

TOWN PLANNING BOARD

TPB Paper No. 10558

**For Consideration by
The Town Planning Board on 28.6.2019**

**Pilot Study on Underground Space Development
in Selected Strategic Urban Areas
- Stage Two Public Engagement**

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PURPOSE

The Stage Two Public Engagement (PE2) of the “Pilot Study on Underground Space Development in Selected Strategic Urban Areas” (the Study) commenced on 22 May 2019 for three months. This paper aims to seek Members’ views on the conceptual scheme of underground space development (USD) at Kowloon Park (the Kowloon Park Conceptual Scheme) in the Tsim Sha Tsui (TST) West Strategic Urban Area (SUA).

BACKGROUND

2. USD is one of the viable sources of land supply being pursued by the Government, which can provide solution space for a broad variety of land uses and help address problems encountered in the congested urban environment. In the Report of the Task Force on Land Supply (TFLS) submitted to the Government on 31 December 2018, the TFLS notes the multiple benefits of USD as one of the medium-to-long term options for according priority to studying and implementation, and recommends the Government to continue identifying suitable projects for USD that are cost-effective and fulfil the overall interest of society and proceed with the necessary studies and planning.

3. To exploit the potential of systematic use of underground space resources in a comprehensive manner, the Civil Engineering and Development Department and the Planning Department commissioned the Study in June 2015 to explore the potential for USD in four selected SUAs, namely TST West, Causeway Bay, Happy Valley and Admiralty/Wan Chai. The Study aims at evaluating the overall feasibility and identifying key issues of USD in these SUAs, as well as proposing suitable conceptual schemes with potential for future implementation.

4. There are two stages of public engagement (PE) under the Study. The Stage One Public Engagement (PE1) commenced on 7 November 2016 until 6 February 2017 to solicit public views on the opportunities and key considerations for USD in the four SUAs. During PE1, we

delivered a series of briefings and presentations to different advisory and statutory bodies including the relevant District Councils (DCs), the Town Planning Board (the Board) and the Harbourfront Commission. We also conducted two public planning workshops and three focus group meetings to exchange views with members of the public and various stakeholders, including professional institutes, academics, green groups, policy/research institutes and community and recreational groups. Besides, we set up a Study website at www.urbanunderground.gov.hk and carried out a roving exhibition at various locations from November 2016 to January 2017 to collect public views.

MAJOR PUBLIC VIEWS RECEIVED DURING PE1

5. During PE1, the Board was consulted on 2 December 2016 (TPB Paper No. 10216). At the meeting, Members supported the objectives of the Study to improve pedestrian connectivity and space creation through USD in general. Comments on the use, design and management of USD, provision of community facilities and parking facilities, interface issues with surroundings/new development areas, possible impacts on local people, existing environment and traffic, as well as the cost and implementation arrangement were also raised.

6. According to other views/comments received during PE1, the public generally agreed that proper utilisation of underground space and provision of all-weather pedestrian network could alleviate the overcrowded street-level environment and improve the pedestrian connectivity. They also favoured the adoption of a holistic planning approach to create underground space for diverse beneficial uses¹ of the community. We have summarised the public views in the PE1 Report and uploaded it onto the Study website at www.urbanunderground.gov.hk/files/docs/PER1_Eng_final.pdf for public viewing. A gist of the major public views is given at **Appendix 1**.

CONCEPTUAL SCHEMES

7. In light of the public views received during PE1, the Study has proposed some concepts of USD for the four SUAs. Among them, the Study suggests according priority to develop the one underneath Kowloon Park (the Park), having regard to the shortage of surface land in the TST West area to offer solution space for mitigation of the overcrowded pedestrian environment and accommodation of the much needed community facilities in the district. The key design considerations and main features of the Kowloon Park Conceptual Scheme are depicted in the PE2 Digest (**Appendix 2**).

¹ The uses proposed by the public include community/multi-functional facilities, such as recreational and sports facilities, meeting rooms, space for art and cultural uses, resting areas, car parking facilities and retail/food and beverage facilities.

8. As to the other SUAs, the Study has examined the potential for USD at Victoria Park² and Southorn Playground³. The Study found that taking forward the proposed USD at Victoria Park would need to take account of, among others, the implementation progress and interfacing issues of the surrounding projects so as to achieve comprehensive spatial integration of underground space networks among the developments in the vicinity for overall synergistic effects and maximum development gain. As regards the proposed USD at Southorn Playground, the Study revealed the necessity to identify suitable reprovisioning sites for the affected park/playground facilities, having due regard to the key public concerns with the temporary closure of the playground area and disturbance to its daily operation during USD construction. Therefore, the Study recommends implementing them when suitable opportunities arise in the future.

THE KOWLOON PARK CONCEPTUAL SCHEME

Guiding Planning and Design Principles

9. The overall planning and design strategy for the Kowloon Park Conceptual Scheme aims at capitalising the “single site, multiple use” model to create a district-wide, multi-functional, all-weather and attractive underground space network in TST West area. It adopts a holistic planning approach to synergise with the diversified urban setting and vibrant community in the surrounding areas with a view to enhancing the east-west connectivity between Nathan Road and Canton Road, and north-south connectivity between Haiphong Road and Austin Road, connecting directly to the adjoining Mass Transit Railway (MTR) TST Station and providing for future connections to adjoining/new developments, e.g. West Kowloon Cultural District (WKCD) (**Plan 1**). With reference to popular implementation modes of overseas development of underground public space, apart from provision of community facilities and pedestrian passages, proper introduction of retail/food and beverage (F&B) elements is preferable to provide a comfortable and attractive underground space environment for the convenient use of members of the public.

10. Taking into account the PE1’s findings, a set of guiding planning and design principles is adopted in the formulation of Kowloon Park Conceptual Scheme as follows:

² From planning and engineering feasibility perspectives, a three-level underground space can be developed underneath the existing lawn in Victoria Park to accommodate various community, retail/F&B, and transport facilities (including carpark) to synergise with the existing land uses in the park and the district to meet the community needs.

³ From planning and engineering feasibility perspectives, a two-layered, accessible and vibrant community hub can be developed underneath Southorn Playground to provide a wide range of leisure and recreational uses to promote healthy living for the local and working population in the Wan Chai District.

- (i) Enhancing Walkability and Improving Connectivity in the Congested Urban Area:-
 - to create a multi-level pedestrian network and space facilitating pedestrian movement and connecting people with varied destination nodes and public transport; and
 - to provide a safe and quality pedestrian environment through provision of a pleasant, attractive and weather-proof pedestrian network.
- (ii) Creating Key Activity Hub to Meet Community Needs:-
 - to provide a multi-functional space with suitable development mix of community, retail/F&B and mainly ancillary car parking and loading/unloading (L/UL) facilities so as to meet community needs and enhance the vibrancy of USD.
- (iii) Re-establishing a Sustainable and Inclusive Green Park for Public Enjoyment:-
 - to reinvent the “Blue and Green System” networks through integration of existing and planned green resources in holistic manner;
 - to provide a quality public realm and landscaped linkages with surrounding areas through enriching the existing blue-green assets; and
 - to enhance accessibility to the Park through adoption of inclusive design with barrier-free facilities to accommodate dynamic user experiences.

The Conceptual Scheme

11. The Park is bounded by Austin Road to the north, Haiphong Road to the south, Nathan Road (MTR Tuen Wan Line underneath) to the east and Canton Road (MTR West Rail Line underneath)/Kowloon Park Drive to the west. Its central and southern portions are mainly passive amenity areas while its northern portion is mainly occupied by recreational facilities, namely Kowloon Park Swimming Pool and Sports Centre. It is surrounded by residential cluster to the north in Jordan, mixed residential/commercial cluster to the east of Nathan Road, commercial cluster to the south and west, and WKCD to the northwest. The Park is located at the centroid of three MTR stations via Jordan, TST and Austin Stations to its northeast, southeast and northwest respectively. Currently, the Park is mainly zoned “Open Space” with the swimming pool and sports centre zoned “Government, Institute or Community” and the heritage buildings zoned “Other Specified Uses” annotated “Museum” under the Approved Tsim Sha Tsui Outline Zoning Plan No. S/K1/28 (**Plan 2**).

12. The Kowloon Park Conceptual Scheme covers an area of about 32,000 m², which is equivalent to approximately 25% of the total area of the Park (about 130,000 m²). We mindfully recommend excluding areas with ecological and heritage values, such as the Bird Lake and the Hong Kong Heritage Discovery Centre, and facilities with heavy usage, including the Chinese Garden, the Kowloon Park Swimming Pool and Sports Centre and the Piazza. We also propose constructing some underground passageways through, where practicable, trenchless excavation to minimise the impact to the park users and ecology of the Park. Taking account of the topography of the Park, spot levels of the pedestrian passageways, land use compatibility and various technical factors, such as fire safety requirements and geotechnical constraints, we propose to enhance the usage of the underground space through forming a multi-level USD of over 50,000 m² in floor area for various uses, including community and recreational facilities, pedestrian passageways, covered public space, car parking facilities, L/UL facilities and modest retail/F&B facilities.

Pedestrian Connectivity Enhancement

13. The topography of the Park is higher than surrounding public roads. Pedestrians normally use footpaths along the park perimeter at street level to access nearby destination nodes and facilities, resulting in overcrowded street environment and pedestrian-vehicle conflicts on heavily used roads, such as Haiphong Road. Having reviewed the traffic conditions of the road network in the area and explored different options to improve the pedestrian connectivity on surface level, we formulate the proposed USD proposal to provide safe and all-weather underground pedestrian network. This network would provide seamless connections to the footpaths along Austin Road in the north, Haiphong Road in the south, Nathan Road in the east, Kowloon Park Drive in the west, and the adjoining MTR TST Station concourse in the southeast, as well as provisioning for future connections to adjoining/new developments, e.g. WKCD. This pedestrian network would effectively serve as an alternative option for pedestrians to enjoy better connectivity, and alleviate the existing overcrowded street-level walking environment. Moreover, the vertical integration between USD and the Park can bring convenience to and enhance enjoyment of the park users without compromising the primary function of the Park.

Space Creation for Various Uses

14. As revealed from PE1, the public generally favor USD to provide multi-functional floor space for development of community, recreational, retail/F&B, car parking and L/UL facilities for the convenient uses of the public. Under the Conceptual Scheme (with over 50,000 m² of floor area in total), the all-weather pedestrian network with a total floor area of about 14,000 m² is complemented by a two-level community hub of about 6,400 m² at the central portion of the Park. The community hub, which synergises the existing recreational facilities at the northern part of the

Park and the cultural facilities at WKCD, would serve the Yau Tsim Mong (YTM) District, in particular the local community at Jordan and the area to the east of Nathan Road. Taking into account PE1's finding, the community hub is proposed to offer different community facilities⁴, such as a multi-functional community hall and meeting rooms. On the middle three levels of the USD, we propose to provide covered public space of about 2,600 m², offering sitting and exhibition areas for public leisure and recreational facilities with a view to creating vibrant walking environment and activity space for the locals⁵. In addition, on each of these three levels, there are about 5,500 m² to 6,000 m² of floor area alongside the pedestrian passageways for modest retail/F&B facilities to enhance the vibrancy of the passages, introduce interesting walking experience and facilitate people using the underground space and the Park.

15. The Conceptual Scheme further proposes underground car parking facilities beneath the southwestern part and L/UL facilities in the northern part of the Park (about 17,000 m² in total) with a view to supporting the proposed community uses and retail/F&B in accordance with the Hong Kong Planning Standards and Guidelines. In view of the existing road pattern and traffic conditions in the vicinity of the Park, ingress/egress of the carpark is proposed at Kowloon Park Drive southbound whilst only L/UL facilities for service vehicles is proposed at the northern park with ingress/egress at Austin Road taking into account its heavily trafficked road condition (**Plan 1**).

Opportunities for Facelifting Kowloon Park

16. Since its opening in 1970 and redevelopment in 1980s', the Park has been serving the public for almost 50 years. Taking the opportunity for park restoration in conjunction with the USD, we propose upgrading/facelifting the Park with new and contemporary facilities, and strengthening the vertical integration and synergy between the USD and the Park through thematic landscape and architectural designs of the holistic multi-level pedestrian network⁶. We also propose keeping the existing park landscape more or less intact with enlargement in greening areas. In particular, we propose adding a new Great Lawn of about 1,500m² near the existing maze garden to address public aspiration, which will potentially become a focus of attention in the dense urban environment. Moreover, to harmonise with the existing park environment, we will consider introducing natural sunlight to the USD, provide greenery and waterfalls at a roof-top garden on the proposed community hub, and equip the ancillary surface structures of the USD with greening features. By doing so, we seek to minimise visual impact of the USD.

