

立法會發展事務委員會

711CL – 啟德發展計劃 – 前跑道南面發展項目的基礎設施工程及
啟德發展計劃進度報告

2015年4月28日會議跟進事項

因應委員會的要求，當局提供的補充資料如下：

- (a) 政府當局於文件(LC 文件號 CB(1)759/14-15(03))的附件 2 第 27 段指出，一項確認在啟德發展區增加辦公室及房屋供應的技術和環境可行性研究已經完成。要求提供該研究報告的副本。

就啟德發展區計劃增加整體發展密度平均約百分之二十的建議，有關研究確認其技術和環境的可行性，該建議不會對基建及其他社區設施有顯著影響，亦不會在噪音、通風及景觀方面造成不可接受的影響。概述有關建議及研究結果的摘要報告（只有英文版本）載於附件 1。

根據研究結果，政府正分階段向城市規劃委員會(城規會)遞交規劃許可申請，提出略為放寬啟德分區計劃大綱圖的發展參數限制。到目前為止，城規會已批准增加約166,000平方米住宅建築樓面面積和約80,000平方米非住宅建築樓面面積。

- (b) 就當局計劃於啟晴邨及德朗邨之間提供一個公園，要求提供該公園建造及啟用時間表和公園的平面圖

啟德發展區內啟晴邨及德朗邨附近已預留一幅面積3.2公頃的土地作公園發展之用，由建築署分階段興建並交與康樂及文化事務署管理。第一期公園工程佔地約1.6公頃，其設計已經完成，並已於2010至2013年期間諮詢九龍城區議會及海濱事務委員會轄下的啟德海濱發展專責小組。建議的公園將提供如長者健體設施和園景區等設施，與鄰近屋邨內的康

樂設施(包括兒童遊樂場地、乒乓球桌、羽毛球場、籃球場和五人足球場)互相補足。公園的撥款申請將按照既定的資源分配機制進行。公園的位置及佈局圖載於**附件2**。

- (c) 就當局於會議上指出，因為技術的限制，難以推行把承豐道建於地底以加強當區的行人暢達性的建議。請以平面圖/圖則(包括剖面圖)，解說為何在啟德發展計劃內設置的區域供冷系統地下冷凍水管道，以及其他公用設施管道，會使上述建議不可行。

現有區域供冷系統的廠房建於前跑道南面地底，廠房範圍的土地用途按《啟德分區計劃大綱圖》編號(S/K22/2)原本規劃為休憩用地。及後，為配合擬議雙線雙程行車道及其相關的架空園景平台由海濱遷移至前跑道中央，並置於區域供冷系統廠房之上，有關的用地在《啟德分區計劃大綱圖》編號(S/K22/4)被重劃為「休憩用地(2)」。因此，擬議的承豐道不能建於地底，否則便會與現有橫越整條道路的区域供冷系統地下廠房造成衝突。另外，把道路沉建於地下亦將令其連接至毗連道路(如啟德橋)，及毗鄰發展用地(包括商業和住宅發展用地和啟德郵輪碼頭)十分困難。**附件3**內的平面圖及剖面圖展示了上述的限制。

- (d) 就擬議架空園景平台及與其結合的路旁隔音屏障因涉及龐大的建造成本，是否有必要設置，提出支持興建架空園景平台的相關理據，以及對社區和行人帶來的好處。

根據已核准的《啟德分區計劃大綱圖》，位於改道後的承豐道上方已劃為「休憩用地(2)」，並註明興建架空園景平台以提供公眾休憩用地和休閒步行道，連接北面的都會公園及南面的啟德郵輪碼頭、旅遊中心和啟德跑道公園。此外，按照有關承豐道改道工程已獲批准的環境影響評估報告及環境許可證的規定，架空園景平台及與其結合的路旁隔音屏障將作為所需的噪音緩解措施，以防止道路交通對毗鄰易受噪音影響的受體，即住宅發展區，做成不良影響。

- (e) 以平面圖/圖則，包括佈局圖及剖面圖，詳細介紹架空園景平台將如何與環保連接系統交匯。

根據《啟德分區計劃大綱圖》，九龍東的環保連接系統將行走於改道後的承豐道旁的商業發展用地前方。雖然擬議的環保連接系統的模式及未來發展將視乎其詳細可行性研究的結果（該研究有待財務委員會批准撥款），架空園景平台的設計已預留足夠空間以建造將來的環保連接系統，以及在有需要時與該系統可能建議的高架車站結合。**附件3**內的平面圖及剖面圖展示了架空園景平台和可能的環保連接系統(鐵路模式)的連接。

- (f) *詳細說明架空園景平台將如何與啟德發展計劃內的行人設施、商業和其他主要發展連繫。*

架空園景平台將以升降機和樓梯連接改道後的承豐道的行人路及毗鄰發展用地。此外，架空園景平台的設計，已預留接駁點讓日後毗鄰發展項目（包括商業發展）興建伸延以連接至架空園景平台。我們亦已修改架空園景平台的設計，為日後毗鄰的住宅發展預留接駁點。**附件4**內的平面圖展示了有關架空園景平台的行人連接。

- (g) *就當局現時提出只在架空園景平台向住宅發展的一方設置路旁隔音屏障，而沒有向商業發展一方設置的建議設計所持理由是什麼；此設計是否可以及如何緩解對日後使用架空園景平台的行人所造成的噪音影響；在向商業發展的一方設置路旁隔音屏障預計所需的額外開支。*

根據有關承豐道改道工程已獲批准的環境影響評估報告及環境許可證的規定，架空園景平台及與其結合的路旁隔音屏障將用作所需的噪音緩解措施，以防止道路交通對毗鄰易受噪音影響的受體，即住宅發展，做成不良影響。按照環境影響評估條例，商業發展和流動受體(例如路旁行人道上的行人)並非易受噪音影響的受體。因此根據環境許可證，改道後的承豐道向商業發展的一方無需實施噪音緩解措施，否則整項工程費用將會額外增加約四億元（以付款當日價格計算）。對於架空園景平台上的行人，路面交通噪音會被阻隔，因此不受任何交通噪音影響。

- (h) 會否考慮修改有關建議，以使行人或居民可往來架空園景平台和鄰近住宅發展。如會，詳細為何；如不會，原因為何。

我們已修改架空園景平台的設計，為日後毗鄰的住宅發展預留接駁點。附件4內的平面圖展示了有關架空園景平台的行人連接。

- (i) 擬議工程的分項費用，包括價格調整準備和應急費用。

擬議工程的分項費用載於附件5。

- (j) 由於價格調整準備和應急費用佔總工程費用顯著的比例，此兩項費用的理據。價格調整準備是如何計算？最好及最差的情況？價格調整準備會否因工程所須的時間而受影響？如何受影響？

(A) 應急費用

應急費用是為了應付於工程期間可能遇到的風險而預留的費用。按2014年9月價格計算，擬議工程計劃的應急費用預計約4億2,090萬元，佔工程費用(即42億940萬元)約10%。考慮到此項工程的性質，我們認為應急費用的預算是合適的。

(B) 價格調整準備

價格調整準備是用以支付因通脹而增加的費用。政府經濟顧問會定期預測公營部門樓宇和建造工程產量價格的趨勢增減率，並根據這項預測制定價格調整因數，把工程預算由按固定價格計算轉換為按付款當日價格計算。按照現行的指引，我們根據(i) 按固定價格計算的每年預計工程開支及(ii)由2015至2022年期間政府最新的價格調整因數，制定擬議工程計劃按付款當日價格計算的工程預算，詳列如下：

年度	百萬元 (按 2014 年 9 月 價格計算)	價格調整 因數	百萬元 (按付款當日 價格計算)
2015 – 2016	78.5	1.05725	83.0
2016 – 2017	657.8	1.12069	737.2
2017 – 2018	1,319.0	1.18793	1,566.9
2018 – 2019	1,350.3	1.25920	1,700.3
2019 – 2020	827.7	1.33475	1,104.8
2020 – 2021	294.0	1.40483	413.0
2021 – 2022	103.0	1.47507	151.9
	4,630.3		5,757.1

