											
25-May-2012		0.046	0.118	0.132											
26-May-2012		0.052	0.097	0.107											
27-May-2012															
28-May-2012		0.142	0.107	0.125											
29-May-2012		0.179	0.102	0.110											
30-May-2012		0.098	0.102	0.111											
31-May-2012		0.121	0.112	0.118											
1-Jun-2012		0.124	0.072	0.122											
2-Jun-2012		0.097	0.063	0.082											



Annex O

A Summary of Current Condition of Character Defining Elements

Schedule of Character Defining Elements

Central Police Station

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. Should new CDEs be discovered during the construction period, this Schedule will be updated.

For each element, the level of significance is stated. 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.

	Level of significance	Meaning
Positive	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.
	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.

Schedule of Character Defining Elements




Central Police Station

01 Police Headquarters

Element no.	Description	Photo ref	Significance
01.001	Flat plywood ceiling lining with plain rectangular cover battens		Adverse
01.002	Plaster coving at abutments of walls and ceilings		Low
01.003	Lay-in grid suspended ceiling		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.004	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low
01.005	Plaster box cornice		Moderate
01.006	Panelled doors		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.007	External shutters		High
01.008	External terraces at 1/F		High
01.009	Plaster ceilings on GF and LG1		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.010	Timber door frames and architraves		Moderate
01.011	Concrete floor		Low
01.012	Rainwater goods		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.013	Exterior decorations		Adverse
01.014	Existing door openings		Moderate
01.015	Existing walls		Moderate




Schedule of Character Defining Elements

Central Police Station




Element no.	Description	Photo ref	Significance
01.016	Altered doors and windows		Adverse
01.017	Mezzanine floor in room 01/LG1/13		Adverse
01.018	Cast iron grilles above Service Corridor 01/LG1/35		High

Schedule of Character Defining Elements

Central Police Station



Element no.	Description	Photo ref	Significance
01.019	Perforated concrete deck above lightwell		Adverse
01.020	External airconditioning units and other external services		Adverse
01.021	Stair balustrades		High

Schedule of Character Defining Elements
Central Police Station

Element no.	Description	Photo ref	Significance
01.022	Main corridors		High
01.023	Painted signs		High
01.024	Fixed signs		Low-High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.025	Pitched roofs		High
01.026	Enclosure at First Floor landing of main stair		Adverse

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref	Significance
01.027	Steel railing enclosure at FF level		Low
01.028	Tongued and grooved timber boarded ceilings in East and West wings		Moderate
01.029	Modern partitions		Adverse

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref	Significance
01.030	Tiled dado	 A photograph showing the interior of a hallway. The lower portion of the wall is covered in a tiled dado, and a blue door is visible on the right. The ceiling features a decorative archway.	High
01.031	Reinforced concrete canopy and sash windows	 A photograph of the exterior of a building. It features a prominent reinforced concrete canopy over the entrance and sash windows on the upper floor. The building has a red brick facade with white decorative elements.	Moderate

Schedule of Character Defining Elements




Central Police Station

02 Armoury

Element no.	Description	Photo ref.	Significance
02.001	Lay-in grid suspended ceiling		Adverse
02.002	Modern internal doors		Adverse
02.003	Modern partitions		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
02.004	External airconditioning units and other external services		Adverse
02.005	Brickwork walls enclosing rooms at GF and FF East side		Low
02.006	Concrete floors		Low



Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
02.007	Rainwater goods	 A photograph showing the exterior of a brick building with several white rainwater pipes and gutters running across the facade. The building has multiple windows and a fire hydrant is visible in the foreground.	Adverse
02.008	Altered doors and windows	 A close-up photograph of a brick wall featuring a window with a bright blue-painted frame. The window is partially open, and the surrounding brickwork appears aged and somewhat weathered.	Adverse
02.009	Concrete stairs	 A photograph of a set of concrete stairs inside a building. The stairs are simple and functional, with a metal handrail on the right side. The walls are a plain, light-colored material.	Adverse