⁴ The actual provision of GIC facilities is subject to further review in the next stage of the Study taking account of the findings of PE2 and the latest requirements of relevant government bureaux and departments.

⁵ The ballpark estimate of the floor area for the pedestrian passage network, the community hub and covered public space accounts for about 40% of the total floor area to be provided under the Kowloon Park Conceptual Scheme.

⁶ The design idea of forming a holistic multi-level pedestrian network to enhance integration between the USD and the Park came from the winning entries of the design ideas competition for the Study held in 2018.

17. We are cognizant of the importance of preserving the trees in the Park, which are about 1,400 numbers in total, and minimising impact onto park users. In formulating the Conceptual Scheme, our guiding principle is to retain the existing trees as far as practicable, in particular exclusion of all Old and Valuable Trees (OVTs), densely vegetated areas and trees with heron nesting from the development footprint. In this regard, we manage to contain the number of affected trees to about 300 trees⁷ and none of them are OVTs. We will strive to transplant as many affected trees as possible, subject to their health conditions, preservation value and site constraints, and use native plant species for compensatory plantings. We will also adopt a holistic landscape design to foster better growing environment for trees in the Park.

Construction Method

18. As regards construction of USD, we propose, where practicable, employment of “top-down” construction method to build the foundation of the underground structure and its capping deck at park surface level first, so as to enabling the earliest restoration of the affected park areas for reopening to park users, in parallel with excavation and construction of structure underground. Besides, where site situations permit, we will adopt trenchless excavation and phased development in suitable locations, with temporary provisioning of noise barriers/enclosures and use of modern foundation engineering technique to minimise possible construction nuisance caused to the surrounding environment and park users.

TECHNICAL ASSESSMENTS

19. To preliminarily assess the potential impacts arising from the proposed development, various broad technical assessments, including traffic, environment, drainage, fire safety, geotechnics, sewerage and utility infrastructures, have been conducted. No insurmountable technical problem is identified. The preliminary findings of the relevant assessments are summarised in **Appendix 3**.

STAGE TWO PUBLIC ENGAGEMENT

20. The PE2, commenced on 22 May 2019, will last for three months. We consulted the YTMDC on 30 May 2019 and the DC members generally welcomed USD and provided comments

⁷ The affected trees are mainly exotic species, such as *Acacia confusa*, *Archontophoenix alexandrae*, *Caryota maxima* Blume, *Lagerstroemia speciosa*, *Schefflera actinophylla*, *Ficus benjamina*, *Peltophorum pterocarpum* and *Delonix regia*.

on the Kowloon Park Conceptual Scheme which included extending the USD footprint to optimise its development potential, reviewing the distribution of proposed uses⁸ in the underground space, allowing more connection points with adjoining existing and potential developments for a more holistic underground space network, adding further floor space for community facilities, introducing natural sunlight and air ventilation in USD, taking the opportunity to relocate and improve existing facilities, and involving private sector in enhancing the development and future management of the USD, etc. We will take account of these suggestions in the Study, where appropriate.

21. In the meantime, we are arranging briefing sessions for relevant advisory/statutory bodies/committees on the Conceptual Scheme, focus group meetings with different stakeholder groups (including relevant professional institutes, academic organisations, green groups, policy/research institutes, concern groups and local bodies) to discuss and exchange views on various topics, and interactive outreach activities (e.g. guided tours at the Park) to serve as a platform for the public to express and exchange views with us. Besides, we are conducting roving exhibition at various locations to facilitate collection of public views, and upload the information of the Study, including the PE2 Digest, onto the Study website (www.urbanunderground.gov.hk) for public viewing.

22. We will thoroughly take account of the public views collected from PE2 in refining and finalising the Kowloon Park Conceptual Scheme under the Study, and consider the way forward on its implementation⁹, which might need detailed investigation and going through statutory planning procedures.

ADVICE SOUGHT

23. Members are invited to note the gist of major public views collected in PE1 at **Appendix 1**, and offer views on the Kowloon Park Conceptual Scheme as detailed in the PE2 Digest at **Appendix 2**.

⁸ The proposed uses of underground spaces under the Kowloon Park Conceptual Scheme comprise, by floor area, 40% for community facilities, pedestrian passages and covered public space; 30% for parking and L/UL facilities; and 30% for retail/F&B facilities.

⁹ Possible implementation mechanisms include government project approach, public-private-partnership approach and private development approach. Pros and cons of different possible implementation approaches are listed out in the PE2 Digest for reference of the public.

ATTACHMENTS

Appendix 1 Gist of Major Public Views Collected in Stage One Public Engagement

Appendix 2 Stage Two Public Engagement Digest

Appendix 3 Summary of Broad Technical Assessments

Plan 1 Location Plan

Plan 2 Extract of Approved Tsim Sha Tsui Outline Zoning Plan S/K1/28

Civil Engineering and Development Department

Planning Department

June 2019

**Pilot Study on Underground Space Development
in Selected Strategic Urban Areas
Gist of Major Public Views Collected in Stage One Public Engagement**

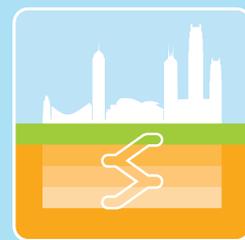
- (a) Improvement of Pedestrian Connectivity
- Provision of safe and all-weather underground pedestrian connections for diverting some at-grade pedestrian flows of overcrowded streets is supported.
 - Enhancement of the connectivity between major activity and transportation nodes, such as existing Mass Transit Railway stations, through underground pedestrian links is supported.
 - Priority should be given to the enhancement of existing pedestrian facilities.
- (b) Public Enjoyment of Parks
- During construction, the parks may be closed, causing disruption to public enjoyment.
 - Park space would be reduced for accommodating the necessary ancillary structures, such as entrances, ventilation structures and fire safety provisions.
 - Felling of existing trees and plants or loss of green areas should be avoided.
- (c) Creation of Space for Various Uses
- Development of underground space for commercial, community, art & culture, car parking and public transport facility uses to address the local community needs, provide job opportunities and supplement the development at the concerned areas is supported.
 - Underground space should be provided with diversified and affordable uses for the convenience and better enjoyment of local residents.
 - Underground space development (USD) should be planned holistically to avoid provision of facilities/uses duplicating with those already at-grade.
 - Developing underground space in densely developed urban areas would aggravate congestion of pedestrian and road traffic.
- (d) Implementation Arrangement
- There were concerns on the implementation arrangement of USD, such as funding arrangement, implementation mechanism, management agent and operation details.

城市地下空間發展：

Pilot Study on 策略性地區先導研究

UNDERGROUND SPACE DEVELOPMENT

in Selected Strategic Urban Areas



第二階段公眾參與摘要 Stage 2 Public Engagement Digest

二零一九年五月 May 2019

 土木工程拓展署
Civil Engineering and
Development Department

 規劃署
Planning Department

AECOM





本地插畫師李美欣
筆下的地下空間
Underground Space
by Local Illustrator,
Jane Lee

「我理想的地下空間應加入藝術元素及文化項目，如畫廊、手作市集及藝墟。我希望擬議的地下空間能提供一個平台讓藝術家及設計師展示作品，作為一個培育創業家和初創設計公司的好地方。」

“My desired underground space should include arts and cultural elements, for example, galleries, handcraft market and arts & crafts fair. I hope that the proposed underground space would offer a platform for artists and designers to showcase their artworks, and a good place to nurture entrepreneurs as well as start-up design companies.”



研究概覽

Study Overview

土木工程拓展署及規劃署於2015年6月展開「城市地下空間發展：策略性地區先導研究」（下稱「本研究」），探討於四個策略性地區，即尖沙咀西、銅鑼灣、跑馬地及金鐘／灣仔發展地下空間的潛力。本研究旨在評估在上述地區發展地下空間的整體可行性和辨識主要課題，以及擬議合適的優先發展項目，以備將來推行。

本研究包括兩個階段的公眾參與。第一階段公眾參與已於2016年11月7日至2017年2月6日期間進行，主要收集公眾對在策略性地區發展地下空間的機遇和主要考慮因素的意見。此外，亦於2018年2月舉辦了概念設計比賽。

經過了第一階段公眾參與和概念設計比賽，我們擬備了優先項目的概念方案。我們現誠邀您於第二階段公眾參與對概念方案提出寶貴意見。

另外，地下空間發展是土地供應專責小組提出值得優先研究和推行的中長期土地供應選項之一。政府將繼續透過本研究進行這方面的工作。

The Civil Engineering and Development Department and the Planning Department commenced the “Pilot Study on Underground Space Development in Selected Strategic Urban Areas” (the Study) in June 2015. The objective of the Study is to explore the potential for underground space development (USD) in four selected strategic urban areas (SUAs), namely Tsim Sha Tsui West, Causeway Bay, Happy Valley and Admiralty/Wan Chai. The Study aims to evaluate the overall feasibility and identify key issues of USD in these SUAs, as well as propose suitable priority projects for possible future implementation.

We have adopted a two-stage Public Engagement programme as an integral part of the Study. The Stage 1 Public Engagement (PE1) was carried out between 7 November 2016 and 6 February 2017 to collect public views on the opportunities and key considerations for USD in the SUAs. Furthermore, a Design Ideas Competition was organised in February 2018.

After PE1 and the Design Ideas Competition, we developed a conceptual scheme of the priority project. You are cordially invited to express your valuable views on the conceptual scheme in the Stage 2 Public Engagement (PE2).

Besides, USD is one of the medium-to-long term land supply options worthy of priority studies and implementation endorsed by the Task Force on Land Supply. The Government will continue to pursue this area under the Study.

研究程序 Study Programme

研究展開
Study
Commenced

已物色具潛力發展
地下空間的位置
Potential underground
space development
locations identified

已物色合適的
地下空間發展
Suitable underground
space developments
identified

已舉辦第一階段公眾參與
Stage 1 Public Engagement
undertaken

已審視在四個策略
性地區發展地下
空間的機遇及挑戰
Opportunities and
challenges related to
underground space development
in the four SUAs examined

已擬備概念方案
Conceptual schemes
prepared

已考慮公眾意見
Public views
considered

已審視地下空間
內的可行用途
Possible uses for the
potential underground
spaces examined

已進行技術評估
Technical
assessments
undertaken

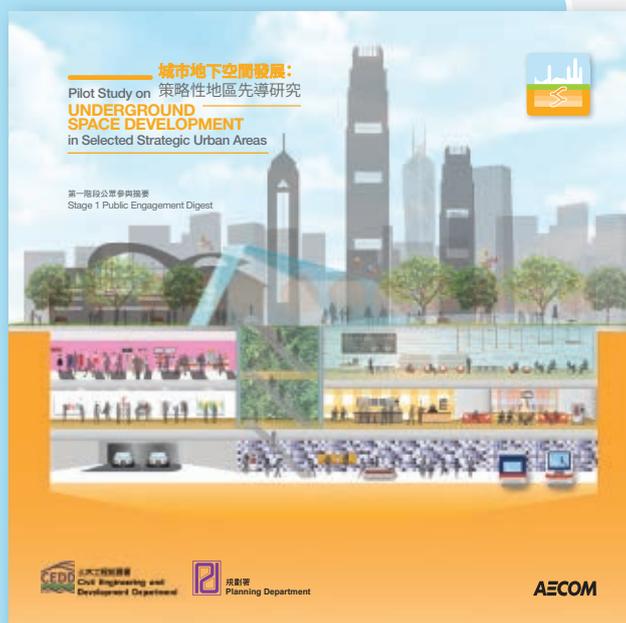
展開第二階段公眾參與
To commence Stage 2
Public Engagement

優化概念方案
To refine conceptual
scheme

Overview and Summary of Stage 1 Public Engagement

我們諮詢了多個相關法定及諮詢組織和持分者團體，包括城市規劃委員會、灣仔區議會、油尖旺區議會、海濱事務委員會及專業團體，亦舉辦了兩次公眾規劃工作坊和三次聚焦小組會議，讓公眾及持分者交換意見。此外，我們在不同地點舉辦了巡迴展覽。

We consulted various relevant statutory and advisory bodies and stakeholder groups including the Town Planning Board, Wan Chai District Council, Yau Tsim Mong District Council, Harbourfront Commission and professional institutes. Two public planning workshops and three focus group meetings were held to exchange views with members of the public and stakeholders. Besides, a roving exhibition at various locations was carried out.