如以上所示，擬議工程項目的價格調整準備就是按付款當日價格計算的工程預算與按固定價格計算的差別，即 \$5,757.1(百萬元) - \$4,630.3(百萬元) = \$1,126.8(百萬元)。

由於公營部門樓宇和建造工程產量價格的趨勢增減率和推行時間表在未來數年會受很多因素影響，我們難以就價格調整準備計算中最好及/或最差的情況提供例子。

政府每半年更新價格調整因數，以應用於向工務小組委員會和財務委員會提出的基本工程計劃撥款申請。因此更新的價格調整因數會定期提供予委員，作轉換基本工程計劃的成本估算之用。

(C) 價格調整準備會否因工程所須的時間而受影響？如何受影響？

價格調整準備是由每年預計的工程開支(按固定價格計算)乘以相應最新的價格調整因數而制定。由於每年價格調整因數會因應通脹或通縮以及其幅度而有所改變，因此按付款當日價格計算的工程預算亦會因應工程完成時間的長短而有所增減。為了讓前跑道南面的發展項目能盡早推行，擬議工程項目的時間表已經相當緊迫。

Summary Report on
Technical Feasibility and Environmental Acceptability of Increasing Office
and Housing Supply in Kai Tak Development

1. Background

1.1 In the Policy Address 2013, the Government was committed to increase the housing and office supply in short to medium term by various means including an increase in the development intensity of Kai Tak Development (KTD). In July 2013, the Civil Engineering and Development Department was tasked to commission a study (the Study) to ascertain the technical feasibility and environmental acceptability of the proposal (the Proposal) of increasing the office and housing supply in KTD. The Study has been substantially completed and a summary depicting the proposal, planning intention, planning and various impact assessments is stated in the ensuing paragraphs.

2. The Proposal

2.1 The Proposal seeks to increase the office and housing supply in KTD by means of modifications to the land use zonings, plot ratios and/or building height restrictions of 43 no. of Sites, namely 1D2-3, 1E1-2, 1F1, 1G1(B), 1H1-3, 1K1-3, 1L1-3, 2A1-7, 2B1-6, 3A6, 3B1-4, 4A1-2, 4B1-4 and 4C1-4 (the Sites¹) in KTD. Locations of the Sites are shown in **Plan 1**.

2.2 For Sites 1D2 and 1D3 which are located in the North Apron area, it is proposed to relax the building height restriction of the two sites by 20m to facilitate the development of government offices so that the building footprint on G/F can be reduced allowing more opportunity for at-grade greening and enhance the natural lighting at pedestrian level. In addition, a 35-m wide ventilation corridor (including a 10-m pedestrian street) can be introduced between Site 1D3 and Site 1D4 to enhance the visual permeability, ventilation and streetscape. For Sites 1E1-2, 1F1, 1G1(B), 1H1-3, 1K1-3, 1L1-3, 2A1-6, and 2B1-6 which are located in the North Apron area, it is proposed to relax the building height restrictions by 20 m to allow the increase in maximum plot ratios, with the maximum site coverage remaining unchanged. For Site 2A7 in the North Apron area and Sites 3A6 and 3B1-4 in the South Apron area, it is proposed to change the land use zoning from “Government, Institution

¹ On the approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/4, the Sites are zoned “Residential” (R), “Commercial” (C), “Comprehensive Development Area” (CDA), “Other Specified Uses” (OU) and “Government, Institution or Community” (G/IC).

or Community” (G/IC) to Commercial. For Sites 4A1-2, 4B1-4 and 4C1-4 which are located in the Runway Precinct, it is proposed to relax the building height restrictions by 10m-20m.

- 2.3 With the Proposal, it is anticipated that the domestic GFA to be developed at the Sites will be increased from about 1,060,000 m² to 1,290,000 m² (an increase of about 22%); and the Non-Domestic GFA to be developed at the Sites will be increased from about 620,000 m² to 1,050,000 m² (an increase of about 69%). The proposal is summarized in **Table 1**.

3. The Sites and the Surrounding Area

- 3.1 The Sites are Government land currently being vacant or occupied by temporary uses/works area. The locations of the Sites and characteristics of the surrounding areas are as follows:

3.1 Sites 1D2 and 1D3 are located at the northern fringe of the KTD near San Po Kong. They are bounded by Prince Edward Road East to the north and Road D1 to the south. To the west of these sites are a 10m wide pedestrian street and the Trade and Industry Tower under construction. The sites will be accessible from Road D1.

3.2 Sites 1E1-2 and 1F1 sites are located at the north apron area of the former Kai Tak airport, situated north of Station Square and west of Kai Ching Estate/Tak Long Estate. Sites 1E1 and 1F1 will be accessible from Road D1 while 1E2 will be connected to Shing Kai Road through Muk Chui Street.

3.3 Sites 1G1(B), 1I1-3, 1K1-3 and 1L1-3 are located at the north apron area of the former Kai Tak airport, and encompassed by the proposed Multi-Purpose Sports Complex (MPSC) in the West, Station Square of Kai Tak Station of Shatin to Central Link in the North and Kai Tak River in the East. The sites will be accessible from Roads L4 and L6 which connects to Roads D2 and D3.

3.4 Sites 2A1-7 and 2B1-6 are located at the north apron area of the former Kai Tak airport, and bounded by the proposed MPSC in the South, Road D1 in the North and Sung Wong Toi Park in the East. The sites will be accessible by Road L7, L16 and L9 which connects to Road D1 and the existing Olympic Avenue.

3.5 Sites 3A6 and 3B1-4 are located in the south apron area of the former Kai Tak airport. The proposed Central Kowloon Route bisects the area to Site 3A6 in the north and Sites 3B1-4 in the South facing the Kai Tak

Approach Channel. The sites will be accessible from Kai Fuk Road and Road L10 en route Road D4.

- 3.6 Sites 4A1-2, 4B1-4 and 4C1-4 are located in the runway area of the former Kai Tak airport and are surrounded by waterbody comprising Kai Tak Approach Channel and Victoria Harbour. To the south of these sites are the Kai Tak Cruise Terminal and the proposed Tourism Node development. The sites will be connected to Road D4.

4. Planning Intention of the Sites

The planning intentions of the Sites are listed below:

4.1 Sites 1D2 and 1D3

- 4.1.1 Sites 1D2 and 1D3 are zoned G/IC on the Kai Tak Outline Zoning Plan (OZP). Both sites are reserved to partially meet the re-provision need for the Wan Chai Government Offices Compound. Site 1D2 is planned for a Joint User Government Office whereas Site 1D3 is proposed to be developed as the Inland Revenue Tower.

4.2 Sites 1E1 and 1F1

- 4.2.1 These two sites are designated as “Other Specified Uses” (OU) and are intended primarily for mixed non-industrial land uses. Flexibility for development of residential or other uses, or a combination of compatible uses including commercial, residential, educational, cultural, and recreational and entertainment is allowed either vertically within a building or horizontally over a spatial area. Physical segregation has to be provided between the non-residential and residential portions within buildings to prevent non-residential uses from causing nuisance to the residents.

- 4.2.2 For Site 1F1, a special design requirement is incorporated such that the residential element should commensurate with the commercial element in form. The residential development could accommodate high quality hotel-like service apartment befitting the image of Kai Tak City Centre and premier commercial/office developments to its west and east. Retail frontage abutting the Station Square would also be provided. Provision of public passageway at the basement level of the developments is required to connect to the potential Underground Shopping Street (USS) system.

