Annex F Implementation Schedule for Environmental Protection Measures

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

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		proposal of the regular audit such as methodology (e.g. performance and monitoring indicators, control tools, frequency of the audit, etc.) and the conservation professionals to be engaged should be agreed with AMO prior to work commencement. The Heritage Checker shall also attend the regular site meetings with AMO and report the compliance and effectiveness of the mitigation measures for cultural heritage.			
S3.9.3	S3.3.4	Archival Recording An archival recording should be conducted to provide a detailed reference for the update of the Conservation Management Plan and inventory of historical features of the monuments, the preparation of asbuilt drawings showing the condition of the historic buildings and structures after the completion of the construction works. These archival records will be a reference source for future maintenance of the character defining elements, conservation of the monuments, interpretation and conservation education of the Site. The archival recording shall include but not limit to the video and photographic recording on the detailed process of the repair trials for different kinds of historical features, conservation works of character defining elements and historic fabrics of the monuments, and a written records of any new changes to the detailed design made in the construction phase illustrate with photos and drawings. A full set of the archives records (including both hard and soft copies) should be submitted to the AMO for approval after the work completion for record purpose. Any new findings related to the conservation of built heritage in the Site identified during the detailed design stage and construction phases shall be properly recorded in details for notification to the AMO and update of the Conservation Management Plan.	Whole Site	During detailed design, construction and prior to operation	N/A – Archival recording will be conducted at later stage.
S3.7.3	-	General Construction Methods Prior to the commencement of the modification/refurbishment works at an existing building or structure (e.g. masonry walls near the Old Bailey Wing), a site survey will be carried out by the design team, and all building dimensions and levels of the building/structure shown will be	Whole site	During construction	At around 10:05pm on 29 May 2016, the northwest corner of Block 4 partially collapsed. The collapsed area includes northwest corner roof, west elevation façade wall, north elevation façade wall west part, 1/F and 2/F verandah west part, 2/F

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		checked and confirmed by the contractor. Non-percussive piling methods will be adopted for the construction of the foundation for the new buildings. Protective and precaution measures to the existing buildings and structure adjacent to the work area (including the proposed Grade 3 historic building (No. 20 Hollywood road) and the granite boundary walls between the Ablutions Block of the police station (building no. 08) and the General Office of the prison area (building no. 18) which is adjacent to the new construction of the Old Bailey Wing and for an old granite walls at Old Bailey Street within 15m from the new construction) shall be provided to avoid damage to the existing features and to safeguard the structural integrity during the course of construction. Small scale handheld pneumatic tools with minimal vibration impact to the existing buildings/ structures are selected so as to have a better logistic and handling at the existing buildings and structures, which usually have only narrow working areas. In cases of the local demolition of structural elements, demountable platforms will be erected to temporarily support the affected area and divert the loading from above to avoid instability and create excessive cracking and settlement of the building/structure.			west balcony, floor structure in room 04/5/03. Temporary propping has been undertaken to prevent further collapse. Construction works have resumed except Block 4.
\$3.7.1 & 3.7.2	-	Implementation and update of the Conservation Management Plan (CMP). Any new findings related to the conservation of the built heritage in the site identified during the detailed design and construction stage shall be properly recorded in details for the notification to the AMO and update in the CMP. After the construction, a cartographic and photographic recording on the restored historic buildings, historic features and the site shall be conducted and the following records shall be included into the CMP as appendices for updating and record purpose: • one set of measured drawings and photographic records showing the as-built condition of historic buildings and structures; and • an updated inventory list of the historic features together with the cross referenced location plans and photo records. One set of updated CMP shall be submitted to the AMO for approval before the operation stage of the project.	Whole site	During detailed design, construction, post-construction and operation	√ - CMP was implemented during the reporting month. There were no updates for the CMP.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Location	When to Implement the Measure	Status
	ipe & Visi	ıal			
S4.7.27		Cordon off each tree along its drip line (below the crown) with a chain-link fencing of 2.5 m height with padlocked gate, allowing limited access to area only to authorized persons. The base of the perimeter fence will be sealed up to 30 cm height to ensure that no construction drainage water will enter. If grouting is to be conducted less than 5 m from the edge of the CZ, a waterproof membrane will be installed below the ground to a depth of 1.5 m on the outer edge of the CZ to prevent the subsurface lateral movement of contaminated construction wastewater from intruding the soil inside the CZ.	Whole site	During construction	The chain-link fencing for the retained trees has been removed to enable the laying of floor slab and repairing of the planters. A tree protection zone around the planter of each tree has been provided. Barricades are set up for Tree 6, 7, 8 and 9 and the barricaded zone is clear of construction materials or equipment. The vicinity of Tree 5 is also clear of construction materials or equipment. A temporary shelter has been erected around Tree 11. No major construction works in the vicinity of the trees or within the CPS site are being carried out.
S4.7.2		All edges of the CZ that will be affected by excavation will undergo root pruning by a trained arborist or horticulturist, in advance of the earth work. The entire affected length of the CZ, plus 3 m additional length at both ends, shall be designated as the root pruning segment (RPS). The require trench will be opened manually in the RPS, be 1.5 m deep and 1 m wide, and closed on the same day after pruning with a good soil mix. All roots with a diameter >20 mm encountered in the course of trench opening shall be cut flushed with the inner wall of the trench. If the RPS exceeds one-quarter of the CZ circumference, the root pruning should be conducted in two stages. Each phase will tackle half of the RPS length. After the first phase, the tree will be allowed to recuperate for not less than four months before the second phase root pruning is conducted. The RPS shall be protected by sheet piles along the outer edge. The rig that installs the piles and the associated operations shall not intrude into the CZ or injure the protected tree.	Whole site	During construction	N/A - no root pruning has been conducted yet
S4.7.2	-	In-situ Tree Protection - Foliage cleansing system A sprinkler cleansing system will be installed either in the crown of the	Whole site	During construction	N/A – The sprinkler cleansing system has been removed as major dust-generating works within the