我們為本研究建立了一個網站 (<https://www.urbanunderground.gov.hk>) 以發布公眾參與的資料，以及收集公眾意見。第一階段公眾參與收到的公眾意見及我們的回應已收錄於《第一階段公眾參與報告》，詳情可參閱上述網站。

A Study Website (<https://www.urbanunderground.gov.hk>) has been established for the promulgation of public engagement materials as well as collection of public views. The views received in PE1 and our responses have been compiled in the PE1 Report which is available on the above Website.

第一階段公眾參與 概覽和總結



聚焦小組會議
Focus Group Meeting



工作坊
Workshop



巡迴展覽
Roving Exhibition



第一階段 公眾參與

所收集的主要意見

Major Comments Received in Stage 1

Public Engagement

公眾普遍同意，在稠密市區發展地下空間和提供全天候的行人通道網絡，不但能改善擠迫的街道環境，更可加強行人通道的連繫，並透過全面規劃創造空間，提供多元化且有利社區發展的用途。

The public generally agreed that developing underground space in the dense urban areas with provision of all-weather pedestrian network could alleviate the overcrowded street environment, enhance pedestrian connectivity as well as create space by means of holistic planning to provide diversified uses for community benefits.



加強行人通道的連繫

Improvement of Pedestrian Connectivity

意見 Comments

- 支持提供安全和全天候的地下行人通道連接系統，以疏導部分擠迫街道上的人流。
Provision of safe and all-weather underground pedestrian connections for diverting some at-grade pedestrian flows of overcrowded streets is supported.
- 支持透過連接地下行人通道，加強與主要活動區和運輸樞紐(例如現有的港鐵站)的連繫。
Enhancement of the connectivity between major activity and transportation nodes, such as existing Mass Transit Railway (MTR) stations, through underground pedestrian links is supported.
- 應優先考慮提升現有的行人通道設施。
Priority should be given to the enhancement of existing pedestrian facilities.

回應 Responses

本研究將繼續探討透過發展地下空間以增設地下行人通道，加強現有的連接及接駁港鐵站和周邊地區的可行性，並優化公園路面的出入口，改善步行體驗。

The Study will further explore the feasibility of providing additional pedestrian passageways, enhancing the existing connectivity and providing seamless connections with MTR stations and surrounding destinations through USD. Park entrances at the street level will also be enhanced to improve the walking experience.



實施安排 Implementation Arrangement

意見 Comments

- 關注地下空間發展的實施安排，例如資金安排、實施機制、管理機構和運營細節。
There were concerns on the implementation arrangement of USD, such as funding arrangement, implementation mechanism, management agent and operation details.

回應 Responses

政府就實施機制和其他細節作出任何決定前，會仔細考慮所有相關因素。

The Government will carefully consider all relevant factors before making decision on the implementation mechanism and other details.

讓公眾享用公園 Public Enjoyment of Parks

意見 Comments

- 在建築工程施工期間可能需要關閉公園，影響公眾使用有關設施。
During construction, the parks may be closed, causing disruption to public enjoyment.
- 關注發展地下空間所需的附屬構築物，例如入口處、通風系統構築物和消防安全設施等，或會減少公園空間。
Park space would be reduced for accommodating the necessary ancillary structures, such as entrances, ventilation structures and fire safety provisions.
- 應避免移除現有樹木及植物或減少綠化空間。
Felling of existing trees and plants or loss of green areas should be avoided.

回應 Responses

本研究會探討透過採用先進挖掘技術和分期進行發展，儘量減少對公園設施和社區造成的潛在影響。所需的附屬構築物將經過仔細規劃和設計，融入現有環境、文物建築和園景特色。我們會儘量減少對現有植物及樹木的影響，同時亦會利用此機遇增添嶄新和現代的設施，並提供切合實際環境且具主題性的園景和建築設計，以提升/改造現有公園和加強地下空間發展與公園的融合。

Advanced excavation technology and phased development would be explored to minimise possible disruption to the park facilities and the community. The necessary ancillary structures would be carefully planned and designed to blend in with the existing environment, built heritage and landscape characters. While impacts on the existing plants and trees would be minimised, opportunity would be taken to upgrade/facelift the existing parks by adding new and contemporary facilities, providing sensible thematic landscape and architectural designs, as well as to strengthen the integration between the USD and the parks.

意見 Comments

- 支持創建地下空間作商業、社區、藝術及文化、停車場及公共交通設施用途，以回應社區需求，提供就業機會，並輔助有關地區的發展。
Development of underground space for commercial, community, art & culture, car parking and public transport facility uses to address the local community needs, provide job opportunities and supplement the development at the concerned areas is supported.
- 地下空間應提供多元化及市民能夠負擔的用途，以方便當區居民享用。
Underground space should be provided with diversified and affordable uses for the convenience and better enjoyment of local residents.
- 應為地下空間發展進行全面規劃，以儘量避免與地面設施/用途重複。
USD should be planned holistically to avoid provision of facilities/uses duplicating with those already at-grade.
- 在發展密集的市區發展地下空間，可能會令行人通道和道路交通的擠迫情況惡化。
Developing underground space in densely developed urban areas would aggravate congestion of pedestrian and road traffic.

創造空間作 各項用途

Creation of Space for Various Uses

回應 Responses

本研究將繼續審視當區需求，因應人口分析所得的結果提供社區設施，以便為優先方案制訂平衡和適切的用途。擬議的地下行人網絡亦會提供額外通道，以紓緩現時街道過度擠迫的情況。此外，為確保道路有足夠的容車量，我們亦會進行初步交通影響評估。

The Study will continue reviewing the local needs and provision of community facilities taking into account the findings of demographic analysis with a view to formulating balanced and appropriate uses through priority projects. The proposed underground pedestrian network would serve as an alternative to the existing at-grade footpaths so as to relieve the current overcrowded condition at street level. Preliminary Traffic Impact Assessment will be conducted to ascertain satisfactory road capacity.

鑑於九龍公園的地下空間發展方案(九龍公園方案)具備紓解當區迫切需求(包括紓緩擠迫的行人環境及提供額外空間作社區持續發展)的顯著優點,我們建議優先發展該處的地下空間。為此,我們參考了兩個相關的海外例子,即日本的綠洲21和法國的巴黎大堂,它們有着和九龍公園方案相類的地理背景、項目性質及發展目的。讓我們看看這些例子如何啟發我們。

The conceptual scheme of USD at Kowloon Park (Kowloon Park Scheme) is recommended to be accorded priority in view of its significant merits in addressing the imminent local and community needs, including mitigation of the overcrowded pedestrian environment and the provision of additional space for sustainable development of the community. In this connection, we have made reference to two relevant overseas examples, namely Oasis 21 in Japan and Les Halles in France, which have similar site context, project nature and objectives to the Kowloon Park Scheme. Let us see how these cases could inspire us.

Oasis 21, Nagoya

與周邊無縫結合

名古屋綠洲21

Seamless Integration
with Surroundings

#oasis21nagoya

日本 Japan

日本的地下空間以與鐵路站或公共交通交匯處妥善連接而見稱，不但紓緩地面擠迫的情況，而且發揮多功能樞紐的作用，裏面設有各式各樣的商店、餐廳和設施，讓市民有多元化的體驗。日本的地下空間一般採用人性化的設計，糅合藝術和自然綠化的元素，善用天然採光，以營造開揚及無拘束的感覺。

USDs in Japan are renowned for their good integration with railway stations or public transport interchanges. Their USDs not only resolve above-ground congestions, but also serve as multi-functional hubs, providing diverse user experiences through different types of shops, restaurants and facilities. Humanised design incorporated with art and natural greening elements as well as sunlight is commonly adopted in the Japanese USDs, thus creating a sense of openness and freedom.



名古屋綠洲 21 Oasis 21, Nagoya

位於日本名古屋榮地區中心地帶的綠洲21是其中一個完善融合地下多層連接及地面綠色環境的成功例子。它把地上的草地和地下休閒設施、購物中心及車站結合起來。在具未來感的玻璃天幕底下，自然光由玻璃天幕透入地下空間，多用途大樓的半地庫層連接名古屋高速巴士總站，並接駁地庫層的名古屋地下鐵榮站及鐵道榮町站。此外，大樓亦於地庫層提供各類型餐廳及商店，以及公共空間用作舉行音樂表演及藝術活動，並連接地下街及榮公園，為行人提供友善及無縫連接的行人通道。

Located in the heart of Nagoya's Sakae district in Japan, Oasis 21 is one of the successful examples of multi-level USD complex. The USD provides multi-level connections and seamless integration with the natural environment. It integrates the lawn area on the ground level with leisure and recreation facilities, shopping mall and transport hubs underground. Under its futuristic glass roof which allows ample sunlight penetration, the multi-purpose complex is home to the Nagoya Highway Bus Terminal at its semi-basement level, with access to both Sakae Subway Station and Sakae-machi Station underneath. The basement level of the complex offers multifarious restaurants, shops and public space which frequently hosts music and art events and connects to the underground street and Sakae Central Park, thus providing a friendly and seamless connection corridor for pedestrians.

巴黎
新地標

Les Halles

Le nouveau coeur de Paris

巴黎大堂

#leshallesparis

城市中的綠洲

An Oasis in the midst of the City

巴黎大堂位於法國首都巴黎市中心，共建五層地下空間，最底兩層是地下鐵路車站設施，車站上面是三層的地下廣場，而地面則建有面積寬廣的休憩用地。這個車站匯合多條鐵路線，是巴黎的重要運輸樞紐。由於行人流量日益上升，以致原有設施的容量不敷應用，因此當地於2010年在該處進行大規模的改善和重建工程，當中包括改建休憩用地。

Nestled in the city centre of Paris, the capital of France, Les Halles has a total of five levels of underground space, including a railway station at the lowest two levels and three levels of underground plaza above the station, with a sizeable open space on the surface. The station connects various railway lines, serving as a primary point of access in Paris. As the original facilities have run out of capacity due to escalating daily pedestrian flows, large-scale improvement and redevelopment works including facelifting the open space commenced in 2010.

尖沙咀西策略性地區位於市中心，鄰近主要交通樞紐，集合商業、娛樂、文藝、旅遊及購物活動於一身，其地理位置與巴黎大堂類近。我們致力透過九龍公園方案建立一個提供社區設施暨商業活動的地下通道系統，藉此與周邊多元化及充滿活力的街頭活動產生協同效應，優化整體連接性，並與公園融合，為社區提供更好的生活配套。故此，我們建議除發展額外的地下空間作不同用途外，亦可藉此機會改善公園環境，提供新設施以滿足社區需求。

Located in the heart of the City, the Tsim Sha Tsui West (TSTW) SUA served by the surrounding major transportation hub is a place for commercial, entertainment, art and cultural, tourism and shopping activities, and is geographically similar to Les Halles. We also aim at creating a community facilities-cum-commercial activities underground passageway system in the Kowloon Park Scheme to synergise with the diverse and vibrant street activities in the surroundings, enhance the overall connectivity, as well as integrate with the park to better serve the community. Hence, we recommend not only developing additional underground space for various uses, but also taking this opportunity to facelift the park environment for new facilities to meet the community needs.

在兩個海外例子中，您最喜歡哪些方面呢？您認為它們的經驗可以啟發我們在九龍公園的地下空間發展建議嗎？您希望在九龍公園方案中加入哪些設計元素及設施呢？
What are the aspects that you like most about the two overseas examples? Are they insightful for our Kowloon Park USD proposal? What are the design elements and facilities that you would like to see in the Kowloon Park scheme?

空間更廣闊，步行環境更暢達 More Space and More Accessible Walking Environment

重建後的巴黎大堂對周邊地區更加開放，為市民締造更暢達和舒適寫意的步行環境。此外，巴黎大堂提供更多的文化設施、商店和通往地下鐵路車站的出入口。

重建後的地下空間及公共休憩空間令整個地區更舒適，方便公眾享用。

After redevelopment, Les Halles is now more open to the street level, easier to access, and more pleasant to walk in. Additional cultural facilities, shops and entrances are provided to support the local community and users of the railway station underneath.

The redeveloped underground space together with the public open space makes the whole quarter a more pleasant place for public enjoyment.



天幕將巴黎的街道與巴黎大堂的地下廣場連接起來。注目的中庭成為地下廣場的入口標誌，並可讓天然光自然透入地下空間。巴黎大堂的整體設計讓遊人感到通風、明亮和寬敞，即使身處地面之下三層，仍仿似置身戶外。

The Canopy (La Canopie) has created a connection between the underground plaza and the at-grade streets of Paris. The iconic atrium marks the entrance to the underground plaza and allows natural light to illuminate the underground space. The overall design gives visitors a sense of freshness, light and space, and a feeling of being outdoors despite the fact that they are three levels below ground.