4.3 Site 1E2

- 4.3.1 The site is zoned “Commercial” (C) on the OZP. An iconic gateway twin-tower development is planned for this zone comprising two linked sites so as to anchor the vista towards the Station Square.
- 4.3.2 Non-building areas (NBAs) are imposed in the eastern part of the sites to create a wider pedestrian vista in the green corridor between the proposed commercial/office developments in these sites and the mixed use and public housing developments to their east. Another NBA in western part is imposed to maintain a breezeway from Kai Tak to San Po Kong as well as to allow a vehicular access serving the two linked sites. The area in between the two linked sites will remain as open space for a gateway plaza.
- 4.4 Sites 1G1(B), 1I1-3, 1K1-3 and 1L1-3
- 4.4.1 Sites 1G1(A) and 1G1(B) are intended for the Flat-for-Flat Scheme and Home Ownership Scheme under the management of the Urban Renewal Authority and Housing Authority respectively. Sites 1I1-3, 1K1-3 and 1L1-3 together with 3 other Sites 1H1-3 to the east of Kai Tak River are intended for Kai Tak Grid Neighbourhood development. The Grid Neighbourhood is intended primarily for medium-density residential developments based on a grid pedestrian street. The sites within Grid Neighbourhood are subject to special design control. The intention is to create a distinctive residential neighbourhood within urban street blocks of intimate scale. For Sites 1G1(B) and 1K1-3, retail frontages facing Station Square are to be provided to enhance vibrancy of the open space.
- 4.4.2 Residential developments in the Grid Neighbourhood area would comprise residential towers and low blocks to achieve diversity in building mass/form for a more interesting building height profile in the area. The low block shall not exceed six storeys or 25mPD (whichever is the less). Such variation of building heights would add interest to the local townscape and project a well-proportioned neighborhood environment.
- 4.4.3 Courtyard design for the residential developments has been proposed to enhance interaction in the neighbourhood and to achieve integrated community. In addition to two 20m wide visual corridors running through the Grid Neighbourhood, NBAs are designated alongside site boundaries abutting the pedestrian streets and Kai Tak River to provide wider vistas in such directions. They together with NBAs along other site boundaries will define the building envelopes for the alignment of residential blocks and thereby foster the courtyard design.
- 4.5 Sites 2A1-7 and 2B1-6

- 4.5.1 2A1 and 2A2 are zoned as “Comprehensive Development Area” (CDA). They are intended for commercial use and their dispositions and designs are required to be in harmony with the Preservation Corridor for Lung Tsun Stone Bridge. The eastern part of Site 2A1 is also subject to a lower building height restriction to provide a more open view towards the Kowloon City and the Lion Rock.
- 4.5.2 Sites 2A3 to 2A6 are zoned as C sites and are intended to form a belt of high quality office development. These developments will be served by the proposed Shatin to Central Link and are expected to meet Hong Kong’s long-term demand in office space.
- 4.5.3 Site 2A7 is originally zoned as G/IC site but with no designated use.
- 4.5.4 2B1 is zoned as CDA and is intended for residential use and their dispositions and designs are required to be in harmony with the Preservation Corridor for Lung Tsun Stone Bridge.
- 4.5.5 Sites 2B2 to 2B6 are zoned as R and are intended for medium to density and podium-free developments. Provision of ‘Shop and Services’ and ‘Eating Place’ in form of retail frontages not exceeding two storeys in height are to be provided to the North of MPSC to enhance vibrancy of the adjoining open space. Such uses will also be permitted on the ground floor of the residential buildings at the northern site boundary of the Sites which adjoins the USS to achieve synergy effect for the retail cluster.
- 4.6 Sites 3A6 and 3B1-4
- 4.6.1 Sites 3A6 and 3B1-4 are originally zoned as G/IC but with no designated use.
- 4.7 Sites 4A1 and 4B1-4
- 4.7.1 These sites are zoned “Residential” (R) on the OZP which are intended primarily for low-rise, low-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board.
- 4.7.2 In order to maintain a wider vista and building gap, NBAs are designated in the sites along the boundary facing the landscaped elevated deck on the Central Boulevard of the Runway Precinct.
- 4.8 Sites 4A2 and 4C1-4

- 4.8.1 These sites are zoned as C and are intended to form a hotel belt along the waterfront of the Runway Precinct so as to support the tourism-related development at the nearby Tourism Node and Kai Tak Cruise Terminal.
- 4.8.2 In order to maintain a wider vista and building gap, NBAs are designated in the sites along the boundary facing the landscaped elevated deck on the Central Boulevard of the Runway Precinct.

5. Assessments of Proposal

Assessments were conducted to ascertain that the proposed increase in housing and office supply from the Sites would be achieved and that the planning intention, urban design concept, building height profile in the area and the overall quality of the townscape would all be maintained. Due consideration was also given to ensure that the capacity of the existing and planned engineering infrastructure and G/IC facilities would not be overstrained.

5.1 Planning Assessments

A planning assessment was completed to confirm that the Proposal could be achieved while the established planning intention and urban design concept mentioned in Section 5 above could be maintained. It was confirmed that the provision of open space as well as G/IC facilities would be adequate at the district level to cater for the Proposal. There would be no change or insurmountable constraints to any key development components such as MPSC, Preservation Corridor for Lung Tsun Stone Bridge Remnants, Kai Tak River, USS, Environmental Friendly Linkage System, Tourism Node, Station Square, Metro Park, Sung Wong Toi Park, etc. In addition, the minimum greening ratio (i.e. a minimum 30% of the total site area, 20% at the pedestrian level; and 20% of the total roof area) intended for the development sites in KTD could be maintained. Due regard was also given to the prevailing Harbour Planning Principles. The proposal would not jeopardize the intention to preserve the waterfront areas for public enjoyment.

5.2 Traffic Impact Assessment

Strategic territorial models and local area traffic models, with calibration against the baseline traffic, were employed to simulate the change in road traffic condition for the “with” and “without” proposal scenarios. In addition, a transport demand model was set up to estimate the traffic activities within the Area of Influence (AOI) and to determine the demand and requirement of the transport infrastructure, with due regard

to the latest planning data and assumptions including the demographic and land use data, socio-economic characteristics, highway infrastructure, railway network assumptions, etc. The change in traffic condition at 75 key road junctions (comprising 30 nos. within KTD and 35 nos. in the hinterland districts) was assessed. It is the findings of the traffic impact assessment that, with junction improvement project works as originally planned to support KTD, the road traffic impact brought about by the Proposal would be manageable.

5.3 Infrastructure Capacity Assessment

A comprehensive review on fresh/salt water supply, drainage and sewage infrastructure was completed which confirmed that the existing and planned infrastructure serving Kai Tak would have adequate spare capacity to cater for the additional demand brought about by the proposed increase in development intensity. Computational models confirmed that the existing water supply system together with the proposed Jordan Valley Freshwater Service Reservoir would be able to cater for the corresponding increase in freshwater and saltwater demand. Computational models also confirmed that the corresponding increase in sewage discharge to To Kwa Wan Primary Treatment Works and Kwun Tong Primary Treatment Works would be manageable. Nevertheless, a sewage pumping station newly constructed within KTD would be approaching the capacity limit. There should not be any noticeable drainage impact as the Proposal would not involve any change to the drainage system or the catchment characteristic of the Sites.

5.4 Environmental Review

An environmental review (ER) was completed which confirmed that the findings of the approved Schedule 3 Environmental Impact Assessment Report on KTD were still valid.