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
02.010	Pitched roofs		High
02.011	Roof structure and tiled soffit		High

Schedule of Character Defining Elements




Central Police Station

03 Barracks Block

Element no.	Description	Photo ref.	Significance
03.001	Lay-in grid suspended ceiling		Adverse
3.002	Panelled doors		Moderate
03.003	External shutters		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.004	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low
03.005	Timber spandrel panels below windows		Low
03.006	Timber floors		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.007	Rainwater goods	 A close-up photograph of a white rainwater pipe running vertically down the side of a light-colored stone building. The pipe is connected to a decorative balcony with a balustrade above it. A window with a cross-shaped frame is visible in the background.	Adverse
03.008	Exterior decorations	 A photograph of the exterior of a building featuring a series of arched windows with blue frames. The building has a light-colored stone facade and a dark base. A white trash bin and a green bin are visible in the courtyard area.	Adverse
03.009	Block existing door openings	 An interior photograph of a hallway with a doorway on the right. The walls are a light yellow color, and the floor is a light-colored tile. A staircase is visible in the background on the left.	Low

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.010	Form new door openings		Low
03.011	Altered doors and windows		Adverse
03.012	External airconditioning units and other external services		Adverse





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.013	Stair balustrades		High
03.014	Painted signs		High
03.015	Fixed signs		Low-High
03.016	Pitched roofs		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.017	Lean-to structure adjacent North wall		Moderate
03.018	Metal-frames windows at GF North elevation		Adverse
03.019	Internal walls at Ground Floor level		Moderate
03.020	Assembly rooms at centre of building (all floors)		Moderate



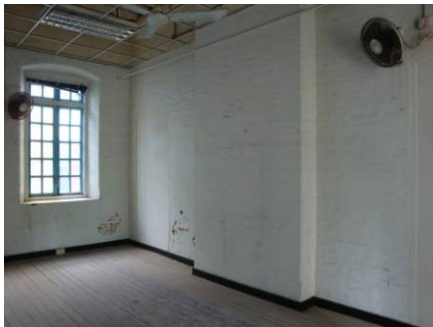
Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.021	Exposed soffits of timber floors		Moderate
03.022	Existing window frames/openings		High
03.023	Single storey outbuildings on south side		Adverse

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
03.024	Bridge at east end		Moderate
03.025	Chimneypiece on Ground Floor		Low
03.026	Window in south wall; original dormitory space		Moderate

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
03.027	Clay-tiled floor in store room adjacent stairs		Low

Schedule of Character Defining Elements

Central Police Station

04 Dormitory Block A & B

Element no.	Description	Photo ref.	Significance
04.001	Lay-in grid suspended ceiling		Adverse
04.002	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low
04.003	Plaster box cornice		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.004	Rainwater goods		Adverse
04.005	Exterior decorations		Adverse
04.006	Block existing door openings		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.007	Form new door openings		Moderate
04.008	Altered doors and windows		Adverse
04.009	Window frames in arcades of North and East elevations		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.010	External airconditioning units and other external services	 A photograph showing a stone wall with several large, silver-colored external air conditioning units and associated pipes. The units are mounted on the wall, and the pipes run vertically and horizontally. A yellow safety barrier is visible in the foreground.	Adverse
04.011	Stair balustrades	 A photograph of a staircase with a wooden handrail and a blue balustrade. The stairs are dark-colored, and the wall behind them is light-colored. A small arched opening is visible in the background.	High
04.012	Stair from First to Second Floor	 A photograph of a staircase with a wooden handrail and a blue balustrade. The stairs are dark-colored, and the wall behind them is light-colored.	High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.013	External verandahs		High
04.014	Painted signs		High
04.015	Fixed signs		Low-High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.016	Pitched roofs		High
04.017	Toilets at ends of verandahs		Adverse
04.018	Partitions at GF Dormitory A		High



Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.019	Switchgear in old porch 04/G/13		Adverse
04.020	Flat plywood ceiling lining with plain rectangular cover battens		Adverse
04.021	Steps up to doorway on FF verandah		Moderate



Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
04.022	Timber boarded floors with moulded skirtings		High
04.023	Cantilever balconies		High
04.024	Clay tile floor		Low

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
04.025	Matched-boarded ceiling with perforated border		Moderate
04.026	Ceiling rose		Low

Schedule of Character Defining Elements





Central Police Station

06 Dormitory C

Element no.	Description	Photo ref.	Significance
06.001	Granite thresholds at external doors		Low
06.002	Pitched roof		High
06.003	Rainwater goods		Adverse





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
06.004	Exterior decorations		Adverse
06.005	Altered doors and windows		Adverse
06.006	External airconditioning units and other external services		Adverse
06.007	Painted signs		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
06.008	Fixed signs		Low-High
06.009	Cantilever balconies		High
06.010	Iron balustrades		High
06.011	Perforated margin at perimeter of ceiling		Low

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
06.012	Block existing door openings		Moderate
06.013	Form new door openings		Moderate
06.014	Stair balustrades		High

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
06.015	Timber floors		High
06.016	Vinyl tile floor		Adverse
06.017	Batten and panel ceiling lining		Low
06.018	Exposed roof covering		Moderate

Schedule of Character Defining Elements




Central Police Station

07 Dormitory D

Element no.	Description	Photo ref.	Significance
07.001	Pitched roofs		High
07.002	Rainwater goods		Adverse
07.003	Exterior decorations		Adverse





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
07.004	Altered doors and windows		Adverse
07.005	External airconditioning units and other external services		Adverse
07.006	Clothes drying racks		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
07.008	Lay-in grid suspended ceiling		Adverse
07.009	Corbelled brickwork at perimeter of room		Low
07.010	Plywood floor		Adverse
07.011	Timber thresholds at external doors and internal doors between main corridor and individual rooms		Low

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
07.012	Form new door openings		Moderate
07.013	Stair balustrades		High
07.014	Fixed signs		Low-High

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
07.015	Exposed roof tiling		Moderate
07.016	Concrete floor		Adverse

Schedule of Character Defining Elements


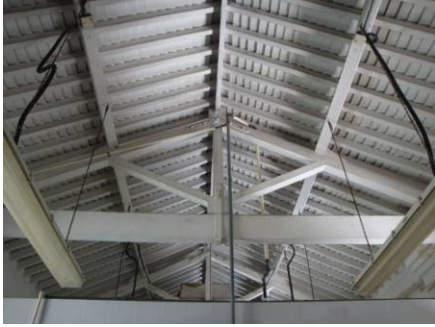

Central Police Station

08 Ablutions Block

Element no.	Description	Photo ref.	Significance
08.001	Panelled doors		Low
08.002	Rainwater goods		Adverse
08.003	Exterior decorations		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
08.004	Block existing door openings		Moderate
08.005	Timber roof structure		High
08.006	External stair at west end		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
08.007	External airconditioning units and other external services		Adverse
08.008	Painted signs		High
08.009	Wire mesh screens		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
08.010	Internal walls and concrete floors		Low
08.011	Cantilever balconies on north side		Moderate
08.012	Bridge access to Barrack Block		Moderate

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
08.013	Balcony balustrades		Low
08.014	Single-storey outbuilding with pitched roof over		Low
08.015	Corrugated steel sheet on balcony balustrades		Adverse

Schedule of Character Defining Elements

Central Police Station

09 Magistracy

Element no.	Description	Photo ref.	Significance
09.001	Lay-in grid suspended ceiling		Adverse
09.002	Modern partitions		Adverse
09.003	Internal walls		Moderate

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.004	Plaster box cornice		Moderate
09.005	Panelled doors		Moderate
09.006	Block existing door openings		Moderate
09.007	Form new door openings		Moderate





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.008	Stair balustrades		High
09.009	Fixed signs		Low-High
09.010	External airconditioning units and other external services		Adverse
09.011	Pitched roofs		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.012	Rainwater goods		Moderate
09.013	Metal walkways across lightwell		Adverse
09.014	Altered doors and windows		Adverse
09.015	Sloping canopy over external stair on west side		Adverse

