

Conversion of the Former French Mission Building for Accommodation Use by Law-related Organisation(s) and Related Purposes

Project Profile

Project Proponent: Department of Justice



Architectural Services Department

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1 Basic Information

1.1 Project Title

Conversion of the former French Mission Building (FMB) for accommodation use by law-related organisation(s) (LRO(s)) and related purposes.

1.2 Purpose and Nature of the Project

1.2.1. The objective of this Project is to convert FMB to general office accommodation and ancillary facilities with central air-conditioning system for use by LRO(s) and related purposes.

1.2.2. The FMB was declared as a monument under the Antiquities and Monuments Ordinance in 1989. The Department of Justice (DoJ) will take over the Building after completion of necessary procedures and provide space in the Building for use by LRO(s) and related purposes, after carrying out the necessary conversion works. A site plan showing the boundary of the FMB to be allocated to DoJ is at **Appendix A**. The proposed floor plans are at **Appendix B**.

1.2.3. Given the status of FMB as a declared monument and the fact that it was converted to a building suitable for accommodating the Court of Final Appeal (CFA) in 1997, the principle of minimal intervention would be adopted for the Project. The purpose of the Project includes the following:

- (a) To renovate and enhance the Building to meet the needs of LRO(s) and related purposes;
- (b) To upgrade the Building in order to comply with the prevailing statutory requirements without compromising the conservation principles; and
- (c) To restore the Building to the French Mission era dating back to 1919 based on available records, while the history of CFA will be displayed by means of interpretation so as to enhance the understanding of the cultural significance of the Building.

1.3 Name of Project Proponent

Department of Justice, the Hong Kong Special Administrative Region (HKSAR) Government

1.4 Project Location

1.4.1. The FMB is located at No.1, Battery Path, Central. The project site covers a footprint of about 1,364 m². To the east and north of the Building are Cheung Kong Centre and Queen's Road Central respectively.

1.4.2. The whole site falls within an area zoned as "Government / Institution or Community" ("GIC") on the Central District Outline Zoning Plan (OZP) No. S/H4/14.

1.4.3. The location of the Project and the surrounding environment are shown in **Figure 1**, and photos showing the FMB are shown in **Figure 2** and **Figure 3** respectively.

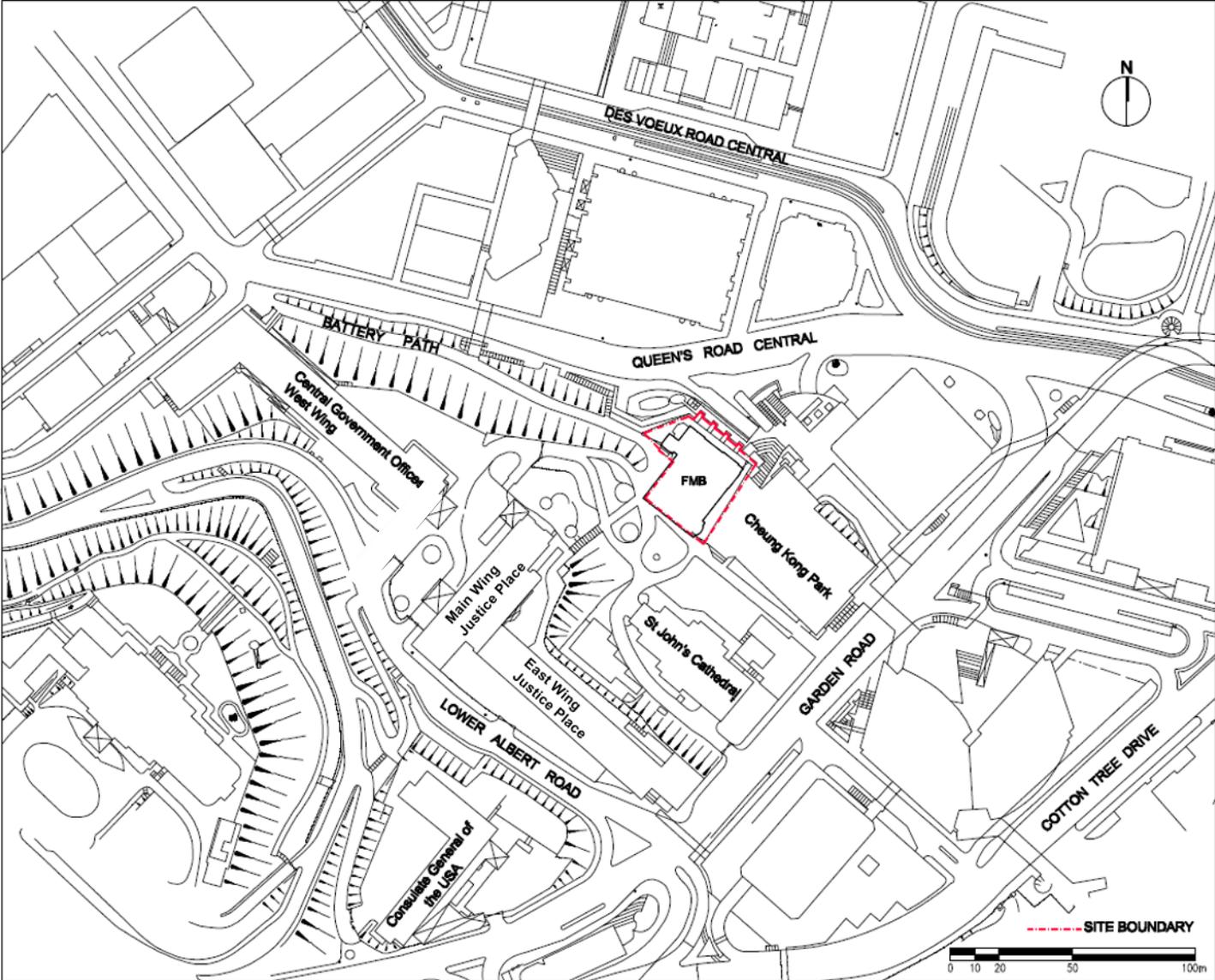


Figure 1 Location of the Project Site and the Surrounding Environment



Figure 2 External View of the Former French Mission Building



Figure 3 External Elevations of the Former French Mission Building

1.5 History of the French Mission Building

- 1.5.1. The FMB is a four-storey building on an elevated ground. A look at the map from the early colonial times shows the strategic importance of this location: sheltered by the tall Victoria Peak at the back, the slightly escalated location gives the place the vista of the Victoria Harbour, and across the Victoria City. It is surrounded by a wider arc of institutions that collectively made up the colonial establishment in British Hong Kong, including the Government House, Government Secretariat and St. John's Cathedral found in and around this small hill. Among these buildings was the Murray Battery which gave the Battery Path its name.
- 1.5.2. The Building towered over the City Hall and the Hong Kong and Shanghai Banking Corporation on Queen's Road. To the north, it faced the Supreme Court, the Hong Kong Club, and the then Hong Kong Jockey Club; to the north-east, it enjoyed commanding views over the elitist goings-on at the then Hong Kong Cricket Club. To the east stretched the military cantonment of the then Murray and Wellington Barracks, as well as the wide open space of Murray Parade Ground immediately below.
- 1.5.3. The FMB has found itself in the heart of the colony's religious, political and commercial centre in Central. The Building on site today is the third generation residential and religious building on the same site, built by the French *Mission Etrangères de Paris* ("the French Mission"), as a procurator house in the early 20th century.^[1]
- 1.5.4. The first generation building was a two-storey building completed in 1841 occupying the exact same lot, and it was among one of the first houses completed after the establishment of the Victoria City. It was originally intended to be used as the personal residence of Mr. A.R. Johnston, then Deputy Superintendent of Trade of the British Government, who later became the Acting Governor of Hong Kong before the first official Governor resumed duty. The house was rented as a temporary residence for the first Governor Sir Henry Pottinger between 1843 and 1844.
- 1.5.5. In 1860, the building was reconstructed into a three-storey building with a basement and two corner towers, which was the second generation of the building on the same lot, used by private companies and the Russian Consulate as office and subsequently leased by the Government for use as offices by the Attorney General, Crown Solicitor, Education Department and Sanitary Department between 1897 and 1911.
- 1.5.6. In 1915, the French Mission purchased the house from the hands of a Jewish merchant, Mr. E.R. Belilios. The First Stone of the new building on the same foundation of the site was laid on 24 March 1917. The building was officially in use on 27 April 1919, marking the beginning of a new base of a Far East venture by this group of Catholic Fathers from France. This transformation of the building marked the third generation of the building on the same lot, which is also the building on the site today.
- 1.5.7. The French Mission and the Hong Kong Government signed a contract for the transaction of the FMB on 23 December 1952. Since 1953, various internal alterations were made to adapt the building for use by different government departments, namely – Education Department as offices (1953-1965); Royal Hong Kong Defense Force, Hong Kong Auxiliary Police Force, Civil Aid Service and Auxiliary Medical Service as clubs (1965-1967); Information Services Department as offices (1987-1997); and the Judiciary as Victoria

^[1] According to information on the website of Antiquities and Monuments Office, the former French Mission Building was built in 1917 by the French Society of Foreign Missions as its Procure of Hong Kong.

District Court (1968-1979, 1983-1987), Supreme Court (1980-1983) and subsequently as Court of Final Appeal (1997-2015).

- 1.5.8. Among these government departments, the Victoria District Court and the Court of Final Appeal have used the site for the longest duration.
- 1.5.9. The FMB was declared as a Monument on 14 September 1989. A renovation took place in 1995 to 1997, where a skylight and a lift serving G/F and 1/F were added to the internal courtyard, and the interior space was modified to become the Court of Final Appeal.

1.6 Number and Types of Designated Projects to be Covered by the Project Profile

- 1.6.1. The Project is within a site of cultural heritage and is a Designated Project (DP) according to Item Q.1, Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499), which covers “*all projects including new access roads, railways, sewers, sewage treatment facilities, earthworks, dredging works and other building works partly or wholly in an existing or gazetted proposed country park or special area, a conservation area, an existing or gazetted proposed marine park or marine reserve, a site of cultural heritage, and a site of special scientific interest*” (emphasis added on underlined). An Environmental Permit would be required for the construction and operation of the DP.
- 1.6.2. This Project Profile is to seek permission to apply directly for an Environmental Permit for the construction and operation of the Project under Section 5(11) of the EIAO.

1.7 Contact Person

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2 Outline of Planning and Implementation Programme

2.1 Responsible Parties

- 2.1.1. DoJ is the Project Proponent. The Architectural Services Department (ArchSD) is the works agent of DoJ. ArchSD will be responsible for project management, contract preparation and site supervision and will consult DoJ at all stages of the Project.
- 2.1.2. The works will be undertaken by a specialist contractor (“the Contractor”) on the list of Approved Specialist Contractors for Repair and Restoration of Historic Buildings endorsed by the Development Bureau. In addition, the Contractor will be responsible for carrying out the mitigation measures for minimising the environmental impacts caused by the Project.

2.2 Site Survey

- 2.2.1. Various surveys and investigations of the existing building – including topographic survey, underground utilities survey, drainage and sewage condition survey (by using CCTV), cartographic, photographic and building condition surveys, asbestos survey, structural survey, ground investigation and heritage survey – had been carried out. Method statements for various surveys have been submitted and approved by the Antiquities and Monuments Office (AMO). Any further environmental requirement specified in the environmental permit will be incorporated into the final specification and tender documents prior to the tender exercise.

2.3 Method of Construction

- 2.3.1. As the proposed works involve a declared monument, special care will be taken in all phases of the works period. Specially designed temporary works, e.g. scaffolding, will be adopted to avoid damages to the existing building fabrics. The sequence of demolishing the existing building works and building services installation and equipment, dismantling of the existing windows and doors, repairing of the heritage elements, and carrying out the refurbishment works will be carefully planned to minimise any adverse impact on the Building. The following measures will also be adopted as far as possible to minimise the adverse impact towards the surrounding environment during construction:
- (a) Adopt standardisation design by using typical and symmetrical arrangement with uniform structural member size;
 - (b) Provide simplification design by adopting simple structural arrangement which simulate the existing structural arrangement;
 - (c) Adopt the use of dry construction where appropriate and minimise the use of wet trade on site; and
 - (d) Adopt the use of prefabrication steel works.

2.4 Proposed Works

- 2.4.1. The proposed works comprise mainly restoration works and conversions to meet the current statutory requirements. In taking forward the works, the Character Defining Elements (CDE) identified will be preserved, repaired or reinstated (as appropriate) with minimal intervention. A summary of the key CDEs (focusing mainly on external area) identified according to the heritage survey conducted is in **Appendix C**. According to page 5 of the "*Standards and*

Guidelines for the conservation of historic places in Canada 2nd Edition, 2010^o, CDE means the materials, forms, location, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of a historic place, which should be preserved, repaired or reinstated with minimum intervention. The definition of Level of Significance of CDE is given in **Table 1**.

Table 1 Definition of Level of Significance

Level of Significance	Meaning
High	<p>Elements which make a major contribution to the overall significance of the place.</p> <p>Spaces, elements or fabric originally of substantial intrinsic quality, and exhibit high degree of intactness and quality, though minor alterations or degradation may be evident.</p>
Medium	<p>Elements which make a moderate contribution to the overall significance of the place.</p> <p>Spaces, elements or fabric originally of some intrinsic quality, and may have undergone minor or extensive alteration or degradation.</p>
Low	<p>Elements which make a minor contribution to the overall significance of the place.</p> <p>Spaces, elements or fabric originally of little intrinsic quality, and may have undergone alteration or degradation.</p> <p>Original spaces, elements or fabrics of some quality, which have undergone extensive alteration or adaptation to the extent that only isolated remnants survive.</p>

2.4.2. The main items of the proposed works are summarised in **Table 2**. The details of the main items of the proposed works are provided in Section 2.5 to Section 2.7.

Table 2 Key Features of the Proposed Works

Area \ Objective	Objective	Restoration and Preservation Works	Upgrading Works to Meet Statutory Requirements
A	Area Outside the Site Boundary		
	External works	--	<ul style="list-style-type: none"> ■ Temporary Hoarding (Section 2.5.1)
B	Area outside the Declared Monument Boundary but within the Site Boundary		
	External works	--	<ul style="list-style-type: none"> ■ Modification of an existing accessible ramp (Section 2.6.1)
C*	Area within the Declared Monument Boundary		

Area \ Objective	Restoration and Preservation Works	Upgrading Works to Meet Statutory Requirements
External works	<ul style="list-style-type: none"> ▪ Re-opening of the existing enclosed verandahs (Section 2.7.1.1.1) 	<ul style="list-style-type: none"> ▪ Addition of an exit door (Section 2.7.1.2.1) ▪ Addition of a demountable ramp for universal access and re-paving the open space (Section 2.7.1.2.2) ▪ Addition of new handrails on the existing external granite staircase (Section 2.7.1.2.3) ▪ Modification of skylight (Section 2.7.1.2.4)
Internal works	<ul style="list-style-type: none"> ▪ Restoration of the existing courtroom to the original setting and design of the former Chapel (Section 2.7.2.1.1) ▪ Restoration of internal courtyard (Section 2.7.2.1.2) 	<ul style="list-style-type: none"> ▪ Addition of a new escape staircase (Section 2.7.2.2.1) ▪ Addition of an accessible lift (Section 2.7.2.2.2)
Miscellaneous items	<ul style="list-style-type: none"> ▪ A summary of miscellaneous items of the proposed works is at Appendix D. 	
<p>* To be controlled by permit to be granted by the Antiquities Authority under Section 6 of the Antiquities and Monuments Ordinance (Chapter 53).</p>		

2.5 Area outside the Site Boundary

2.5.1. Proposed Works: Temporary Hoarding

Description: Since temporary hoarding would be used during construction, the close boarding and footing will be constructed outside the site boundary of this Project.

Proposed Location: See **Figure 4**

Proposed Design: See **Figure 5** and **Figure 6** for front view and side view of the temporary hoarding

Affected CDE: Nil

Level of Significance: N/A

Impact: The construction of temporary hoarding is short in duration, and the impact will be minimal.

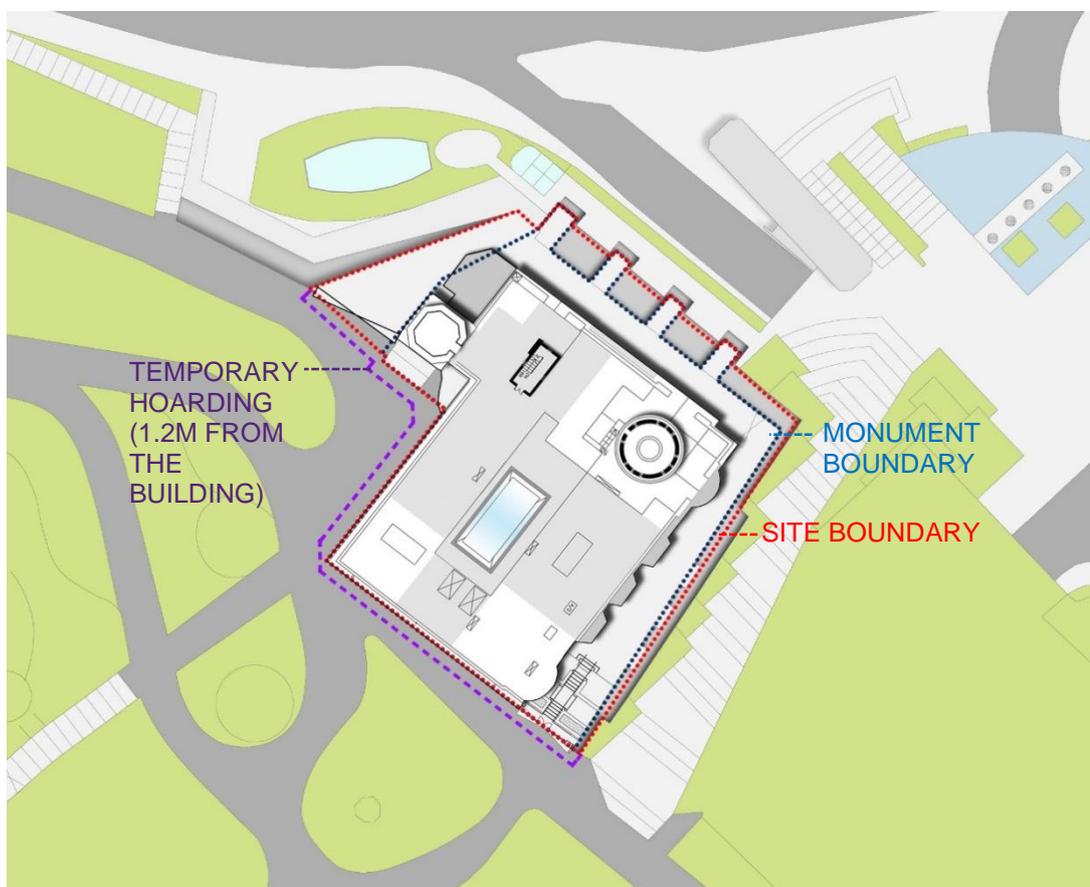


Figure 4 Proposed Location of Temporary Hoarding

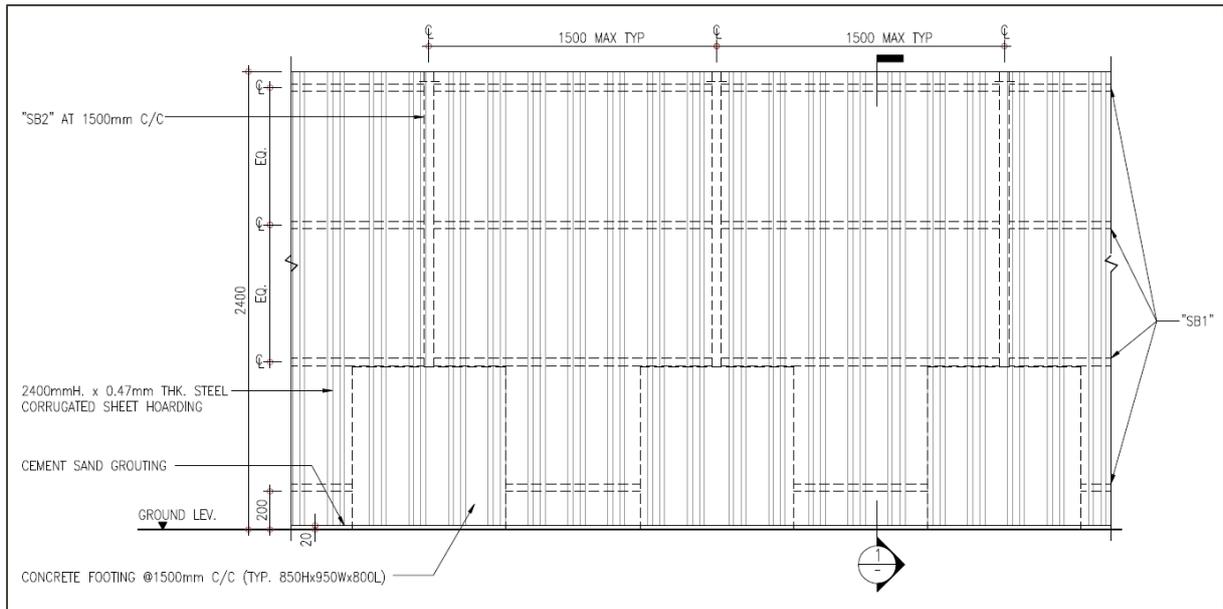


Figure 5 Proposed Design of Footing and Closed Boarding for Temporary Hoarding (Front View)

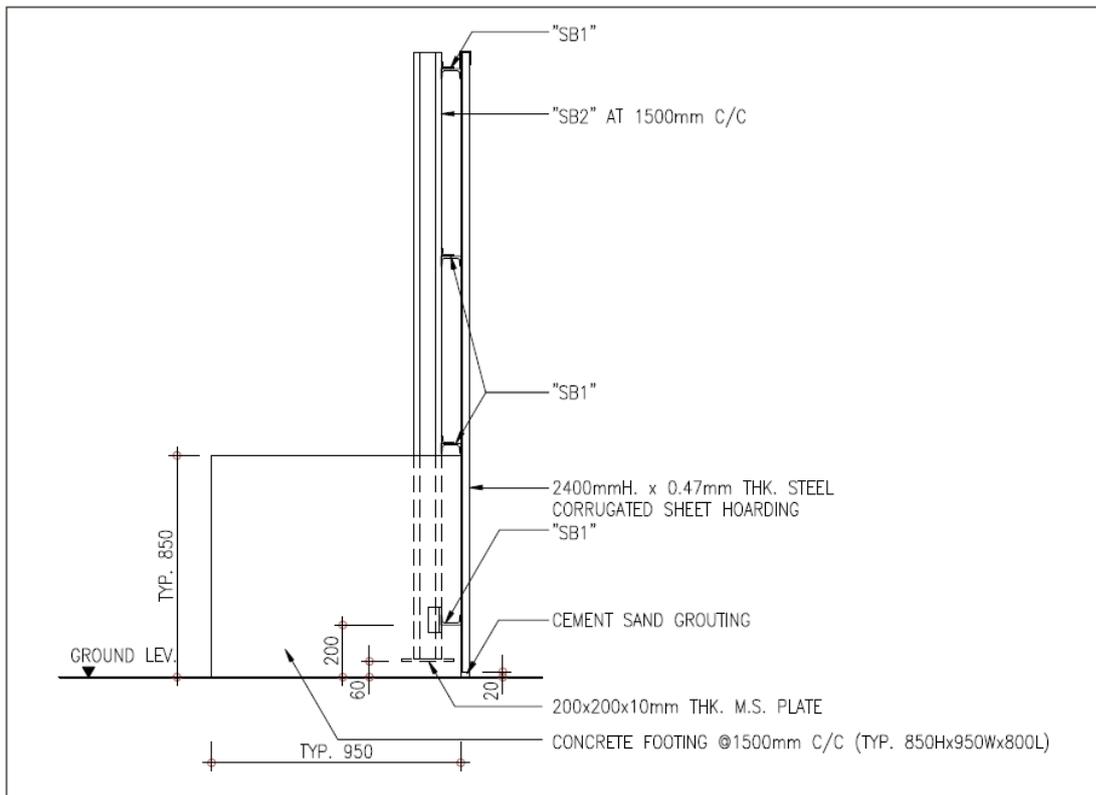


Figure 6 Proposed Design of Footing and Closed Boarding for Temporary Hoarding (Side View)

2.5.2. Apart from temporary works of hoarding, no site works will be carried out outside the site boundary during the construction stage, and no construction plant will be stationed overnight outside the site boundary. Thus the impact on the area outside the site boundary is minimal.