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		tree or at a suitable location on an adjacent building to provide the means to wash the foliage of the accumulated dust when necessary, particularly in the dry season.			CPS site have been completed.
S4.7.2	S4	In-situ Tree Protection - Monthly inspection Monthly inspection of affected trees by an experienced and appropriately trained arborist or horticulturist using Form 1 – Tree Group Inspection Form and Form 2 – Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office. All irregularities that deviate from the recommended tree protection measures, or could impose deleterious impacts on the protected trees, must be reported to the authorized person or the tree expert within two days.	Whole site	During construction	✓
S4.7.2	-	Light Control Control of night-time lighting shall be implemented to minimise impact to adjacent VSRs.	Whole site	During construction and operation	✓
S4.7.2	S4	Compensatory Tree Planting A new planting site has been identified for compensatory tree planting in the Parade Ground. The planting is to compensate for felling of T10 and T10a. The existing tree site will be enlarged to become a wide tree strip to accommodate the compensatory trees. The entire strip of land that accommodates T1 to T4 should be revamped to improve the soil condition for future tree growth. The new tree strip should be 4 m wide and covered by porous unit pavers to permit the entry of rain and irrigation water and air exchange between the soil and the atmosphere. The unit pavers should be supported by small columns to create a vault-like structure so as to avoid compaction of the underlying soil due to pedestrian trampling. The unit pavers will be movable to provide access to the soil	At identified compensatory tree planting location at the Parade Ground	During detailed design and construction	√ - Planters of the compensatory trees are being built in the Parade Ground during the reporting period.

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		underneath so that fertilizers and conditioners could be added on a regular basis. The air conditioner unit currently located near the proposed planting site should also be removed. This new tree planting site should also be provided with proper irrigation.			
		Pursuant to the "Environment, Transport and Works Bureau Technical Circular (Works) No. 3/2006 Tree Preservation", the compensation ratio should preferably be 1:1 according to trunk girth. An aggregate DBH of the new trees would be 60cm, the rate of compensation is beyond the requirements			
		The replacement trees should be planted in accordance with the requirement of the landscape proposal approved by the Planning Department.			
S4.7.2	S4	Existing Granite Revetment Wall The inner stone face along the southern wall of the Site shall be preserved to its original historical appearance.	Inner Southern Wall	During detailed design and construction	√
S4.7.2	-	New, Patterned, High Quality, Concrete Custom Pavers should replace most of the existing paving in the open spaces.	Whole site	During detailed design and construction	√ ·
S4.7.2	S4	In-situ Tree Protection - Quarterly inspection Quarterly Inspection of affected and newly planted trees by an experienced and appropriately trained arborist or horticulturist using Form 1 - Tree Group Inspection Form and Form 2 - Tree Risk Assessment Form developed by Development Bureau (http://www.trees.gov.hk/en/doc/TRAGuideline_July2010version_combine.pdf) or a form designed by a tree expert and approved by Tree Management Office for a period of 12 months after construction.	Whole site	During post construction and operation	N/A - The quarterly inspection will be conducted at later stage.