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.016	Single storey secure shelter at North West corner		Low
09.017	Iron railing adjacent south side of item 09.016 above		Moderate
09.018	Public toilets in 09/LG1/17, 24		Adverse





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.019	Cell doors		High
09.020	Meeting room at G/02-05		Moderate
09.021	Lobbies within entrance hall G/12		Adverse

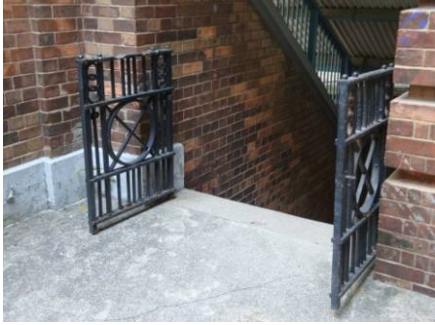

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
09.022	Public galleries on FF		Adverse
09.023	Chimney piece		Moderate
09.024	Lanterns above entrance hall		Adverse
09.025	Boarded ceilings on Second Floor		High

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
09.026	Iron gates at top of external stair	 A photograph showing two ornate black iron gates with circular designs, set against a brick wall at the top of an external staircase.	Moderate
09.027	Iron balustrade adjacent terrace at First Floor east side	 A photograph of a long, ornate black iron balustrade with circular motifs, running along a terrace with a red brick floor. A decorative Greek key pattern is visible on the floor.	High

Schedule of Character Defining Elements





Central Police Station

10 Assistant Superintendent's Office

Element no.	Description	Photo ref.	Significance
10.001	Lay-in grid suspended ceiling		Adverse
10.002	Plaster box cornice		Moderate
10.003	Panelled doors and linings		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.004	Timber boarded floor with moulded skirtings		High
10.005	Exterior decorations		Adverse
10.006	Block existing door openings		Moderate
10.007	Form new door openings		Moderate

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.008	Altered doors and windows		Adverse
10.009	External airconditioning units and other external services		Adverse
10.010	Stair balustrades		High





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.011	Fixed signs		Low-High
10.012	Pitched roofs		High
10.013	Internal walls		Moderate
10.014	Partitions on SF		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.015	Blocked windows on south elevation of south-east wing		Adverse
10.016	Open-joisted ceiling on Ground Floor of south-east wing		Moderate
10.017	Moulded timber picture rail		Low
10.018	Timber roof structure above south-east wing		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.019	Timber stair		Moderate
10.020	Clay/terrazzo tile floor on Ground Floor and steps		Adverse
10.024	Granite wall on North elevation		High



Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
10.025	Single storey outbuilding at South East corner		Moderate
10.026	Blocked archway on East elevation		Adverse
10.027	Chimney on east elevation		Low

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
10.028	Cantilever balconies		High
10.029	Steps on east elevation		Moderate

Schedule of Character Defining Elements




Central Police Station

11 A Hall

Element no.	Description	Photo ref.	Significance
11.001	Form new door openings		Low
11.002	External airconditioning units and other external services		Adverse
11.003	Painted signs		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
11.004	Fixed signs		Low-High
11.005	Concrete stairs		Low
11.006	Flat roof		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
11.007	Security screen at roof level		Low
11.008	Rainwater goods		Adverse
11.009	Rainwater goods		Low


Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
11.010	Timber doors		Low
11.011	Security screen and door at First Floor		Low
11.012	Door thresholds and plinth		Low

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
11.013	Metal louvres on window openings	 A photograph showing a section of a brick building facade. The brickwork is reddish-brown. There are several windows, each covered with a grey metal louver. The louvered windows are arranged in a row. To the right, a portion of a white door or window frame is visible. The overall appearance is that of a utilitarian or industrial building.	Adverse

Schedule of Character Defining Elements




Central Police Station

12 B Hall

Element no.	Description	Photo ref.	Significance
12.001	Flat roof		Moderate
12.002	Cells at GF level		High
12.003	External airconditioning units and other external services		Adverse