2.6 Area outside the Declared Monument Boundary but within the Site Boundary

2.6.1. Proposed Works: **Modification of an existing accessible ramp**

Description: The existing ramp will be modified for complying with barrier free access requirements ^[2].

Proposed Location: See **Figure 7** and **Figure 8**

Proposed Design: See **Figure 9**

Affected CDE: The setting and layout of the Open Space and northwest façade

Level of Significance: High

Impact: **Beneficial** – The Building will be upgraded to meet the **statutory barrier free access requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The modification works should keep a distance from the historic fabric such that it will not impose any impact to the building façades and building fabric. It should be a compatible design and discernible from the original historic fabric. The design should be simple and minimal which will not overwhelm the original appearance of the building façades.



Figure 7 Location of Proposed Modification of Existing Accessible Ramp outside the Declared Monument Boundary but within the Site Boundary

^[2] Design Manual: Barrier Free Access 2008 under the Building (Planning) Regulations (Cap 123F), Division 5, 14-19 (p. 27): Ramps: Ramps of an appropriate design shall be provided at all changes in level. No ramp shall be steeper than 1 in 12 gradient.



Figure 8 Photo Showing the Location of the Existing Ramp

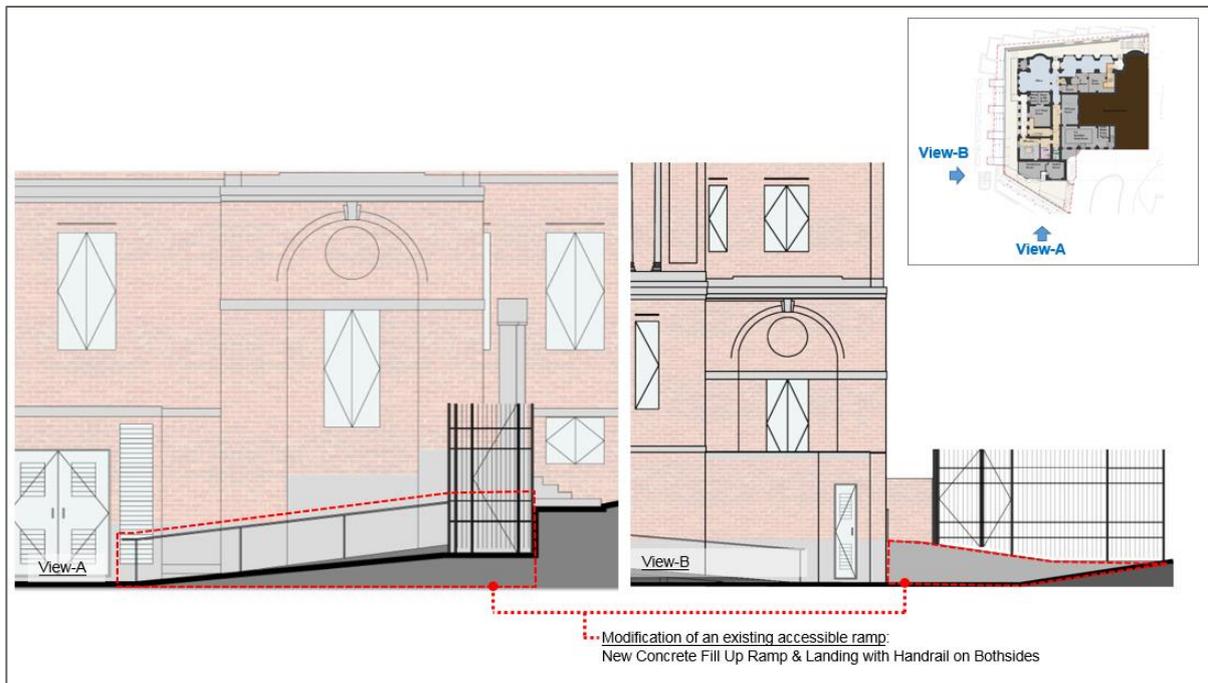


Figure 9 Proposed Design of Modification of the Existing Ramp

2.7 Area within the Declared Monument Boundary

2.7.1. External Works

2.7.1.1. Restoration and Preservation Works

2.7.1.1.1. Proposed Works: Re-opening of the existing enclosed verandahs

Description: The project design aims to restore the Building to the French Mission era dating back to 1919, thus the southeast-facing verandahs on G/F, 1/F and 2/F will be re-opened to restore the original façade design by taking down the existing windows which are later additions.

Proposed Location: See **Figure 10** and **Figure 11**

Proposed Design: See **Figure 12**

Affected CDE: Southeast façade and verandahs

Level of Significance: High

Impact: **Beneficial** – The restoration of the verandahs will reveal the original spatial quality and help reinforce the understanding of the original design of this historic building. It is beneficial to the Building in term of cultural heritage. Removable planters are proposed to be added along the existing balustrades of the verandahs as compensatory protective barriers (in place of permanent protective barriers which would have significant physical impacts on the historic fabrics), subject to approval of relevant authority. The removable planters will be placed in a reversible manner which will have the least impact on the historic fabric. The design of the planter box will be subtle in shape and properly proportioned so that it will not overwhelm the original appearance of the balustrades. In case of need, an alternative method is to install a new compatible balustrade behind the existing balustrades, which will be simple and minimal in design, and discernible from the original historic fabric. Fixing points will be kept to a minimum as far as practicable.



Figure 10 Proposed External Works within the Monument Boundary on G/F, 1/F & 2/F



Figure 11 Verandah – Existing Condition



Figure 12 Verandah – Proposed Design

2.7.1.2. Upgrading Works to Meet Statutory Requirements

2.7.1.2.1. Proposed Works: Addition of an exit door

Description: One recessed window on LG/F of the southeast facade will be converted to a staircase exit door to comply with the statutory requirements [3].

Proposed Location: See **Figure 13**

Proposed Design: See **Figure 15**

Affected CDE: Southeast façade

Level of Significance: High

Impact: Acceptable impact with mitigation measures – The Building will be upgraded to meet the **statutory means of escape requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The existing window (see **Figure 14**) to be converted to door opening is carefully chosen at a less prominent and comparatively lower significant location so that the disturbance to existing building façade and building layout will be minimum. The affected red bricks will be salvaged for re-use as far as practicable.



Figure 13 Proposed External Works within the Monument Boundary on LG/F

[3] Building (Planning) Regulations (Cap 123F), Regulation 41 (1) & (2) (p.15), Means of escape: Every building shall be provided with such means of escape in case of emergency as may be required by the intended use of the building.



Figure 14 Recessed Window on LG/F – Existing Condition

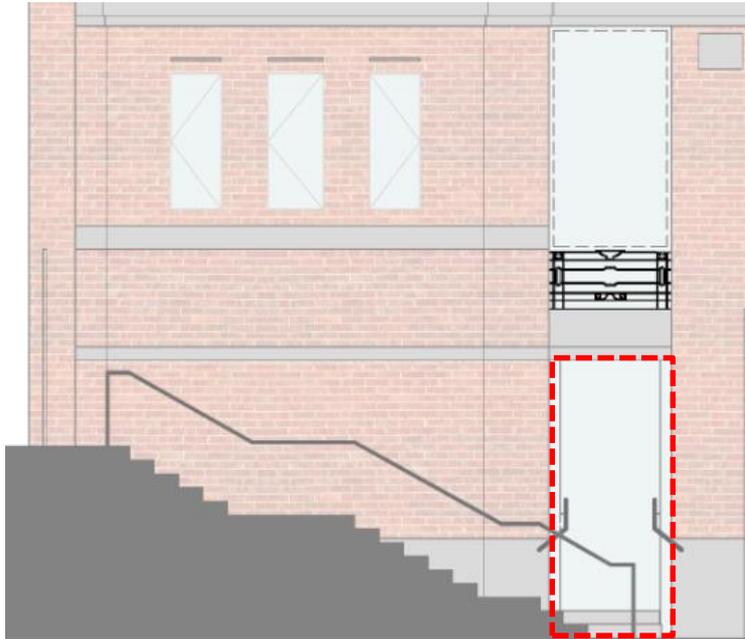


Figure 15 Proposed Design of New Exit Door on LG/F

2.7.1.2.2. **Proposed Works: Addition of a demountable ramp for universal access and re-paving the open space**

Description: A new demountable ramp will be added to comply with the barrier free access requirements ^[4] and the open space will be re-paved as an improvement to the existing flooring.

Proposed Location: See **Figure 13** and **Figure 16**

Proposed Design: See **Figure 17**

Affected CDE: The setting and layout of the Open Space, and northeast façade

Level of Significance: High

Impact: Beneficial – The Building will be upgraded to meet the **statutory barrier free access requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The addition of a demountable ramp is carefully chosen at a location of lower significance. The addition will be hidden behind the existing parapet walls surrounding the site with no visual impact to the Building when viewing from the surrounding area. The new ramp will be a demountable ramp in metal framework and tile finishes with handrails installed on the ramp, which could keep the disturbance to the historic fabric to a minimum. The re-paving of the open space will be an enhancement to the outdoor area, which has a beneficial impact to the overall setting of the open space. The new paving shall not overwhelm the appearance of the open space.



Figure 16 Photo showing the Proposed Location of New Demountable Ramp



Figure 17 Proposed Design of New Demountable Ramp

^[4] Design Manual: Barrier Free Access 2008 under the Building (Planning) Regulations (Cap 123F), Division 5, 14-19 (p. 27): Ramps: Ramps of an appropriate design shall be provided at all changes in level. No ramp shall be steeper than 1 in 12 gradient.

2.7.1.2.3. Proposed Works: **Addition of new handrails on the existing external granite staircase**

Description: Handrails on the both sides of the existing external granite staircase (as shown in **Figure 18**) which serves as an exit route from the new escape staircase is proposed to meet the statutory requirement ^[5].

Proposed Location: See **Figure 13**

Proposed Design: See **Figure 19**

Affected CDE: Granite stairs

Level of Significance: High

Impact: **Acceptable** – The Building will be upgraded to meet the **statutory barrier free access requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The new handrails will not be fixed on the granite stairs so that damages to the existing brick parapets and granite steps can be avoided.

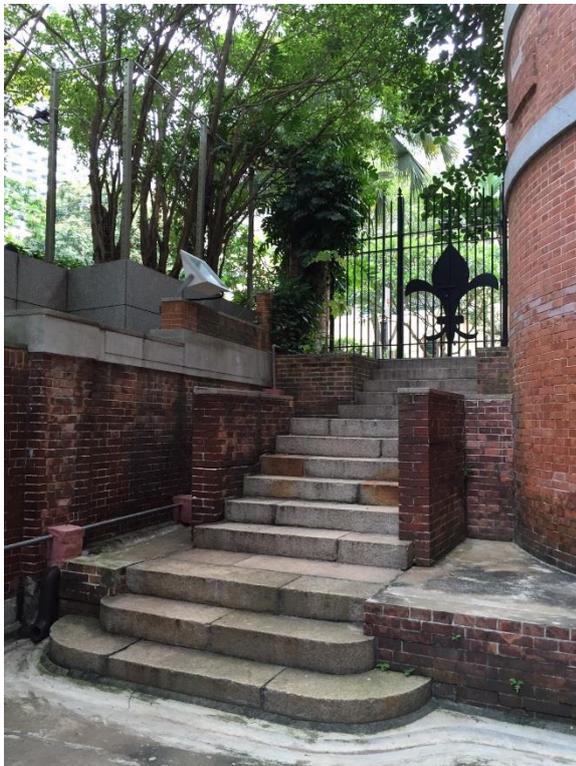


Figure 18 External Granite Staircase – Existing Condition

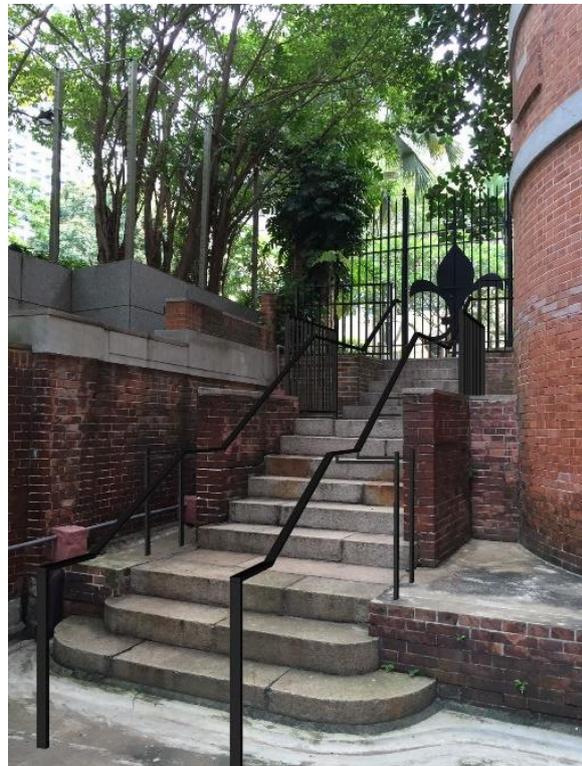


Figure 19 External Granite Staircase – Proposed Design

^[5] Design Manual: Barrier Free Access 2008 under the Building (Planning) Regulations (Cap 123F), Division 8, 28-30 (p.41-43): Handrails shall be of the correct sizes, strengths and shapes and be conveniently located to provide secure hand-grips, and be capable of taking the entire weight of the person using them. The top of handrail shall be at a height of not less than 850mm and not more than 950mm above any nosing, floor or landing.

2.7.1.2.4. Proposed Works: Modification of skylight

Description: The existing skylight (as shown in **Figure 21**) will be replaced with a new skylight with natural smoke vents to comply with the statutory fire safety requirement^[6].

Proposed Location: See **Figure 20** and **Figure 21**

Proposed Design: **Figure 22**

Affected CDE: Internal courtyard

Level of Significance: High

Impact: **Beneficial** – The Building will be upgraded to meet the **statutory fire safety requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The new skylight should be of minimal design which would not overwhelm the original appearance of the internal courtyard.

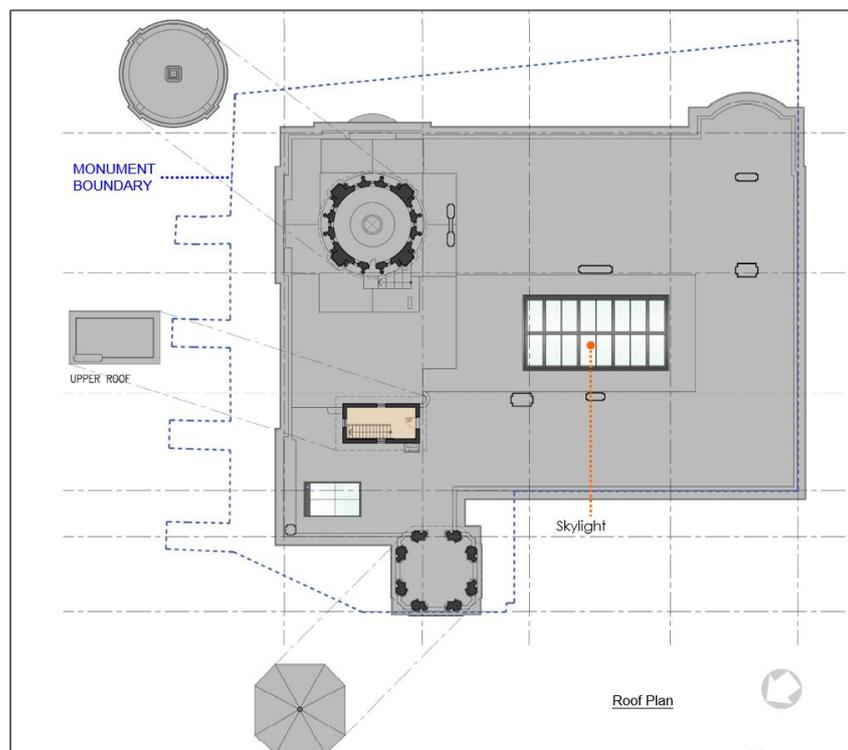


Figure 20 Location of Skylight

^[6] Building (Construction) Regulations (Cap 123B), Regulation 90 (a) to (d) (p.28), Fire resisting construction: Every building shall be designed and constructed so as to – (b) provide adequate resistance to the spread of fire and smoke by the separation of different uses in a building by compartment walls and floors and by the separation of the building from any adjoining building or site. Non-compliance of Code of Practice for Fire Safety in buildings 2011, Part C, Section 2, Clause C10.3 (p.83): An atrium in a building should comply with the following requirements: (a) an atrium should be separated from all other spaces by fire barriers having Fire Resistance Rating (FRR) of not less than that of those spaces. The fire barrier can be formed by fire rated walls, fire curtains or fire rated glazing.

Fire Engineering Approach: With the enhancement of passive and active fire safety provision, fire engineering approach is adopted to address the non-code compliance issues mentioned above – Smoke control system for the atrium of courtyard: Skylights at the top of the atrium of Courtyard will be replaced by natural smoke ventilation to discharge the smoke generated from the fires happening in or adjacent to the atrium.