引入自然光， 仿如置身室外 Allowing Natural Lighting to Feel Like Being Outdoors

地下空間發展融入社區 Integration of the Underground Space Development with the Community

重建發展包括70,000平方米的地下零售空間、2,600平方米的音樂學院、1,400平方米的街舞中心、1,050平方米的圖書館，以及1,000平方米供聽障人士使用的業餘文化工作坊。

The development features 70,000m² of underground retail space, a 2,600m² music conservatory, a 1,400m² hip-hop centre, a 1,050m² library and a 1,000m² of amateur cultural workshops space for the hearing-impaired.

多元化的活動空間和土地用途 Diversified Space and Land Uses

以作為巴黎市中心其中一個主要市肺為設計原則，重建後的巴黎大堂地面公共空間設有中央長廊、茂密的植被和新園景特色、兒童遊樂區、長椅和滾球場等，令空間更寬敞、更暢達和更綠茵處處。

The redeveloped public realm is designed and equipped with a principle to allow Les Halles to remain as one of the major green-lungs in Paris. With a central promenade, densely vegetated areas with new landscape features, children's play areas, benches, and Pétanque court, etc., the space becomes more spacious, accessible and greener.



圖片來源
Source: Parisleshalles.fr

九龍公園 地下空間發展

Kowloon Park Underground Space Development

從綠洲21和巴黎大堂的例子可見，發展充滿活力的地下空間作多元用途時，讓公眾仍可繼續享用地面的自然環境實為重要。九龍公園位於市中心人口稠密的地區，毗鄰尖沙咀港鐵站，其策略性位置為發展地下空間帶來機會，可藉此加強行人通道的連繫，並可創建空間，改善社區的整體環境。

優化九龍公園的機遇—我們建議在發展地下空間時，致力保留及優化園內設施，確保市民在煩囂的都市環境中，享用優質的戶外生活空間及公園設施。

在九龍公園下建造四通八達的地下空間，不但有利於發展直接、全天候和無障礙的地下行人網絡，以改善地面擠塞情況，額外的地下空間亦可作不同用途，以回應地區需求。我們的願景是創造互通、富有活力及多元化的地下空間網絡，和結合九龍公園地面設施以創造吸引宜人的公共空間。

The cases of Oasis 21 and Les Halles exemplify the importance of providing vibrant space for various uses in USD without undermining the right of the public to enjoy the nature on ground surface. Kowloon Park is located in the densely populated area of the city centre and adjoining MTR Tsim Sha Tsui Station. Its strategic location offers an opportunity for developing an underground space to enhance pedestrian connectivity and create space in order to improve the overall environment of the community.

Opportunities for facelifting Kowloon Park – We are committed to preserving and improving our park facilities with a view to ensuring public enjoyment of quality outdoor living space in exploring the USD opportunities beneath the park.

A well-connected solution space underneath Kowloon Park facilitates the development of a direct, all-weather and barrier-free underground pedestrian network to alleviate the street-level congestion problems. Besides, additional underground space for various uses can be created to address the district needs. Our vision is to create an interconnected, vibrant and diversified underground space network and an attractive public realm which synergises with the surface use of Kowloon Park.

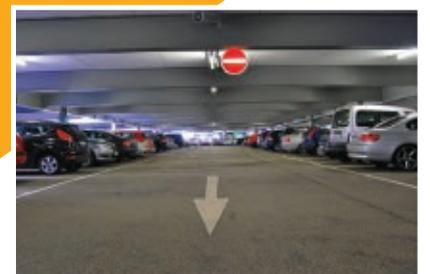
主要課題 Key Issues



紓緩現時海防道的擠迫步行環境
Alleviate the Existing Overcrowded Walking Environment of Haiphong Road



改善互通連接及步行體驗
(避免走樓梯)
Improve Interconnections and Walking Experiences
(Avoid Climbing Up Stairs)



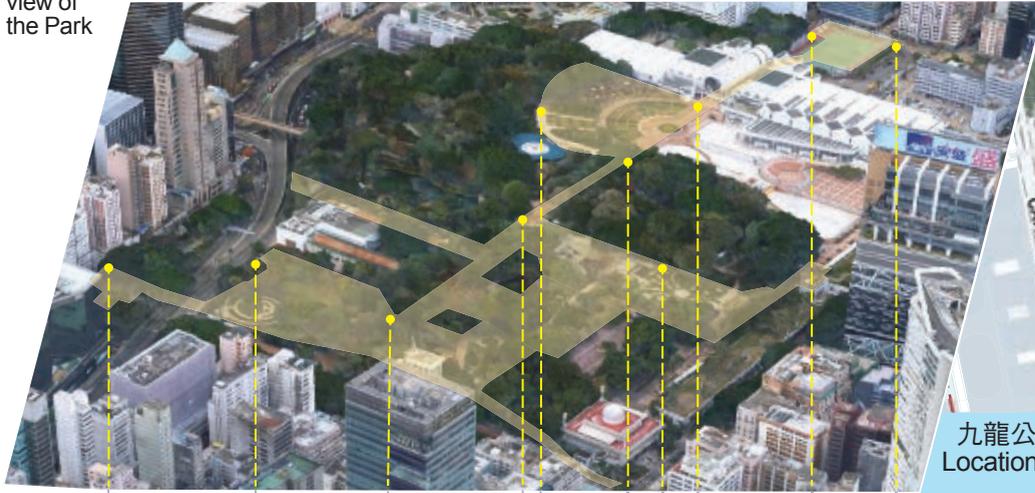
減輕區內泊車設施不足問題
Relieve Insufficient Parking Spaces within the District



創造空間以用作社區用途
Create Space for Community Uses

綜合立體概念方案 Overall 3-D Conceptual Scheme

公園鳥瞰圖
Bird's-eye view of the Park



九龍公園位置圖
Location Plan of Kowloon Park

公園表面
Park Level
+23mPD

地下高層
Upper Ground Level
+15mPD

地下低層
Lower Ground Level
+6~10mPD

往海防道
To Haiphong Road

第一層地庫
Level B1
+4mPD

第二層地庫
Level B2
-4mPD

第三層地庫
Level B3
-10mPD

往九龍公園徑
To Kowloon Park Drive
+6mPD

往尖沙咀港鐵站
To MTR
Tsim Sha Tsui
Station

+14mPD

社區用途
Community Uses

往柯士甸道
To Austin Road
+10mPD

往彌敦道
To Nathan Road
+10mPD

零售及餐飲設施
Retail/Food and
Beverage Facilities

泊車設施
Parking Facilities

圖例
Legend

+10mPD 主水平基準以上10米
10m above principal datum

● 古樹名木
Old & Valuable Trees

--- 擬議發展界線
Proposed Development Boundary

■ 社區用途
Community Uses

■ 泊車設施
Parking Facilities

■ 行人通道
Pedestrian Passages

■ 零售及餐飲設施
Retail/Food and Beverage
Facilities



優化九龍公園的機遇 Opportunities for Facelifting Kowloon Park



為公園增添嶄新和現代的設施
Add new and contemporary facilities

花卉園林 Floral Garden

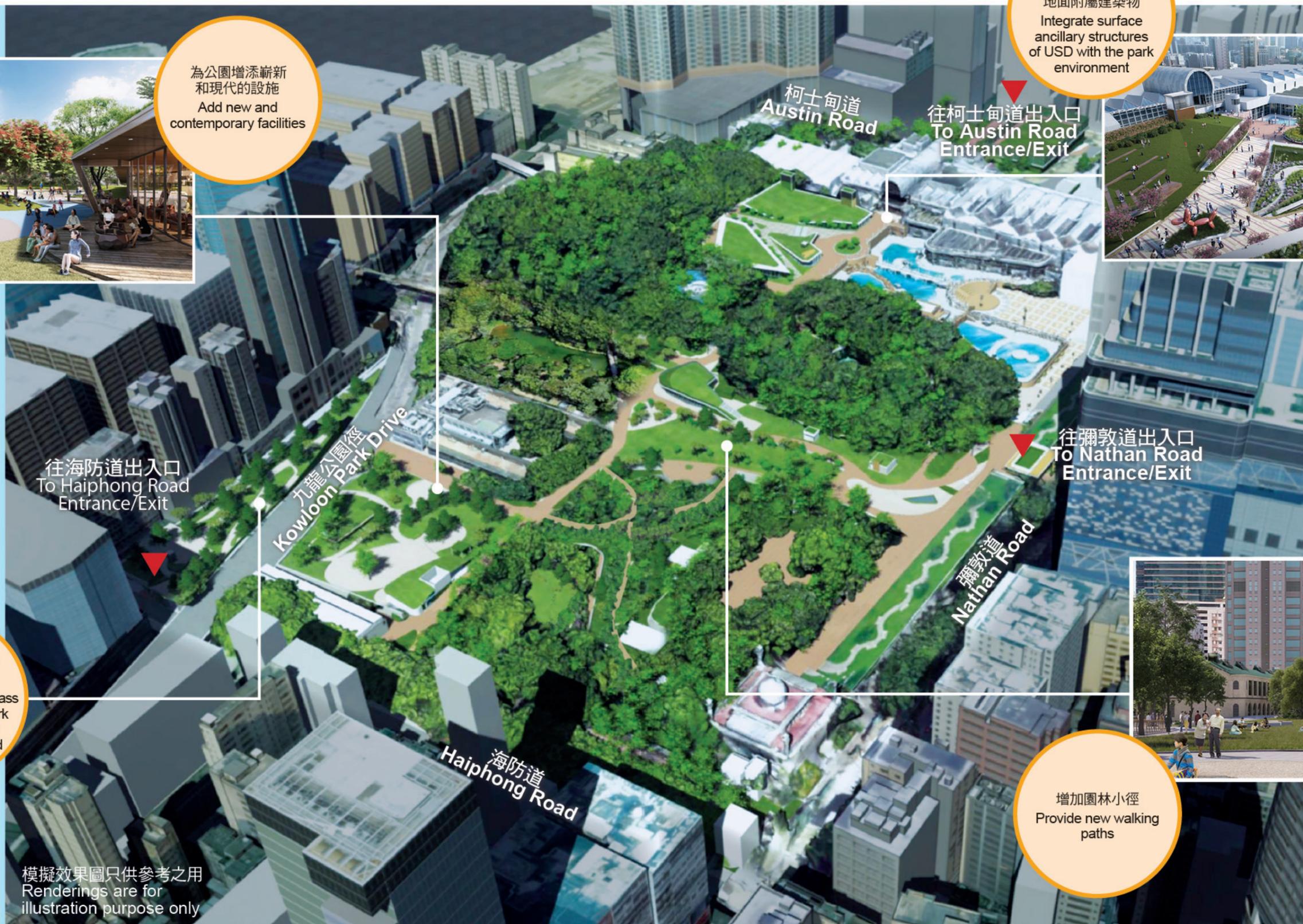
- 全新花園將設有兒童遊樂場和露天茶座
A new garden with children's playground and café

往海防道出入口
To Haiphong Road
Entrance/Exit

建立直接往來九龍公園與海防道兒童遊樂場的地下行人通道

Provide a direct underpass between Kowloon Park and Haiphong Road Children's Playground

模擬效果圖只供參考之用
Renderings are for illustration purpose only



柯士甸道
Austin Road

往柯士甸道出入口
To Austin Road
Entrance/Exit

於公園環境中融入地下空間發展的地面附屬建築物
Integrate surface ancillary structures of USD with the park environment



社區中心上的花園 Garden on the Community Hub

- 綠化地面附屬構築物
Greening of surface ancillary structures

往彌敦道出入口
To Nathan Road
Entrance/Exit

彌敦道
Nathan Road



增加園林小徑
Provide new walking paths

中央草坪 Great Lawn

- 多用途社區草坪
Multi-purpose community lawn

海防道
Haiphong Road

九龍公園徑
Kowloon Park Drive

推行此項目的主要考慮因素 Implementation Considerations

根據第一階段公眾參與收集所得的意見，公眾普遍認同有需要進一步改善公園四周的行人連接性。九龍公園的擬議地下空間發展概念方案能提供貫通東西及南北的全天候行人網絡，並沿途提供社區設施和適當的零售及餐飲設施，結合現有地面的行人網絡，優化尖沙咀區內不同地點的連接性。經初步技術評估，該方案在技術上是可行的。

According to the comments received in the PE1, the public generally agreed to further improve the pedestrian connectivity across the park. It was recognised that the conceptual scheme of USD at Kowloon Park could provide a direct and all-weather east-west and north-south underground pedestrian network with community facilities and suitable retail/food and beverage facilities for integrating with the existing street-level pedestrian networks to enhance the connectivity of different spots in the Tsim Sha Tsui area. The preliminary technical assessments suggested that this scheme is technically feasible.