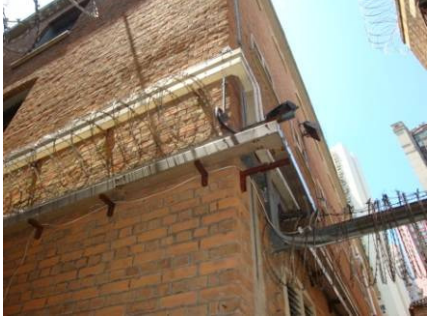

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
12.004	Painted signs		High
12.005	Fixed signs		Low-High
12.006	Rainwater goods		Adverse

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
12.007	Corbelled brickwork at high level in cells		Low
12.008	Barbed wire		Moderate
12.009	External walls		Moderate

Schedule of Character Defining Elements




Central Police Station

13 C Hall

Element no.	Description	Photo ref.	Significance
13.001	External airconditioning units and other external services		Adverse
13.002	Door to Ladder Store		Low
13.003	Security bars at window openings		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
13.004	Flat roof		Low
13.005	Eaves detail		Low
13.006	Cantilever reinforced concrete canopy		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
13.007	Internal partition walls		Low
13.008	Fixed signs		Low-High
13.009	Metal window frames		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
13.010	Internal security screens		Moderate
13.011	Coving at abutments between RC beams and walls		Low
13.012	Communal cells at Ground Floor		Moderate


Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
13.013	Rooflight and security bars over communal cells		Moderate
13.014	Granite threshold at external door openings		Low
13.015	Timber boarded doors with fanlight over		Low

Schedule of Character Defining Elements

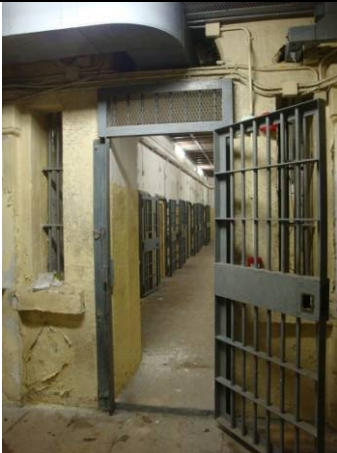
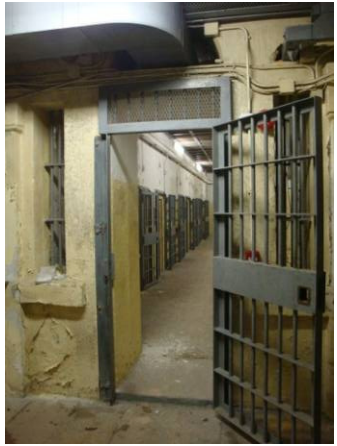