Figure 21 Skylight – Existing Condition

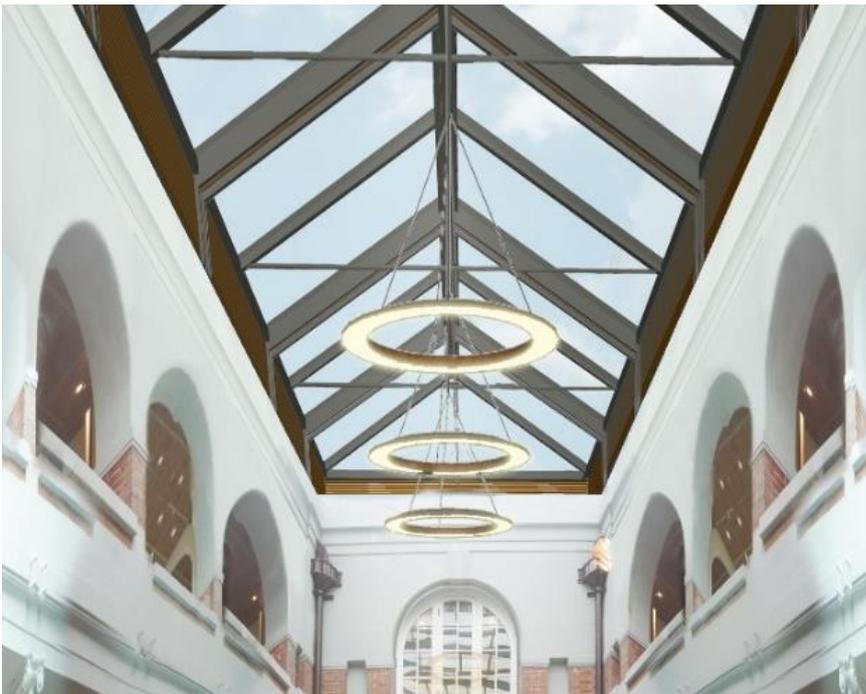


Figure 22 Skylight – Proposed Design

2.7.2. Internal Works

2.7.2.1. Restoration and Preservation Works

2.7.2.1.1. Proposed Works: Restoration of the existing courtroom to the original setting and design of the former Chapel

Description: The existing courtroom will be restored to the original design of the former chapel as far as practicable. The existing judges' bench, lawyers' benches, defendant's dock, and public seating will be removed. The existing timber wall furring will be removed to reveal the original wall mouldings. The existing carpet will be removed, and the original patterned mosaic floor tiles will be reinstated. The existing air grille and the associated air ducts in the dome will be removed to re-open the original oculus. Suspended feature luminaries are proposed to provide direct lighting to users. Indirect light fittings, which could be hidden in bulkheads above the existing cornices, will dimly light up the dome and the ceilings, reinforcing the ambience of the original chapel.

Proposed Location: The existing courtroom (See **Figure 23**)

Proposed Design: See **Figure 24**

Affected CDE: Former chapel, oculus, and patterned hexagonal mosaic tiles

Level of Significance: High

Impact: **Beneficial** – The restoration of the former chapel will reveal the original setting, architectural features and finishes which will help to reinforce the understanding of the original design of the historic building. It is beneficial to the Building in terms of cultural heritage.



Figure 23 Former Chapel – Existing Condition

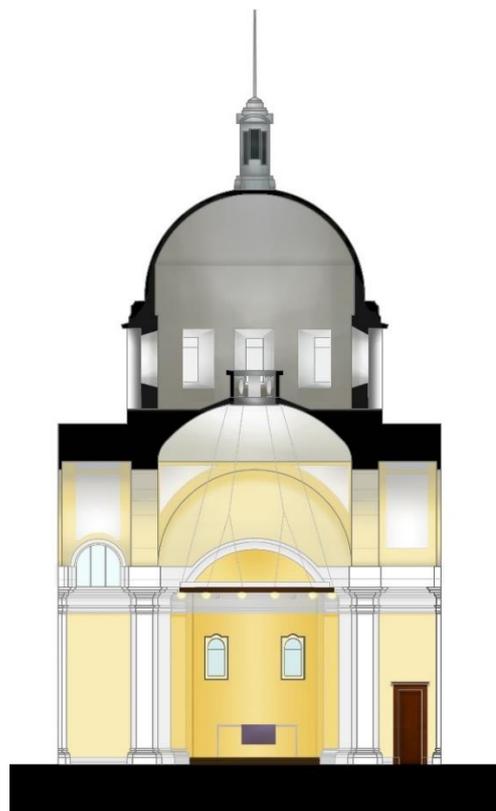


Figure 24 Former Chapel – Proposed Design

2.7.2.1.2. Proposed Works: **Restoration of internal courtyard**

Description: The existing lift added in 1997 will be removed from the internal courtyard, and the internal courtyard will be restored to its original design as far as practicable.

Proposed Location: The existing internal courtyard (See **Figure 25**)

Proposed Design: See **Figure 26**

Affected CDE: Internal courtyard

Level of Significance: High

Impact: **Beneficial** – The restoration of the internal courtyard will reveal the original spatial quality and help reinforce the understanding of the original design of this historic building. It is beneficial to the Building in terms of cultural heritage.



Figure 25 Internal Courtyard – Existing Condition



Figure 26 Internal Courtyard – Proposed Design

2.7.2.2. Upgrading Works to Meet Statutory Requirements

2.7.2.2.1. Proposed Works: Addition of a new escape staircase

Description: A new internal escape staircase will be added in order to comply with the statutory means of escape requirements ^[7].

Proposed Location: See **Figure 29** & **Figure 30**

Proposed Design: See **Figure 28**

Affected CDE: General spatial organisation, building structure, French doors to verandahs, and timber plank flooring

Level of Significance: High

Impact: Acceptable impact with mitigation measures – The Building will be upgraded to meet the **statutory means of escape requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The location for the new escape staircase is carefully chosen to be within one room (as shown in **Figure 27**) on each floor such that the major building layout of the Building will not be disturbed. The location for the new door opening should be at less prominent location which will not affect the perception of the original building layout design and the new staircase should not exert any loading to the existing building structure. A portion of the original floor slab in direct contact with the fireplace will be retained in-situ, and hence the addition of the new staircase will be kept at a distance from the existing fireplace to avoid any physical impact. In-situ protection will be provided to the existing fireplace during the course of the works.



Figure 27 Photo Showing the Existing Room to be Converted to a New Escape Staircase

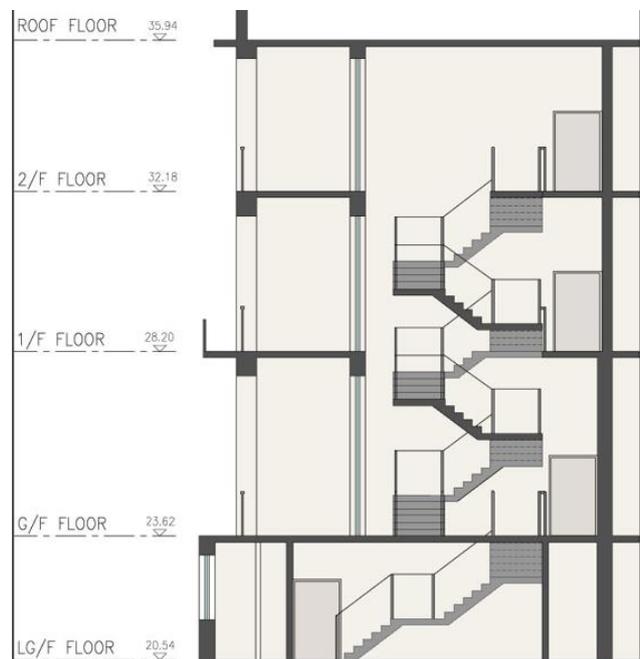


Figure 28 Proposed Design of New Internal Escape Staircase

^[7] Building (Planning) Regulations (Cap 123F), Regulation 41 (1) & (2) (p.15), Means of escape: Every building shall be provided with such means of escape in case of emergency as may be required by the intended use of the building.



Figure 29 Locations of New Internal Escape Staircase and New Accessible Lift (LG/F)



Figure 30 Locations of New Internal Escape Staircase and New Accessible Lift (G/F)

2.7.2.2.2. **Proposed Works: Addition of an accessible lift**

Description: Since the existing lift (serving only G/F and 1/F) will be removed to restore the internal courtyard (Section 2.7.2.1.2 above refers), a new accessible lift will be installed at the northern corner of the Building to serve all floors in order to meet the statutory barrier free access requirement.^[8]

Proposed Location: See **Figure 29 & Figure 30**

Proposed Design: See **Figure 32**

Affected CDE: General spatial organisation, building structure, timber plank flooring, and building façades

Level of Significance: High

Impact: Acceptable impact with mitigation measures – The Building will be upgraded to meet the **statutory barrier free access requirement**. Mitigation measures will be provided to minimise the impacts on the CDE affected. The location of the new lift is carefully chosen (as shown in **Figure 31**) which is of comparatively lower significance and has experienced interventions throughout the history of the Building. It is also at a less prominent location such that the major building layout will not be disturbed. The original fabrics to be removed due to the addition of accessible lift (mainly timber plank flooring) will be salvaged and re-used in the restoration in other interior areas.



Figure 31 Photo Showing the Existing Room to be Converted to New Accessible Lift



Figure 32 Proposed Design of New Accessible Lift

^[8] Design Manual: Barrier Free Access 2008 under the Building (Planning) Regulations (Cap 123F), Division 19, 78-80 (p. 92-94): Where a lift is provided, appropriate provision shall be made for all people to travel vertically within the buildings conveniently and independently to other storeys and to make use of all relevant facilities. Every floor of a building shall be accessible by at least one passenger lift which will fully comply with all the obligatory design requirement as stipulated in this section and have direct access to main lift lobby

2.8 Implementation Programme

The tentative implementation programme is as follows:

Table 3 Tentative Implementation Programme

Project Phases	Schedule / Tentative Schedule
Appointment of consultants	Q2 2015
Design	Q2 2015 to Q3 2016
Tender preparations and tendering	Q3 2016 to Q3 2017
Award of tender	Q3 2017
Works Period	Q3 2017 to Q4 2019

3 Major Elements of the Surrounding Environment

3.1 Major Elements of the Surrounding Environment

- 3.1.1. FMB neighbours the three Wings of the former Central Government Offices (CGO). The Main and East Wings have been renovated for use as offices by the DoJ. The West Wing will be allocated to DoJ for use as offices of the Department and provision of space to LRO(s) after completion of necessary renovation works. The nearest historical building is St. John's Cathedral located about 31 metres to the south of the Building. Another church, namely St. Joseph Church is located about 253 metres to the south-west of the Building.
- 3.1.2. The project site is located in the business district of Central. The surrounding area is scattered with a number of high-rise commercial buildings. The nearest hotels, namely Murray Building (in the process of conversion to hotel use), the Landmark Mandarin Oriental Hotel and the Mandarin Oriental Hotel are approximately 107 metres, 213 metres and 250 metres away from the Building respectively.
- 3.1.3. The Building is about 15.5 metres from the main traffic road, Queen's Road, and no traffic road would pass through the site. Vehicles currently reach the Building through the vehicular access of former CGO complex on Lower Albert Road which is at about 115 metres from the site. The daily vehicular flow (to and from the Building) is very low.

3.2 Sensitive Receivers

- 3.2.1. Representative Air Sensitive Receivers (ASRs) and Noise Sensitive Receivers (NSRs) in the vicinity of the Building have been identified and included in **Table 4**. Their locations are shown in **Appendix E**.

Table 4 Environmental Sensitive Receivers

Air and Noise Sensitive Receivers' ID	Name	Type of Use	Distance from the Subject Site (m)	ASR (Y/N)	NSR (Y/N)
A1	St. John's Cathedral	Place of Public Worship	31	Y	Y
A2	Justice Place (Previously Former Central Government Offices) - Main and East Wings	Office	40	Y	Y(*)
A3	Former Central Government Office - West Wing	Office	81	Y	Y(*)
A4	Cheung Kong Centre	Office	33	Y	Y(*)
A5	Citibank Tower	Office	88	Y	Y(*)
A6	ICBC Tower	Office	140	Y	Y(*)

Air and Noise Sensitive Receivers' ID	Name	Type of Use	Distance from the Subject Site (m)	ASR (Y/N)	NSR (Y/N)
A7	Bank of China Tower	Office	145	Y	Y(*)
A8	Cheung Kong Park	Recreational (open space)	18	Y	N
A9	The Galleria	Office	120	Y	Y(*)
A10	Henley Building	Office	91	Y	Y(*)
A11	Standard Chartered Bank Building	Office	83	Y	Y(*)
A12	HSBC Main Building	Office	36	Y	Y(*)
A13	Bank of China Building	Office	46	Y	Y(*)
A14	Court of Final Appeal	Court of Law	115	Y	Y(*)
A15	Chater Garden	Recreational (open space)	117	Y	N
A16	Murray Building	Hotel (planned)	107	Y	Y
A17	Government House	Residential / Office	198	Y	Y
A18	The Landmark Mandarin Oriental Hotel	Hotel	213	Y	Y(*)
A19	Museum of Tea House	Recreational	274	Y	Y
A20	Club Lusitano	Office / Recreational	210	Y	Y(*)
A21	York House	Office	228	Y	Y(*)
A22	The Hong Kong Club Building	Office / Recreational	234	Y	Y(*)
A23	AIA Central	Office	262	Y	Y(*)
A24	Hutchison House	Office	302	Y	Y(*)
A25	Lambeth Rest Garden	Recreational (open space)	278	Y	N
A26	Fairmont House	Office	275	Y	Y(*)
A27	1 Duddell Street	Office	228	Y	Y(*)
A28	New World Tower	Office	243	Y	Y(*)
A29	Central Building	Office	270	Y	Y(*)

Air and Noise Sensitive Receivers' ID	Name	Type of Use	Distance from the Subject Site (m)	ASR (Y/N)	NSR (Y/N)
A30	Edinburgh Tower	Office	210	Y	Y(*)
A31	The Bank of East Asia Building	Office	178	Y	Y(*)
A32	New Henry House	Office	164	Y	Y(*)
A33	Alexandra House	Office	205	Y	Y(*)
A34	Prince's Building	Office	135	Y	Y(*)
A35	Statue Square	Recreational (open space)	114	Y	N
A36	Chater House	Office	277	Y	Y(*)
A37	St George's Building	Office	249	Y	Y(*)
A38	Mandarin Oriental Hotel	Hotel	250	Y	Y(*)
A39	Consulate General of United States of America	Residential / Office	143	Y	Y
A40	St. Joseph Church	Place of Public Worship	253	Y	Y
A41	The Helena May	Club	209	Y	Y
A42	St. John's Building (Peak Tram Station)	Office	159	Y	Y(*)
A43	Hong Kong Park Sports Centre	Recreational (building)	185	Y	Y(*)
A44	Hong Kong Squash Centre	Recreational (building)	192	Y	Y(*)
A45	Hong Kong Park	Recreational (open space)	230	Y	N
A46	Cotton Tree Drive Marriage Registry	Office	216	Y	Y
A47	Central Fire Station	Office	197	Y	Y
A48	St. Joseph's College	Educational	253	Y	Y
A49	Printing House	Office	222	Y	Y(*)
A50	Hong Kong Diamond Exchange Building	Office	243	Y	Y(*)
A51	Hong Kong Visual Arts Centre	Recreational (building)	249	Y	Y

Air and Noise Sensitive Receivers' ID	Name	Type of Use	Distance from the Subject Site (m)	ASR (Y/N)	NSR (Y/N)
A52	Ruttonjee House	Office	261	Y	Y(*)
A53	Dina House	Office	235	Y	Y(*)
A54	Gluoicester Tower	Office	249	Y	Y(*)

Note: (*) denotes NSR is provided with central air-conditioning and do not rely on opened windows for ventilation.

4 Possible Impact during Construction Phase

4.1 Cultural Heritage

- 4.1.1. In this Project, special care and attention will be paid for protecting the existing building structure, architectural and heritage elements. All building and painting works will be carried out in a careful and skilful manner which will be subject to a high level supervision by staff of ArchSD and to AMO's acceptance to ensure that the works are of the highest standard and the materials are exactly as required. To enhance construction productivity and minimise the need for field works, the Project will adopt standardised design details, non-complicated building construction systems and installation details, and structural form and design that allow combining related components together into a single element for prefabrication.
- 4.1.2. The cultural heritage impact assessment was covered in Section 2.5 to Section 2.7. The evaluation of cultural heritage impact assessment was classified into five levels of impact (see **Table 5**).

Table 5 Definition of Level of Impact

Impact Level	The evaluation of cultural heritage impact assessment based on type and extent of the effects concluded in the Cultural Heritage Impact Assessment study ^[9] : which may be classified into five levels of significance
Beneficial impact	The impact is beneficial if the project will enhance the preservation of the heritage site(s) such as improving the flooding problem of the historic building after the sewerage project of the area.
Acceptable impact	If the assessment indicates that there will be no significant effects on the heritage site(s).
Acceptable impact with mitigation measures	If there will be some adverse effects, but these can be eliminated, reduced or offset to a large extent by specific measures, such as conduct a follow-up Conservation Proposal or Conservation Management Plan for the affected heritage site(s) before commencement of work in order to avoid any inappropriate and unnecessary interventions to the building.
Unacceptable impact	If the adverse effects are considered to be too excessive and are unable to mitigate practically.
Undetermined impact	If the significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required for the specific effects in question.

^[9] Guidelines for Cultural Heritage Impact Assessment issued by Antiquities and Monument Office in January 2012

- 4.1.3. The nearest historic buildings are St. John’s Cathedral (declared monument) and the Main, East and West Wings of the former Central Government Offices (Grade I historical buildings) which are located at 31 metres and 40 metres away from the Building respectively. No direct physical impact is expected during the works period. The Contractor will be required to take special care in the construction works. The works will be mainly carried out by using hand-held tools and equipment in order to avoid any adverse impact to the Building.

4.2 Noise

Internal Works

- 4.2.1. The nearest NSR is St. John’s Cathedral (declared monument) which is located about 31 metres to the south of the Building. The construction method must be carefully chosen to ensure the construction works have no adverse effect on the existing FMB and adjacent buildings. Non-percussive construction method/ equipment will be adopted for the proposed works, such as the saw-cut method, and a coring and hydraulic crusher. Construction noise may be generated from operation of hand-held power tools and hand-held manual tools, but such construction works will be mainly carried out inside the existing building.

External Works

- 4.2.2. During the construction phase, powered mechanical equipment (PME) (see **Appendix F**) will be used to carry out the construction works outside the Building. The use of such PME may have potential to cause noise nuisance to the nearby NSRs. Construction noise assessment criterion of the nearest NSR, St. John’s Cathedral, was proposed to be 75dB(A). The Predicted Noise Levels (PNLs) during construction are summarised in **Table 6**, and detailed calculations are provided in **Appendix F**. The results suggested that the construction noise impact on the St. John’s Cathedral would comply with the relevant criterion.

Table 6 Predicted Construction Noise Level (Unmitigated)

Nearest NSR	Unmitigated Predicted Construction Noise Level, dB(A)	Assessment Criterion, dB(A)
St. John’s Cathedral	68 - 74	75

- 4.2.3. According to the Technical Memorandum on Environmental Impact Assessment Process of Environmental Impact Assessment Ordinance (EIAO-TM), the daytime construction noise criterion for residential/ hotel uses is 75dB(A). For the other representative NSRs which may rely on opened windows for ventilation except the St. Joseph’s College, their proposed construction noise assessment criterion is also 75dB(A). As the other NSRs which may rely on opened windows for ventilation (except the College) are at least about 100m away from the subject site, the noise attenuation effect by distance would be at least about 4dB more than that for St. John’s Cathedral, the unmitigated noise levels at the NSRs (except the College) would be well below 75dB(A).

- 4.2.4. According to the EIAO-TM, as an educational institution, the daytime construction noise criterion for St. Joseph’s College is 70dB(A) (65 dB(A) during examination period). As it is about 250m away from the subject site, noise attenuation effect by distance would be about 12dB (A) more than that for St. John’s Cathedral. Therefore, the unmitigated noise level at the College would not be more than 62dB(A) (74dB(A) - 12dB (A)).
- 4.2.5. To further reduce the construction noise impacts on St. John’s Cathedral, barriers are proposed to screen noise from the sources to the NSR. In general, a barrier can achieve a 5dB(A) reduction for movable PME and 10dB(A) reduction for stationary PME, depending on the actual design of the barrier. The barrier should be designed such that there will be no direct line of sight to the PME from the NSR. Barrier materials of surface mass density in excess of 10kg/m² is required to achieve the screening effect. If necessary, the noise barrier shall be provided with a cover on the top. The mitigated PNLs at the nearest NSR after the use of barrier are summarised in **Table 7**.

Table 7 Predicted Construction Noise Level (Mitigated)

Nearest NSR	Mitigated Predicted Construction Noise Level, dB(A)	Assessment Criterion, dB(A)
St. John’s Cathedral	68 - 70	75

- 4.2.6. To minimise the potential noise impacts, appropriate general construction noise control measures in Recommended Pollution Control Clauses for Construction Contracts (RPCC) (for example, standard noise control measures such as use of quiet PME with lower sound power level and temporary noise barriers as detailed in **Appendix G**) should also be adopted. With the implementation of mitigation measures stated in Section 4.2.5 and general construction noise control measures, it is expected that the construction noise impact on the surrounding NSRs will not be adverse.

4.3 Air Quality

Internal Works

- 4.3.1. The proposed construction works will be mainly carried out by hand-held tools and equipment inside the existing building. The problem of dust emission from the site is expected to be minimal.

External Works

- 4.3.2. The proposed construction works will be mainly carried out by hand-held tools and equipment. The amount of dust generated from the external works is expected to be low and will be controlled by implementation of good site management and construction dust control measures (see **Appendix G**) to be incorporated into the specifications for the construction works.

4.4 Traffic

- 4.4.1. Construction vehicles will be required to transport construction materials to the site and wastes from the site. The traffic impact assessment has been conducted and it indicates

that the total number of construction vehicles will be limited to not more than 15 vehicles per day, i.e. an average of about 2 vehicles/hour [5 passenger car unit (pcu)] of construction traffic is expected. The estimated construction two-way traffic will be 4 vehicles/hour (10 pcu/hr). The construction traffic will be smaller than the future development traffic and is comparable to the previous use of building (the Court of Final Appeal). Traffic impact on the Lower Albert Road is considered to be insignificant. The consequential impact of air and noise will also be insignificant.

