

For discussion

**Legislative Council
Panel on Development and Panel on Home Affairs
Joint Subcommittee to Monitor the Implementation of the
West Kowloon Cultural District Project**

**Implementation of the Integrated Basement for
West Kowloon Cultural District**

PURPOSE

This paper seeks Members' support on the funding proposal to upgrade part of **763CL**, entitled "Integrated Basement for West Kowloon Cultural District", to Category A at an estimated cost of about \$3,638.5 million in money-of-the-day (MOD) prices, to carry out the third stage of construction works of the integrated basement for West Kowloon Cultural District (WKCD).

PROJECT SCOPE AND NATURE

2. The part of **763CL** which we propose to upgrade to Category A (the proposed works) as the third stage of construction works comprises –
- (a) construction of the remaining foundation works for Zone 3B of the integrated basement and associated environmental mitigation measures, and related environmental monitoring and auditing (EM&A) works for construction works;
 - (b) construction of essential basement structure¹ and associated works for Zone 3B of the integrated basement;
 - (c) construction of an underground road of about 230 metres(m) long in Zone 3B of the integrated basement, remaining works for the remaining section of underground road in Zone 3A of the integrated basement, and associated works including footpaths, pick-up/drop-off area, water supply, drainage, electrical and mechanical works, fire services installation works, plant rooms, and means of escape/means of access for firefighting and rescue;
 - (d) protection works for the existing Airport Express Tunnels (AET)² and associated works in Zone 3B of the integrated basement;

¹ Essential basement structure generally includes structural elements of the integrated basement such as walls, floor and ceiling slabs, columns and beams, as well as other associated works.

² Protection works for the existing AET mainly cover structural elements spanning over the tunnels to avoid imposition of extra loads from the integrated basement and topside developments on the tunnels.

- (e) construction of about 380m long drainage box culvert within the essential basement structure for Zone 3B of the integrated basement; and
- (f) necessary environmental mitigation measures, and related EM&A works for construction works in sub-paragraphs (b) to (e) above.

—— Site plans and sections of the proposed works are at **Enclosures 1 and 2**.

3. Subject to approval of the Finance Committee (FC) in the current legislative session, we will reimburse the cost associated with the proposed works as mentioned in paragraph 2(a) above to the West Kowloon Cultural District Authority (WKCDA), and we plan to entrust the proposed works as mentioned in paragraphs 2(a) to 2(f) above to WKCDA with a view to commencing the works in the third quarter of 2017 for substantial completion in phases by 2021.

JUSTIFICATION

Progress Update

4. Members of the Legislative Council Joint Subcommittee to Monitor the Implementation of the WKCD Project (Joint Subcommittee) were previously informed that WKCDA would, in view of its latest financial situation, adopt a pragmatic approach to implement the WKCD project in a timely and cost-effective manner with its facilities to be delivered in batches.

5. Batches 1 and 2 of WKCDA's facilities include, among others, the Art Park (with M+ Pavilion which was previously called Arts Pavilion), Freespace (Black Box and Outdoor Stage), Xiqu Centre, M+ and Lyric Theatre Complex (LTC). The M+ Pavilion was opened in July 2016. Construction of the Art Park and Freespace, Xiqu Centre, M+ and LTC are in progress and are targeted for completion in stages between 2017 and around 2021. To facilitate earlier public enjoyment of the open space, a temporary Nursery Park was opened to the public in July 2015.

6. The integrated basement is an integral component of the Foster + Partners' Conceptual Plan forming the basis for the Development Plan for WKCD. It is also an essential design feature to meet the minimum requirement of providing 23 hectares of public open space in WKCD as specified in the South West Kowloon Outline Zoning Plan. This design enables traffic to be put underground thereby freeing up the site for cultural use and public enjoyment. It also enhances the walking environment at grade. Acknowledging that the

integrated basement was not envisaged when the upfront endowment³ was granted to WKCD in 2008, the Government announced in June 2013 that it would fully fund the capital works of the main integrated basement as general enabling works to facilitate the development of the WKCD project, subject to FC's funding approval. This would allow WKCD to focus on delivering the arts and cultural facilities. At the Joint Subcommittee meeting held on 28 May 2014, Members were informed that the integrated basement would be implemented in phases to tie in with the phased development programme of the Batches 1 and 2 facilities.

7. The area around the Artist Square, which includes M+, LTC and some office sites on top of the integrated basement at Zones 3A and 3B (referred to as the Artist Square Development Area (ASDA)) presents a good opportunity for early development into a "mini-WKCD". With a target completion date by around 2021, ASDA will form a precinct supported by a balanced mix of land uses including core arts and cultural facilities, offices, other arts and cultural facilities and retail/dining/entertainment facilities. The public spaces in ASDA, including the interfacing area with the Art Park, open space at the Artist Square and the waterfront promenade, will be developed to create a sense of place for the general public and to bring vibrancy to the area.