提供地下停車場，紓緩區內對泊車位的需求

Provide an underground carpark to ease high demand for car parking spaces in the area

連接地下空間網絡與港鐵尖沙咀站的行人通道，紓緩海防道的擠迫情況

Connect the underground space network with the MTR Tsim Sha Tsui Station to relieve the overcrowded environment along Haiphong Road



主要行人走廊
Major Pedestrian Corridor



零售及餐飲設施
Retail/Food and Beverage Facilities

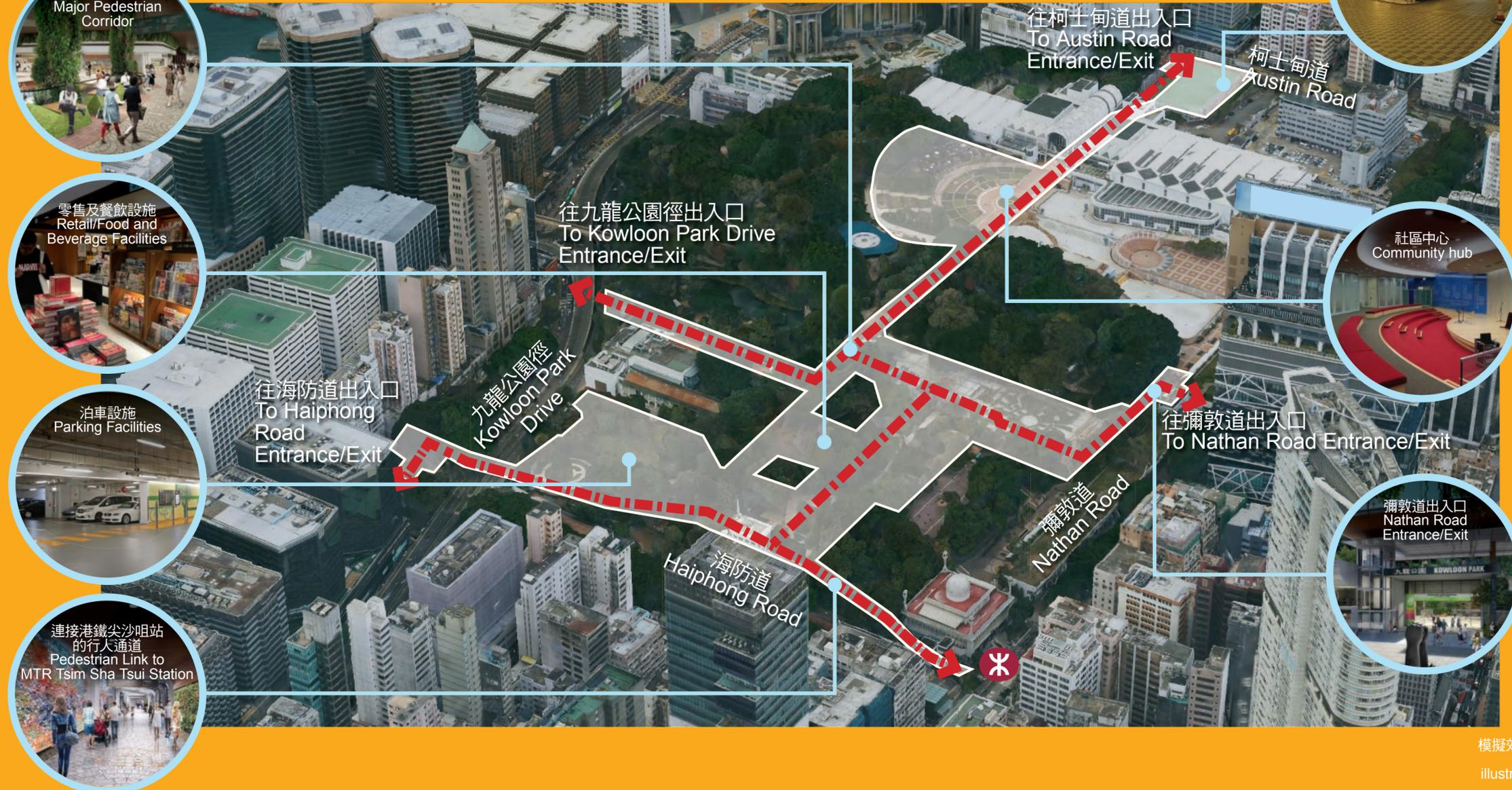


泊車設施
Parking Facilities



連接港鐵尖沙咀站的行人通道
Pedestrian Link to MTR Tsim Sha Tsui Station

地下空間用途及連接 Underground Space Uses and Connections



上落客貨設施
Loading/unloading facilities

提供上落客貨設施
Provide loading/unloading facilities



社區中心
Community hub

創建空間以增加社區設施，滿足社區需求
Create space for additional community facilities to meet community demand



彌敦道出入口
Nathan Road Entrance/Exit

構建綜合、多層的行人網絡，以解決疏導人流的急切需求
Develop a comprehensive multi-level pedestrian network to address the pressing pedestrian circulation demand

模擬效果圖只供參考之用
Renderings are for illustration purpose only

主要特色 Key Features



提升可達性及改善步行環境

Enhancing Accessibility and Improving Walkability

· 興建連貫互通的地下行人通道，改善該區的整体行人連接性和暢達度。這個全天候及無縫互通的行人網絡，將補足現時連接到區內一些主要目的地的行人設施。

Provide interconnected underground pedestrian passages to improve the overall pedestrian connectivity and walkability in the area. This all-weather seamless pedestrian network could complement the existing pedestrian facilities for connection to some major destination nodes in Tsim Sha Tsui.

· 與海防道平行的東西行人走廊會直接接駁至港鐵尖沙咀站，紓緩海防道現時擁擠的情況。

Connect with MTR Tsim Sha Tsui Station directly through the East-West Passage which would run parallel to Haiphong Road to alleviate the current overcrowded environment along Haiphong Road.

· 透過多層行人網絡和優化九龍公園路面出入口，改善步行體驗。

Improve the walking experience through enhancing the entrances of Kowloon Park at the street level with the multi-level pedestrian network.



構建一個可持續的綠色公園

Re-establishing a Sustainable Green Park

· 著重發展「藍綠基礎設施」連接地下空間和公園，推動「可持續發展的綠化公園」。

Focus on developing "blue-green infrastructure" to connect the USD and the park with a view to promoting a "Sustainable Green Park".

· 透過整體規劃綠化空間，並融合現有和已規劃的綠色資源，在公園建立生態走廊，改造「藍綠系統」的網絡。Reinvent the "Blue and Green System" networks through holistic planning of green spaces and provision of eco-corridors in the park through integration of existing and planned green resources.

· 藉著保存和提升景觀設施，包括提供草坪和花卉園林等，豐富現有的藍綠資源。

Enrich the existing blue-green assets through preserving and upgrading the landscape features, including an increase in area for lawn, floral garden and water features within the park, etc.

· 為大約300棵受影響的樹木（古樹名木將不受影響）進行補償種植，藉以提供足夠和健康的空間給樹木生長，同時亦會配合整體景觀設計。

Take the opportunity to provide an adequate and healthy growing environment for trees through compensatory planting approach for some 300 affected trees (Old and Valuable Trees (OVTs) not affected), and integrate with a holistic landscape design.



創造更多空間作不同用途

Creating Additional Space for Diverse Uses

· 提供足夠的社區和零售及餐飲設施，為當區創造一個設施完備的主要活動樞紐。

Provide adequate community and retail/food and beverage facilities to create a well-equipped key activity hub for the local community.

· 將設有老幼皆宜的社區設施和室內公共空間，服務社區，滿足市民期望。

Provide floor areas for community facilities and covered public space for enjoyment by people of all ages so as to serve community needs and meet public aspirations.

設計九龍公園地下空間的主要考慮因素

Key Considerations in Designing the Kowloon Park Underground Space

Underground Space

現時公園設施的使用模式

Usage Pattern of Existing Park Facilities

回應第一階段公眾參與期間收集所得的公眾意見，我們進行了有關九龍公園使用量的調查，了解現有公園設施的使用模式，從而評估擬議地下空間發展在施工和營運期間對九龍公園及其使用者的潛在影響。據調查所得，夏季最多遊人使用的公園設施是室內及室外游泳池和中國花園，而其他季節遊人則主要使用室內游泳池和中國花園。為減少對公園使用者的潛在干擾，這些公園設施將不被納入擬議發展範圍內。

In order to address the public concerns raised during the PE1, a survey on park usage has been carried out in Kowloon Park to ascertain the usage pattern of existing park facilities and evaluate the potential impacts of the proposed USD on the park and its users during both the construction and operation stages. Based on the survey results, the Swimming Pool (both indoor & outdoor) and Chinese Garden are the most frequently used park facilities during summer, while visitors mainly use the indoor Swimming Pool and Chinese Garden in other seasons. To minimise the potential disturbance to park users, these facilities are excluded from the proposed development footprint.



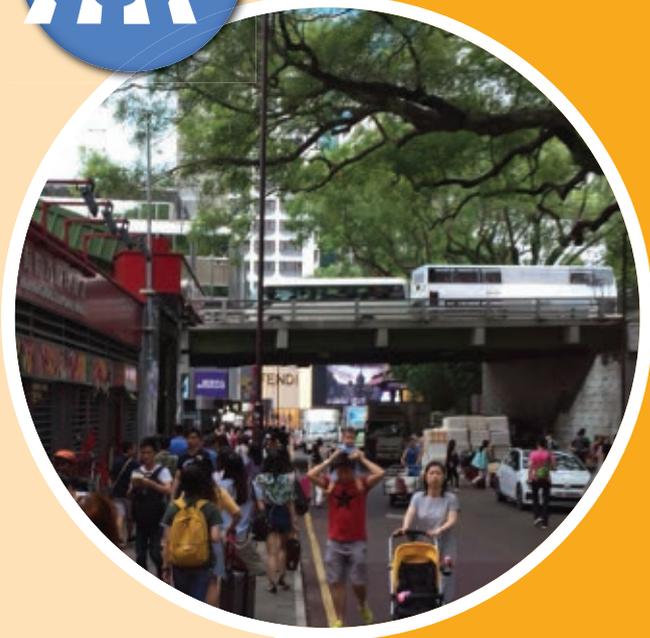
保留古樹名木

Preserving OVTs

保留現有樹木尤其重要。園內的古樹名木和林木茂密的地區已被剔出發展範圍之外。此外，擬議的概念方案亦儘量保留現有樹木。

Preservation of existing trees is of paramount importance. The USD boundary has been modified to exclude OVTs and densely vegetated areas. The proposed conceptual scheme has retained the existing trees as far as practicable.





連接地下空間與鄰近港鐵站，以紓緩現時海防道的擠迫情況

Alleviating the Existing Overcrowded Haiphong Road through Connecting Underground Space to the adjacent MTR Station

根據我們的初步技術評估，現時行人主要依靠海防道作為東西向的行人通道來往彌敦道和廣東道，導致海防道沿路一帶的地面步行環境較差，人車爭路情況嚴重。擬議地下空間發展連接港鐵尖沙咀站後，將可提供另一東西向的行人通道，以疏導人流。

Based on our preliminary technical assessments, pedestrians heavily rely on Haiphong Road for east-west movement between Nathan Road and Canton Road. This results in a relatively poor at-grade walking environment along Haiphong Road with severe pedestrian-vehicle conflicts. By connecting to the MTR Tsim Sha Tsui Station, the proposed USD will provide an alternative east-west walkway with a view to diverting the pedestrian flow.



保存鳥湖

Preserving the Bird Lake

研究團隊認同保留現時在鳥湖棲息的大紅鸕及附近生態的重要性，故此我們只建議在其旁邊開發一條地下行人通道貫通東西，並不會在鳥湖水體範圍下開發大規模的地下空間。同時，我們建議棄用傳統的明挖回填方式建造該段行人通道，而採用創新的地下挖掘技術，工程將不會對鳥湖構成影響。

We recognise the importance of maintaining the Greater Flamingo and the habitat created within and in the vicinity of the existing Bird Lake. Hence, we recommend constructing an east-west underground passageway underneath the side of the Bird Lake instead of any substantial underground space development to avoid the water body of the Bird Lake. With innovative mining method to create the underground passageway, instead of using conventional open-cut excavation, the Bird Lake would not be affected.