4.5 Waste Management

- 4.5.1. During the works period, Construction and Demolition (C&D) materials of approximate 2,800 tonnes may be produced, including cement mortar, brick, wall plaster, old furniture, old building services equipment etc. Inert C&D materials with estimated quantity of 2,200 tonnes will be disposed of at public fill reception facilities or other public fill reception facilities designated by the Civil Engineering and Development Department. On-site sorting of all C&D materials should be provided prior to disposal. The quantity of non-inert C&D materials that cannot be reused or recycled and to be disposed of at the designated landfill sites would be minimised, and it is estimated that the non-inert C&D materials to be disposed at landfill sites is approximately 600 tonnes. Minimal general refuse might be generated during the construction phase. Compliance of the guideline concerning temporary storage and proper disposal of C&D materials and general refuse will be strictly monitored.
- 4.5.2. The structures / buildings of the subject site may have asbestos containing material. The project proponent shall engage a registered asbestos consultant to conduct an asbestos investigation in accordance with Section 69 of the Air Pollution Control Ordinance (APCO) (Cap 311), to confirm the presence or absence of any asbestos containing material, and where applicable, submit an asbestos investigation report to the Environmental Protection Department (EPD). In case the presence of asbestos containing material is confirmed, the project proponent shall engage asbestos professionals who are registered with EPD to properly remove the asbestos containing material from the structures / buildings before any demolition, repairing or renovation works are carried out. The project proponent shall also give not less than 28 days' written notice to EPD of the date on which the aforesaid asbestos abatement work commenced.
- 4.5.3. All asbestos waste shall be disposed of according to the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation, in which the producer shall comply with the legislative requirements on packaging, labelling and storage of chemical waste and engage a licensed chemical waste collector for proper collection and disposal of the asbestos waste at the designated disposal site. The producer should make reference to the "Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste" issued by EPD.
- 4.5.4. With the implementation of general good construction site practices, the construction of the Project will not cause adverse waste impacts.

4.6 Water Quality

- 4.6.1. Waste water may be generated from washing down the wall, columns and floors using a mild detergent and fresh water solution.

- 4.6.2. Construction works will mainly be carried out inside the building, thus construction runoff is minimal and adverse impact on the environment is not expected from the works.
- 4.6.3. All effluent discharge from the works will be subject to control under the Water Pollution Control Ordinance (WPCO). With the implementation of appropriate mitigation measures according to the RPCC and the guideline of the Practice Note for Professional Persons on Construction Site Drainage (Professional Persons Environmental Consultative Committee Practice Note 1/94), it is anticipated that no unacceptable water quality impacts would arise. And the effluent discharge will meet the standard of the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage System, Inland and Coastal Waters under the Water Pollution Control Ordinance (WPCO-TM).

4.7 Dangerous Goods

- 4.7.1. No designated dangerous goods will be involved in the Project.

4.8 Ecology

- 4.8.1. The project site is located in urban area and is not surrounded by areas of ecological value. Thus, no adverse ecological impact is anticipated during the works.

4.9 Landscape and Visual Impact

- 4.9.1. Landscape and Visual Impact Assessment (LVIA) has been undertaken to evaluate the potential landscape and visual impact arising from the Project.
- 4.9.2. As a historical site, the proposed Project is surrounded by a number of mature trees. The trees are mainly situated along the Battery Path and the open area between the FMB and St. John's Cathedral. Trees can also be found along the staircase of Cheung Kong Centre adjacent to the proposed project's site boundary.
- 4.9.3. A tree survey was conducted at the area around the site to provide a better understanding of the vegetation and landscape of the surrounding area having immediate contact with the site. Within the site, there is one number of tree (*Artocarpus heterophyllus* 菠蘿蜜) locating next to the south eastern gate. Within the landscape assessment area, there is an old and valuable tree (OVT) number CSO-CW5 (*Ficus virens* 大葉榕) located near the site. Other trees at the surrounding area are common species in Hong Kong. No other rare and precious tree or hazardous trees are found within the assessment area.
- 4.9.4. Temporary scaffolding will be installed during construction. The hoarding and scaffolding works will be designed to minimise the necessary pruning work of the existing tree within the Site (*Artocarpus heterophyllus* 菠蘿蜜). However, to facilitate the logistic of construction materials as well as hoarding and scaffolding works during construction stage, the tree crown reduction or removal of lower branches should be limited to a maximum of 25%, while the major branches and main trunk would be retained and protected. OVT number CSO-CW5 (*Ficus virens* 大葉榕) is outside the Site. The transportation and logistics during construction shall not impact the OVT. The extent of pruning is limited and there is no tree felling or site formation works involved. Therefore the landscape impact will be insignificant.

- 4.9.5. The potential visual impact on the sensitive receivers is contributed by the hoarding and scaffolding works during construction period. They are temporary, and minimal visual impact is anticipated.
- 4.9.6. Since the cleaning of existing façade and opening up of verandahs will upgrade and retrieve the original atmosphere of the FMB and surrounding area, the visual appearance of the FMB will be enhanced and thus the subsequent visual impact will be beneficial.

5 Possible Impact during Operation Phase

5.1 Noise

- 5.1.1. The project building was previously used by some government departments as office accommodations and the Court of Final Appeal as venue for court hearings. After conversion, the project building will also be used as offices by LRO(s) and related purposes. Based on the traffic impact assessment conducted, the traffic generated by the Project is comparable to the prior development building operation. Thus, the traffic noise impact induced by the Project is minimal.
- 5.1.2. The operation hours and use of space for the Building will correspond with the intended office uses. Potential noise impact may be induced by the air-conditioning equipment (e.g. chillers). In the Project, the existing air-conditioning equipment will be replaced and new equipment will be installed at the roof where the existing air-conditioning equipment has been installed. Since there is no change in the location of air-conditioning equipment (i.e. on the roof) in the Project, the future operation is unlikely to cause adverse noise impacts on the surrounding environment.
- 5.1.3. The noise criteria of air-conditioning equipment for planning purposes are set out in the EIAO-TM, according to which the total noise impact from the planned fixed noise sources of this Project on the facade of the nearest NSR (namely St. John’s Cathedral which is about 31 metres from the Building) and other affected NSRs should not exceed the “Acceptable Noise Level (ANL)-5 dB(A) criterion” (as shown in **Table 8**) (i.e. 5 dB(A) lower than ANL as specified in the Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (IND-TM)), or the prevailing background noise level, whichever is the lower. The noise criteria stipulated in the IND-TM are dependent on the Area Sensitivity Rating of the NSRs. As the NSRs in the vicinity of the Site are located in an urban area and are not affected by any Influencing Factor, the Area Sensitivity Rating “B” has been adopted for these NSRs. Based on the normal operation of office uses, it is anticipated that the office would normally be closed before 8 p.m. No potential noise impacts during 2000 – 0700 hrs would be induced by the Project.

Table 8 Operation Noise Criteria – Acceptable Noise Level (ANL)

Time Period	ANL (dB(A))			“ANL-5dB(A)” Criteria (dB(A))		
	Area Sensitivity Rating A	Area Sensitivity Rating B	Area Sensitivity Rating C	Area Sensitivity Rating A	Area Sensitivity Rating B	Area Sensitivity Rating C
Day / Evening (0700 – 23 00 hrs)	60	65	70	55	60	65
Night (2300 – 0700 hrs)	50	55	60	45	50	55

- 5.1.4. Noise measurements were undertaken in October 2015 from 3pm to 5pm to determine the background noise level. The lowest façade background noise level in Leq (30 min) (i.e. 30-minute equivalent continuous sound pressure level) measured at the southeast facade of

the Building (facing to St. John's Cathedral) was 64.5dB(A). Such noise level was higher than the “ANL-5dB(A)” criterion in the day time. Therefore, according to the EIAO-TM, “ANL-5dB(A)” was adopted as the operation noise criterion.

5.1.5. The air-conditioning equipment would be designed and built to meet the requirement of EIAO-TM. It is anticipated that air-cooled chiller(s) would be installed for the Project. Air-cooled chillers should be designed and built to meet the operation noise criterion as shown in **Table 9**. With the total sound power level of the air cooled chillers lower than 95dB(A), adverse fixed noise impact during the operation stage of the Project is not anticipated. The following mitigation measures, which are available in the commercial market and would be effective for achieving the noise criterion shall be considered:

- Use of quieter type of air-cooled chiller(s)
- Use of silencer(s)
- Use of acoustic louvre
- Use of acoustic barrier

Table 9 Maximum Allowable Total Sound Power Level of Fixed Plant

Fixed Plant	Operation Noise Criterion (dB(A))	Maximum Allowable Total Sound Power Level (SWL) (dB(A))
Air-cooled chiller(s) at roof of the Building	60	95
<p>Note:</p> <p>The following factors are considered in the prediction of maximum allowable total SWL of air-cooled chiller(s):</p> <ul style="list-style-type: none"> • <u>Distance Correction</u>: The shortest distance from the nearest NSR and the Building is 31 metres, thus the distance correction is 38dB(A). • <u>Facade Correction</u>: The facade correction of 3dB(A) is used. • Screening factor is not considered in the prediction in conservative approach. • The maximum allowable total SWL should be lowered according to the IND-TM if the air-cooled chillers have tonal characteristic. 		

5.2 Air Quality

5.2.1. The Building will be for office use and power for the Building will be supplied by the Hong Kong Electric Company Limited. Minimal gaseous emission is expected during the operation.

5.3 Water Quality

5.3.1. The project site is located in a developed environment with mostly impervious areas. During the operation phase, the surface water within the site boundary will be conveyed by the

existing drain. The runoff will be conveyed by the internal drainage system and connected to the existing government drainage system. Since the Building will be for office accommodation use and there is no carpark provision in the Project, adverse water quality impacts are not anticipated during the operation.

5.4 Sewerage

- 5.4.1. Sewerage generated from the office activities will be discharged to the existing government sewer system along Battery Path, then ultimately will be discharged to the Wan Chai East Preliminary Treatment Works. Based on sewerage impact assessment conducted, the sewage flow from the Project is expected to be comparable to the prior development operation and thus the impact is considered to be insignificant.

5.5 Waste Management

- 5.5.1. The Project will be operated as general office accommodation and ancillary facilities. Significant amount of chemical waste would not be expected to be generated from office activities.
- 5.5.2. General refuse from daily operation are mainly generated from office activities and pantries such as waste paper, food scraps, etc. Thus, the waste impact generated by the Project is minimal.

5.6 Cultural Heritage

- 5.6.1. The activities during the operation phase will be typical of office uses by LRO(s) and related purposes. No adverse cultural heritage is expected during the operation phase.

6 Environmental Protection Measures and Any Further Environmental Implications

6.1 Measures to Minimise Environmental Impacts

- 6.1.1. As described in the sections above, it is assessed that impacts related to cultural heritage, noise, air, traffic, waste management, water quality, dangerous goods, ecology, landscape and visual quality arising from the works will be acceptable if environmental protection measures are incorporated in the Project. Details of respective protection measures are set out in this section and standard mitigation measures in accordance with the latest version of RPCC will be adopted to further reduce the likely environmental impacts.
- 6.1.2. A summary of mitigation measures to be implemented during the construction period is at **Appendix G**.

6.2 Cultural Heritage

- 6.2.1. Antiquities and Monuments Ordinance
- 6.2.1.1. According to Section 6 of the Antiquities and Monuments Ordinance (Cap. 53), no person shall demolish, remove, conduct, deface or interfere with a monument, unless a permit is granted by the Antiquities Authority. As the Building is a declared monument, the required permit will be obtained from the Antiquities Authority before any works may commence on-site. Any person who contravenes Section 6(1) shall be guilty of an offence and shall be liable on conviction to a fine of \$100,000 and imprisonment for 1 year.
- 6.2.1.2. A permit under the Section 6 will be applied from the Antiquities Authority and the contractor and all parties involved should comply with any requirements made under the terms of the permit.
- 6.2.1.3. Restoration and modification works and mitigation measures will be planned and implemented under the supervision of a heritage consultant with necessary approval under the Antiquities and Monuments Ordinance. The mitigation measures are set out in Section 2.6 and Section 2.7.
- 6.2.1.4. Cartographic, photographic surveys and condition survey to record the building will be conducted before and after the conversion works. A set of photographic record drawings will be prepared and furnished to the AMO after the conversion works.
- 6.2.1.5. The CDEs identified will be preserved, repaired or reinstated with minimum intervention. The contractor will be required to submit method statement after consulting a heritage consultant for the protection of the CDEs before any commencement of works.

6.2.2. Standard of Workmanship

- 6.2.2.1. All works to be carried out shall match the original design as far as practicable and care will be taken to trace from the existing building the original construction, including materials, dimensions and colors etc.
- 6.2.2.2. The sequence of demolishing the existing building works, dismantling the existing windows and doors, repairing the heritage elements, and carrying out the refurbishment works shall be carefully planned to minimise any adverse impact on the Building.
- 6.2.2.3. The Contractor will be required to keep a record of methods and materials adopted in this Project and the format of the record should be approved by ArchSD and acceptable to AMO. A copy of the record will be provided to DoJ for future maintenance purposes.

6.3 Noise

- 6.3.1. Appropriate arrangement should be incorporated in the working methods to minimise the potential construction noise impact. A noise mitigation management system shall be set up to ensure regular maintenance of all plant and equipment, reduce noise generation at source, and appropriate silencing applications are in use based upon the best practicable means.
- 6.3.2. Common noise mitigation measures that can be applied include:
 - Use of quiet PME with lower sound power levels;
 - Use of temporary noise barriers;
 - Locating noise emitting plants as far as practicable away from sensitive receivers; and
 - Define contractual clauses for construction works.
- 6.3.3. Requirements in relevant construction noise control ordinances/ regulations and the guideline document RPCC would be adopted for construction noise control.
- 6.3.4. No construction works will be carried out during 7 p.m. to 7 a.m. and any time on Sundays and General Holidays; as a result, there will not be any noise generated during restricted hours.

6.4 Air Quality

- 6.4.1. Small amount of dust may arise from the construction works, and possible air pollution will be monitored to minimise the impact. Appropriate dust reduction measures shall be adopted as required under the Air Pollution Control (Construction Dust) Regulation. Dust impact will be mitigated by regular and sufficient watering for dust minimisation in the works. A monitoring programme will be instigated to monitor the construction process in order to enforce dust controls and modify methods of works to reduce the dust emission down to acceptable levels.

6.5 Waste Management

- 6.5.1. To minimise the waste generation, the contractors will be required to develop and implement waste management plans (WMPs) for approval. The WMPs will include appropriate mitigation measures to avoid, reduce, reuse and recycle wastes. All wastes will be handled and disposed of in accordance with the Waste Disposal Ordinance.
- 6.5.2. All asbestos works will be carried out by registered asbestos contractor. All relevant works will be carried out in full compliance with all current relevant Regulations, Ordinances, and guidelines, including all Codes of Practice regarding asbestos works issued pursuant to Section 37 of the APCO. With the implementation of mitigation measures, the waste impact will be minimised.

6.6 Water Quality

- 6.6.1. Waste water may be produced when cleaning the external facade. All effluent discharge from the works will be subject to control under WPCO. Appropriate mitigation measures according to RPCC and the guideline of the ProPECC PN 1/94 will be implemented by the Contractor. The contractor will obtain the WPCO licence. The effluent discharge from the site will be monitored by the contractor as part of the monitoring under the WPCO license to ensure all effluent discharge from the works meets the standard of WPCO-TM. Furthermore, there will be no water sources in the vicinity of the site that would be affected by the Project.

6.7 Ecology

- 6.7.1. No ecological impact is expected during construction phase and thus no mitigation measure is required.

6.8 Landscape and Visual Impact

- 6.8.1. The potential landscape and visual impacts are minimal during the works and the nature of the impact is temporary. Monitoring and inspection will be made for landscape resources during construction period. Suitable tree protection will be provided.
- 6.8.2. Decorative hoarding and scaffolding could be used to soften the visual impact.
- 6.8.3. Beneficial impact will be generated by the Project since the cleaning of existing façade and opening up of verandahs will upgrade and retrieve the original atmosphere of the building and the area.

6.9 Further Environmental Implications

Severity, Distribution and Duration of Environmental Effects

- 6.9.1. The possible severity, distribution and duration of environmental effects and further implications are summarised below:

Table 10 Possible Severity, Distribution and Duration of Environmental Effects

Impact	Effects	Severity and Duration	Distribution	Estimated Duration
Cultural Heritage	Improve the functionality of the monument	Beneficial and long term enhancement	Project Site only	Long term
Noise	Noise nuisance from demolition, construction and clearance	Minimal and short	Project Site only	1.5 years
Air Quality	Dust generated from demolition works and construction works	Minimal and short	Project Site only	1.5 years
Waste Management	Handling and disposal of C&D materials and asbestos containing materials	Minimal and short	Project Site only	1.5 years
Water Quality	Discharging of waste water into drains after filtration	Minimal and short	Project Site only	1.5 years
Traffic	Construction vehicles to and from work site	Minimal and infrequent	Lower Albert Road	1.5 years
Landscape and Visual Impact	Erection of temporary hoarding and scaffoldings	Minimal and short	Project Site only	2 years

6.10 Public Consultation

- 6.10.1. An information note on the proposed conversion works has been submitted to the Antiquities Advisory Board (AAB) which is followed by a site visit by AAB members in mid-February 2016. AAB members note the proposed works and have no particular comment.
- 6.10.2. The Central and Western District Council was consulted on the proposed works of the project at the meeting on 10 March 2016. Members note the proposed works and have no particular comment.

6.11 Environmental Monitoring and Audit Requirements

- 6.11.1. An Independent Environmental Checker shall be employed to audit the implementation of all mitigation measures recommended in this Project Profile and confirm full compliance through monthly report to EPD during and upon completion of the construction work.
- 6.11.2. Moreover, the following monitoring procedures are proposed to be adopted and ArchSD as the Project Manager will be responsible for monitoring operations:

- to ensure that the conservation aspects of the Project are carried out to the highest possible standard, with the co-operation of the Heritage Consultant;
- to ensure that the general aspects of environmental quality will comply with the project requirements;
- to ensure that precautionary measures will be implemented to protect the CDEs from damage under the supervision of the Heritage Consultant;
- to supervise the Contractor to ensure that the requirements in the Project Profile are fully complied with;
- to instruct the Contractor when action is required to reduce or prevent any impacts;
- to effectively and speedily deal with any complaints on environmental performance; and
- to prepare a summary of the environmental performance of the Contractor on completion of the Project.

6.12 History of Similar Projects

6.12.1. There is no project of similar nature under the EIAO in the past.

7 Use of Previously Approved EIA Reports

7.1. There are 13 approved applications for Declared Monument under Schedule 2, Item Q.1 of EIAO for permission to apply directly for environmental permits that could be referred to:

- **Proposed Tai Wong Yeh Temple Management Office at Yuen Chau Tsai, Tai Po, N.T. (Tai Po Yuen Chow Tsai Tai Wong Yeh Holy Temple Chinese Opera Management Association Limited).** The Project Profile was submitted on 21 September 2011 (PP-451/2011). The project is to construct a 2-storey building within a site of cultural heritage. The project building is next to the Tai Wong Yeh Temple for use as management office and rural committee office. The study concluded that there would be minimal environmental effect. The Environmental Permit was granted on 9 December 2011 (EP-431/2011).
- **Restoration to Yan Tun Kong Study Hall at Ping Shan, Yuen Long, New Territories (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 3 September 2010 (PP-422/2010). The project is to repair, replace, and reconstruct roof structure, floor paving, and timber decorations. The project includes improvement of drainage works and upgrading electrical system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 14 September 2011 (EP-420/2010) and 22 April 2013 (EP-420/2010/A). The project involves similar repair and restoration works to a Declared Monument.
- **Major Restoration to the Residence of Ip Ting-sz, Lin Ma Hang Tsuen, Sha Tau Kok, New Territories (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 13 August 2010 (PP-420/2010). The project is to carry out restoration works at the Residence of Ip Ting-sz including reconstruction of roof; and internal and external redecorations. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 29 September 2010 (EP-400/2010). The project involves similar repair and restoration works to a Declared Monument.
- **Restoration to Tang Ancestral Hall and its adjoining buildings at Ha Tsuen, Yuen Long, New Territories (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 7 July 2009 (PP-393/2009). The project is to demolish concrete and metal structures; to repair, replace or restore roof structure, carpentry and decorations, window and door openings; and to improve drainage system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 28 August 2009 (EP-373/2009). The project involves similar repair and restoration works to a Declared Monument.
- **Construction of Covered Walkway in the Courtyard of the Former Kowloon British School, Tsim Sha Tsui (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 21 August 2008 (PP-395/2008). The project is to construct covered walkway in the courtyard of the Former Kowloon British School and to remove the existing standalone wooden and posts beside the annex block. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 23 October 2008 (EP-318/2008). The project involves similar improvement of facilities of a Declared Monument.