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S5.9	-	 The following site practices should be followed during the construction of the Project: Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase; Mobile plant, if any, will be sited as far away from NSRs as possible; 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. 	Whole Site	During construction	
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	
		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	\checkmark

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	S5	Weekly noise monitoring will be undertaken at the representative NSRs N2 Ho Fook Building and N5 Chancery House. Monthly site audits will be conducted to ensure that the recommended mitigation measures are properly implemented during the construction stage.	Whole Site	During construction	√
Air Qua	ality				
S6.8.1	-	Dust control measures stipulated in the <i>Air Pollution Control</i> (<i>Construction Dust</i>) <i>Regulation</i> will be implemented during the construction phase to control the potential fugitive dust emissions.	Whole Site	During construction	√
S6.8.1	-	In particular: Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets; placed in an area sheltered on the top and three sides; or sprayed with water to maintain the entire surface wet at all the time.	Whole Site	During construction	√ ·
S6.8.1	-	Impervious sheet will be provided for skip hoist for material transport.	Whole Site	During construction	√ ·
S6.8.1	-	Vehicle washing facilities will be provided at the designated vehicle exit points.	Whole Site	During construction	√
S6.8.1	-	Every vehicle will be washed to remove any dusty materials from its chassis and wheels immediately before leaving the worksite.	Whole Site	During construction	√
S6.8.1	-	Road sections between vehicle-wash areas and vehicular entrances will be paved.	Whole Site	During construction	√ ·
S6.8.1	-	The load carried by the trucks will be covered entirely to ensure no dust emission from the vehicles.	Whole Site	During construction	√ ·
S6.8.1	-	Hoarding of not less than 2.4m high from ground level will be provided along the Project Site boundary adjoining a road where the new buildings (Old Bailey Wing and Arbuthnot Wing) will be constructed.	Whole Site	During construction	√
S6.8.1	-	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Whole Site	During construction	√
S6.8.1	-	An effective dust screen will be provided to enclose scaffolding, if	Whole Site	During	\checkmark

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		required, from the ground floor level of building for construction of superstructure of the new buildings.		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	√ ·
S6.8.1	-	ULSD will be used for all construction plant on-site.	Whole Site	During construction	√
S6.8.1	-	The engine of the construction equipment or trucks during idling will be switched off.	Whole Site	During construction	√
S6.8.1	-	Site practices such as regular maintenance and checking of construction equipment deployed on-site will be conducted to avoid any black smoke emissions and to minimise gaseous emissions.	Whole Site	During construction	N/A - Not observed.
S6.10	S3.2	Monthly environmental site audits to ensure that appropriate dust control measures are properly implemented and good construction site practices are adopted throughout the construction period.	Whole Site	During construction	√ ·
Water (Quality				
S7.6	-	Channels, earth bunds or sand bag barriers will be provided on site to direct stormwater to silt removal facilities. The design of silt removal facilities will make reference to the guidelines in <i>Appendix A1</i> of <i>ProPECC PN 1/94</i> . All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Whole Site	During construction	
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.

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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	√
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	\checkmark
S7.6	-	All fuel tanks and chemical storage areas will be provided with locks and be sited on paved areas.	Whole Site	During construction	$\sqrt{}$

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S7.6	-	The storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters.	Whole Site	During construction	V
S7.6	-	The Contractors will prepare guidelines and procedures for immediate clean-up actions following any spillages of oil, fuel or chemicals.	Whole Site	During construction	$\sqrt{}$
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	V
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	V
	Manageme	ent en			
S8.5	\$6.3.1 & Table 6.1	General The Contractor shall apply for and obtain all the necessary waste disposal permits or licences are obtained prior to the commencement of the construction works.	Whole Site	During construction	$ \sqrt{} $
S8.5	-	Management of Waste Disposal The construction contractor will open a billing account with the EPD. Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities, landfills will require a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer.	Whole Site	During construction	√
S8.5	S6.2	A trip-ticket system will also be established to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket	Whole Site	During construction	√

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		system will be included as one of the contractual requirements and implemented by the contractor.			
S8.5	S6 & Table 6.1	A recording system for the amount of wastes generated/recycled and disposed of will be established during the construction phase.	Whole Site	During construction	√
S8.5	S6.3	Reduction of Construction Waste Generation C&D material will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	Whole Site	During construction	√
S8.5	S6	<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: 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</i> of the <i>Regulations</i>. 	Whole Site	During construction and operation	√
S8.5	S6	 Storage areas for chemical waste shall: Be clearly labelled and used solely for the storage of chemical waste; Be enclosed on at least 3 sides; Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; Have adequate ventilation; Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and 	Whole Site	During construction and operation	

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

Remark:

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