

**HERITAGE IMPACT ASSESSMENT FOR TUNG WAH MUSEUM
IN RESPECT OF THE REDEVELOPMENT OF
KWONG WAH HOSPITAL**

BACKGROUND

The project site, Kwong Wah Hospital (KWH) compound is located at 25 Waterloo Road, Kowloon and bounded by Waterloo Road to the south east, Dundas Street to the north and Pitt Street to the south. The original hospital, with the present Tung Wah Museum as the Main Hall, was built in 1911 and later extended in 1923. The existing hospital buildings were redeveloped and constructed in different phases between the 1950s and 1960s. Subsequently, there have been ongoing renovations, alterations, redevelopments and expansion in the KWH compound.

2. Being the oldest charitable organisation providing free medical services, Tung Wah Group of Hospitals (TWGHs) has been upholding its mission “to heal the sick and to relieve the distressed”. TWGHs Chinese and Western general outpatient clinics provide more than one million free consultations to the local community every year. Its long standing tradition of providing medical services free or affordably to the needy in the community is much valued by the general public.

3. The KWH is a major acute hospital providing comprehensive acute care services for the Kowloon West Cluster of the Hospital Authority (HA). Being located in a densely populated area in the Yau Tsim Mong (YTM) district, the KWH is one of the busiest hospitals of HA. According to the latest projection of the Planning Department, the population of the YTM district is projected to decrease slightly from 315,000 in 2013 to 309,200 in 2023. However, the elderly population aged 65 or above in the district is projected to increase from 48,700 in 2013 to 69,400 in 2023, representing a significant increase of around 43%. The aging population in the district gives rise to increasing demand for both in-patient and ambulatory services.

4. However, the majority of the buildings within the KWH compound are over 50 years old. With the passage of time, provision of space has become inadequate

and building services installation has become out-dated. The structural conditions of the buildings have also been deteriorating. The extremely heavy utilisation of KWH has also accelerated the wear and tear of its facilities.

5. Inadequate operational floor space has been a perennial problem facing KWH against the ever-increasing service demands. Numerous improvement works have been carried out in an ad hoc manner over the years to cope with the essential operational needs of the clinical services units. At present, related facilities and services are scattered in many different buildings of the KWH, causing unnecessary travelling and inconvenience to patients, increasing the risk of cross infections and hampering the operational efficiency of the hospital.

6. To ensure that modern and safe services will be provided to meet the future healthcare needs of the community, HA is currently planning an extensive redevelopment project for the KWH. The redevelopment plan will enable the KWH to meet the standards of a modern acute hospital, with a patient-oriented setting and flexible use of space that will improve patient comfort, achieve operational efficiency and provide quality modern healthcare. Upon completion, the total bed capacity will be increased from about 1,200 to around 1,500 and the number of specialist out-patient consultation rooms will be increased from 44 to around 100.

7. The redevelopment project is proposed to be carried out in two phases. All the existing buildings will be demolished except for the existing TWGHs Tsui Tsin Tong Out-patient Building) which was built in 1999; the Tung Wah Museum (Museum), which was built in 1911; and the former Main Hall of the KWH. The Museum was accorded a Grade 1 Historic Building status in 1992 and it was subsequently declared as a monument on 12 November 2010. The rest of the hospital buildings are not graded as historic buildings

8. The site plan showing the location of the KWH compound and the existing buildings is detailed in **Figure 1**.

HERTIAGE IMPACT ASSESSMENT (HIA)

9. In accordance with the Development Bureau Technical Circular (Works) No. 06/2009 and Antiquities and Monuments Office (AMO)'s Guidance Note to HIA

submission, an HIA has been carried out to assess the possible impact of the proposed KWH redevelopment on the Museum, a declared monument within the KWH site, and to provide recommendations for the necessary mitigation measures if adverse impact is unavoidable and to propose enhancement measures to the existing Museum.