- **Restoration to Chik Kwai Study Hall Sheung Tsuen, Pat Heung, Yuen Long (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 3 October 2007 (PP-330/2007). The project is to dismantle defective roof structure; to demolish the concrete structure; to repair walls; and to install lighting system. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 27 March 2008 (EP-305/2008). The project involves similar repair and restoration of a Declared Monument.
- **Major Repair to Tin Hau Temple, Lung Yeuk Tau, Fanling (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 3 February 2005 (PP-240/2005). The project is to reconstruct the roof, to carry out internal and external redecorations and to undertake minor repairs and restorations to Tin Hau Temple, Lung Yeuk Tau. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 26 April 2005 (EP-214/2005). The project involves similar repair works to a Declared Monument.
- **Maintenance of Yamen of Kowloon Walled City Park (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 13 January 2005 (PP-237/2005). The project is to replace termite-affected timber column and purlins, to clean and repair external brick walls, to carry out internal and external redecorations and to undertake minor repairs to Yamen at Kowloon Walled City Park. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 23 June 2005 (EP-221/2005). The project involves similar repair and restoration works to a Declared Monument.
- **Major Repair to Tang Chung Ling Ancestral Hall, Lung Yeuk Tau, Fanling (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 28 July 2004 (PP-224/2004). The project is to reconstruct the roof, to carry out internal and external redecorations and to undertake minor repairs and restorations to Tang Chung Ling Ancestral Hall. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 15 October 2004 (EP-199/2004). The project involves similar repair works to a Declared Monument.
- **Major Repair to Tang Ancestral Hall, Ping Shan (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 9 June 2004 (PP-217/2004). The project is to reconstruct the roof, to repave the floor and to carry out the internal and external redecoration and minor repairs and restorations of the Tang Ancestral Hall. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 24 August 2004 (EP-193/2004). The project involves similar repair and restoration works to a Declared Monument.
- **A New Rain Cover at Lei Cheng Uk Han Tomb Museum (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 2 December 2003 (PP-205/2003). The project is to construct and operate a new rain cover over the Lei Cheng Uk Han Tomb. The study concluded that there would be minimal impacts to the environment. The Environmental Permits were granted on 2 February 2004 (EP-185/2004). The project involves similar improvement of facilities of a Declared Monument.
- **Development at Former Marine Police Headquarters KIL 11161 (Flying Snow Limited).** The Project Profile was submitted on 28 November 2003 (PP-204/2003). The project is to

develop heritage tourism facility which involves earthworks and building works partly or wholly in an existing site of cultural heritage. The study concluded that there would be minimal impacts to the environment. The Environmental Permits were granted on 9 February 2004 (EP-184/2004). The project involves similar improvement of facilities of a Declared Monument

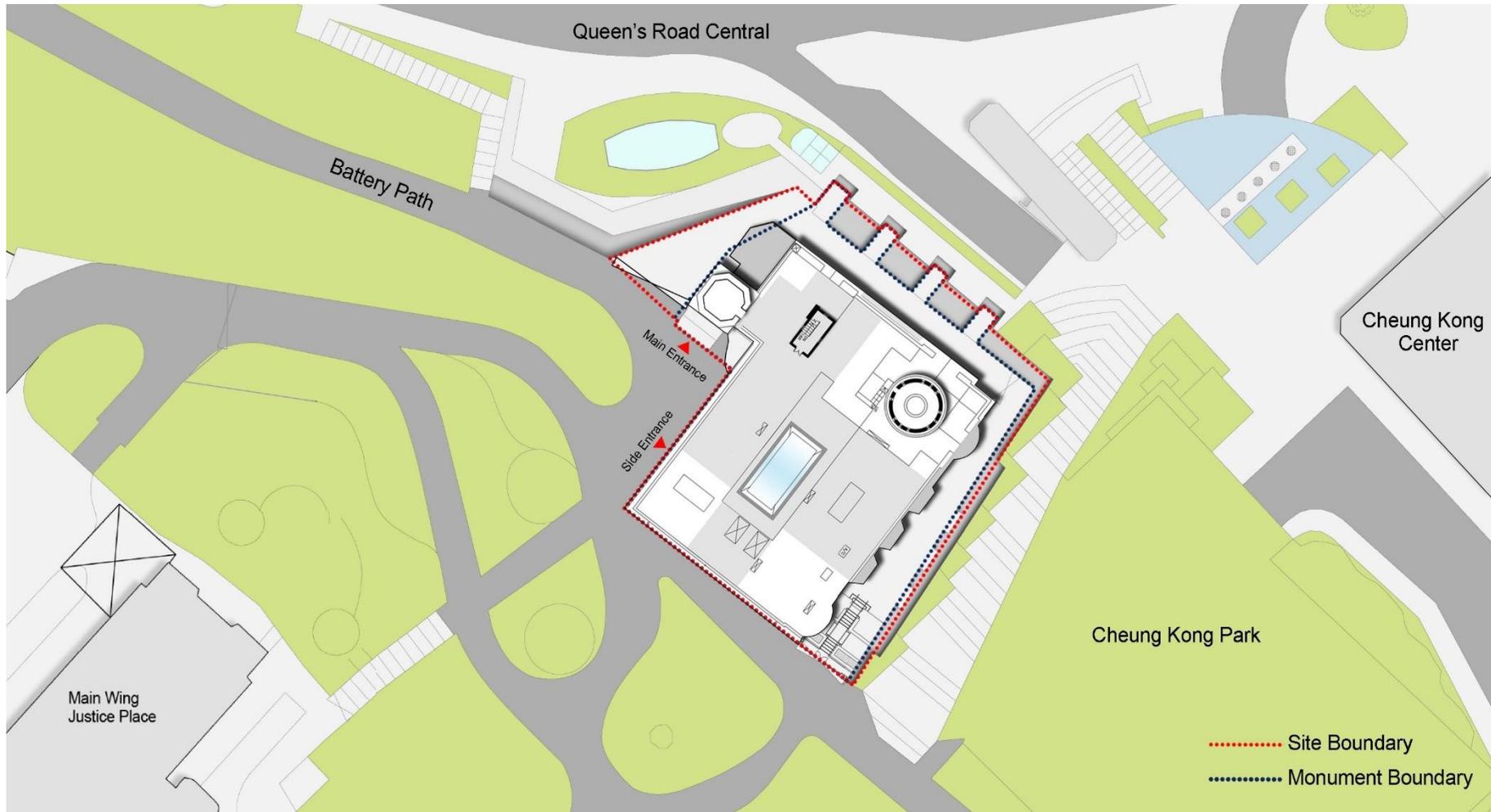
- **Renovation Project for Tin Hau Temple in Causeway Bay (Leisure and Cultural Services Department, the Government of HKSAR).** The Project Profile was submitted on 25 September 2003 (PP-200/2003). The project is to reconstruct the temple roof and to strengthen the main walls of the Tin Hau Temple. The study concluded that there would be no adverse long-term impacts to the environment. The Environmental Permits were granted on 18 December 2003 (EP-180/2003). The project involves similar repair and restoration works to a Declared Monument.

8 Conclusion

- 8.1. The Project will restore the original atmosphere of the FMB and its surrounding area, enhancing the interpretation of the monument; and thus the proposed works are beneficial to the monument. The potential impact to CDEs of the FMB would be kept to a minimum, with the heritage value observed and respected without compromising the significance of the heritage place.
- 8.2. Noise, dust, water quality, solid waste, traffic as well as landscape and visual impacts will be minimal during the construction phase. By adopting appropriate mitigation measures, no adverse impacts on the sensitive receivers are anticipated. (The mitigation measures during construction are summarised in **Appendix G**).
- 8.3. The contractor will strictly comply with the requirements specified in the permit issued under Section 6 of the Antiquities and Monuments Ordinance by the Antiquities Authority.
- 8.4. Noise, air quality, water quality, sewerage and solid waste impacts will be minimal during the operation phase.
- 8.5. The proposed works to convert the FMB for office use by LROs and related purposes is feasible and acceptable from the built heritage conservation perspective. The use of the FMB by LROs after renovation would be commensurate with its status as a highly significant building and a declared monument.
- 8.6. In view of the fact that the conversion works will enhance the interpretation of the monument and its environmental impact is minimal, the project proponent is writing to apply for permission to apply directly for the environmental permit under Section 5(11) of the EIA Ordinance.