For the air quality impacts attributable to vehicular/marine traffic and commercial/industrial activities, impacts at the representative air sensitive receivers (ASRs) have been evaluated by comparing the changes in NO₂, RSP and SO₂ concentrations. ASRs were identified based on the guidelines in Annex 12 of the *Technical Memorandum on Environmental Impact Assessment Process* (TMEIAP). The background concentrations for air pollutants were predicted by the PATH model. EMFAC-HK model was used to determine the vehicle emission factors of NO_x and RSP under Base Case Scenario and Ultimate Scenario. CALINE4 model was used to simulate line sources including open road emissions within the study area. ISCST3 model was used to simulate point, area and volume sources emissions within the study area. The emission rates from the cruise ships were

calculated based on the approach stipulated in *Current Methodologies in Preparing Mobile Source Port-Related Emission Inventories, Final Report, April 2009* by the United States Environmental Protection Agency (USEPA). The predicted concentration changes of NO₂, RSP and SO₂ at most of the ASRs would be well below the USEPA Significant Impact Levels except for the 24-hr average NO₂ concentration concerning Sites 3A6, 3B3 and 3B4. Given that Sites 3A6, 3B3 and 3B4 had been proposed for commercial developments with central air-conditioning, it was therefore recommended in the Study as a mitigation measure to position the fresh air intakes of the central air-conditioning system at locations with acceptable air quality.

For the traffic noise impact assessment, reference was made to the guidelines in Annex 5 of TMEIAP and the standards stipulated in Chapter 9 of the *Environment of the Hong Kong Planning Standards and Guidelines* (HKPSG). The worst case traffic noise levels at the façades of noise sensitive receivers (NSRs) were predicted based on the forthcoming 15-year traffic data and checked against the HKPSG standard, i.e. the maximum allowed road traffic noise level expressed in terms of L_{10(1-hr)} at 1m away from typical noise sensitive façades for different noise sensitive receivers. These criteria were applied to NSRs relying on openable windows as a primary means of ventilation. The potential road traffic noise impacts were assessed based on the worst case traffic flows in 2036. With noise mitigation measures originally planned for KTD, it was confirmed that the predicted worst case noise levels at the Sites would fulfill the noise criterion of 70 dB(A). For the existing and planned NSRs within the surrounding areas and/or KTD, the increase in overall traffic noise levels due to the Proposal would be less than 1.0 dB(A). Hence, further mitigation measures are not required.

5.5 Air Ventilation Impact Assessment

An air ventilation assessment (AVA) was completed with the use of Computational Fluid Dynamics models covering KTD and the surrounding areas. For sites in Area 3 locating south of the Grid Neighbourhood, it was recommended that controls in site coverage and building height would be required in preserving the wind corridor hence the ventilation performance of sites in Areas 1K and 1L. There would be insignificant impact on air ventilation to the surrounding areas if the proposed mitigation measures are in place. A microclimate air ventilation assessment was also carried out for Sites 1D2 and 1D3 zoned for G/IC use. The assessment on Sites 1D2 and 1D3 confirmed that the proposed developments would enhance the natural ventilation in the neighborhood. The reduction in building footprint of the proposed developments would improve the permeability and local velocity ratio of

air ventilation. The AVA concluded that the air ventilation performance in Kai Tak and adjoining areas with the proposed increase in development density of KTD would be comparable to the “without proposal” scenario.

5.6 Visual Impact Assessment

A visual impact assessment was completed to confirm that the visual composition, obstruction, permeability and visual elements/resources would mostly remain unchanged with the Proposal. It was concluded that the visual impact brought about by the proposed increase in the development intensity of the Sites would be insubstantial to slight.

According to the approved OZP, a stepped height concept has been generally recommended in the urban design framework for the KTD. Within the North Apron area including the Grid Neighbourhood, the building heights rise gradually from the waterfront located south of the Sites towards the inland areas to the Kai Tak City Centre. The overall building height also gradates from the landmark tower within the “CDA(1)” site towards the northeast and southwest directions. The proposed changes of building height in North Apron (Areas 1D, 1E, 1F, 1K and 1L) are considered generally compatible with the developments in the vicinity and coherent with the building height profile in the Kai Tak City Centre. In addition, the undulating building height profile in the Runway Precinct (i.e. Area 4A, 4B and 4C) would be maintained under the Proposal.

A separate visual impact assessment was also undertaken to evaluate the visual impact of the minor relaxation of building height restrictions at Sites 1D2 and 1D3. Based on the analysis, the minor relaxation of building height restrictions can allow more set back of building frontage from the site boundary for improved visual amenity. The minor relaxation of building height restrictions is thus considered to be acceptable in terms of visual impact.

6. **Conclusion**

7.1 The Proposal will facilitate the increase of Domestic GFA by 230,000 m² and Non-Domestic GFA by 430,000 m² which will contribute towards meeting the community’s imminent housing and office demand.

7.2 Various assessments have confirmed that the Proposal will neither generate nor be susceptible to adverse traffic and environmental impacts. Furthermore, the capacity of planned engineering infrastructure would not be exceeded. The visual impact assessment with conceptual landscape design and air ventilation assessment have demonstrated that

there would be no adverse visual and ventilation impact to the surrounding development.