減少對九龍公園的影響 Minimising the Impacts to Kowloon Park

為減低對九龍公園的影響，我們建議採用「由上而下」的建築技術，首先建造地下空間結構的地基，緊接建造頂部結構，使地面的復修工程可以儘快展開，以恢復部分公園活動，同時在地底繼續所需的挖掘工程。與傳統的「由下而上」方式相比，「由上而下」的方式可以減少工程對公園的影響。另外，我們會在合適可行的地方採用無坑挖掘方法及分階段發展，以減少對地面活動的影響。

To minimise possible disruption to Kowloon Park, “top-down” construction technology is suggested. Under the top-down approach, the foundation of the underground space structure will be built first, followed by construction of the top structure, so as to allow early commencement of reinstatement works for the affected surface and resume part of the park activities while the underground excavation activities can continue. Compared to conventional “bottom-up” construction, the disruption to the park could be lessened by using the “top-down” approach. Besides, trenchless method and phased development will be adopted, where applicable, with a view to minimising the disturbance to above-ground activities.

此外，現有文物建築範圍內不會作地下空間發展。

Furthermore, the areas occupied by built heritage would be excluded from the USD.



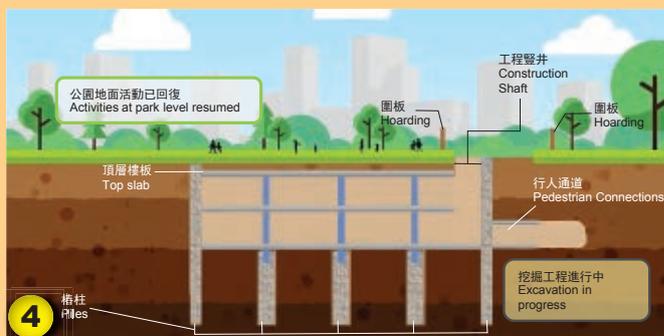
建造工程開始前，先整理工地現場及以圍板圍封工地
Tidy up and fence off the site by hoarding before commencement of construction



安裝支撐地下空間發展的樁柱及進行地面挖掘以安裝頂層樓板
Install piles for supporting the underground space development and carry out surface excavation for construction of top slab



完成頂層樓板後，回填至地面，以儘快還原部分公園設施，並優化公園，讓市民享用
Backfill to surface after construction of the top slab to expedite part of the reinstatement works and facelift the park for public enjoyment



在重建和優化公園的同時，於地下繼續挖掘工作，並在合適的地方以無坑挖掘的方式建造行人通道
Continue the underground excavation works at the same time of reinstatement and facelifting works. Conduct trenchless excavation for construction of pedestrian connections where suitable

擬議地下空間發展概覽

Summary of Proposed Underground Space Development

約 **25%** 九龍公園的範圍建議作地下空間發展
 Approximately of Kowloon Park area proposed for underground space development

九龍公園擬議地下空間將會為當區帶來額外
 The proposed underground space at Kowloon Park will provide an extra of

約 **9,000** 平方米 的社區設施用地及室內公共空間，面積與1.5個九龍公園戶外泳池相若
 approximately **9,000 m²** total floor area for community facilities and covered public space, similar areas as 1.5 Kowloon Park Outdoor Swimming Pool

以及約 **14,000** 平方米 的室內行人通道
 and approximately **14,000 m²** covered pedestrian passages



整體建造及公園受影響時間* Overall Construction Time & Park Affected Period*

* 按擬議方案估計
 Estimated based on the proposed scheme



地下空間擬議用途分布 (%) Distribution of Proposed Uses in Underground Space (%)

約 **40%**

社區設施
 Community Facilities

行人通道
 Pedestrian Passages

室內公共空間
 Covered Public Space



約 **30%**

泊車設施
 Parking Facilities

擬議地下空間發展能提供泊車設施供不同類型的車輛使用
 The proposed underground space development will provide parking facilities for vehicles of various types



約 **30%** 零售及餐飲設施
 Retail/Food and Beverage Facilities



改善地下連接，更加暢通易達 Improving Underground Connections and Enhancing Accessibility



海防道行人路情況
 Condition of Haiphong Road



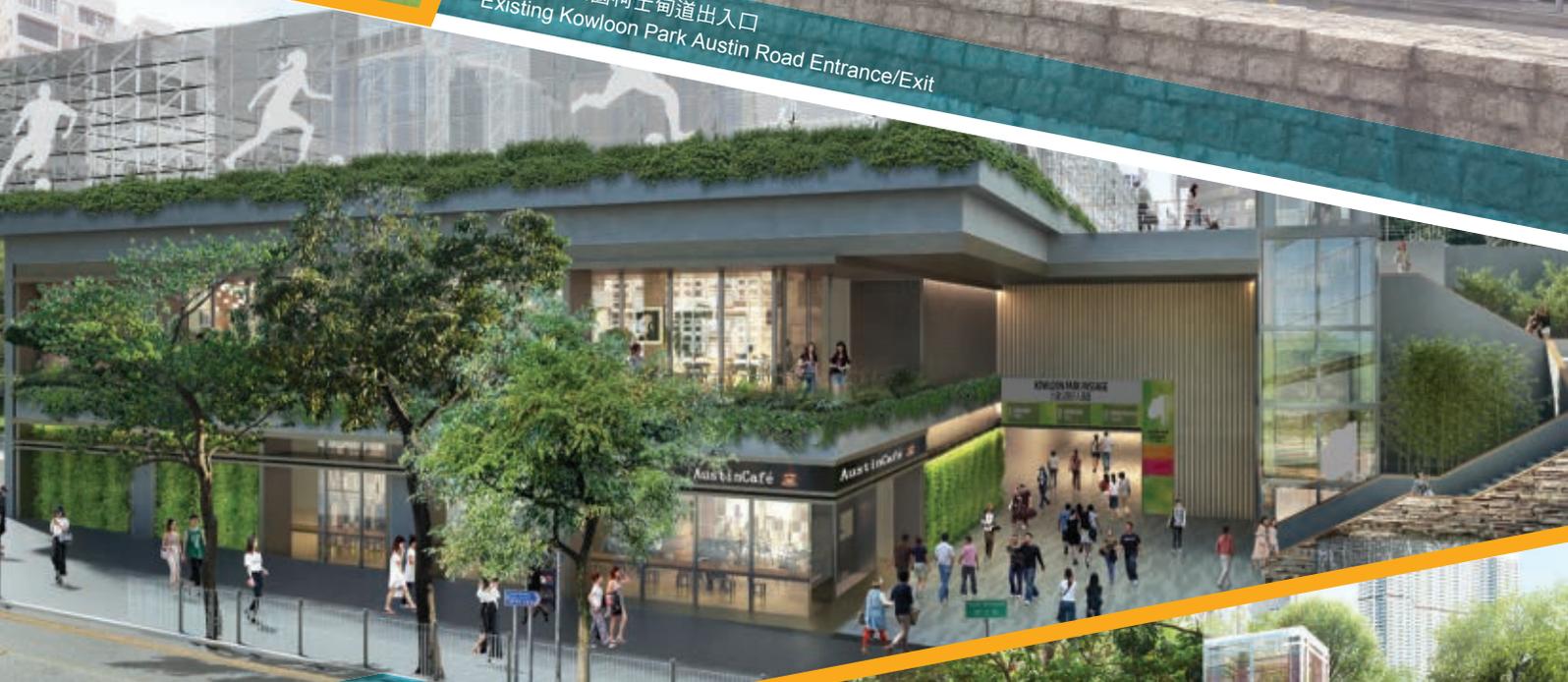
現時九龍公園彌敦道出入口
Existing Kowloon Park Nathan Road Entrance/Exit



擬議九龍公園彌敦道出入口
Proposed Kowloon Park Nathan Road Entrance/Exit



現時九龍公園柯士甸道出入口
Existing Kowloon Park Austin Road Entrance/Exit



擬議九龍公園柯士甸道出入口
Proposed Kowloon Park Austin Road Entrance/Exit



現時海防道兒童遊樂場出入口
Existing Haiphong Road Children's Playground Entrance/Exit



擬議海防道出入口
Proposed Haiphong Road Entrance/Exit



現時兒童遊樂場及噴水池
Existing Children's Playground and Fountain



現時迷宮
Existing Maze Garden



擬議社區中心上的花園
Proposed Garden on the Community Hub



擬議大草坪
Proposed Great Lawn



擬議社區中心上的花園
Proposed Garden on the Community Hub



現時瑰麗花園
Existing Colour Garden



擬議花卉園林
Proposed Floral Garden

模擬效果圖只供參考之用
Renderings are for illustration purpose only

公眾構想活動 Public Envisioning Activity

於2018年2月，本研究舉辦了概念設計比賽。該比賽開放予大專院校學生及本港專業團體的青年會員參加，旨在鼓勵青年人為城市地下空間發展的概念性規劃及設計提供意見和想法，共同創造連貫、互通、高質素和充滿活力的地下空間網絡。我們很高興收到年青一代的創新概念及設計。在未來的詳細設計階段，我們會參考其中得獎作品的相關設計元素。

In February 2018, a Design Ideas Competition for the Study was organised. The Competition was open to tertiary students and young members of professional institutes in Hong Kong, with a view to encouraging youth participation in the conceptual planning and design of potential urban underground space development, and to creating a coherent, connected, high quality and vibrant network of underground space. We are delighted to receive innovative ideas and designs from the young generation. The relevant design elements of the winning entries would be used as reference in the future detailed design stage.



可行實施機制便覽

An Overview of the Possible Implementation Mechanisms

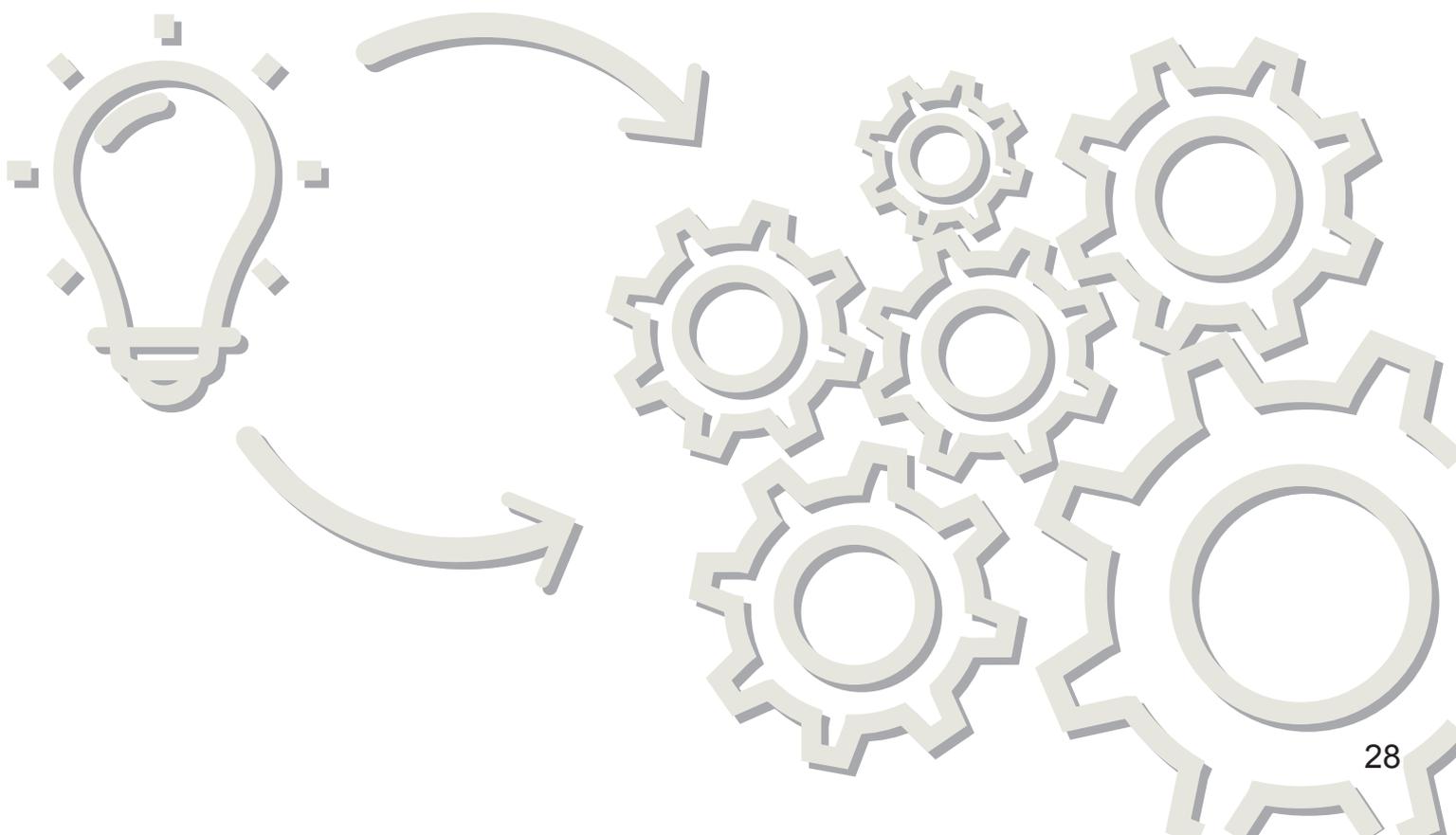
本部分為現時推行新發展採用的可行模式提供便覽以作參考。我們會利用第二階段公眾參與所收集到的意見，在優化擬議的概念方案後，再擬定發展的模式。

This section provides an overview about the prevailing options adopted for new developments for reference. The implementation mode will be proposed after refinement of the proposed conceptual scheme taking into account the comments received in PE2.