Appendix A

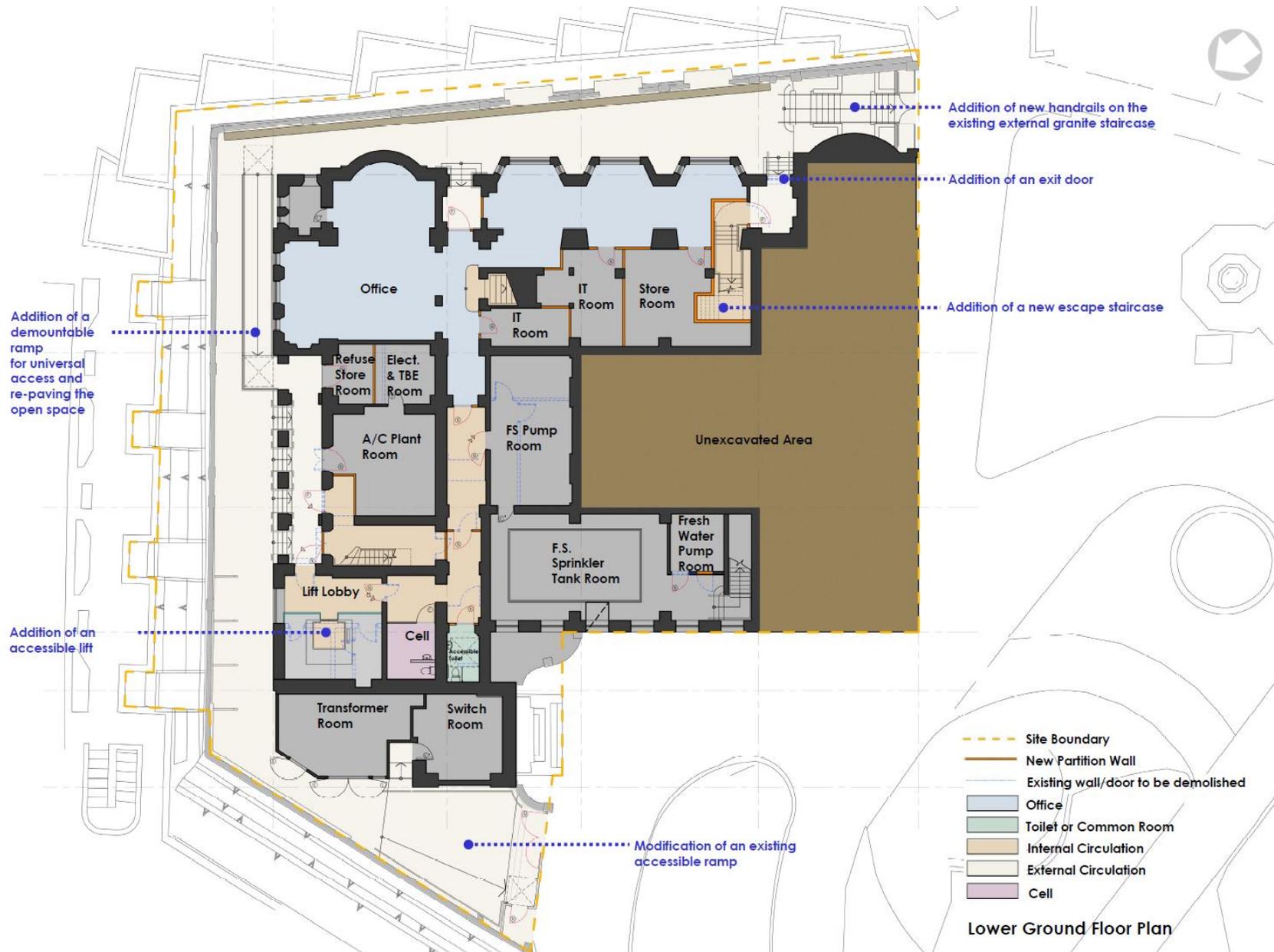
Site Plan of the Project

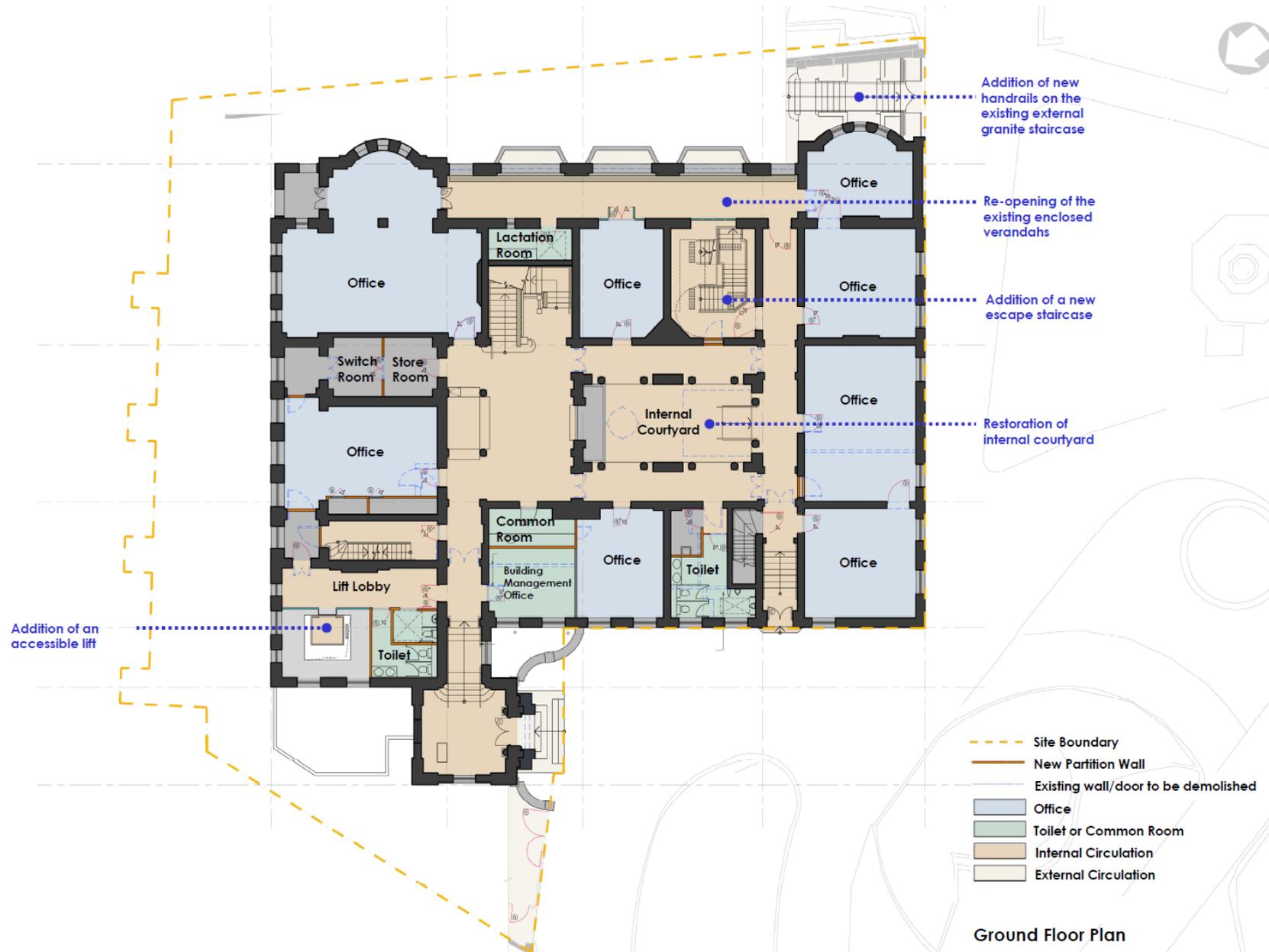


Site Plan of the Project

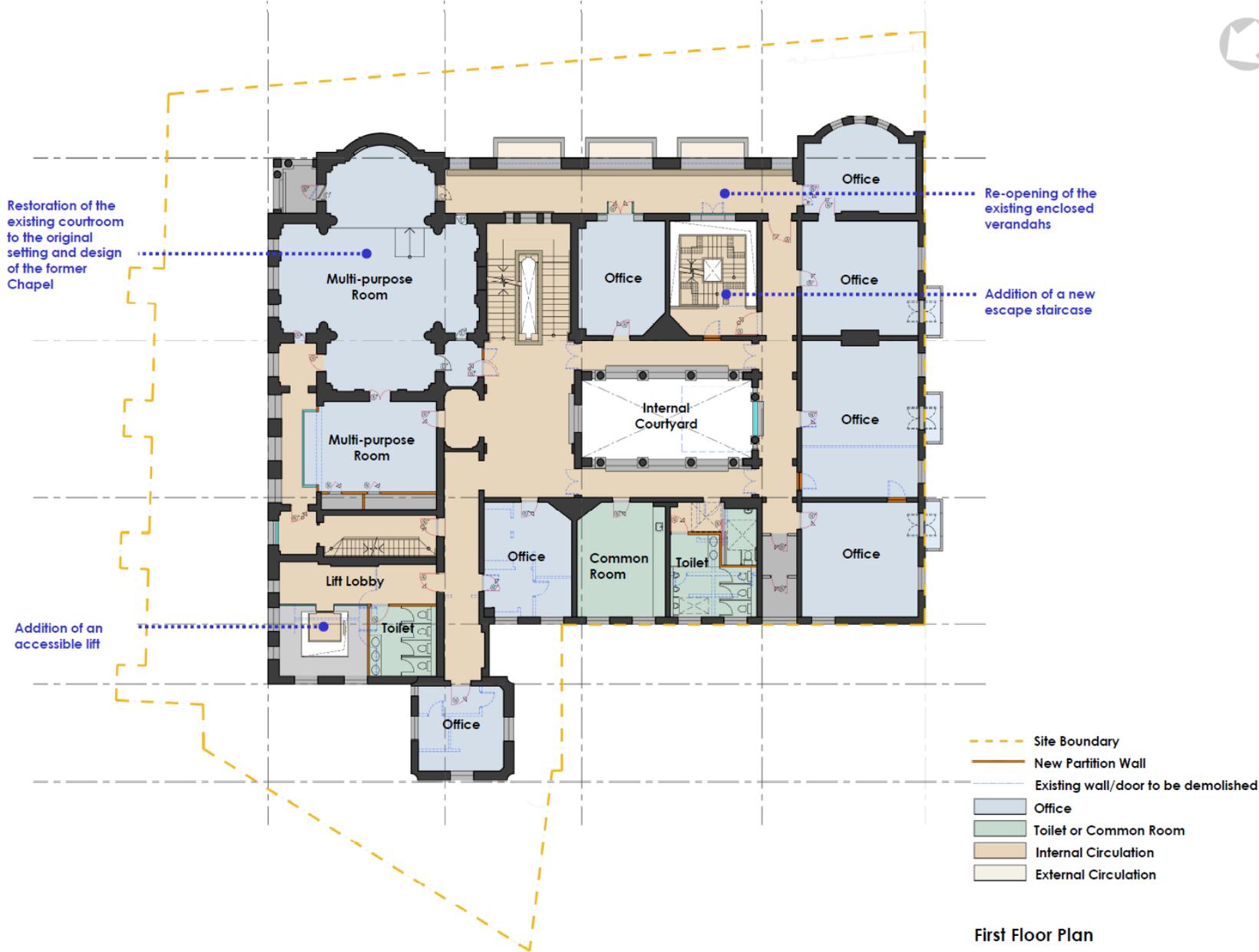
Appendix B

Proposed Floor Plans of the Project

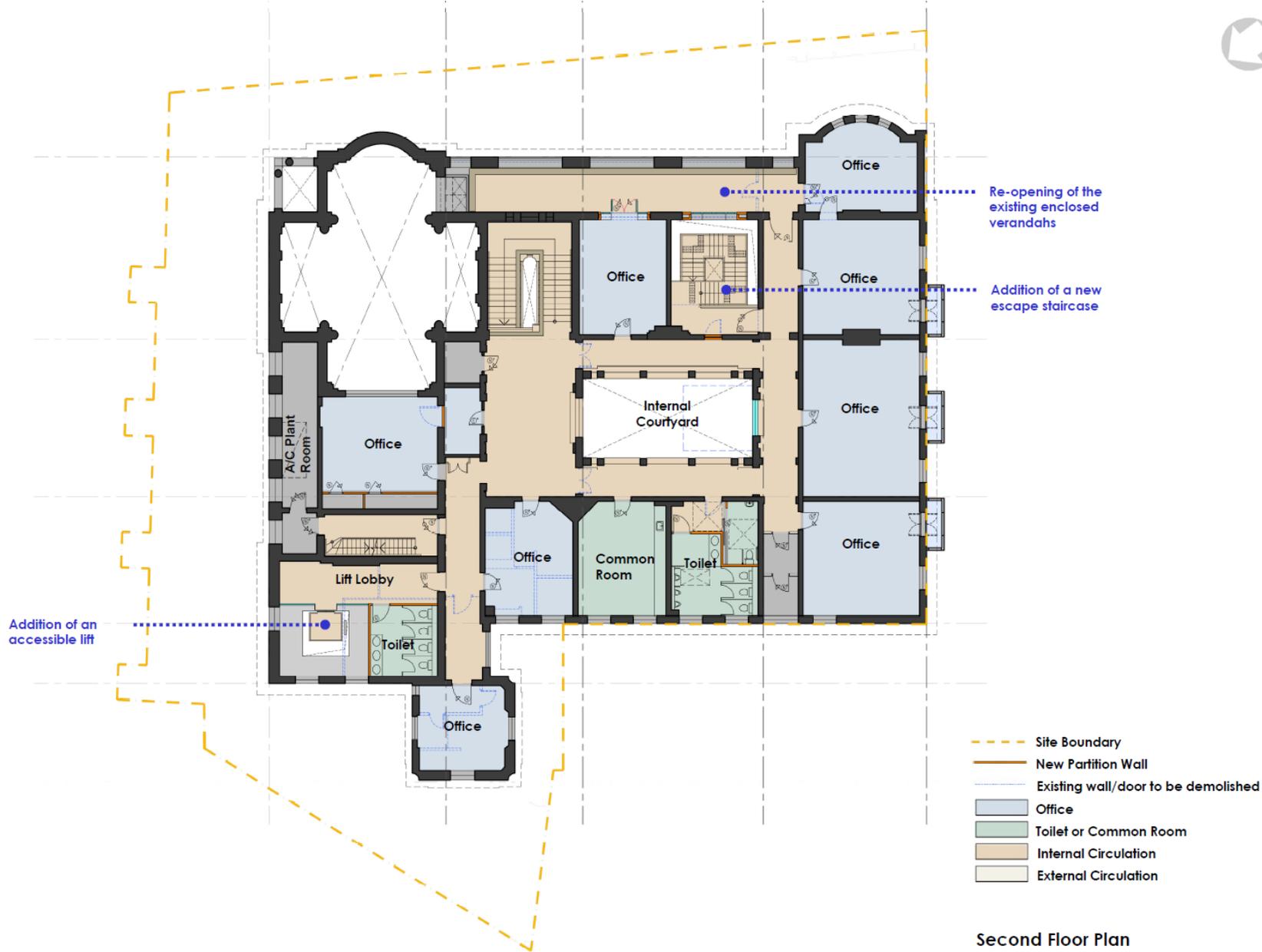


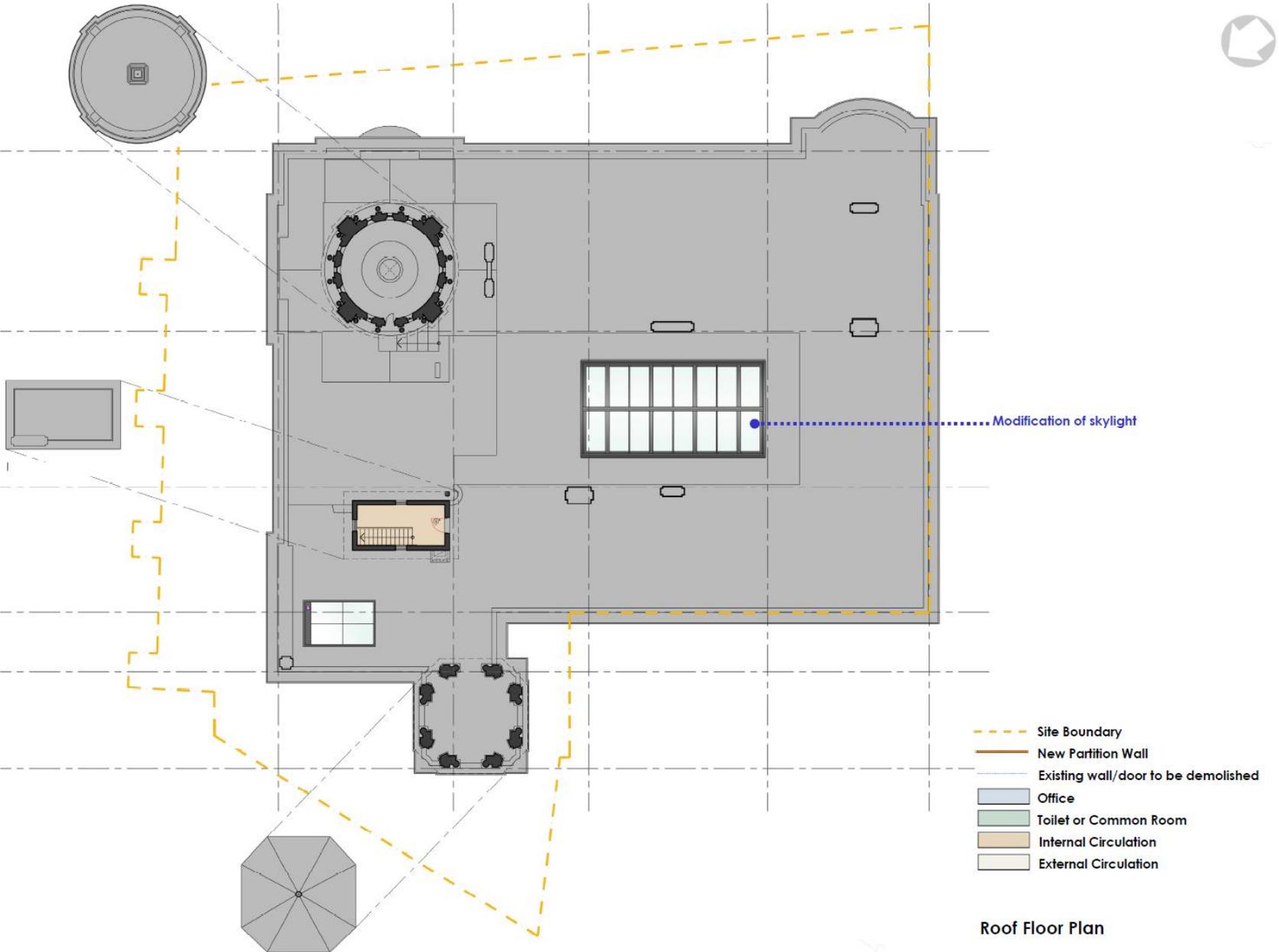


Ground Floor Plan

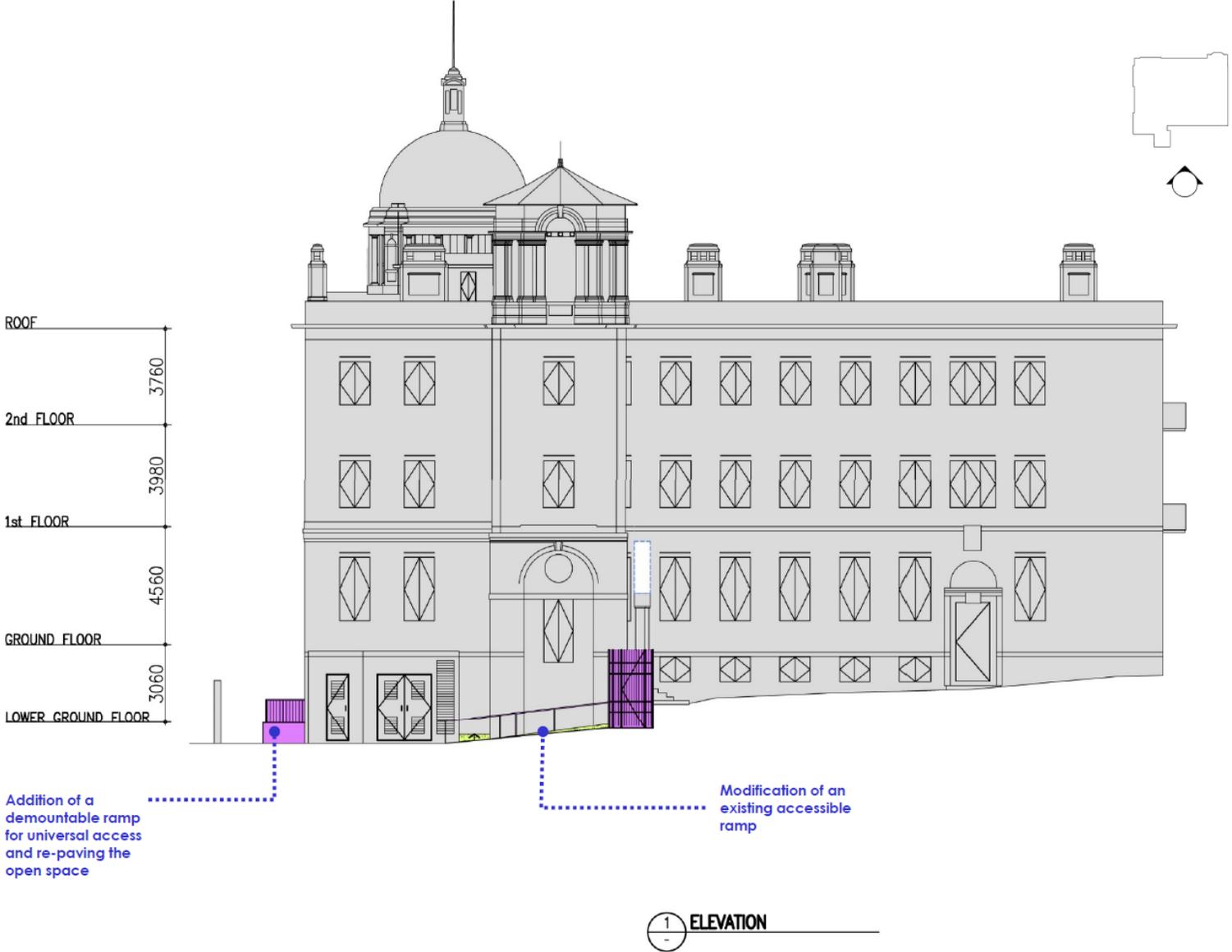


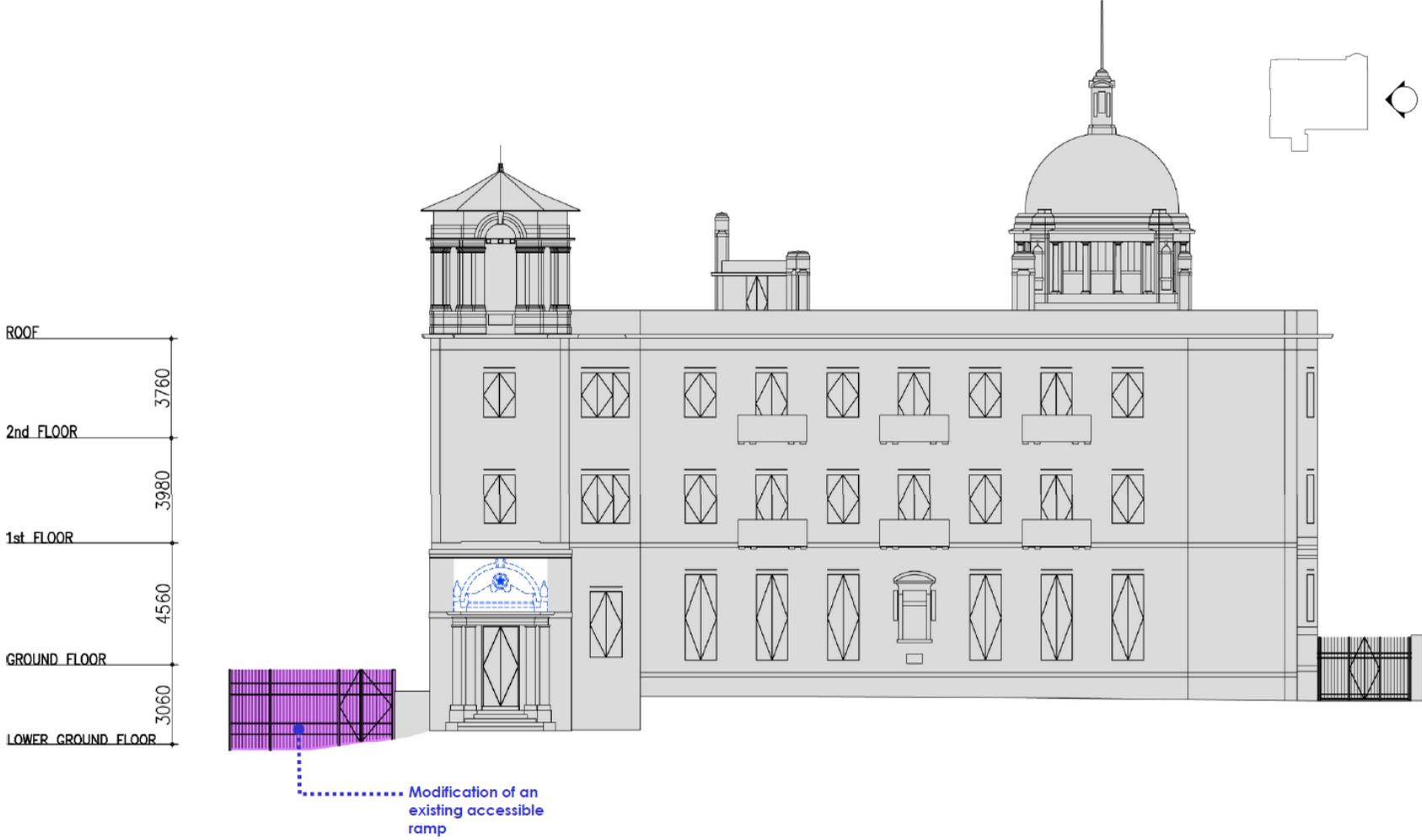
First Floor Plan



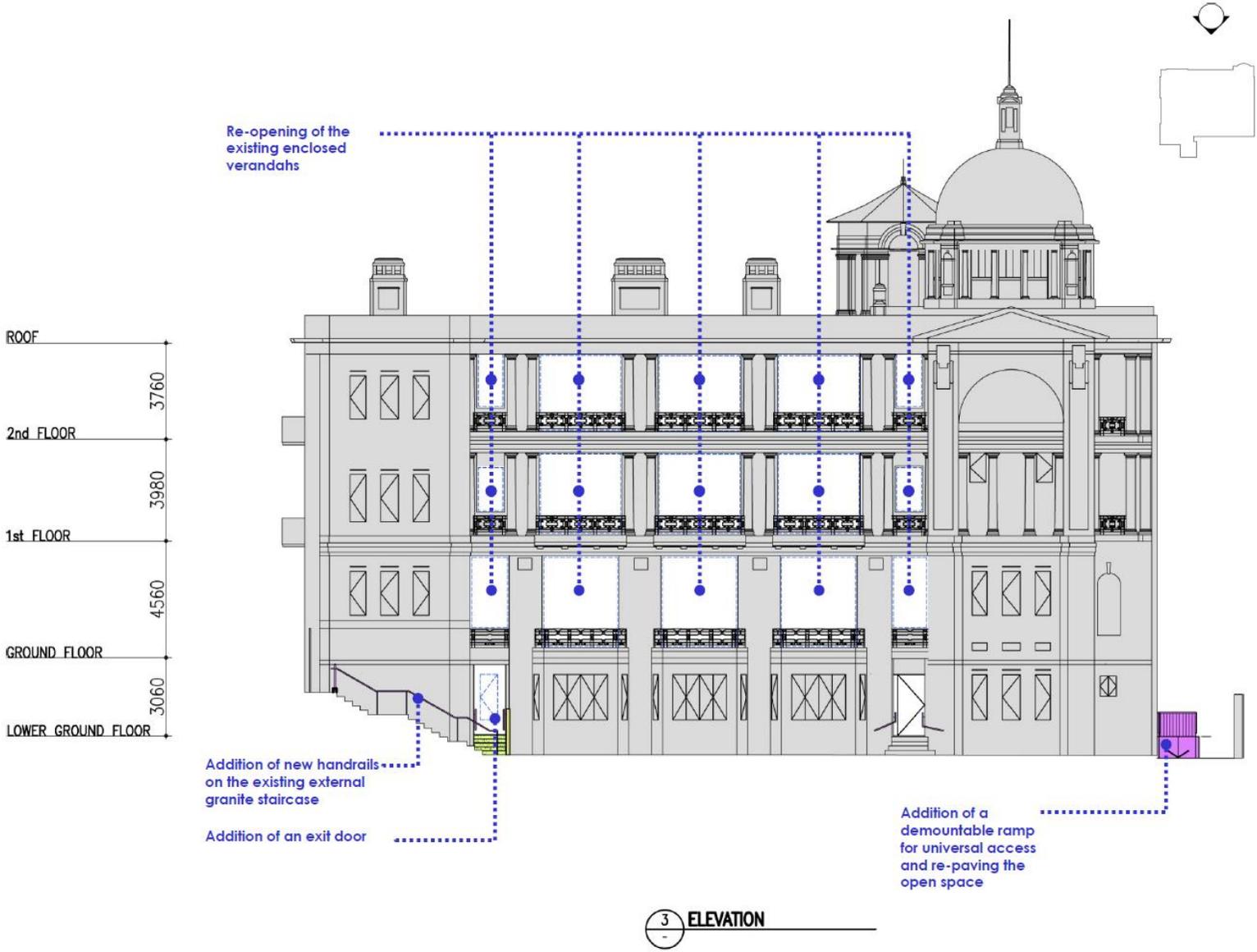


Roof Floor Plan





2 ELEVATION

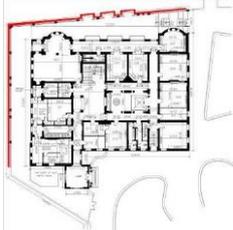


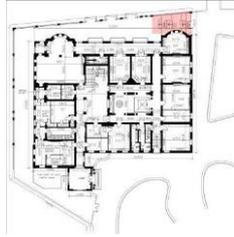
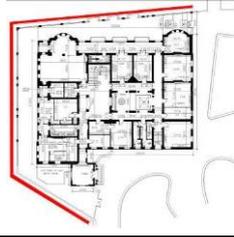
Appendix C

Summary of Key Character Defining Elements

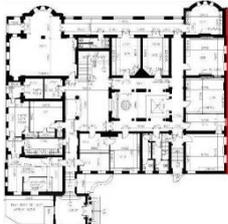
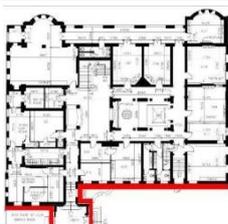
Appendix C - Summary of Key Character Defining Elements

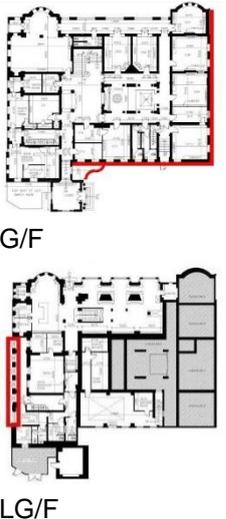
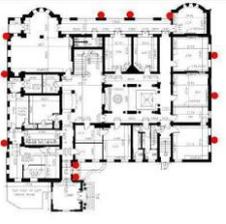
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
Setting and Context					
S-1		<p>Integrity of the site</p> <ul style="list-style-type: none"> Occupying the location of 1, Battery Path, on an escalated platform at one of the most strategic location of Hong Kong since early colonial times, surrounded by the St. John's Cathedral, government offices, the Government House and the Murray Parade Ground in the past A large portion of the retaining walls have remained unchanged since 1860s 	High		No change
S-2		<p>Independent building mass</p> <ul style="list-style-type: none"> Appearing as an independent building with later-added transformer room attached only at LG/F without causing any visual impact 	High		No change

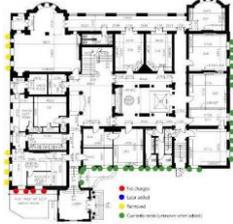
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
External landscape					
EL-1		<p>The setting and layout of the open space</p> <ul style="list-style-type: none"> • A small concrete-paved open space surrounding the Building • Southeast side open space marked by a low stone and brick parapet wall with vase-shaped balustrades 	High		Refer to Section 2.6.1 and 2.7.1.2.2
EL-2		<p>Metal gate with granite pillars topped by urns</p>	Medium		Refer to Item 1, Appendix D
EL-3		<p>Side metal gate with the logo “fleur de lys”</p>	High		Refer to Item 2, Appendix D
EL-4		<p>Red brick parapet wall with stone balconies and vase-shaped balustrades</p>	High		No change

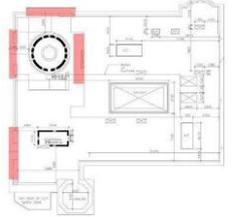
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
EL-5		Granite stairs connecting upper tier to lower tier with patterned landing	High		Refer to Section 2.7.1.2.3
EL-6		External granite retaining wall on three sides of the site creating a base for the building	High		No change
EL-7		Granite Stone with inscriptions of "38 HEC"	High		No change
Building Facades					
Northeast façade (facing the harbour)					
E-1		Northeast façade with a relatively decorative elevation full of classical features and tall window at the former chapel	High	 G/F	Refer to Section 2.7.1.2.2
E-1.1		Verandah with brick arcade supported on granite columns accessible by granite steps on LG/F			

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
				 LG/F	
Southeast façade (facing Cheung Kong Park)					
E-2		Southeast façade flanked by two rounded bays with colonnaded verandahs at the middle and the exterior of the former chapel sanctuary	High	 G/F	Refer to Section 2.7.1.1.1., Section 2.7.1.2.1 and Item 3, Appendix D
E-2.1		Verandah with Doric and Ionic columns and decorative balustrades, and trapezoidal balconies on G/F		 2/F 1/F G/F	

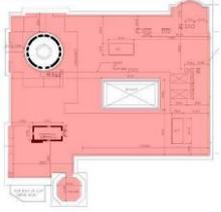
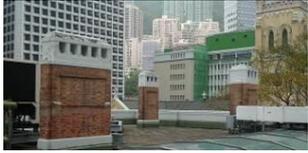
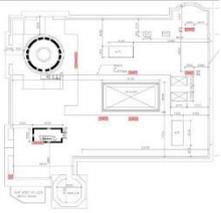
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
Southwest façade (facing St. John's Cathedral)					
E-3		Southwest façade with regular window openings and balcony protruding at regular interval	High	 G/F	No change
E-3.1		Rectangular-shaped balconies with concrete decorated parapet		 1/F – Balconies	
E-3.2		Granite niche framed with moulded surround and topped by a segmental arched pediment		 G/F	
E-3.3		Granite foundation stone inscribed with the emblem of the <i>Missions E' strangers</i> relief and the date "24 MARS 1917"			
Northwest façade (facing Battery Path)					
E-4		Northwest façade with regular windows and an entrance tower topped by a turret	High	 G/F	Refer to Section 2.6.1