**Civil Engineering and Development Department
May 2015**

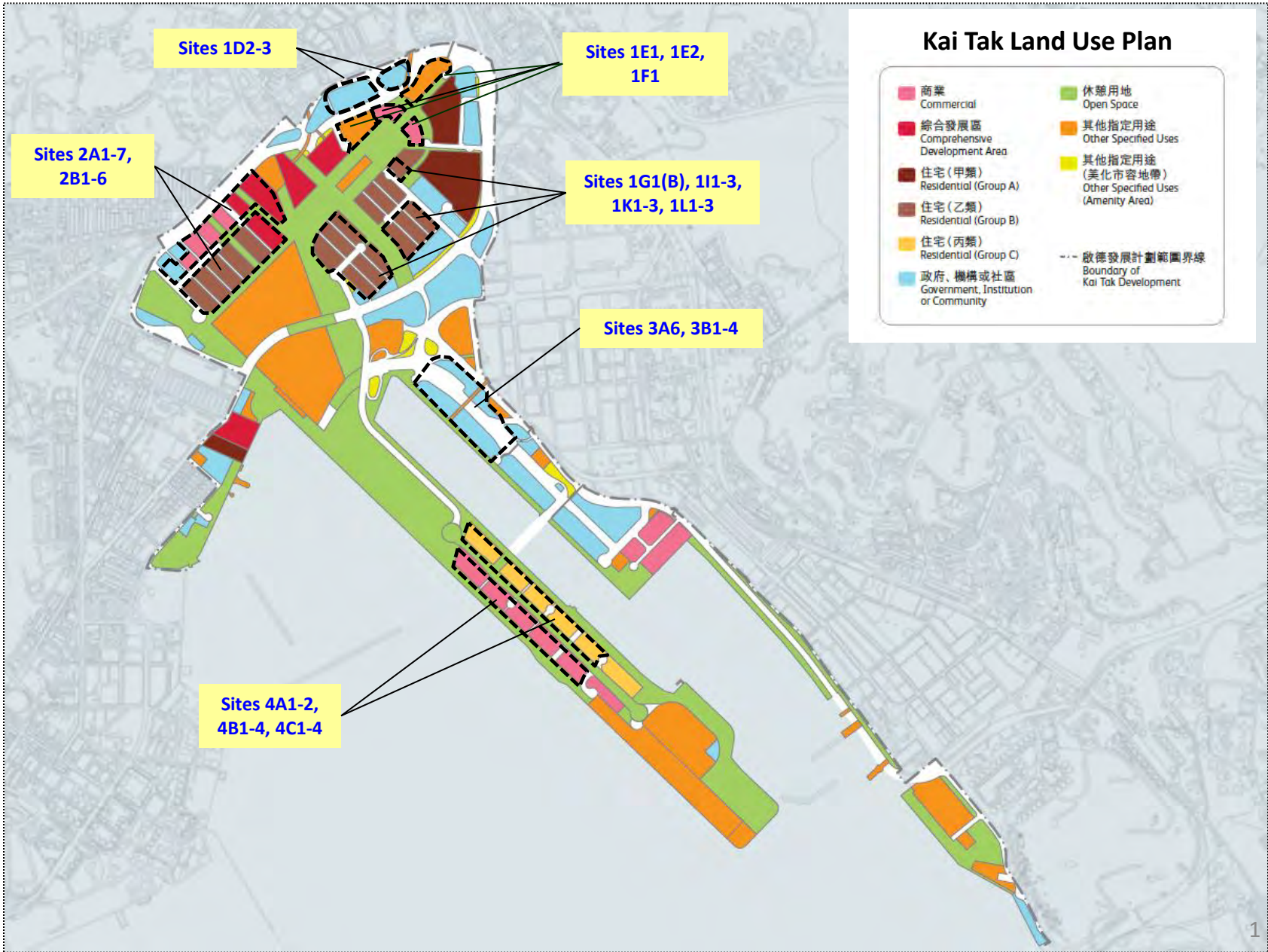


Table 1 – Proposed Increase in Development Intensity

Site Reference No.	Site Area (m ²)* (about)	Land Use Zoning		Maximum Plot Ratio			Maximum Building Height (metres above Principal Datum)			Change in Gross Floor Area (m ²) (about)
		Existing	Proposed	Existing	Proposed	% Increase	Existing	Proposed	% Increase	
1E1	17,127	Mixed Use(3)	Mixed Use(3)	7 (Domestic: 4.75 Non- domestic: 2.25)	8.2 (Domestic: 6.0 Non- domestic: 2.2)	17%	100	120	20%	20,552
1F1	16,235	Mixed Use(2)	Mixed Use(2)	7 (Domestic: 5.0 Non- domestic: 2.0)	8.1 (Domestic: 6.1 Non- domestic: 2.0)	16%	125/150	145/170	13-16%	17,859
1D2	8,768	G/IC	G/IC	-	-	-	100	120	20%	-
1D3	9,859	G/IC	G/IC	-	-	-	60	80	33%	-
1E2	14,139	C(6)	C(6)	6	7.2	20%	100	120	20%	16,967
1G1(B)	5,710	R(B)2	R(B)2	5	6.0	24%	80	100	25%	5,710
1I1	8,780	R(B)2	R(B)2	4.5	5.5	22%	100	120	20%	8,780
1I2	9,314	R(B)2	R(B)2	4.5	5.5	22%	100	120	20%	9,314
1I3	10,149	R(B)2	R(B)2	4.5	5.5	22%	100	120	20%	10,149
1K1	9,719	R(B)2	R(B)2	4.5	5.5	22%	110	130	18%	9,719
1K2	9,700	R(B)2	R(B)2	4.5	5.5	22%	110	130	18%	9,700

Site Reference No.	Site Area (m ²)* (about)	Land Use Zoning		Maximum Plot Ratio			Maximum Building Height (metres above Principal Datum)			Change in Gross Floor Area (m ²) (about)
		Existing	Proposed	Existing	Proposed	% Increase	Existing	Proposed	% Increase	
1K3	11,265	R(B)2	R(B)2	4.5	5.4	20%	110	130	18%	10,139
1L1	7,318	R(B)2	R(B)2	4.5	5.4	20%	100	120	20%	6,586
1L2	9,482	R(B)2	R(B)2	4.5	5.4	20%	100	120	20%	8,534
1L3	8,803	R(B)3	R(B)3	3.5	4.2	20%	50/100	50/120	20%	6,162
2A1	19,750	CDA(3)	CDA(3)	5.0	6.0	20%	80	100	25%	19,750
2A2	6,270	CDA(4)	CDA(4)	4.5	5.2	16%	70	90	29%	4,389
2A3	5,968	C(3)	C(3)	4.5	5.7	27%	70	90	29%	7,162
2A4	6,555	C(3)	C(3)	4.5	5.5	22%	60	80	33%	6,555
2A5	7,112	C(3)	C(3)	4.5	5.2	16%	60	80	33%	4,978
2A6	3,976	C(3)	C(3)	4.5	5.5	22%	60	80	33%	3,976
2A7	5,974	GIC	C(6)	-	6.0	-	30	80	167%	35,844
2B1	13,828	CDA(5)	CDA(5)	5.0	6.4	28%	110	130	18%	19,359
2B2	12,008	R(B)1	R(B)1	5.0	6.1	22%	100	120	20%	13,209
2B3	11,210	R(B)1	R(B)1	5.0	5.7	14%	85	105	24%	7,847
2B4	11,386	R(B)1	R(B)1	5.0	5.9	18%	85	105	24%	10,247
2B5	11,386	R(B)1	R(B)1	5.0	5.7	14%	85	105	24%	7,970

Site Reference No.	Site Area (m ²)* (about)	Land Use Zoning		Maximum Plot Ratio			Maximum Building Height (metres above Principal Datum)			Change in Gross Floor Area (m ²) (about)
		Existing	Proposed	Existing	Proposed	% Increase	Existing	Proposed	% Increase	
2B6	11,003	R(B)1	R(B)1	5.0	5.7	14%	85	105	24%	7,702
3A6	13,200	GIC	C(6)	-	6.0	-	45	100	122%	79,200
3B1	6,700	GIC	C(5)	-	5.8	-	45	80	78%	38,860
3B2	6,800	GIC	C(5)	-	5.8	-	45	80	78%	39,440
3B3	9,200	GIC	C(5)	-	5.8	-	45	80	78%	53,360
3B4	9,200	GIC	C(5)	-	5.8	-	45	80	78%	53,360
4A1	13,524	R(C)	R(C)	3	3.4	13%	65/80	80	0%	5,410
4B1	9,578	R(C)	R(C)	3	3.8	27%	55	65	18%	7,662
4B2	9,050	R(C)	R(C)	3	4.4	47%	55	75	36%	12,670
4B3	9,704	R(C)	R(C)	3	3.9	30%	65	75	15%	8,734
4B4	9,694	R(C)	R(C)	3	3.7	23%	55	65	18%	6,786
4A2	12,784	C(4)	C(4)	4	5.0	25%	45	55	22%	12,784
4C1	9,481	C(4)	C(4)	4	5.0	25%	45	55	22%	9,481
4C2	9,771	C(4)	C(4)	4	5.9	48%	55	65	18%	18,565
4C3	10,956	C(4)	C(4)	4	5.0	25%	45	55	22%	10,956
4C4	10,694	C(4)	C(4)	4	5.0	25%	45	55	22%	10,694

**Site areas are subject to detailed survey*

Site Area 面積

Total 32,000 sq.m approx.

大約總面積: 32,000 平方米

Phase 1 一期

16,500 sq.m approx.