Central Police Station

Element no.	Description	Photo ref.	Significance
13.015	Vinyl tile floor		Adverse

Schedule of Character Defining Elements

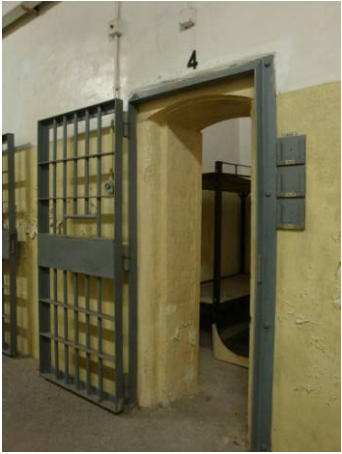

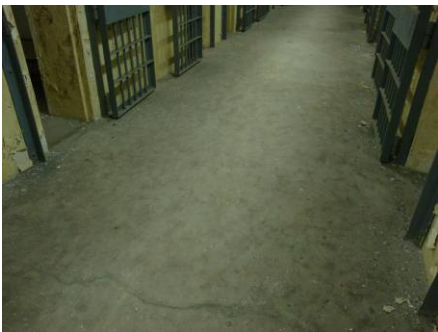
Central Police Station

14 D Hall East Wing

Element no.	Description	Photo ref.	Significance
14.001	West entrance at Lower Ground Floor		Moderate
14.002	Half-round headed doorway and side lights		Moderate
14.003	Granite surround to cells (generally north side, alternating with brick surrounds – see next item)		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.004	Brick reveals with bull-nosed arrisses and segmental arch over (generally north side, alternating with granite surrounds – see previous item)		High
14.005	Arched opening at East end First Floor		Low
14.006	Concrete floor generally at Lower Ground Floor		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.007	Part-blocked windows at Lower Ground Floor - extent of blocking varies.		Moderate
14.008	External granite stair from Lower Ground to Ground Floor level		Moderate
14.009	Ashlar pattern on external walls		Moderate

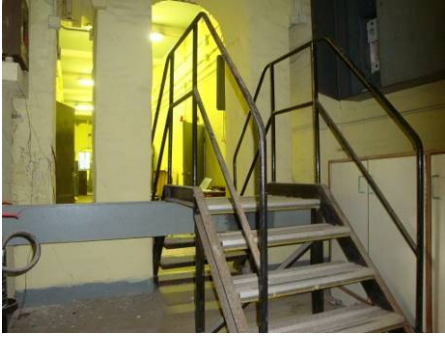


Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.010	Blocked doorway at south-east corner		Low
14.011	Metal security gate and screen		Low
14.012	Half-round headed doorway and side lights at Ground Floor west end		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.013	Structural steelwork bracing and temporary access stair		Adverse
14.014	RC staircase at north-east corner		Low
14.015	Vinyl tile floor on suspended timber floor		Adverse




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.016	Cell walls at Ground Floor		Moderate
14.017	Mortuary		High
14.018	Brickwork surrounds to doorways with segmental arches over		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.019	Granite surrounds to doorways with lintels over		Moderate
14.020	Flat ceilings at Ground Floor		Low
14.021	Arched opening at east end		Low

Schedule of Character Defining Elements

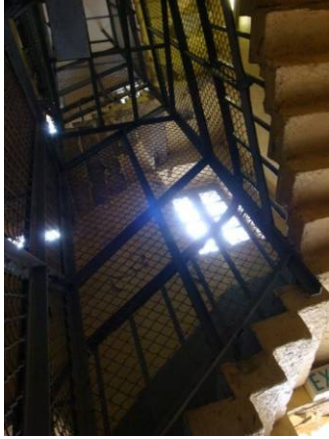


Central Police Station

Element no.	Description	Photo ref.	Significance
14.022	Top-lit central hall		High
14.023	Arches across central hall at First Floor		Moderate
14.024	Inset security gate and screen in First Floor cells		Low

Schedule of Character Defining Elements




Central Police Station

14 D Hall West Wing

Element no.	Description	Photo ref.	Significance
14.030	Main stair		High
14.031	Brick vault over central hall at Ground Floor		High
14.032	Terrazzo floor in central hall at Ground floor		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.033	Brick vaults above cells		High
14.034	Cell walls (later additions)		Moderate
14.035	Brickwork spandrels below cell windows on south side at Ground Floor		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.036	Cell walls flanking central hall		High
14.037	Cell floors		Low
14.038	Partition wall across central hall at Ground Floor		Low



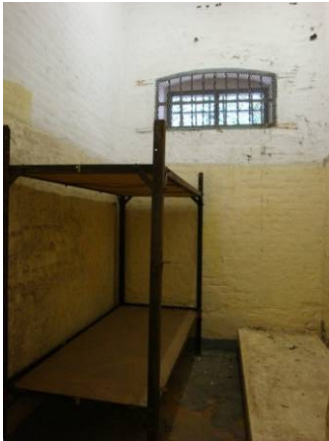
Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.039	Granite pavement in cross-passage between East and West Wings		Moderate
14.040	Granite threshold at doorway between cross-passage and East Wing		Moderate
14.041	Brick vault over cross-passage		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.042	Granite floor in central hall at First Floor		Moderate
14.043	Cell walls flanking central hall at First Floor		High
14.044	Brickwork spandrels below cell windows at Second Floor		Moderate