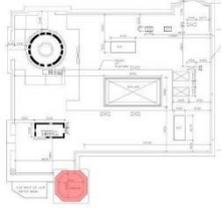
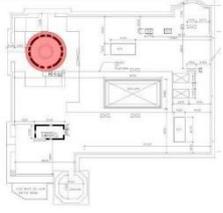
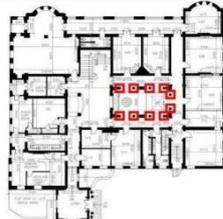
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
Other Features on External façades					
E-5		Fair-faced red patterned brickwork with Flemish bond	High	 G/F	No change
E-6		Granite courses at the base of the external walls and verandah on the LG/F	High	 G/F LG/F	Refer to Section 2.7.1.2.2
E-7		Cast iron downpipes with stylised hopper	High	 G/F	No change

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
E-8		Windows 1. Timber-framed windows with shutters with shutter dogs in the shape of "fleur de lys"	High	 2/F	Refer to Item 4 & 5, Appendix D
		2. Timber-framed casement windows with window dogs in the shape of "fleur de lys"		 2/F	
		3. Semi-circular window opening with decorative metal grille		 1/F	
		4. High level semi-circular arched window		 G/F	
		5. Timber-framed casement window with decorative metal grille		 LG/F	

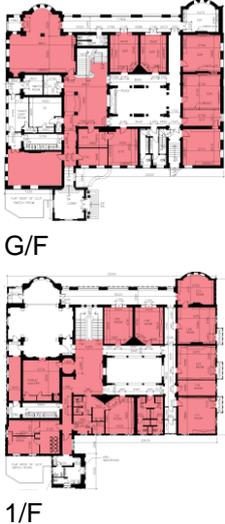
No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
Classical Elements					
E-9		Triangular pediments	High	 R/F	No change
E-10		Classical orders including Ionic and Doric columns with frieze above		 G/F	No change
E-11		Broken segmental-arched pediment with two Doric pilasters underneath			No change

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
E-12		Decorative plasterworks			No change
E-13		String course			
Entrances					
E-14		Main entrance with granite double columned portico, finials and granite steps	High	 G/F	Refer to Item 6, Appendix D

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
E-15		<p>Side entrance with granite door surrounds, granite steps, semi-circular arched fanlight, granite emblem of <i>Missions E'strangers</i> and cartouche above</p>	High	 <p>G/F</p>	Refer to Item 7, Appendix D
E-16		<p>Side entrance on LG/F and granite steps</p>	High	 <p>LG/F</p>	No change
Roof					
E-17		<p>Flat roof profile with chimneys, cupola and the turret</p>	High	 <p>R/F</p>	Refer to Item 8 & 9, Appendix D
E-18		<p>Chimney Stacks with fair-faced brickworks</p>	High	 <p>R/F</p>	No change

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
E-19		Octagonal turret with arched openings on classical columns	High	 R/F	No change
E-20		Cupola with circular plan with columns, windows and niches at the drum and a lantern on top	High	 R/F	No change
Interior					
Internal courtyard					
I-1.1		Internal Courtyard <ul style="list-style-type: none"> ▪ Three storey tall space ▪ Decorative panelling in between columns ▪ Decorative moulding along brick wall 	High	 G/F	Refer to Section 2.7.2.1.2
I-1.2		Colonnades around the internal courtyard <ul style="list-style-type: none"> ▪ Imposts of columns surrounding the internal courtyard are highly decorated ▪ Frieze has horizontal detailing and a circular relief ▪ Doric order with semi-circular arches on G/F ▪ Ionic order on 	High	 G/F	No change

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
		1/F <ul style="list-style-type: none"> ▪ Semi-circular arches on 2/F ▪ Arches with keystones and voussoirs 			
I-1.3		Timber-framed windows <ul style="list-style-type: none"> ▪ Triple casement windows with semi-circular fanlight above ▪ Double casement windows ▪ Semi-circular windows 	High	 G/F	No change
I-1.4		Void for ventilation to LG/F with metal balustrades on granite curb <ul style="list-style-type: none"> ▪ Metal grille design similar to metal railing for balcony railing on Southeast façade ▪ Geometric shapes and patterns 	High	 G/F	No change
Former Chapel					
I-2.1		Former Chapel <ul style="list-style-type: none"> ▪ The cross shaped layout ▪ The great volume of the interior as compared to other spaces ▪ Double height from original floor to ceiling ▪ Two different levels reflecting 	High	 1/F	Refer to Section 2.7.2.1.1

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
		the original hierarchy between the sanctuary and the nave <ul style="list-style-type: none"> • Domed ceiling with oculus 			
I-2.2		Decorative features <ul style="list-style-type: none"> • Ionic order • Decorative moulding on wall surfaces and at ceiling • Patterned square and hexagonal mosaic tile flooring 	High		
Finishes					
I-3		Timber Plank Flooring	High		Refer to Section 2.7.2.2.1 and 2.7.2.2.2

No.	Photo	CDE ^[1]	Level of Significance ^[2]	Location ^[3]	Remarks
				 2/F	

Note:

[1]: Character-defining elements: the materials, forms, location, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of a historic place, which should be preserved, repaired or reinstated with minimum intervention for its heritage value.

[2]: The meaning of the different levels of significance of the CDEs is as follow –

High	Elements which make a major contribution to the overall significance of the place. Spaces, elements or fabric originally of substantial intrinsic quality, and exhibit high degree of intactness and quality, though minor alterations or degradation may be evident.
Medium	Elements which make a moderate contribution to the overall significance of the place. Spaces, elements or fabric originally of some intrinsic quality, and may have undergone minor or extensive alteration or degradation.
Low	Elements which make a minor contribution to the overall significance of the place. Spaces, elements or fabric originally of little intrinsic quality, and may have undergone alteration or degradation. Original spaces, elements or fabrics of some quality, which have undergone extensive alteration or adaptation to the extent that only isolated remnants survive.

[3]: The location of all the CDEs are subject to further verification on site.

Appendix D

Summary of Miscellaneous Items of the Proposed Works

Appendix D - Summary of Miscellaneous Items of the Proposed Works

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
External works (within the Declared Monument boundary)						
1	<p>Metal gate with granite pillars topped by urns</p> <p>Upgrade existing side metal gate for means of escape provision</p>  <p>(At Battery Path on G/F adjacent to the main entrance)</p>	Metal gate with granite pillars topped by urns	Medium	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> The location of the required modification is carefully chosen (to be at a later added gate during the most recent alteration in the 1990s, which is of low significance). The modification should not hinder the appreciation of the authentic stone pillars and the interpretation of the gateway. A new electrical door closer in a metal box will be installed at the bottom of the existing gate, while the existing lock will be replaced by an electro-magnetic system. All modifications will be installed to the existing later added gate in a discernible manner.
2	<p>Side metal gate with the logo “fleur de lys”</p> <p>Upgrade existing side metal gate for means of escape provision</p>  <p>(At Battery Path on G/F facing St. John’s Cathedral)</p>	Side metal gate with the logo “fleur de lys”	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> The modification on the side metal gate should be in a compatible manner and should not hinder the appreciation of the original gate design. The modification should be carried out in a way so that impact to the original side metal gate is kept to a minimum.
3	<p>Existing French doors</p> <p>Replacing existing French doors to verandahs by new fixed fire-rated windows</p>	French doors to verandahs	High	Acceptable impact with mitigation measures	<ul style="list-style-type: none"> The new fixed glazed panel with –/60/60 FRR is required according to the requirement of Fire Resistance Rating (60minutes for 	<ul style="list-style-type: none"> New fire-rated fixed windows should be designed to follow the original appearance of the French doors, so that it could be compatible to the overall façade design when viewing from the

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
	 <p>(At verandahs on G/F-2/F of the Southeast façade)</p>				Commercial Use) under Part C, Fire Resisting Construction of Code of Practice (COP) for Fire Safety in Buildings	exterior.
4	<p>Windows Add protective barrier to existing window openings with window sill less than 1100mm from the finished level, so as to meet current requirements for protective barriers</p>  <p>(All the windows on external building façades)</p>	Timber-framed windows with shutters with shutter dogs in the shape of "fleur de lys", timber-framed casement windows with window dogs in the shape of "fleur de lys"	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> Any new addition should not hinder the appreciation of the original appearance of the windows and keep the visual impact to a minimum. Glass barrier to be aligned with the transom of the window will be added between the inner and outer window or shutter to minimise the visual impact, while still distinguishable from the historic fabric.
5	<p>Windows Upgrade existing windows for acoustic improvement, including using double glazing or addition of secondary windows</p>	Timber-framed windows with shutters with shutter dogs in the shape of "fleur de lys", timber-framed casement windows with window dogs in the shape of "fleur de lys"	High	Acceptable impact with mitigation measures	<ul style="list-style-type: none"> Most of the existing windows are identified to be later interventions, which allow a greater flexibility in the upgrading 	<ul style="list-style-type: none"> Any new addition or modification to the windows should be carried out in a way so that the original window design could still be followed and will not affect the appreciation of the original façade design when viewing from the exterior.

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
	 <p>(All the windows on external building façades)</p>					
6	<p>Main entrance portico Remove existing broken pediment atop the portico added in 1997</p>  <p>(Main entrance portico at Battery Path on G/F)</p>	Main entrance with granite double columned portico, finials and granite steps	High	Beneficial impact	<ul style="list-style-type: none"> The removal of the broken pediment which was a later intervention in 1997 will reveal the original portico design and help to reinforce the understanding of the original design of this historic building 	<ul style="list-style-type: none"> Reference should be made to available old photos and drawings. The design of the restored entrance portico shall be submitted to AMO for approval.
7	<p>Lift Add new accessible lift to serve all the floors to comply with the current requirements of barrier free access</p>  <p>(On the roof at northern corner)</p>	Flat roof profile with chimneys, cupola and the turret	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> The height of the lift should not exceed the height of the existing parapet so that it would not disturb the appreciation of the Building when viewing from the exterior.
8	<p>E&M plant Installation of building services equipment and pipe works to enhance the comfort of users and visitors; add a new lightning pole and flag pole on</p>	Flat roof profile with chimneys, cupola and the turret	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> The outdoor building services equipment should be placed at less prominent locations on the roof terrace to minimise visual impact to the heritage site. The disturbance to the historic fabric should be

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
	<p>the flat roof</p>  <p>(On the flat roof level)</p>					kept to a minimum.
Interior works						
9	<p>Main entrance and entrance corridor</p> <p>Restore the original entrance design including the removal of existing suspended ceiling and building services at the ceiling and later-added door</p>  <p>(On G/F at the entrance corridor)</p>	Main entrance lobby, entrance corridor	High	Beneficial impact	<ul style="list-style-type: none"> The restoration of the entrance corridor will reveal the original spatial quality and help to reinforce the understanding of the original design of this historic building. 	<ul style="list-style-type: none"> Reference should be made to available old photos, drawings and existing precedents of the same period.
10	<p>Main entrance and entrance corridor</p> <p>Improvement works to the entrance corridor including addition of handrails and contrasting nosing strips to meet current requirements for barrier free access</p>	Main entrance lobby, entrance corridor	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> The new handrails should be a compatible design and to be discernible from the original historic fabric. It should also be simple and minimal in design which should not overwhelm the original appearance of the entrance corridor. The nosing strips will be incorporated at carpet to be laid on the existing steps and floor of the entrance corridor, subject to the approval by the Statutory Compliance Checking Unit (SCCU) of the Architectural

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
	 (On G/F at the entrance corridor)					<p>Services Department. Hence, the impact to the historic fabric will be minimised.</p> <ul style="list-style-type: none"> Exemption for the provision of tactile warning strip will be sought to minimise disturbance to the existing flooring, subject to the approval by SCCU. Portable braille and tactile maps are proposed to be provided to those in need as a compensatory measure.
11	<p>Relocate lavatory</p>  (LG/F, former cell unit)	<p>General spatial organisation</p> <p>Cell area at LG/F</p>	<p>High</p> <p>Medium</p>	<p>Acceptable impact with mitigation measures</p>	<ul style="list-style-type: none"> The new location is carefully chosen to be of comparatively lower significance and have experienced interventions throughout the history of the Building. It is also at a less prominent location so that the major building layout will not be disturbed. 	<ul style="list-style-type: none"> The disturbance to the historic fabrics should be kept to a minimum as far as practicable.
	 (G/F, former general registry)					
	 (1/F, former public waiting room)					
	 (2/F, former robing room)					

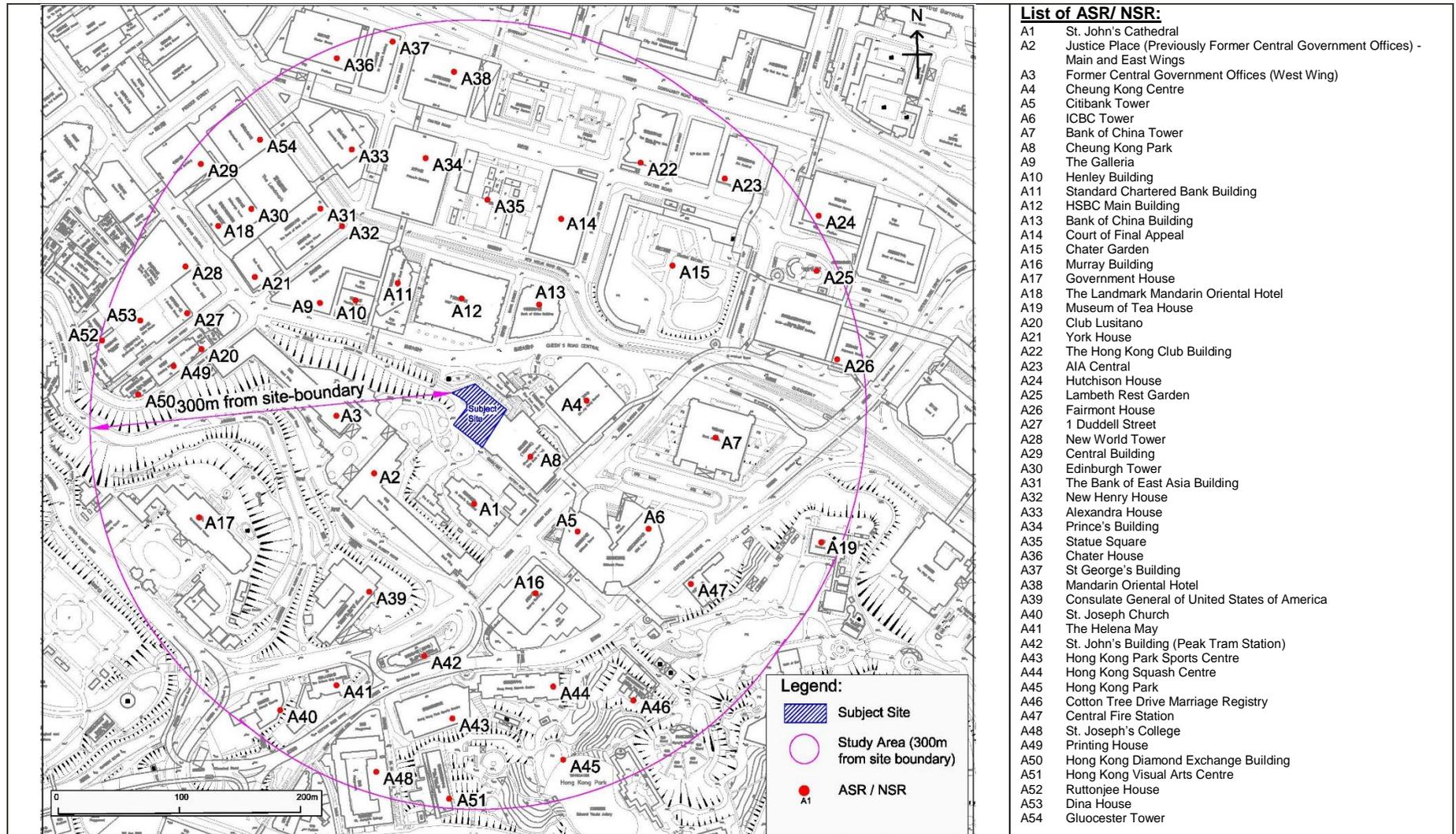
	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
12	<p>Corridors around courtyard</p> <p>Restore the original corridors design flanking both sides of internal courtyard including removal of existing suspended ceiling and building services at the ceiling and carpet to reveal or re-lay with original floor finish</p>  <p>(Major corridors around internal courtyard on G/F – 2/F)</p>	Major corridors	High	Beneficial impact	<ul style="list-style-type: none"> The restoration of the corridors will reveal the original spatial quality and help to reinforce the understanding of the original design of the historic building. 	<ul style="list-style-type: none"> Reference should be made to available old photos, drawings and existing precedents of the same period. The design of the restored internal courtyard shall be submitted to AMO for approval.
13	<p>Hard wood staircase</p> <p>Upgrade the hardwood staircase for means of escape provision, including adding pot planters along balustrades and handrails on the other side on the plastered wall surface, and contrasting nosing strips</p>  <p>(Hardwood staircase on LG/F – 2/F)</p>	Hardwood staircases	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> Place pot planters (subject to the approval for modification of the concerned building regulation by the SCCU): <ul style="list-style-type: none"> The pot planters should be placed in a reversible manner which will not have any impact to the historic fabric. The design of the planter box should be subtle in shape and properly proportioned which will not overwhelm the original appearance of the balustrades The new handrails should be a compatible design and to be discernible from the original historic

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
						<p>fabric. It should also be simple and minimal in design which should not overwhelm the original appearance of the hardwood staircase</p> <ul style="list-style-type: none"> ▪ The nosing strips will be incorporated at carpet to be laid on the existing steps of the hardwood staircase, subject to the approval by SCCU. By doing so, the impact to the historic fabric will be minimised. ▪ Exemption for the provision of tactile warning strip will be sought to minimise disturbance to the existing flooring, subject to the approval by SCCU. Portable braille and tactile maps are proposed to be provided to those in need as a compensatory measure.
14	<p>Building services Installation of building services such as electrical system, fire services system, air conditioning system, etc.</p>	Building Structure, plastered walls and decorative plasterworks	High	Acceptable impact with mitigation measures		<ul style="list-style-type: none"> ▪ A building services installation survey with the location of all openings should be carried out. ▪ Existing building services installation should be followed as far as technically feasible. All the locations of new opening should be submitted to AMO for approval. ▪ All the pipes and ducts of all kinds of building services installation should be grouped together so that minimum number of holes will be made on the walls. ▪ Existing openings on walls should be utilised as far as technically feasible

	Miscellaneous Item	CDE Affected	Level of Significance	Impact	Justification	Mitigation Measures to be Incorporated in the Design
						<p>instead of forming new holes.</p> <ul style="list-style-type: none"> ▪ Location of new openings for passage of pipes should be located at a less prominent location, and should be agreed prior to the works. ▪ Cable trunking should be used instead of individual electrical conduits. ▪ Disturbance to the historic walls shall be kept to a minimum as far as possible. The openings shall be formed by removal of masonry units subject to the advice from Registered Structural Engineer. ▪ No new conceal type conduit and pipe is allowed. The exposed routing should be carefully designed at less prominent locations and tidily aligned to keep the disturbance and visual impact to historic fabric to a minimum.

Appendix E

Locations of Air Sensitive Receivers / Noise Sensitive Receivers



Project:	Conversion of the Former French Mission Building for accommodation use by law-related organisation(s) and related purposes					
Figure Name:	Location of Air Sensitive Receivers (ASR) / Noise Sensitive Receivers (NSR) in the vicinity		Rev: 1			
Drawn By:	SC	Verified By:	IL		Approved By:	NT

Appendix F

Construction Noise Impact Assessment

Appendix F - Construction Noise Impact Assessment

F.1 Construction Plant Inventory for External Works

Construction noise impacts were assessed for the different external construction works. It was expected that Power Mechanical Equipment (PME) would be used in the construction of “modification of an existing accessible ramp”, “re-opening of the existing enclosed verandahs”, “addition of an exit door” and “addition of a demountable ramp for universal access and the re-paving of the open space”. It was expected that handheld manual tools and no PME would be involved in other external works including “Temporary Hoarding”, “Addition of new handrails on the existing external granite staircase”, “modification of skylight” and the miscellaneous works as mentioned in Appendix D. It is anticipated that temporary electricity and/or existing electricity supply of the Building will be available during the external construction works. The external construction works would be carried out in phases. There would not be cumulative construction noise arisen from more than one external construction phase.

Tables below provide the construction plant inventory. The plant inventory and utilisation rate adopted in the assessment are typical of similar applications and are considered practicable by the Engineer in achieving the preliminary construction programme. The final selection of the construction plant(s) shall be subject to the contractor's decisions.