STATEMENT OF CULTURAL SIGNIFICANCE

10. The Museum is culturally significant for the following reasons:

i) *Historical Value*

As the original Main Hall of the KWH built in 1911, the Museum is now used as an important cultural heritage base with a rich collection of preserved relics and archives of the TWGHs;

ii) *Architectural Value*

As a fine exemplar of public building built in the early 20th century of mixed Western-and-Chinese architectural style, it is characterized by its green-glazed ceramic tiled roof, timber brackets and brick gable walls, Western-style timber truss, arched window and wall openings, with rich Chinese ornaments and decorative motifs (**Figure 2**);

iii) *Social Value*

As the first hospital in Kowloon and the New Territories serving the community, particularly the lower sector of Hong Kong in early days, it is an important testimonial of the development history of the TWGHs and the KWH for both Western and Chinese medical services; and

iv) *Authenticity and Rarity*

The existing building displays a distinct architectural look. A high degree of authenticity is also retained in the original structure despite certain later alterations have been made to the building.

EXISTING SURROUNDING CONDITIONS OF THE MUSEUM

11. The Museum is located at the center of the existing KWH compound with the following surrounding conditions:-

- The Museum is hidden from all sides and cannot be seen by the public from anywhere outside the KWH;
- There is no direct or convenient access from any street leading to the Museum; and
- The Museum is surrounded by a carpark and vehicular access.

REDEVELOPMENT SCHEME

12. Several design options and building forms have been considered in the Master Development Plan (MDP) stage so that a balance between the needs for the redevelopment and the conservation of the Museum can be achieved. It is also intended to take this opportunity to open the Museum to the public with visual connection and easy accessibility from the outside. Finally, an option proposing the erection of two towers with a central linking block in front of the Museum was adopted. A huge atrium will be developed underneath the linking block which can enhance visibility of the Museum, reinstate the value as the entrance hall of the original hospital, and provide visual and physical connections to the outside.

13. Since March 2013, further improvement and development to the design have been made based on the option adopted in the MDP stage so that the integration of the old Museum and the new hospital can be further enhanced. The design principles and parameters of the latest proposed scheme, i.e. a hospital block being divided into two towers comprising 18 storeys of superstructure with two levels of basement floors (B1 and B2), a Medical Mall Atrium linking the two towers in front of the Museum, a landscape area surrounding the Museum to create a central courtyard and a healing garden behind the proposed hospital block, are similar to those adopted in MDP.

HERITAGE IMPACT AND MITIGATION MEASURES

14. There will be no work, alteration or changes to the Museum in the redevelopment proposal; hence, no direct or physical impact to the Museum will be

expected. However, as the Museum is located in the midst of the KWH redevelopment, potential impacts on the Museum during various stages of the redevelopment are inevitable and are assessed as follows:-

Potential Impacts

- i). *Visual Impact:* Due to the limited footprint of the KWH site and the large scale of the redevelopment project to meet the future needs, the new hospital will be inevitably taller than the existing buildings in the KWH compound and will be built closer to the Museum. The clear distance between the Museum and the adjacent new blocks on three sides (except the rear side) will be reduced;
- ii). *Impact on Direct Daily Sunlight:* Direct daily sunlight period on the Museum will be slightly shortened due to the reduction in distance between the new hospital and the Museum as well as the increase in the height of the new hospital; and
- iii). *Construction Impact:* Due to the close proximity of the construction works, potential vibration, dust deposition, falling debris and concrete slurry during demolition, excavation, foundation and superstructure construction stages of the redevelopment may pose potential impact on the Museum itself or indirectly on the curatorial contents within the Museum.