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.045	Metal security screen adjacent main stair		Moderate
14.046	Double-height central hall at Second Floor		High
14.047	View ports adjacent entrance doors		Moderate

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
14.048	Services installations		Adverse
14.049	Metalwork and structural steel framing on exterior (typical)		Adverse
14.050	Blind arcade, south elevation		Low
14.051	Blind arcade, north elevation		Low

Schedule of Character Defining Elements

Central Police Station




Element no.	Description	Photo ref.	Significance
14.052	Fence wall, east end of D Hall Yard		Low

15 E Hall

Element no.	Description	Photo ref.	Significance
15.001	Dividing walls at Lower Ground Floor		Moderate
15.002	Dividing walls at Lower Ground Floor		Moderate



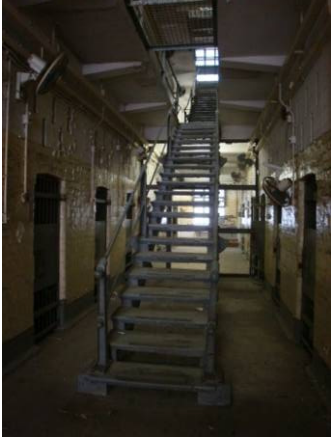
Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
15.003	Staircase within Laundry Yard		Moderate
15.004	Services installations		Adverse
15.005	Metal louvres over cell window openings		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
15.006	Raised ground level adjacent entrance		Low
15.007	Access balconies and apertures		Moderate
15.008	Central staircase		High


Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
15.009	Cell walls flanking central hall		High
15.010	Services installations		Adverse
15.011	Balcony balustrades		Moderate

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
15.012	Second Floor central hall		High

Schedule of Character Defining Elements





Central Police Station

17 F Hall

Element no.	Description	Photo ref.	Significance
17.001	Lay-in grid suspended ceiling		Adverse
17.002	Rainwater goods		Low
17.003	Exterior decorations		Adverse





Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.004	External airconditioning units and other external services		Adverse
17.005	Fixed signs		Moderate
17.006	Security screen at First Floor entrance		Low
17.007	Metal windows		Moderate



Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.008	Fixed furniture		Moderate
17.009	Security screens		Moderate
17.010	Timber windows		Moderate
17.011	Communal washing/lavatory facilities		Moderate




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.012	Blocked up lantern light		Low
17.013	Security gates at Ground openings		Moderate
17.014	Interview booths		High




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.015	External stair to First Floor		Moderate
17.016	Ground Floor main entrance		Low
17.017	Security screen at Ground Floor main entrance		Low




Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.018	Blue Entrance Gate (facing Old Bailey Street)		High
17.019	Blue Entrance Gate (inner) and enclosed yard		Moderate
17.020	Blue Entrance Gate (inner) facing Prison Yard		Moderate

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
17.021	Barbed wire		Moderate
17.022	Metal security bars at windows		Moderate
17.023	External toilets at Ground Floor adjacent East elevation		Low

Schedule of Character Defining Elements




Central Police Station

Element no.	Description	Photo ref.	Significance
17.024	Open Visit Room		Low

Schedule of Character Defining Elements




Central Police Station

19 Bauhinia House




Element no.	Description	Photo ref.	Significance
19.001	Pitched roofs		High
19.002	Chimney		High
19.003	Rainwater goods and other external services		Adverse

Schedule of Character Defining Elements

Central Police Station




Element no.	Description	Photo ref.	Significance
19.004	External stone wall facing		High
19.005	Gun loops		High
19.006	Look-out turret		High

Schedule of Character Defining Elements
Central Police Station

Element no.	Description	Photo ref.	Significance
19.007	Windows		Moderate
19.008	Modern partitions		Adverse
19.009	Electrical services		Adverse

Schedule of Character Defining Elements

Central Police Station

Element no.	Description	Photo ref.	Significance
19.010	Lay-in grid suspended ceiling		Adverse
19.011	Exposed timber roof structure		High
19.012	Timber stair		Moderate