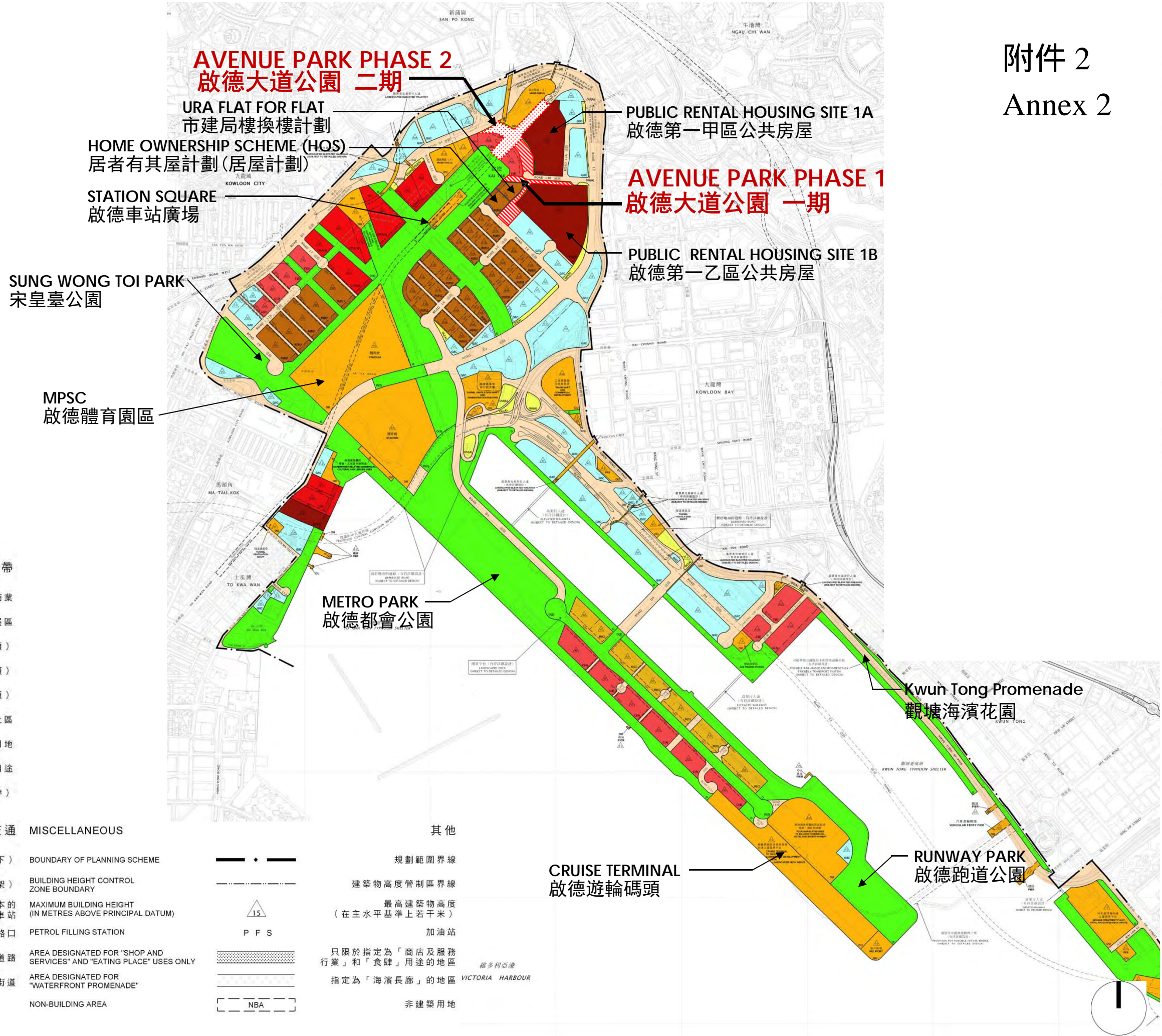
大約總面積: 16,500 平方米

Phase 2 二期

15,500 sq.m approx.

大約總面積: 15,500 平方米

圖例 NOTATION	
ZONES	地帶
COMMERCIAL	商業
COMPREHENSIVE DEVELOPMENT AREA	綜合發展區
RESIDENTIAL (GROUP A)	住宅 (甲類)
RESIDENTIAL (GROUP B)	住宅 (乙類)
RESIDENTIAL (GROUP C)	住宅 (丙類)
GOVERNMENT, INSTITUTION OR COMMUNITY	政府、機構或社區
OPEN SPACE	休憩用地
OTHER SPECIFIED USES	其他指定用途
OTHER SPECIFIED USES (AMENITY AREA)	其他指定用途 (美化市容地帶)
COMMUNICATIONS	交通
RAILWAY AND STATION (UNDERGROUND)	鐵路及車站 (地下)
RAILWAY AND STATION (ELEVATED)	鐵路及車站 (高架)
RAIL-BASED ENVIRONMENTALLY FRIENDLY TRANSPORT SYSTEM AND STATION	以鐵路為本的環保運輸系統及車站
MAJOR ROAD AND JUNCTION	主要道路及路口
ELEVATED ROAD	高架道路
PEDESTRIAN PRECINCT / STREET	行人專用區或街道
MISCELLANEOUS	其他
BOUNDARY OF PLANNING SCHEME	規劃範圍界線
BUILDING HEIGHT CONTROL ZONE BOUNDARY	建築物高度管制區界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	最高建築物高度 (在主水平基準上若干米)
PETROL FILLING STATION	加油站
AREA DESIGNATED FOR "SHOP AND SERVICES" AND "EATING PLACE" USES ONLY	只限於指定為「商店及服務行業」和「食肆」用途的地區
AREA DESIGNATED FOR "WATERFRONT PROMENADE"	指定為「海濱長廊」的地區
NON-BUILDING AREA	非建築用地