Mitigation Measures

15. In relation to the visual impact on the Museum, the following mitigation measures are proposed:-

- i). *Maintain buffer distance between the new hospital and the Museum:* In order to minimise the visual impact to the Museum, a buffer distance of about 10m will be provided on 2 sides of the Museum. Furthermore, to highlight the importance of the Museum, a distance of 12m between the front of Museum and the glazing line of the rear entrance of the Medical Mall Atrium will be provided so that a more significant and formal forecourt can be formed in front of the Museum (**Figure 3**); and
- ii). *Provision of a Medical Mall Atrium:* To further minimise the visual impact

to the Museum on ground level, a long span structure with a clear span of approximately 28.3m and a clear headroom of around 12.5m will be provided to form a Medical Mall Atrium in front of the main façade of the Museum. Low-reflective and highly transparent glazing supported by light weight supporting system will be used for the façades of the Medical Mall Atrium to minimise wall effect and to ensure maximum visibility of the Museum from Waterloo Road (**Figures 4, 5, 6 & 7**)

16. Mitigation Measures on the impact on direct sunlight: With the demolition of Staff Barrack at the rear side of the Museum and the selection of light colour external wall finishes for the new hospital block facing the Museum, the diffused sunlight around the Museum will be improved to compensate for the reduction of direct sunlight.
17. In relation to the construction impacts, the following mitigation measures are proposed:-
 - i). Adopt stringent vibration standard: A more stringent vibration / settlement / tilting limit as recommended by the AMO will be fully adopted in the construction works;
 - ii). Suitable construction methods: Percussive piling will not be allowed. Grout curtain or stronger excavation and lateral support system along the construction site facing the Museum will be provided to prevent settlement due to loss of ground water and to minimise the vibration and ground movement affecting the Museum;
 - iii). Protection at Source: Hard skin at source, including metal scaffolding, catch fence on every floor, denser netting and heavy duty tarpaulin (impervious dust screen on the top of safety netting) will be provided to the construction site facing the Museum to minimise the adverse effects of falling debris, concrete slurry run off and dust deposition to the Museum during the construction works;
 - iv). Additional dust suppression measures: Additional dust suppression measures will be provided to control permissible total suspended particulate (TSP) Level. More stringent dust suppression measures will be carried out. Mobile type air purification system will also be installed at the interior of

the Museum;

- v). Monitoring mechanism: During the course of construction works, a committee with various stakeholders will be set up to conduct regular review on the condition of the Museum and record any significant changes. In addition, qualified site supervisory staffs will also be deployed to monitor ground movement and vibration and record any significant changes; and
- vi). Protection of curatorial contents during construction: With the support of TWGHs, the Museum will maintain partial operation and phased opening during the critical period of the construction stage such as demolition, foundation construction, etc. Archives will be relocated to a site provided by TWGHs. Some plaques and couplets will be removed for in-situ or offsite storage and display. Strengthening devices for those which are retained in their present position will be provided, if necessary.

Enhancement Measures

18. Creation of central axis and Medical Mall Atrium: A central axis will be created with a hierarchy of space designed around the Museum:

- i). An entrance plaza abutting the Waterloo Road provides a gathering point and allows a direct and convenient access for the public to come to the Museum from Waterloo Road (**Figure 8 & 9**);
- ii). The Medical Mall Atrium will be the major focal point and a circulation node connecting the new hospital block and the Museum. Furthermore, with the careful design of the Medical Mall Atrium, it can be integrated with the Museum forming part of the forecourt of the Museum; and
- iii) The vacant site area after demolition of the existing Staff Barracks would be combined with the surrounding landscaping area of the Museum to transform into a healing garden for the new hospital block. This healing garden will act as a transitional space between the hospital and the Museum, and will become the oasis in the hospital complex filling the area with tranquil ambience.

19. *Removal of carpark and provision of landscaping area:* In the redevelopment scheme, the part of the existing vehicular access will be changed into a landscaping area so as to integrate with the Museum. All vehicular parking will be directed to the basement carpark. The current situation that the Museum surroundings are always parked with cars will be improved. The provision of landscaping area around the Museum can also provide a tranquil and sustainable environment to the Museum (**Figure 10**).