	土地的擁有權 Land Ownership	發展風險 Development Risk	項目的控制權 Control on the Project
政府工程項目 Government Project	由政府擁有 Owned by the Government	政府承擔發展成本和風險 Development cost and risk are borne by the Government	政府可完全控制 The Government has full control
公私營界別合作 Public-Private-Partnership (PPP)	政府可保留土地的擁有權 ¹ The Government can maintain land ownership ¹	政府和私營機構分擔發展成本和風險 Development cost and risk are shared by the Government and the private party	政府通過公私營界別合作的合約規定進行規管 The Government controls the requirements through PPP agreement
私人發展項目 Private Development	由私營機構擁有 Owned by the private party	私營機構承擔發展成本和風險 Development cost and risk are borne by the private party	政府可透過土地契約及有需要時加上服務契約設定對項目所需要的規管，但未能對項目作出完全控制 Full project control cannot be exercised but the Government can regulate the necessary requirements through land lease and service deed when needed

註釋 Remark:

- 視乎所採用的公私營合作模式
Depending on the adopted PPP model



再想一想 Further Thoughts

您的意見對我們下一步的工作和研究十分重要。在第二階段公眾參與中，我們特別想知道您對下列事項的意見：

Your views will be vital for the tasks and studies in our next steps. In the PE2, we are particularly interested in knowing your views on the following:

建議用途

Proposed Uses

您期望九龍公園擬議的地下空間會提供哪些用途或設施？

What kind of uses/facilities would you expect in the proposed underground space at Kowloon Park?

行人連接

Pedestrian Connections

您對於九龍公園擬議的地下行人連接網絡有什麼意見？

What are your views on the proposed underground pedestrian network at Kowloon Park?

施工計劃

Construction Programme

您比較希望以同期還是分期發展的方式建造九龍公園的地下空間？

Do you prefer developing underground space at Kowloon Park in a single phase approach or a phased approach?

地下泊車空間

Underground Car Parking Space

您對於九龍公園擬議的地下停車場有什麼意見？

What are your views on the proposed underground carpark at Kowloon Park?

其他意見

Other Comments

您有其他意見和建議嗎？

Do you have other comments and suggestions?

在其他策略性地區 發展地下空間的考慮

Considerations for Underground Space Development in other SUAs

維多利亞公園 Victoria Park

維多利亞公園(下稱「維園」)是銅鑼灣最大及最主要的公眾休憩用地，提供文化、體育及康樂設施。我們的初步研究結果顯示，於維園發展地下空間能夠提供額外的社區及交通設施以滿足區內需求，亦可提供額外的空間作零售及餐飲用途，增加銅鑼灣作為本港主要零售據點的吸引力。然而，我們必須考慮與周邊項目的配合及整體協同效應，小心處理項目的推行方案。經過審慎考慮區內的整體規劃後，我們建議現階段暫不推行維園的地下空間發展。儘管如此，當將來鄰近發展落實推行時，我們將重新檢視在維園發展地下空間的機遇，藉此實現全面的空間整合。

Victoria Park is the largest and the most prominent public open space in Causeway Bay. The park provides cultural, sports and recreational facilities. While our initial findings revealed that the development of underground space underneath Victoria Park could provide additional community and transport facilities to meet district demands and also retail and food & beverage uses to enhance the attractiveness of Causeway Bay as a key retail hub in Hong Kong, the implementation should be carefully worked out taking into account the interface and synergistic effects with the surrounding projects. After taking serious consideration on the holistic planning of the area, the USD underneath Victoria Park is not recommended to be taken forward at this juncture. Nevertheless, the opportunity for developing underground space underneath Victoria Park will be revisited when the future adjoining developments proceed for achieving spatial integration in a comprehensive manner.



維多利亞公園位置圖
Location Plan of Victoria Park

圖例 Legend

- 古樹名木
Old & Valuable Trees
- 具發展地下空間潛力的區域
(地面範圍) (示意性)
Potential Area for Underground
Space Development (At-grade
Footprint) (Indicative only)
- ↔ 擬建的北港島線 (示意性)
Proposed North Island Line
(Indicative Only)

修頓遊樂場 Southern Playground

現時修頓遊樂場是灣仔主要的體育及康樂活動要點，為市民提供足球和籃球設施及休憩處，其使用量非常高。雖然於修頓遊樂場發展地下空間能提供額外的社區休憩及康樂設施以滿足當區需求，但團隊從第一階段公眾參與所收集的意見中了解到公眾十分關注工程期間須臨時關閉遊樂場以及對遊樂場日常運作造成影響等議題。故此，我們建議較長遠而言，當物色到合適的地點用作工程期間重置臨時受影響的體育及康樂設施後，才再重新考慮推展此方案。我們建議現階段暫不考慮此發展方案。

At present, Southern Playground is a major sports and recreational focal point in Wan Chai, providing facilities for football and basketball activities as well as sitting-out areas, and its usage is extremely high. While the development of underground space underneath Southern Playground could provide additional community facilities for leisure and recreational uses to meet district demands, public concerns on closure of the playground area and disturbance to its daily operation during construction stage were received in PE1. It is suggested revisiting the proposal in the longer term when an alternative site becomes available for the temporary re-provisioning of the sports and recreational facilities during the construction period. We recommend that the development scheme would not be considered at this stage.



圖例
Legend

- 具發展地下空間潛力的區域
(地面範圍) (示意性)
Potential Area for Underground
Space Development (At-grade
Footprint) (Indicative Only)

歡迎您於2019年8月21日或之前，透過電郵、傳真、郵寄或網上表格向我們表達您的意見和建議。

You are welcome to give your views, comments and suggestions to us by email, fax, post or via online view collection form on or before 21 August 2019.

您的意見 Your Views



地址 address

九龍何文田公主道101號
土木工程拓展署大樓11樓
11/F, Civil Engineering and Development Building,
101 Princess Margaret Road, Homantin, Kowloon

請在信封面註明「地下空間發展」

Please specify on envelope:

“Underground Space Development”



電話 phone

3917 4761



傳真 fax

2714 0247



電郵 email

info_urbanunderground@aecom.com

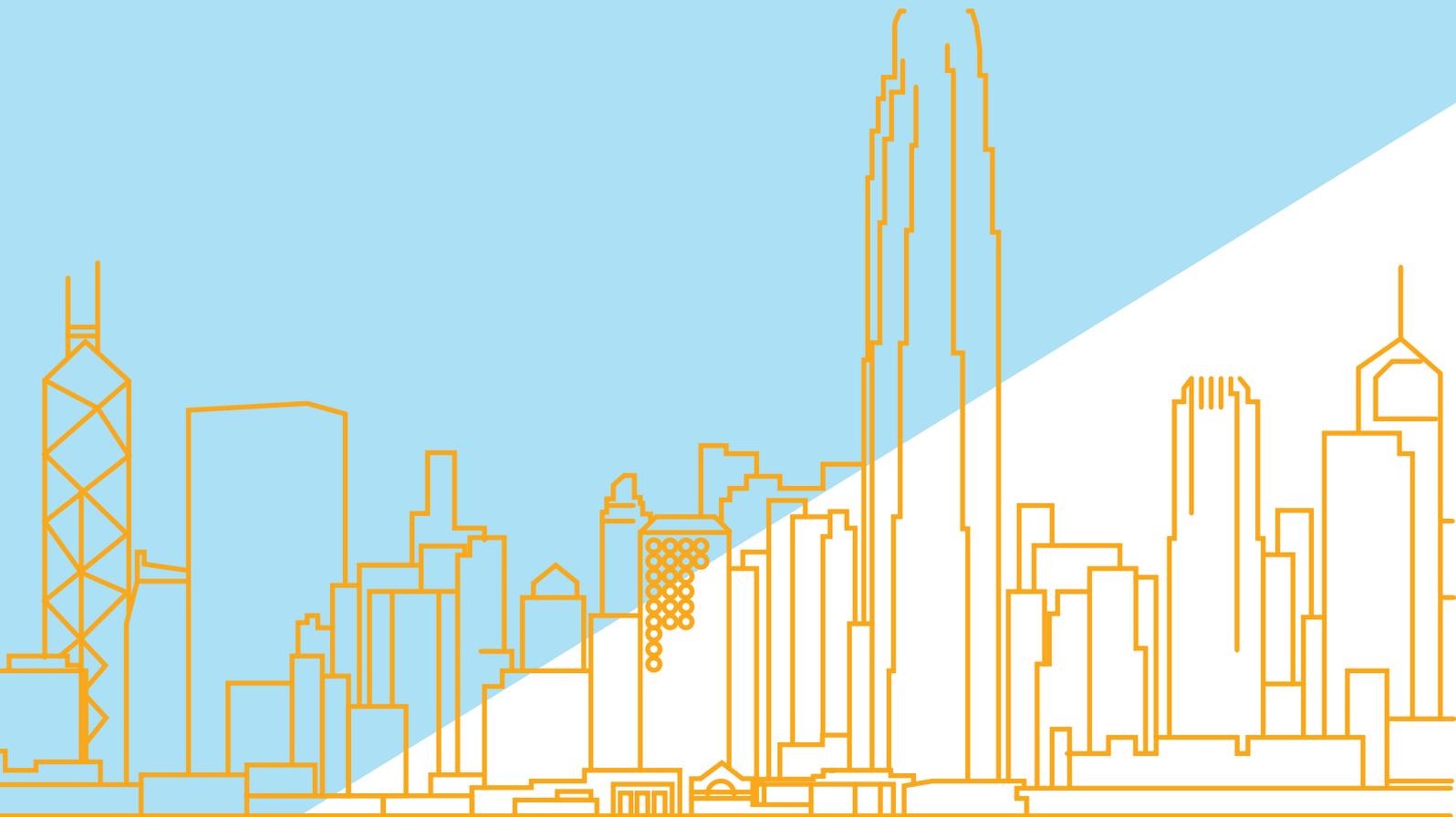
聯絡我們 Contact us



www.urbanunderground.gov.hk

聲明：凡在「城市地下空間發展：策略性地區先導研究」過程中向土木工程拓展署或規劃署提供意見和建議的個人或團體，將被視作同意土木工程拓展署或規劃署可將部分或全部的內容（包括個人姓名及團體名稱，但電話及電郵地址則會保密）公布。如您不同意這個安排，請於提供意見和建議時作出聲明。

Disclaimer : A person or an organisation providing any comments and suggestions to the Civil Engineering and Development Department or the Planning Department on the "Pilot Study on Underground Space Development in Selected Strategic Urban Areas" shall be deemed to have given consent to the Civil Engineering and Development Department or the Planning Department to partially or wholly publish the comments and suggestions (including the names of the individuals and organisations, but the telephone number and email address will be kept confidential). If you do not agree to this arrangement, please state so when providing comments and suggestions.



**Pilot Study on Underground Space Development
in Selected Strategic Urban Areas
Summary of Broad Technical Assessments**

To assess the potential impacts arising from the proposed development, various preliminary technical assessments, including traffic, environment, drainage, fire safety, geotechnics, sewerage and utility infrastructures, had been conducted. The preliminary findings of the relevant assessments are summarised as follows:

Traffic Impact Assessment

2. According to the preliminary Traffic and Transport Impact Assessment (PTTIA), vehicular traffic conditions were assessed by means of junction capacity assessment. The assessment results of vehicular traffic conditions for the design year of 2031 and 2036 show that the operating performance of all study junctions are within capacity for the scenarios with or without Kowloon Park Conceptual Scheme (the Scheme).