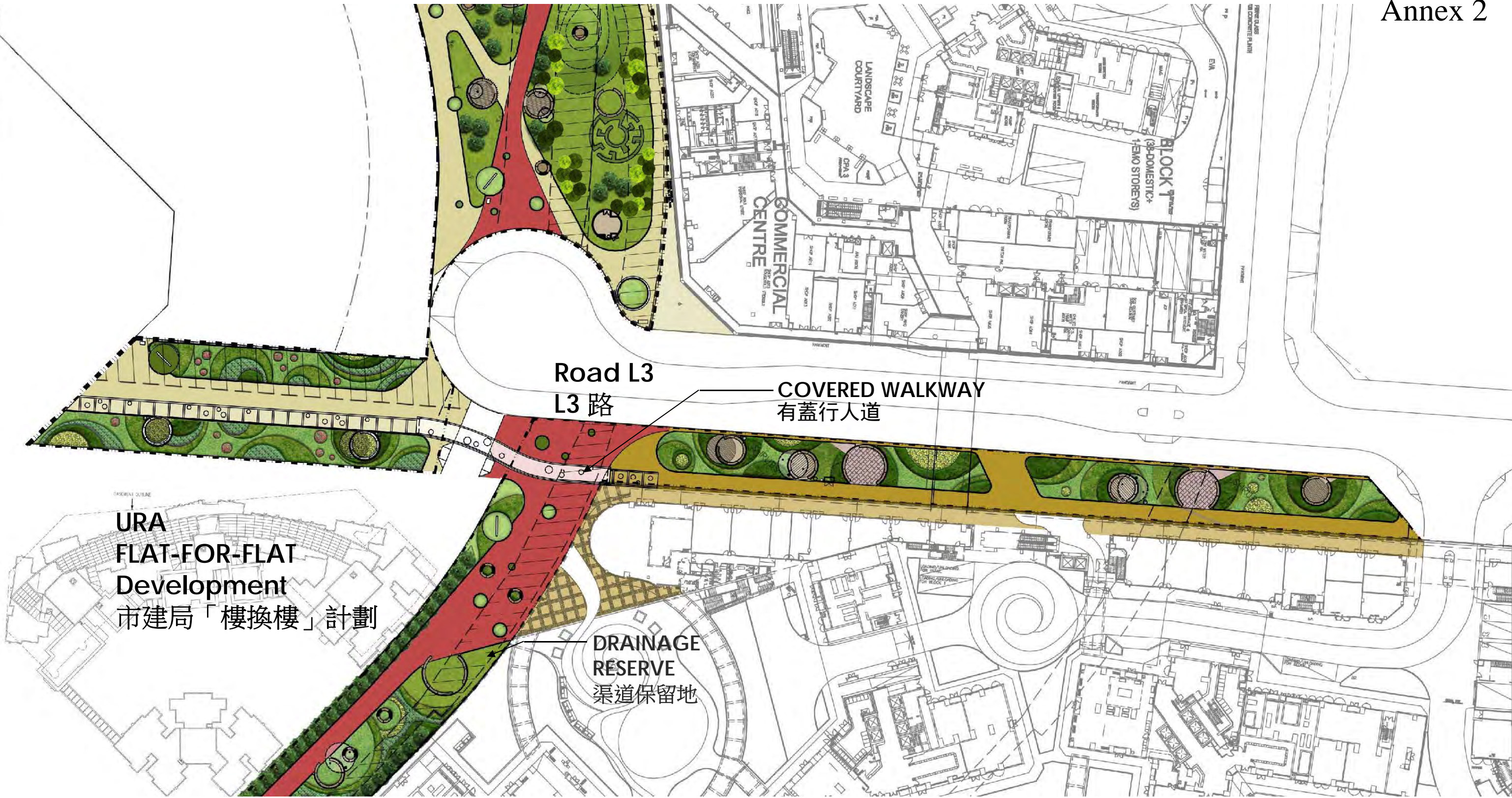
LOCATION PLAN 位置平面圖

Kai Tak Avenue Park - Phase 1
啟德大道公園 一期



MASTER LAYOUT PLAN 總平面圖

Kai Tak Avenue Park - Phase 1
啟德大道公園 一期



AREA B- Avenue 乙區 - 大道

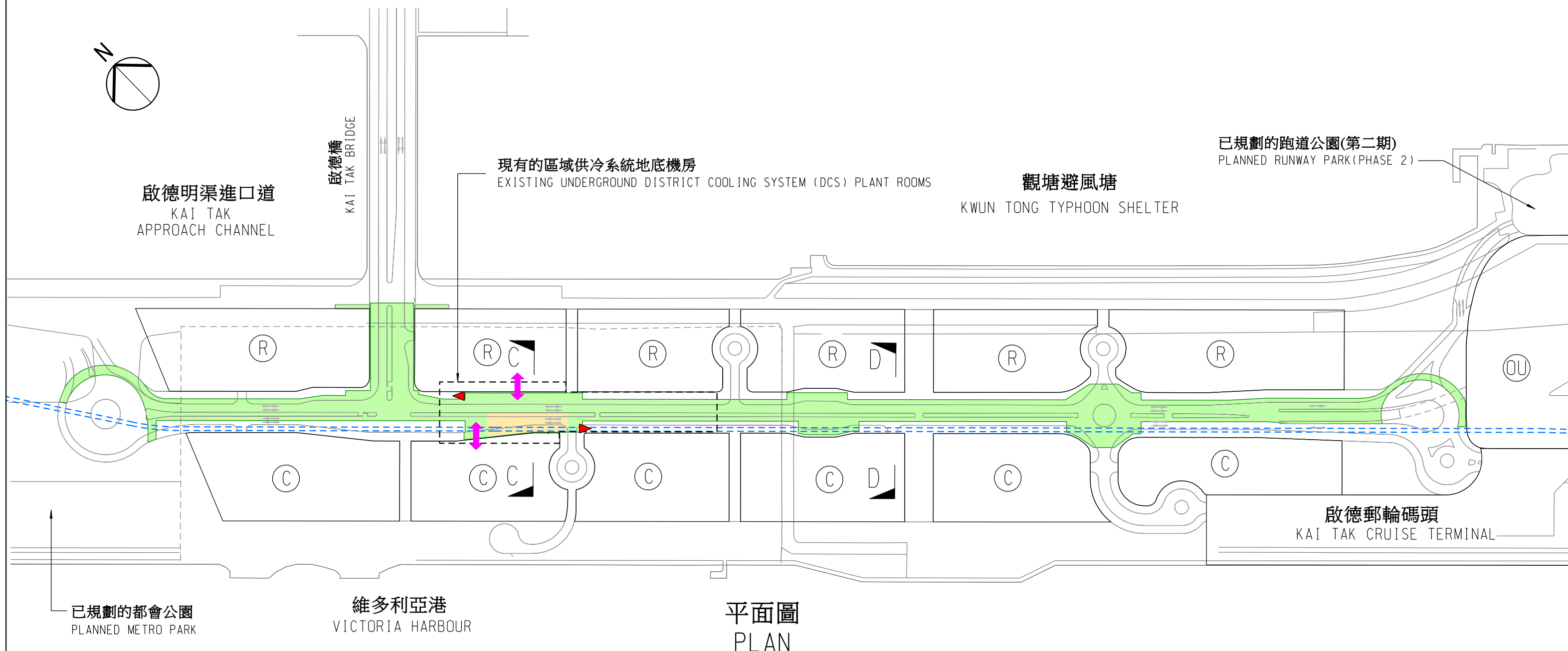
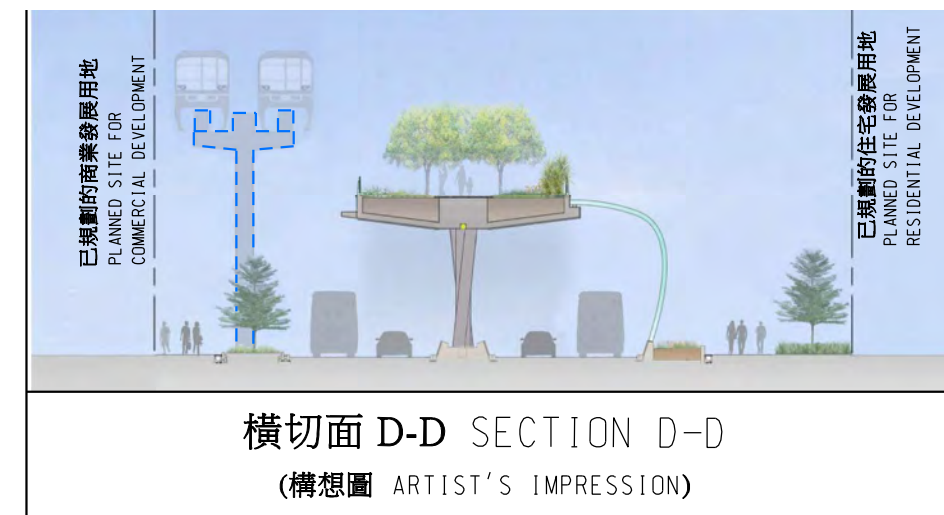
Kai Tak Avenue Park - Phase 1
啟德大道公園 一期





AREA C- RECREATIONAL PLAYGROUND - 遊樂場區

- 圖例:
LEGEND:
- 擬建的園景平台界限與隔音屏障結合
PROPOSED LIMIT OF LANDSCAPED DECK INTEGRATED WITH NOISE BARRIER
 - 預留予可能的環保連接系統高架車站
PROVISION FOR POSSIBLE ELEVATED ENVIRONMENTALLY FRIENDLY LINKAGE SYSTEM (EFLS) STATION
 - 可能的環保連接系統的走線
POSSIBLE ALIGNMENT OF EFLS
 - R 已規劃的住宅發展用地
PLANNED SITE FOR RESIDENTIAL DEVELOPMENT
 - C 已規劃的商業發展用地
PLANNED SITE FOR COMMERCIAL DEVELOPMENT
 - OU 已規劃的旅遊中樞
PLANNED TOURISM NODE
 - 擬建的樓梯
PROPOSED STAIRCASE
 - 預留予可能與商業 / 住宅發展連接的高架行人通道
PROVISION FOR POSSIBLE ELEVATED PEDESTRIAN CONNECTION WITH COMMERCIAL / RESIDENTIAL DEVELOPMENT



圖則名稱 drawing title KZ908

工務計劃項目第 7711CL 號
啟德發展計劃 - 前跑道南面發展項目的基礎設施工程

PWP ITEM NO. 7711CL
KAI TAK DEVELOPMENT - INFRASTRUCTURE WORKS FOR DEVELOPMENTS AT THE SOUTHERN PART OF THE FORMER RUNWAY