CONCLUSION

20. The HIA concludes that the overall potential impacts on the existing Museum are considered acceptable and manageable with the proposed mitigation measures. The redevelopment proposal will minimise any potential impact on the Museum and provide enhancement measures to the Museum and benefit the community at large. The proposed KWH redevelopment project is considered technically feasible and acceptable from the heritage conservation perspective.

Tung Wah Group of Hospitals

Hospital Authority

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Figure 2 – Photos of Tung Wah Museum

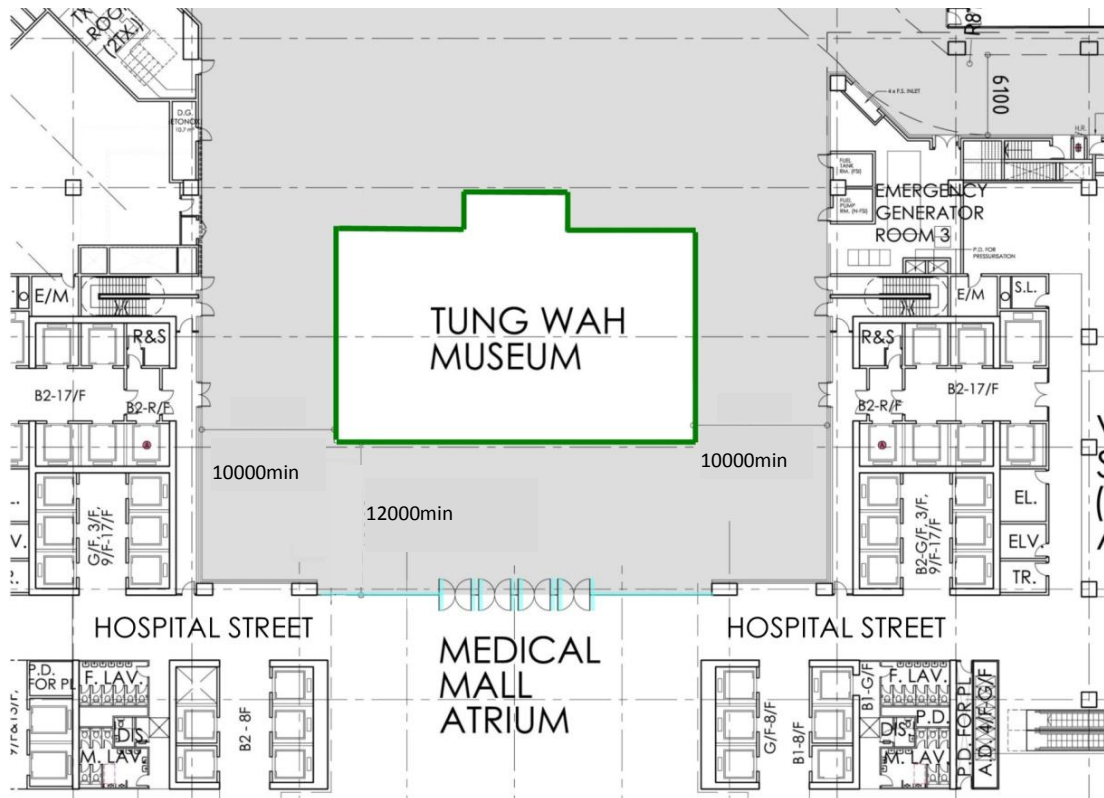


Figure 3 – Proposed Ground Floor Plan showing the Extended Forecourt

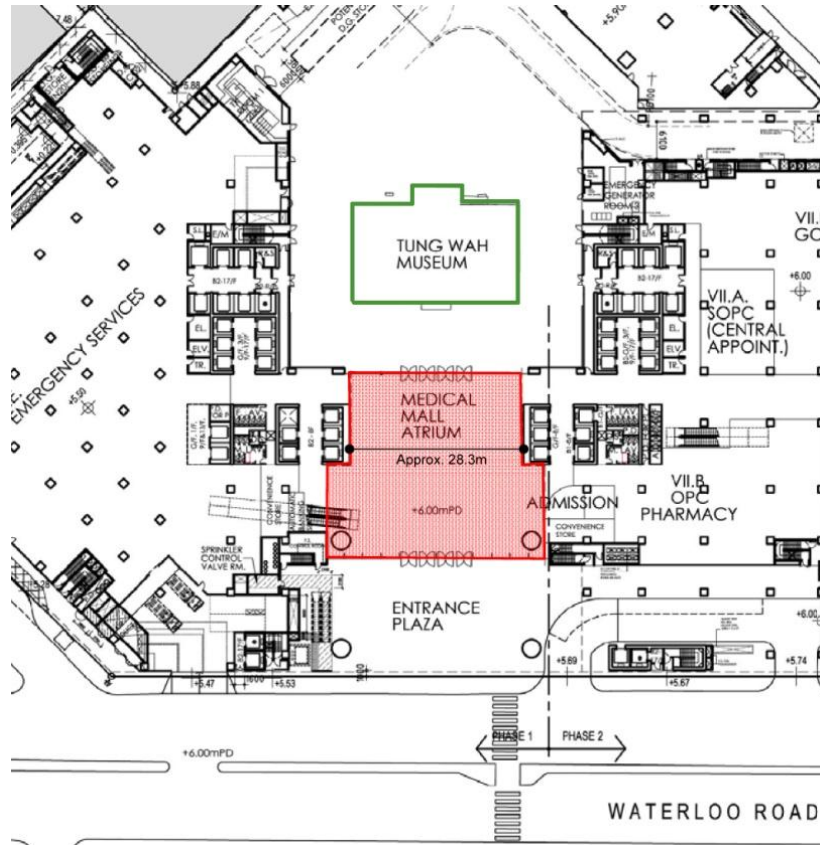


Figure 4 – Plan showing the Medical Mall Atrium

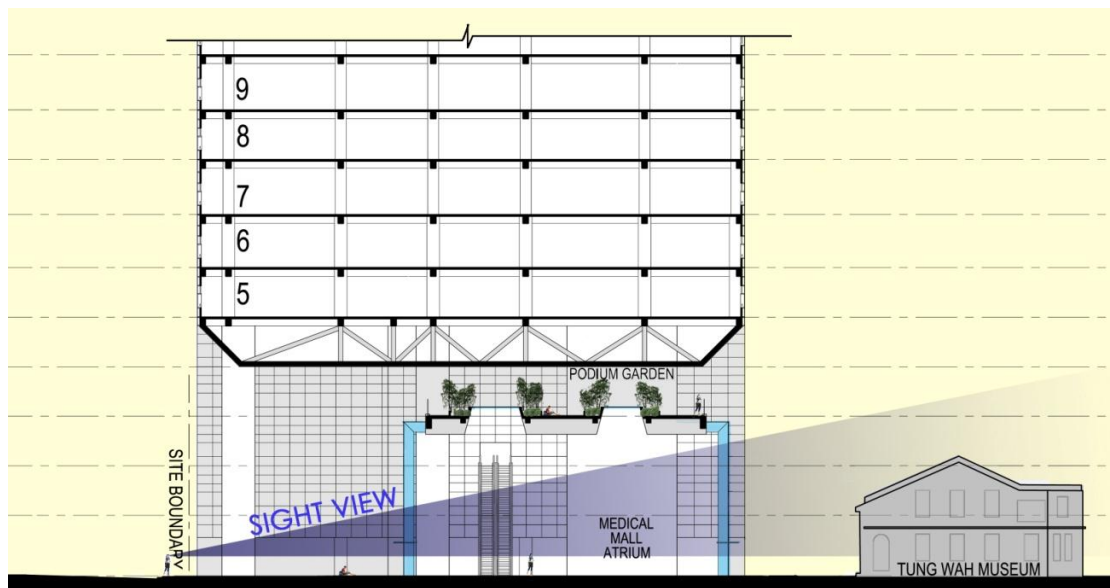


Figure 5 – Schematic Section through Medical Mall Atrium



**Figure 6 – Existing Front Entrance of Kwong Wah Hospital from Waterloo Road
(Tung Wah Museum is hidden from the main entrance)**



