For discussion on 13 December 2016

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Pilot Study on Underground Space Development in Selected Strategic Urban Areas

Stage One Public Engagement

PURPOSE

The Stage One Public Engagement (PE1) of the "Pilot Study on Underground Space Development in Selected Strategic Urban Areas" (the Study) commenced on 7 November 2016. The PE1 Digest is at http://www.urbanunderground.gov.hk/files/docs/stage1_digest.pdf. This paper briefs Members on the opportunities, challenges and key considerations of underground space development (USD) in the Tsim Sha Tsui West, Causeway Bay, Happy Valley and Admiralty/Wan Chai Strategic Urban Areas (SUAs) and seeks Members' views on preliminary planning concepts of USD in the SUAs.

BACKGROUND

- 2. We commissioned the Study in June 2015 to explore the potential for underground space development in the four SUAs. The Study aims to (i) evaluate the overall merits and identify key issues of underground space development in these areas; (ii) formulate Underground Master Plans for the SUAs; and (iii) draw up suitable USD proposals for possible future development.
- 3. The four SUAs are located within the dense urban core of Hong Kong. The heavy pedestrian and vehicular traffic flows in these districts have resulted in a very congested environment. Besides, given the already compact development form, there is limited scope for creating additional space in these areas. Having reviewed the baseline profiles of the four SUAs as well as making reference to some examples of other cities, it is found that with creativity and a comprehensive spatial strategy, underground space can be made use to enhance pedestrian connectivity, improve the at-grade urban environment, create space for various uses and facilities for the public and in overall terms optimise the use of land in the SUAs.

OPPORTUNITIES AND CONSTRAINTS

4. The closely knitted urban fabric at the four SUAs, together with existing pedestrian subways, Mass Transit Railway (MTR) station entrances/exits and commercial basements of individual buildings, provides opportunities for the development of a holistic underground network. The merits of underground space developments are summarised as follows:

- (a) Improving pedestrian connectivity The at-grade pedestrian environment in the four SUAs is generally very congested and uncomfortable. Underground space provides an opportunity for additional all-weather and seamless pedestrian connections to strengthen the pedestrian linkages. Opportunity could also be taken to make the walking experience more interesting through provisioning of commercial and cultural elements in these underground spaces.
- (b) Creating space at prime locations The development opportunity of the four SUAs is currently constrained by the lack of space. Underground space development offers an alternative supply of land and space for different uses such as pedestrian passageways as well as retail, dining and entertainment uses at these prime locations.
- (c) Enhancing the living environment The additional floor space created underground could be solution spaces for relocating undesirable at-grade facilities and for accommodating public facilities such as community gathering places, event spaces or community facilities responding to community aspirations.
- (d) Improving local traffic situations Capitalising on convenient connections to the strategic road network and MTR stations, the underground space development in the four SUAs provides opportunity for accommodating public transportation facilities. Underground space can also address the shortfall of car parking facilities as well as coach parking.
- 5. It is also important to note the constraints and other technical considerations for the planning and design of underground space development in the four SUAs. We have identified some key issues that have to be addressed in the next stage of the Study:
 - (a) geotechnical, structural, and infrastructural constraints;
 - (b) interface with existing underground uses including basements, MTR stations and tunnels;
 - (c) fire safety;
 - (d) financial viability including construction, operation and maintenance costs and revenue;
 - (e) land ownership and town planning issues;
 - (f) implementation arrangement;

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- (g) impact to above-ground facilities/activities; and
- (h) traffic and community impacts during the construction stage.

PRELIMINARY PLANNING CONCEPTS

6. The Study has formulated preliminary planning concepts for the four SUAs as follows:

(a) Tsim Sha Tsui West

The Study recommends enhancing the connectivity between the Tsim Sha Tsui hinterland and the new development areas including the West Kowloon Cultural District and the West Kowloon Terminus of the Express Rail Link by providing a barrier-free underground pedestrian network underneath the Kowloon Park. The underground network, which is an all-weather pedestrian passageway, will also serve as key east-west and north-south pedestrian corridors within the district and help relieve at-grade pedestrian congestion. The space created could also be used for community, commercial, cultural, recreation and food & beverage, and parking facilities with a view to further strengthening Tsim Sha Tsui as an internationally renowned commercial and tourist destination.

In order to forestall adverse impact to Kowloon Park, areas occupied by built heritage and Old and Valuable Trees are avoided.

(b) Causeway Bay and Happy Valley

The Study recommends enhancing the connectivity between the waterfront areas and the hinterland of Causeway Bay by providing unimpeded and convenient underground pedestrian network running beneath Victoria Park and connecting the MTR Causeway Bay and Tin Hau Stations. Opportunities would be explored to make provision for possible connection to the proposed North Island Line (NIL) in the locality (the alignment and location of the station are subject to review as the NIL is at preliminary planning stage). The space created could be used for community, commercial, cultural, recreation, food & beverage, transport and parking facilities with a view to enhancing Causeway Bay's appeal as a major commercial, entertainment and leisure node.

In order to forestall adverse impact to Victoria Park, areas occupied by cultural, sport and recreational facilities are avoided.

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(c) Admiralty / Wan Chai

The Study recommends enhancing the north-south pedestrian connectivity to alleviate the pressure on the existing pedestrian connections, in particular the O'Brien Road Footbridge. The space created under the Southern Playground could be used for community facilities including sports and recreation facilities. Opportunity could also be taken to help retrofit the densely developed Wan Chai old areas, for example, by replanning the existing Luard Road Refuse Collection Point that would help mitigate the nuisance caused to the neighbourhood.

STAGE ONE PUBLIC ENGAGEMENT

7. The PE1 was launched on 7 November 2016 and will last for three months. Apart from the briefing to the Harbourfront Commission, we have conducted briefings for relevant boards/committees such as Wan Chai District Council, Yau Tsim Mong District Council and Town Planning Board, and briefing for the Panel on Development of the Legislative Council will be carried out. Focus group meetings to discuss specific topics with different stakeholders are on-going and two public planning workshops will be held in January 2017. Besides, roving exhibition at various locations to disseminate information of the Study to the public are on-going and a Study webpage (http://www.urbanunderground.gov.hk) has been established for the promulgation of engagement materials as well as collection of public comments.

STRATEGIC URBAN AREAS IN THE HARBOURFRONT AREAS

- 8. Among the four SUAs, three areas, viz. Tsim Sha Tsui West, Causeway Bay and Admiralty/Wan Chai, fall partly within the harbourfront areas.
- 9. In formulating the indicative conceptual schemes of underground space development as shown in the PE Digest, due respect has been given to the compliance of the Harbour Planning Principles and the various aspects specified in the Harbour Planning Guidelines for Victoria Harbour and its Harbourfront Areas. In particular, we have proposed various pedestrian linkages to connect the hinterland to the harbourfront areas with a view to maximising the opportunities for public enjoyment of the harbourfront areas. The pedestrian linkages are not merely to provide passageways for accessing destinations, public nodes, cultural/historical transport community/leisure facilities, landmarks, harbourfront and open spaces, but also to create an interesting and attractive walking environment through comprehensive and integrated planning of the underground space and network and provision of supporting uses.

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NEXT STEPS

10. Taking into account the public comments received during the PE1, conceptual underground space development schemes and Preliminary Underground Master Plans will be formulated.

ADVICE SOUGHT

11. Members are invited to take note of the opportunities, challenges and key considerations, and provide views on the preliminary planning concepts of USD in the four SUAs as set out in the PE1 Digest (http://www.urbanunderground.gov.hk/files/docs/stage1_digest.pdf).

Civil Engineering and Development Department Planning Department December 2016