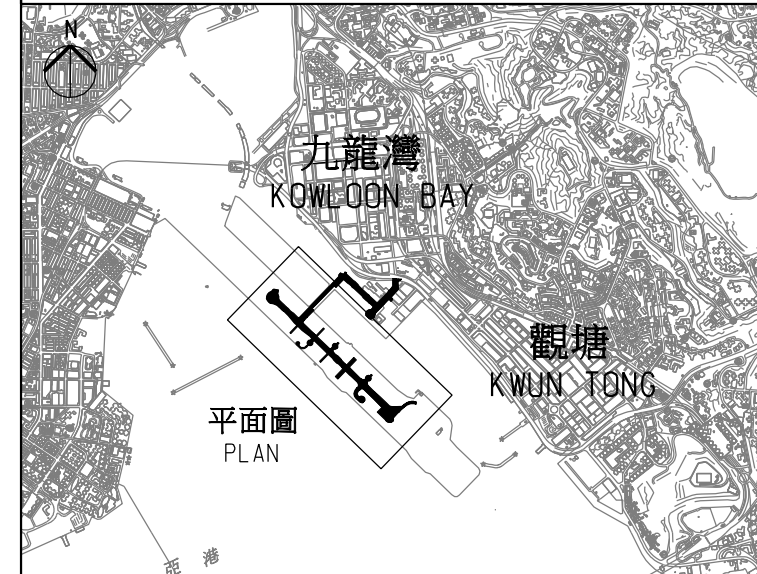
橫切面 C-C SECTION C-C
(構想圖 ARTIST'S IMPRESSION)

圖則名稱 drawing title KZ927

工務計劃項目第 7711CL 號
啟德發展計劃 - 前跑道南面發展項目的基礎設施工程

PWP ITEM NO. 7711CL

KAI TAK DEVELOPMENT - INFRASTRUCTURE WORKS FOR DEVELOPMENTS AT THE SOUTHERN PART OF THE FORMER RUNWAY



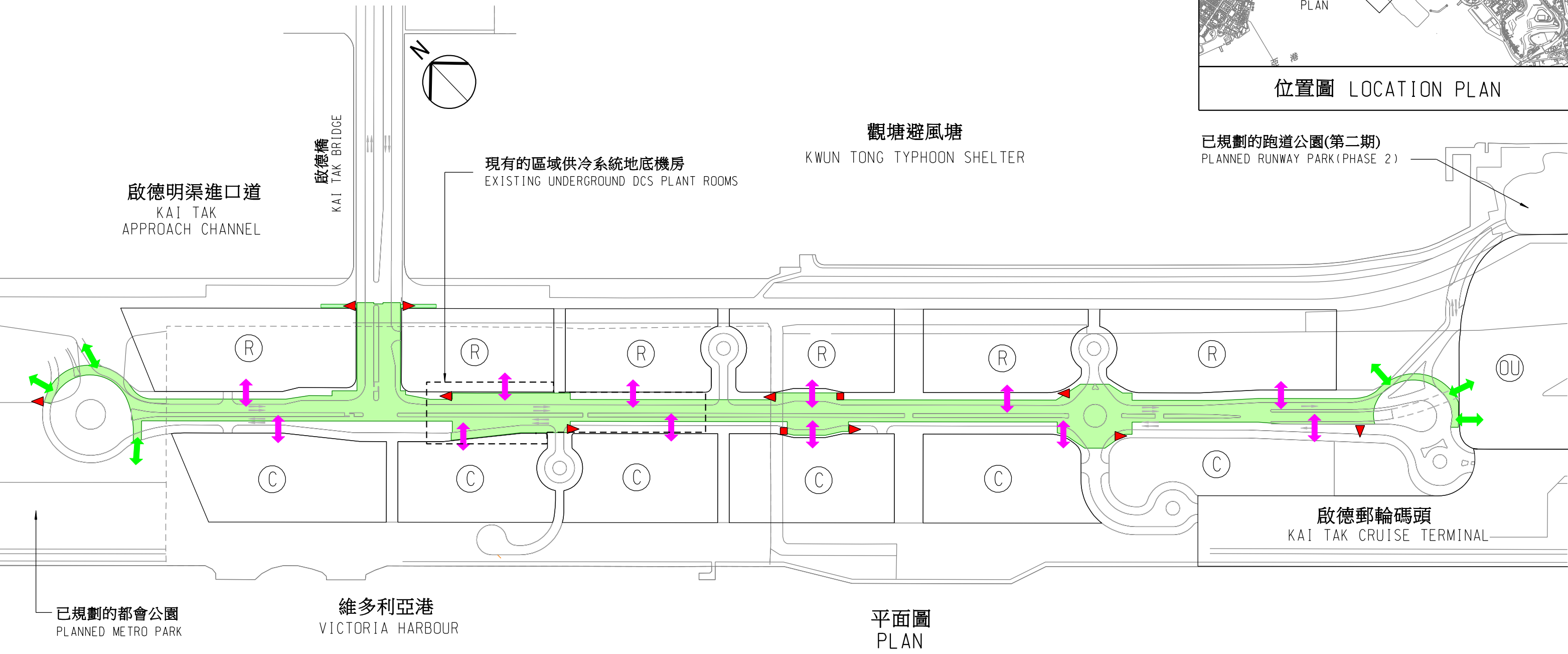
位置圖 LOCATION PLAN

已規劃的跑道公園(第二期)
PLANNED RUNWAY PARK (PHASE 2)

圖例:

LEGEND:

- 擬建的園景平台界限與隔音屏障結合
PROPOSED LIMIT OF LANDSCAPED DECK INTEGRATED WITH NOISE BARRIER
- 可能與商業 / 住宅發展連接的高架行人通道
POSSIBLE ELEVATED PEDESTRIAN CONNECTION WITH COMMERCIAL / RESIDENTIAL DEVELOPMENT
- 可能與將來的休憩用地 / 旅遊中樞連接的行人通道
POSSIBLE PEDESTRIAN CONNECTION WITH FUTURE OPEN SPACE / TOURISM NODE
- R 已規劃的住宅發展用地
PLANNED SITE FOR RESIDENTIAL DEVELOPMENT
- C 已規劃的商業發展用地
PLANNED SITE FOR COMMERCIAL DEVELOPMENT
- OU 已規劃的旅遊中樞
PLANNED TOURISM NODE
- 擬建的升降機
PROPOSED LIFT
- 擬建的樓梯
PROPOSED STAIRCASE



平面圖
PLAN

圖則名稱 drawing title KZ909

工務計劃項目第 7711CL 號
啟德發展計劃 - 前跑道南面發展項目的基礎設施工程

PWP ITEM NO. 7711CL
KAI TAK DEVELOPMENT - INFRASTRUCTURE WORKS FOR DEVELOPMENTS AT THE SOUTHERN PART OF THE FORMER RUNWAY

按付款當日價格計算，我們估計擬議工程的費用約為 57 億 5,710 萬元，分項數字如下－

	百萬元
(a) 道路建造	678.5
(i) 道路，相關的行人路及步行街	316.4
(ii) 行車隧道	121.8
(iii) 改善道路交界處	6.4
(iv) 排水渠、排污渠、水管及附屬工程	233.9
(b) 高架園景平台	982.3
(i) 地基	503.9
(ii) 上蓋結構	410.8
(iii) 升降機及樓梯	67.6
(c) 路旁隔音屏障	230.4
(i) 地基	88.0
(ii) 上蓋結構	142.4
(d) 地下支撐結構	1,753.6
(i) 地基	774.3
(ii) 土方工程	259.4
(iii) 隧道結構	719.9
(e) 環境美化工程	102.6
(i) 位於高架園景平台上	41.3
(ii) 位於路旁及地面	61.3
(f) 環境影響緩解措施及環境監察及審核計劃	57.5
(g) 顧問費	35.9
(i) 合約管理	16.6
(ii) 駐工地人員的管理	15.4
(iii) 獨立環境查核人服務	3.9
(h) 駐工地人員的薪酬	368.6

(i)	應急費用		<u>420.9</u>	
		小計	4,630.3	(按 2014 年 9 月價格計 算)
(k)	價格調整準備		<u>1,126.8</u>	
		總計	<u>5,757.1</u>	(按付款當 日價格計 算)