Figure 7 – Computer Image showing the Tung Wah Museum through the Medical Mall Atrium

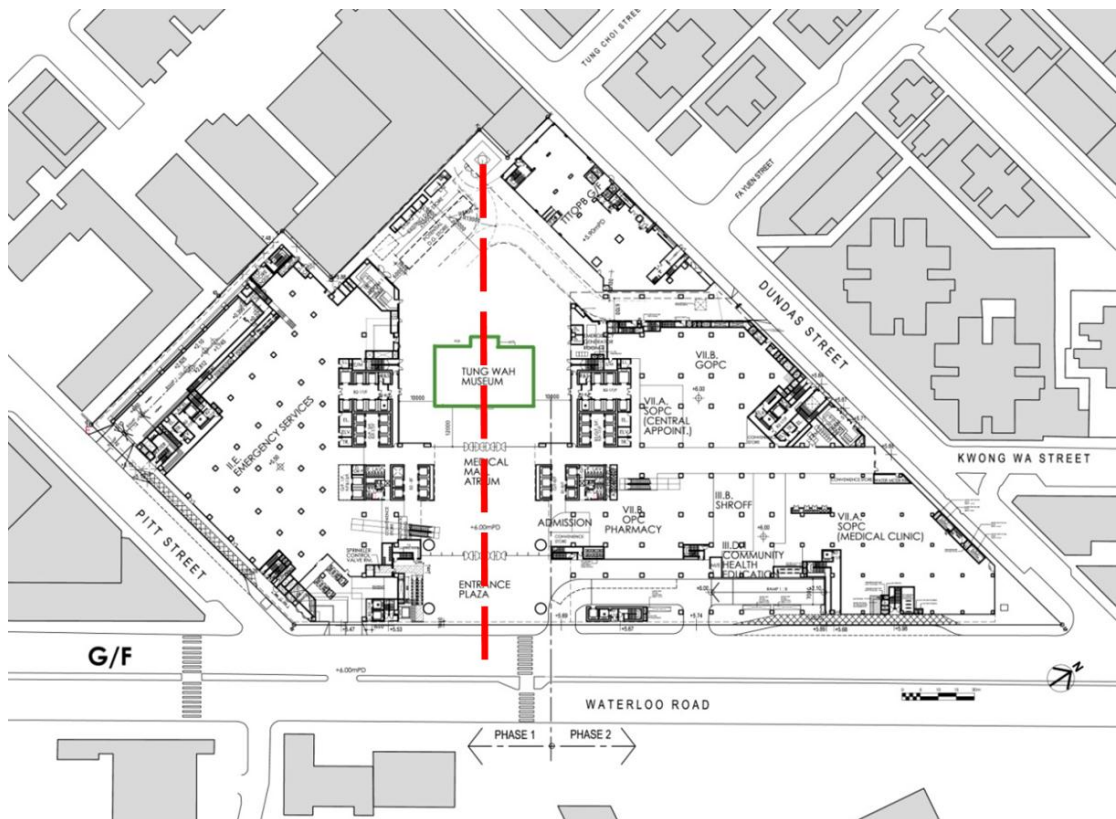


Figure 8 – Ground Floor Plan of the Latest Proposed Scheme



Figure 9 – Creation of Hierarchy of Space at Central Axis



Figure 10 – Landscaped Garden around the Tung Wah Museum