3. Pedestrian traffic conditions were assessed by means of pedestrian Level-of-Service (LOS)¹ in the assessment. The PTTIA also showed that at present, the pedestrian LOS of existing pedestrian traffic is acceptable at all assessed footpaths, with exception of northern footpath of Haiphong Road, Canton Road and Nathan Road. The pedestrian LOS assessment for the design year of 2031 and 2036 shows that, with the proposed east-west and north-south pedestrian network interconnecting between Nathan Road, Canton Road, Austin Road, Haiphong Road and the MTR Tsim Sha Tsui Station, pedestrian would be diverted to use the underground connections. As such, the LOS of Haiphong Road and Nathan Road would experience significant improvement, of which the LOS would be improved from LOS “D” to the desirable level, i.e. LOS “C”. Thus, the pedestrian LOS of all the footpaths surrounding Kowloon Park would be maintained not worse than LOS “C”. Since the other assessed footpaths are far away from Kowloon Park, including eastern

¹ Pedestrian LOS is used to assess the performance of footpaths. The assessment of the LOS depends on the pedestrian flows and the width of the footpaths by making reference to the Transport Planning and Design Manual (TPDM), published by the Transport Department. LOS defines the walking environment in six levels by measuring the pedestrian flow rate in terms of the effective width of footpath. According to TPDM, a dead area of 0.5m along building frontages and 1m along shop frontages was deducted in order to obtain the effective width for LOS assessment. LOS “A” and “B” are considered very good and LOS “C” is desirable for most design with predominantly dynamic pedestrian activities, whereas LOS “D”, “E” and “F” are not desirable.

and western sections of Canton Road (adjacent/opposite to Harbour City), the pedestrian impact generated from the proposed development would be insignificant. The LOS of these sections would be maintained at Level “D”.

4. Construction traffic impact assessment has been conducted for the year before the completion year at all junctions affected by road works during construction stage. The assessment result concluded that the operation performance of all assessed junctions is within capacity.

Environmental Review

Ecology

5. According to the preliminary environmental review, Kowloon Park is considered as a generous habitat for avifauna in urbanised area. With wooded areas, pond areas, grassland, mature trees and developed areas, migratory birds and winter bird visitors are attracted to the park, of which the Bird Lake was identified as a breeding ground for wild birds. Considering the ecological importance, a number of mitigation measures will be adopted to minimise the potential environmental impact:

- areas with ecological values such as the Bird Lake, areas with OVTs and dense vegetation, are excluded from development boundary;
- trenchless excavation construction methods will be adopted in constructing underground passages where applicable;
- construction programme will be planned to avoid breeding seasons of the avifauna species for the site area within buffer distance from the identified ecological important trees;
- noise barriers, site hoarding / protective fencing will be provided to delineate of works limit and reduce the disturbance from excavation works; and
- tree preservation, compensatory tree planting and transplanting will be implemented as far as practicable

With proper mitigation measures, the ecological impacts arising from the Scheme during construction and operation stage are considered acceptable.

Tree and Landscape Impact

6. A preliminary broad brush tree group survey was conducted to estimate the quantities and assess the general conditions of the existing trees and tree groups within and around the Scheme. According to the survey, among the total of about

1,400 trees in Kowloon Park, about 44 trees are Old and Valuable Trees (OVTs) including *Albizia lebbbeck* (大葉合歡), *Ficus microcarpa* (榕樹) and *Cassia fistula* (臘腸樹), etc. In scheme formation, all OVTs and densely vegetated areas have been excluded from the development footprint. The development footprint mainly focuses on the hard pavement areas occupied by some existing facilities, including maze garden, pedestrian footpath and children's playground. According to the broad-brush tree survey, about 300 trees (no Old and Valuable Trees), would be affected. Based on aerial photos taken in 1963, 1973, 1982 and 1993, most of the trees were planted in late 1980s after construction of Kowloon Park. Among the affected trees, while approximately 80% are common exotic species, for example, *Acacia confusa* (台灣相思), *Archontophoenix alexandrae* (假檳榔), *Caryota maxima Blume* (魚尾葵) and *Lagerstroemia speciosa* (大花紫薇), approximately 20% are native species, for example, *Bauhinia x blakeana* (洋紫荊), *Cinnamomum camphora* (樟樹) and *Celtis sinensis* (朴樹). In terms of tree growth, there is about 10% of the affected trees with DBH larger than 500mm while the remaining trees are considered relatively small trees. The general condition and aesthetic value are also considered fair, given that some trees are over-plant in the area without proper growth space. For the general quality of the affected trees, over 90% of trees are fair in form and health condition while less than 5% of trees are good in form. A detailed tree impact assessment will be carried out in detailed design stage to explore the mitigation measures and arrangements for the affected trees in accordance with the prevailing guideline including DEVB TCW No. 7/2015 – Tree Preservation, the latest Guidelines on Tree Preservation during Development issued by Development Bureau and ETWB TCW No. 29/2004 - Registration of Old and Valuable Trees, and Guidelines issued by Environment, Transport and Works Bureau. Tree preservation and transplantation would be accorded priority and implemented as far as practicable. A holistic landscape design, including the adoption of native plant species, will be established to foster better growing environment for trees in the Park. As for the compensatory plantings, the compensatory trees will be no less than the number of trees to be fell down, and planting will be implemented in accordance with the prevailing guidelines so as to uplifting the landscape and design at Kowloon Park.

Visual Impact

7. Besides, potential visual impacts arising from the development are anticipated during the construction and operation stages. With proper mitigation measures, including provision of green roof and buffer planting, reinstatement of landscape areas, aesthetical pleasing design of man-made structures etc., it is anticipated that the visual impact would remain slight to moderate during both stages.

Air and Noise Impact

8. Preliminary assessments on air and noise showed no insurmountable air quality impact and noise impact arising from the proposed development is anticipated. As for the air quality aspect, mitigation measures, for example, dust suppression measures in accordance with the Air Pollution Control (Construction Dust) Regulation and provision of sufficient buffer distance stipulated in Hong Kong Planning Standards and Guidelines are recommended.

9. As for the noise aspect, noise mitigation measures, such as good site practices, movable noise barriers and noise enclosures are recommended to minimise the noise impact. Quantitative construction noise impact assessment would be conducted in detailed design stage.

Cultural Heritage

10. According to Antiquities and Monuments Offices (AMO), a total of twenty-two cultural heritage resources, including six Declared Monuments, six Grade 1, two Grade 2 and two Grade 3 historic buildings as well as a total of six resources without grading/not to be assessed, are identified within the 500m study area of the Scheme. All heritage resources identified have been excluded from the development boundary, with the only exception of the disused air raid tunnels. These tunnels are classified as other cultural heritage resources and proposed to integrate into the Scheme for public display in response to public comments received from PE1. There are indirect impacts on some heritage resources which are located close to the development boundary due to the construction, for example, ground-borne vibration and excessive dust. Regular monitoring will be carried out during construction stage and necessary assessment on the heritage impact on these heritage resources, for example, Heritage Impact Assessment, would be conducted in accordance with Development Bureau Technical Circular (Works) No. 6/2009 in detailed design stage.

Fire Safety Design

11. In view of various natures of proposed usages at the Scheme, different fire safety strategies such as fire engineering and code-compliant design approach would be adopted at different areas. The code-compliant approach would be adopted in full

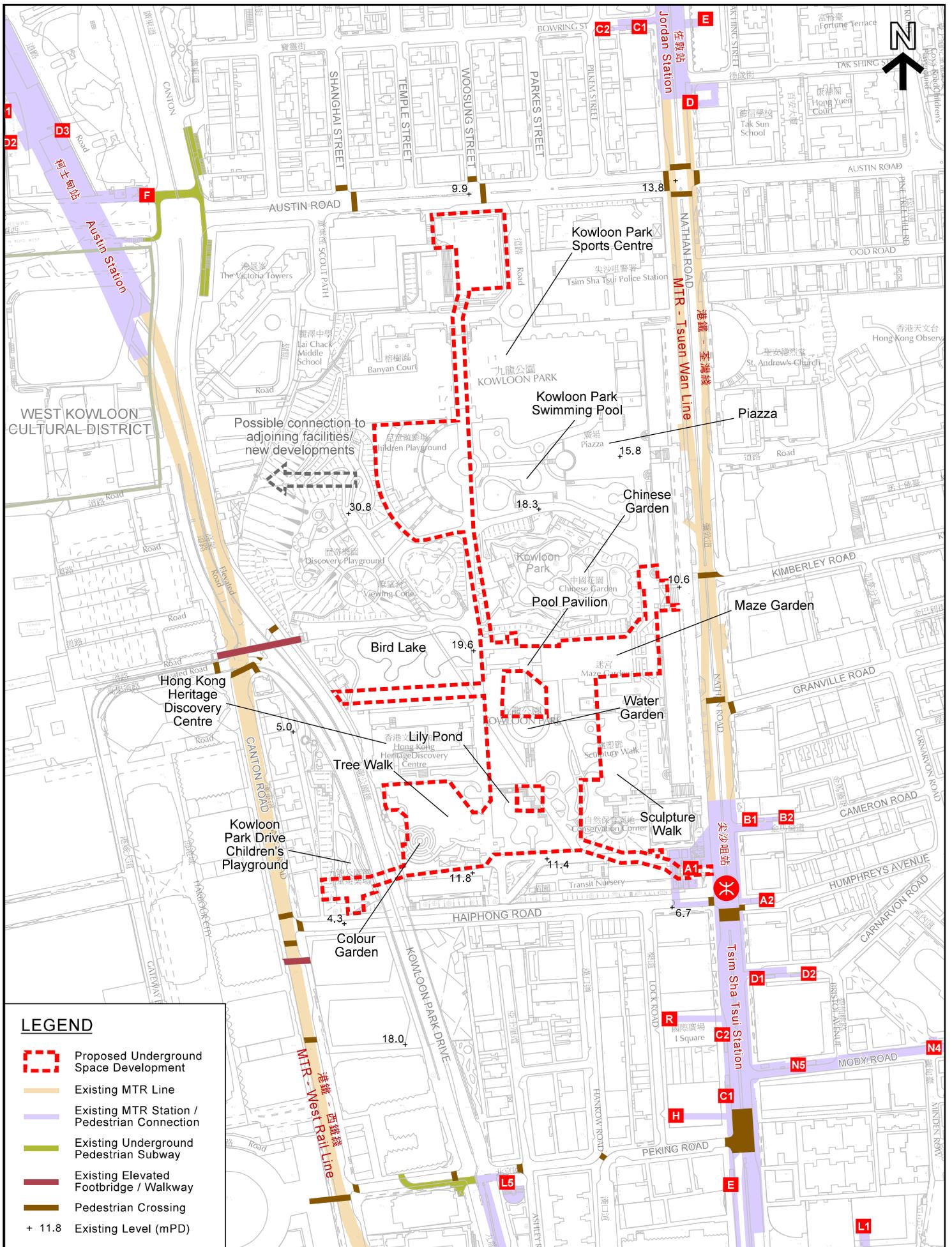
accordance to relevant fire safety codes and code of practice issued by Buildings Department (BD) and Fire Services Department (FSD). When there is genuine difficulty to comply with the codes, fire engineering approach will be adopted, subject to confirmation with relevant government departments, including BD and FSD in detailed design stage. Meanwhile, Fire Safety Management Plan will also be established to assist occupants to reach the ultimate place of safety and maintain the condition of fire safety provisions. Detail fire safety design and relevant assessment(s) will be conducted in detailed design stage.

Geotechnical Impact

12. According to the preliminary assessment results, the bedrock level within the proposed development is relatively shallow and around 20 – 30m below ground level. The proposed development layout is planned in order to avoid large amount of rock excavation and disturbance to park users. Three historic buildings in the vicinity of the proposed development are founded on shallow foundation and the stability of these buildings shall be maintained by adopting suitable geotechnical design. In addition, considering part of the proposed development falls within the MTR protection zone and a few registered man-made slopes and retaining walls are identified within/in the vicinity of the proposed development, construction works and geotechnical design shall follow relevant guidelines including Works Bureau Technical Circular (WBTC) No. 19/2002 and Environment, Transport and Works Bureau (ETWB) Technical Circular (Works) No. 29/2002.

Drainage, Sewerage, Water Supply and Utilities Impact

13. According to the preliminary drainage, sewerage, water supply and utilities impact assessment, it is concluded that the proposed development will not cause adverse and insurmountable impacts on the existing drainage, sewerage, water supply and utilities systems.



LEGEND

-  Proposed Underground Space Development
-  Existing MTR Line
-  Existing MTR Station / Pedestrian Connection
-  Existing Underground Pedestrian Subway
-  Existing Elevated Footbridge / Walkway
-  Pedestrian Crossing
-  + 11.8 Existing Level (mPD)

Location Plan

SCALE



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
PLANNING DEPARTMENT



PLAN No. : M/SR/19/035_1a

PLAN

DATE : 24/06/2019

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