Table F.1 Construction Plant Inventory for Phase 1

Phase 1	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Modification of an existing accessible ramp - activity 1	Dump Truck, 5.5 tonne < gross vehicle weight \leq 38 tonne [2]	EPD/PME	1	80%	105	104	109
	Air Compressor, $\leq 10\text{m}^3/\text{min}$	CNP 001	1	100%	100	100	
	Breaker, hand-held, mass < 20kg	CNP 024	1	70%	108	106	

Table F.2 Construction Plant Inventory for Phase 2

Phase 2	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Modification of an existing accessible ramp - activity 2	Concrete Lorry Mixer	CNP 044	1	100%	109	109	111
	Concrete Pump	CNP 047	1	50%	109	106	
	Vibratory Poker, handheld, electric	EPD/PME	1	50%	102	99	

Table F.3 Construction Plant Inventory for Phase 3

Phase 3	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Re-opening of the existing enclosed verandahs	Drill/grinder, handheld (electric)	CNP 065	1	100%	98	98	105
	Dump Truck, 5.5 tonne < gross vehicle weight ≤ 38 tonne [2]	EPD/PME	1	80%	105	104	

Table F.4 Construction Plant Inventory for Phase 4

Phase 4	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of an exit door	Breaker, hand-held, mass < 20kg	CNP 024	1	100%	108	108	109
	Air Compressor, ≤10m ³ /min	CNP 001	1	100%	100	100	

Table F.5 Construction Plant Inventory for Phase 5

Phase 5	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of a demountable ramp for universal access and re-paving the open space - activity 1	Dump Truck, 5.5 tonne < gross vehicle weight \leq 38 tonne [2] (Location 1)	EPD/PME	1	80%	105	104	104 (Location 1)
	Air Compressor, $\leq 10\text{m}^3/\text{min}$ (Location 2)	CNP 001	1	100%	100	100	107 (Location 2)
	Breaker, hand-held, mass < 20kg (Location 2)	CNP 024	1	70%	108	106	

Table F.6 Construction Plant Inventory for Phase 6

Phase 6	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of a demountable ramp for universal access and re-paving the open space - activity 2	Concrete Lorry Mixer (Location 1)	CNP 044	1	100%	109	109	109 (Location 1)
	Concrete Pump (Location 2)	CNP 047	1	50%	109	106	107 (Location 2)
	Vibratory Poker, handheld, electric (Location 2)	EPD/PME	1	50%	102	99	
	Bar bender and cutter (electric) (Location 2)	CNP 021	1	100%	90	90	

Note:

[1] Refer to the Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM) and “Sound Power Levels of Other Commonly Used PME”.

[2] Refer to dump truck with gross vehicle weight between 5.5 tonnes and 38 tonnes.

F.2 Calculation of Unmitigated Predicted Construction Noise Level

The construction noise impact assessment was undertaken in accordance with the procedures outlined in the Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM), which is issued under the Noise Control Ordinance and the Technical Memorandum on Environmental Impact Assessment of Environmental Impact Assessment Ordinance. The table below provides the predicted noise level without the provision of mitigation measures.

Table F.7 Calculation of Unmitigated Predicted Noise Level

Nearest NSR: St. John's Cathedral Area Sensitivity Rating: B Criteria: Day & Evening (0700 – 2300 hrs): 75 dB(A)							
External Construction Phases		Unmitigated SWL, dB(A)	Distance^[1], m	Distance Correction, dB(A)	Facade Correction, dB(A)	Predicted Noise Level (PNL), dB(A)	Resultant PNL, dB(A)
Phase 1	Modification of an existing accessible ramp – activity 1	109	64	-44	3	68	68
Phase 2	Modification of an existing accessible ramp – activity 2	111	64	-44	3	70	70
Phase 3	Re-opening of the existing enclosed verandahs	105	31	-38	3	70	70
Phase 4	Addition of an exit door	109	31	-38	3	74	74
Phase 5	Addition of a demountable ramp for universal access and re-paving the open space – activity 1 (<i>Location 1</i>)	104	64	-44	3	63	73
	Addition of a demountable ramp for universal access and re-paving the open space – activity 1 (<i>Location 2</i>)	107	31	-38	3	72	
Phase 6	Addition of a demountable ramp for universal access and re-paving the open space – activity 2 (<i>Location 1</i>)	109	64	-44	3	68	73
	Addition of a demountable ramp for universal access and re-paving the open space – activity 2 (<i>Location 2</i>)	107	31	-38	3	72	

Note:

[1] Distance is the horizontal distance between the NSR and the proposed location of external construction phases.

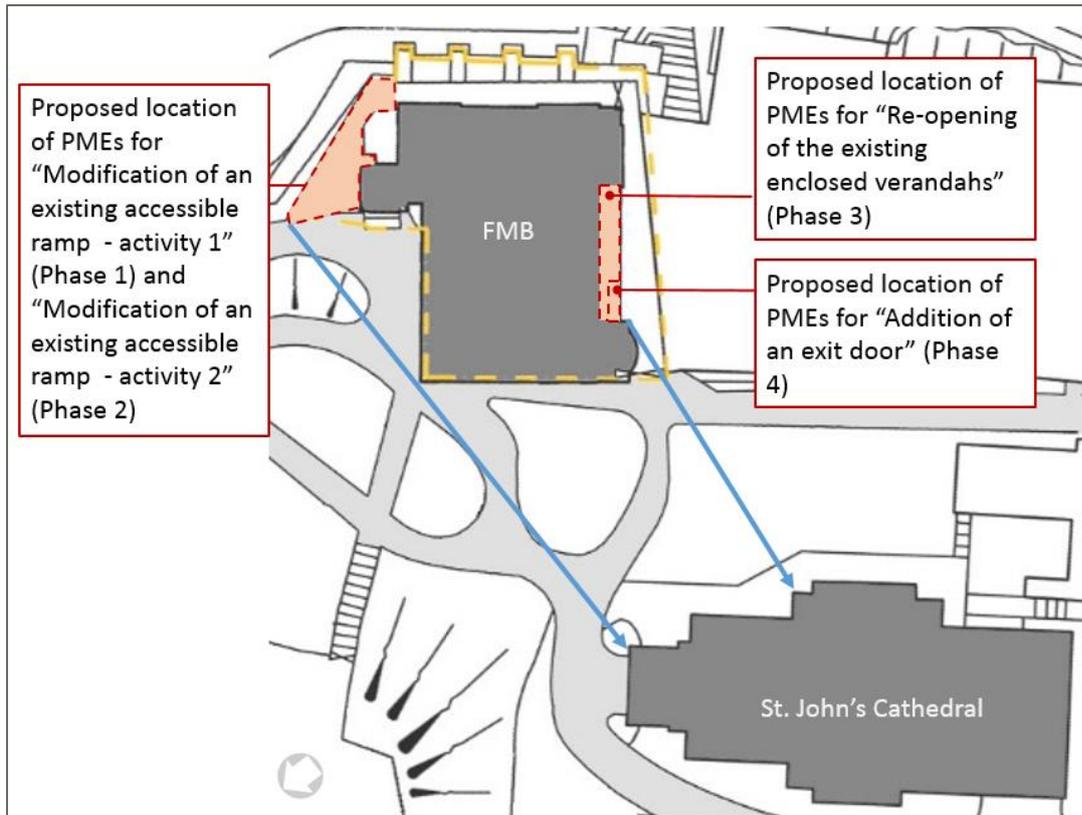


Figure F.1 Proposed Location of External Construction Works - 1

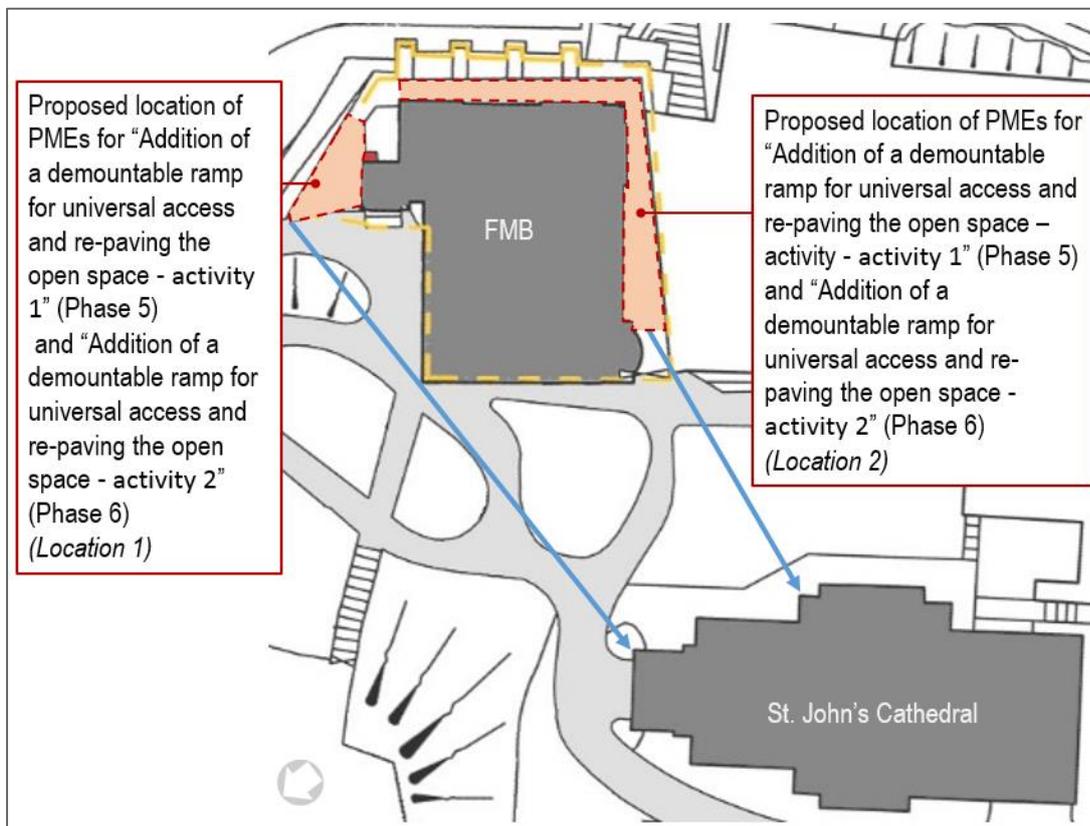


Figure F.2 Proposed Location of External Construction Works - 2

F.3 Construction Plant Inventory for External Works with Mitigation Measures

Tables below provide the construction plant inventory and the noise situation with the implementation of mitigating measures. Temporary noise barriers are proposed to screen noise from the sources to the NSR. In general, a barrier can achieve a 5dB(A) reduction for movable PME and 10dB(A) reduction for stationary PME, depending on the actual design of the barrier.

Table F.8 Construction Plant Inventory for Phase 1 (Mitigated)

Phase 1	Plant	ID Code [1]	No. of PME	On-time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Modification of an existing accessible ramp - activity 1	Dump Truck, 5.5 tonne < gross vehicle weight ≤ 38 tonne [2]	EPD/PME	1	80%	105	--	--	104	109
	Air Compressor, ≤10m ³ /min	CNP 001	1	100%	100	--	--	100	
	Breaker, hand-held, mass < 20kg	CNP 024	1	70%	108	--	--	106	

Table F.9 Construction Plant Inventory for Phase 2 (Mitigated)

Phase 2	Plant	ID Code [1]	No. of PME	On-time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Modification of an existing accessible ramp - activity 2	Concrete Lorry Mixer	CNP 044	1	100%	109	--	--	109	111
	Concrete Pump	CNP 047	1	50%	109	--	--	106	
	Vibratory Poker, handheld, electric	EPD/PME	1	50%	102	--	--	99	

Table F.10 Construction Plant Inventory for Phase 3 (Mitigated)

Phase 3	Plant	ID Code [1]	No. of PME	On-time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Re-opening	Drill/grinder, handheld	CNP 065	1	100%	98	--	--	98	105

of the existing enclosed verandahs	(electric)								
	Dump Truck, 5.5 tonne < gross vehicle weight \leq 38 tonne ^[2]	EPD/PME	1	80%	105	--	--	104	

Table F.11 Construction Plant Inventory for Phase 4 (Mitigated)

Phase 4	Plant	ID Code ^[1]	No. of PME	On-time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of an exit door	Breaker, hand-held, mass < 20kg	CNP 024	1	100%	108	Temporary Noise barrier	5	103	105
	Air Compressor, $\leq 10\text{m}^3/\text{min}$	CNP 001	1	100%	100	--	--	100	

Table F.12 Construction Plant Inventory for Phase 5 (Mitigated)

Phase 5	Plant	ID Code ^[1]	No. of PME	On-time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of a demountable ramp for universal access and re-paving the open space - activity 1	Dump Truck, 5.5 tonne < gross vehicle weight \leq 38 tonne ^[2] <i>(Location 1)</i>	EPD/PME	1	80%	105	--	--	104	104 <i>(Location 1)</i>
	Air Compressor, $\leq 10\text{m}^3/\text{min}$ <i>(Location 2)</i>	CNP 001	1	100%	100	--	--	100	104 <i>(Location 2)</i>
	Breaker, hand-held, mass < 20kg <i>(Location 2)</i>	CNP 024	1	70%	108	Temporary Noise barrier	5	101	

Table F.13 Construction Plant Inventory for Phase 6 (Mitigated)

Phase 6	Plant	ID Code [1]	No. of PME	On- time %	Unit Sound Power Level (SWL), dB(A)	Mitigation Measures	Reduction dB(A)	SWL, dB(A)	Total SWL, dB(A)
Addition of a demountable ramp for universal access and re-paving the open space - activity 2	Concrete Lorry Mixer (Location 1)	CNP 044	1	100%	109	--	--	109	109 (Location 1)
	Concrete Pump (Location 2)	CNP 047	1	50%	109	Temporary Noise barrier	10	96	101 (Location 2)
	Vibratory Poker, handheld, electric (Location 2)	EPD/PME	1	50%	102	--	--	99	
	Bar bender and cutter (electric) (Location 2)	CNP 021	1	100%	90	--	--	90	

Note:

[1] Refer to the Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM) and “Sound Power Levels of Other Commonly Used PME”.

[2] Refer to dump truck with gross vehicle weight between 5.5 tonnes and 38 tonnes.

F.4 Calculation of Mitigated Predicted Construction Noise Level

The construction noise impact assessment was undertaken in accordance with the procedures outlined in the Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM), which is issued under the Noise Control Ordinance (and the Technical Memorandum on Environmental Impact Assessment of Environmental Impact Assessment Ordinance. The table below provides the predicted noise level with the provision of temporary noise barriers.

Table F.14 Calculation of Mitigated Predicted Noise Level

Nearest NSR: St. John's Cathedral Area Sensitivity Rating: B Criteria: Day & Evening (0700 – 2300 hrs): 75 dB(A)							
External Construction Phases		Mitigated SWL, dB(A)	Distance ^[1] , m	Distance Correction, dB(A)	Facade Correction, dB(A)	Predicted Noise Level (PNL), dB(A)	Resultant Mitigated PNL, dB(A)
Phase 1	Modification of an existing accessible ramp – activity 1	109	64	-44	3	68	68
Phase 2	Modification of an existing accessible ramp – activity 2	111	64	-44	3	70	70
Phase 3	Re-opening of the existing enclosed verandahs	105	31	-38	3	70	70
Phase 4	Addition of an exit door	105	31	-38	3	70	70
Phase 5	Addition of a demountable ramp for universal access and re-paving the open space – activity 1 (<i>Location 1</i>)	104	64	-44	3	63	70
	Addition of a demountable ramp for universal access and re-paving the open space – activity 1 (<i>Location 2</i>)	104	31	-38	3	69	
Phase 6	Addition of a demountable ramp for universal access and re-paving the open space – activity 2 (<i>Location 1</i>)	109	64	-44	3	68	70
	Addition of a demountable ramp for universal access and re-paving the open space – activity 2 (<i>Location 2</i>)	101	31	-38	3	66	

Note:

[1] Distance is the horizontal distance between the NSR and the proposed location of external construction phases.

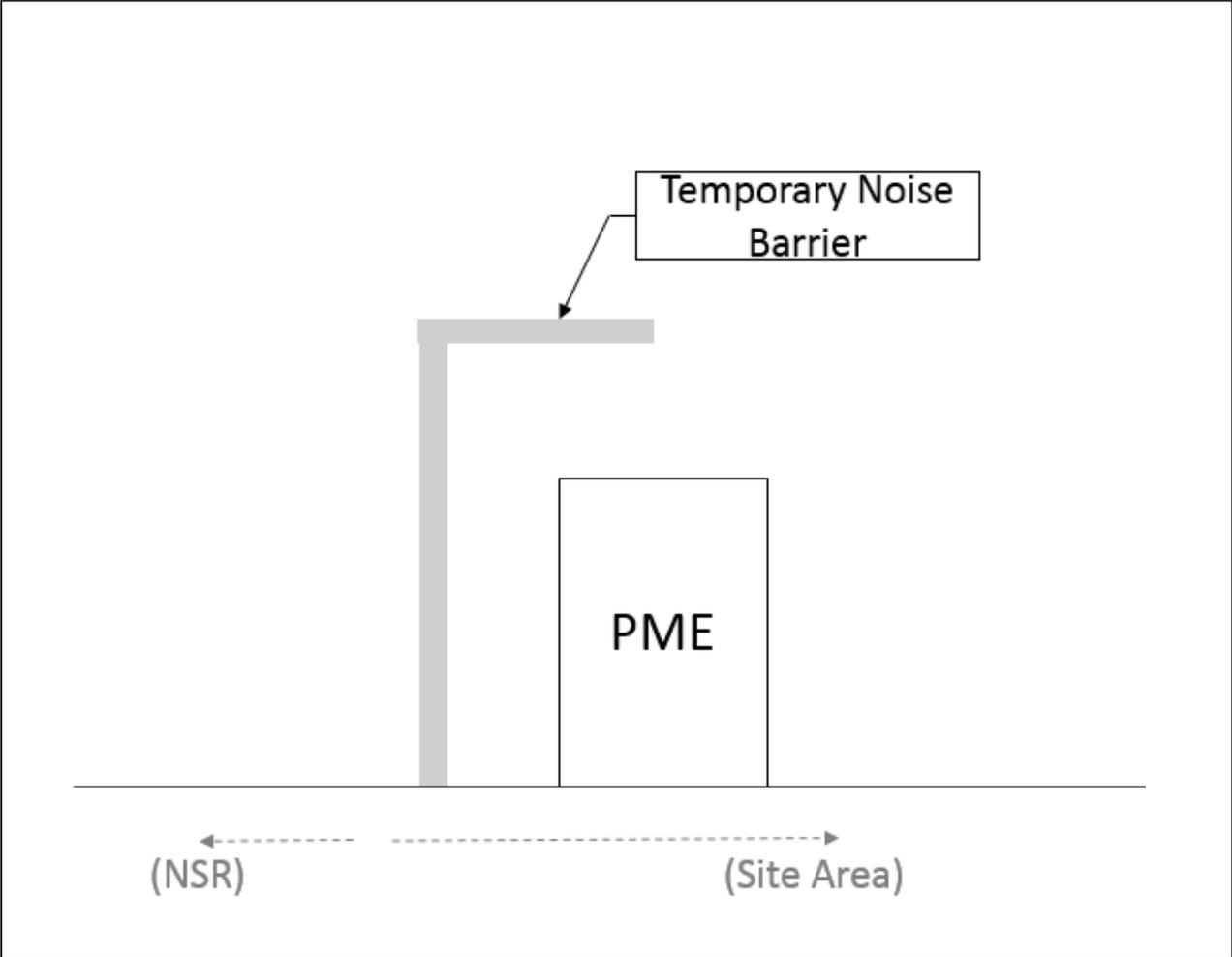


Figure F.3 Indicative Diagram of Movable Barrier

Appendix G

Summary of Mitigation Measures during Construction

Appendix G - Summary of Mitigation Measures during Construction

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
Construction Noise	<p>Common noise control measures:</p> <ul style="list-style-type: none"> - Use of quiet PME with lower sound power levels - Use of temporary noise barriers - Locating noise emitting plants as far as practicable away from sensitive receivers - Define contractual clauses for construction works - No construction works will be carried out during 7 p.m. to 7 a.m. from Monday to Saturday and any time on Sundays and General Holidays <p>General site practices:</p> <ul style="list-style-type: none"> - Only well-maintained plant should be operated on-site and plant should be serviced regularly - Silencers or mufflers on construction equipment should be utilised and should be properly maintained - Mobile plant should be sited as far away from NSRs as possible - PME that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum level - Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs - Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction works - The schedule and location of noisy construction works of the Project should be well coordinated on site in order to minimise cumulative construction noise impact 	Contractor	6.3
Construction Dust	<p>Implement dust control and suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation:</p> <ul style="list-style-type: none"> - Regular water spraying of exposed surfaces - Covering dusty material stockpiles with tarpaulin sheet - Erection of hoarding - Provision of covers for all trucks 	Contractor	6.4

Potential Environmental Impact	Mitigation Measures	Implementation Agent	Project Profile Section
Waste Management	Implement good waste management plan and practices on minimising, handling and disposal of waste: <ul style="list-style-type: none"> - Handle, store and dispose of all wastes in accordance with the Waste Disposal Ordinance - Handle, store and dispose of asbestos waste in accordance with all Codes of Practice regarding asbestos works issued pursuant to Section 37 of the APCO - Store general refuse in enclosed bins or compaction units separate from C&D materials and chemical wastesEmploy a reputable waste collector to collect and dispose of general refuse from the site on a daily or every second day basis 	Contractor	6.5
Water Quality	Adopt site practices outlined in ProPECC PN 1/94 “Construction Site Drainage”: <ul style="list-style-type: none"> - Provide sand/silt removal facilities to remove sand/silt particles from runoff - Inspect and maintain all drainage facilities and erosion and sediment control structures - Clean all vehicles and plant before leaving the construction site - Cover open stockpiles of construction materials or construction wastes on-site with tarpaulin or similar fabric during rainstorms - Adopt good site practices to remove rubbish and litter from construction site to prevent them from entering public sewers or drains - Deploy temporary sanitary facilities 	Contractor	6.6
Landscape and Visual Impact	Landscape Impact: <ul style="list-style-type: none"> - Monitoring and inspection will be carried out for landscape resources during construction period - Suitable tree protection will be provided Visual Impact: <ul style="list-style-type: none"> - Decorative hoarding and scaffolding could be used to soften the visual impact 	Contractor	6.8