Progress of the first and second stages of design, site investigation and construction works of the Integrated Basement

8. The funding application for the first and second stages of integrated basement, which mainly comprises construction of infrastructure works and foundation works for Zone 3A and Zone 3B respectively, as well as the design and site investigation for Zones 2A, 2B and 2C, was approved as Category A Item **791CL** by FC in July 2015. The relevant construction works for Zones 3A and 3B have been entrusted to WKCD with a view to their substantial completion in the first quarter of 2019. The design and site investigation for Zones 2A, 2B and 2C commenced in February 2017 with their preliminary design to be substantially completed in end of 2018 and the detailed design for Zone 2A to be substantially completed in end of 2019. Based on the preliminary design, an updated cost estimate of the whole intergrated basement project will be available in the first quarter of 2019.

Proposal

Third stage of construction works of the Integrated Basement

Remaining foundation works for Zone 3B (paragraph 2(a) above)

9. The scope of the second stage of construction works approved by FC in

³ In July 2008, FC approved a one-off upfront endowment of \$21.6 billion in MOD prices for WKCD to implement the WKCD development covering arts and cultural facilities, retail/dining/entertainment facilities, public open space and certain transport facilities.

July 2015 covers most of the foundation works in Zone 3B of the integrated basement except those located within an area which was occupied by the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project (the Remaining Foundation Works). Following liaison between the MTR Corporation Limited (MTRCL) and WKCDA, MTRCL handed over the site concerned to WKCDA in early August 2016. WKCDA considers that there would be significant benefits to incorporate in the current foundation works contract for Zone 3B the Remaining Foundation Works so as to reduce construction risk and to provide greater programming certainty for the subsequent construction works in Zone 3B of the integrated basement.

10. At the Joint Subcommittee meeting held on 30 May 2016, Members were informed that WKCDA would provide advance funding for taking forward the Remaining Foundation Works and the associated consultancy fees on an unconditional basis, and that when applying for funding for the third stage of construction works of the integrated basement, the Government would seek FC's approval for reimbursing WKCDA the cost incurred in the Remaining Foundation Works in recognition of the works undertaken on behalf of the Government. Accordingly, we have included in this funding proposal the cost incurred by WKCDA in delivering the Remaining Foundation Works of Zone 3B of the integrated basement at an estimated cost of about \$47.4 million in MOD prices⁴ as allowed in paragraph 14(a) and the relevant parts of paragraphs 14(g), 14(h) and 14(k) below.

Main construction works for Zone 3B and remaining works for Zone 3A (paragraphs 2(b) to 2(f) above)

11. To tie in with the construction programme of the LTC which is scheduled for completion in 2021, it is necessary to commence progressively from the third quarter of 2017 for substantial completion in phases by 2021 the proposed construction works for Zone 3B where the LTC is located. Given that the construction of Zone 3B of the integrated basement and the LTC is highly integrated and their programming inter-dependent, it is imperative to avoid critical interfacing issues such as overlapping work sites, construction work sequences and methodologies. The proposed works covered by this funding proposal include the construction of essential basement structure in Zone 3B, underground road in Zone 3B, remaining works for the remaining section of the underground road in Zone 3A, and the associated works (including footpaths, pick-up/drop-off area, water supply, drainage, electrical and mechanical works, fire services installation works, plant rooms, and means of escape/means of access for firefighting and rescue). The proposed works also include the protection works for the existing AET, a section of drainage box culvert and associated works in Zone 3B of the integrated basement.

⁴ This figure represents the latest estimate of capital cost. We will finalise the cost estimate before making submission to the Public Works Subcommittee.

Proposed Entrustment to WKCDA

12. In view of the exceptionally high degree of integration amongst the various facilities in the integrated basement and the critical interfacing issues such as overlapping work sites, construction work sequences and methodologies, and major programming interdependence among the proposed works, the Government proposes to entrust to WKCDA the proposed works to be carried out concurrently with the implementation of the LTC and other WKCDA's facilities in Zone 3B. It would be impractical for WKCDA to construct the LTC and other WKCDA's facilities in Zone 3B, while the Government separately undertakes the construction of the proposed works in the integrated basement which are located and integrated within the same sites. We therefore consider it necessary and cost effective to entrust to WKCDA the implementation of the proposed integrated basement works in conjunction with the implementation of the LTC and other WKCDA's facilities in Zone 3B in a holistic manner.

13. WKCDA will be reimbursed for the actual costs incurred in relation to the management, supervision and construction of the proposed works as mentioned in paragraph 2(a) to 2(f) above provided by their consultants and contractors (i.e. third party costs), and separately for their actual in-house management cost incurred capped at a sum of about \$60.3 million (in September 2016 prices), being about 2% of the total estimated cost of the project, mainly based on the estimated resources to be deployed by WKCDA in relation to the proposed works as mentioned in paragraphs 2(b) to 2(f) above.

FINANCIAL IMPLICATIONS

14. We estimate the cost of the proposed works, as set out in paragraph 2 above, to be about \$3,638.5 million in MOD prices⁵, broken down as follows –

	\$ million
(a) Remaining foundation works for Zone 3B of the integrated basement and associated environmental mitigation measures, and related EM&A works	41.2
(b) Essential basement structure and associated works for Zone 3B of the integrated basement	1,762.5

⁵ This figure represents the latest estimates of capital cost including the advance cost paid by WKCDA mentioned in paragraph 10 above. The figure is \$251.5 million less than that in the original funding application (\$3,890 million) submitted to the Joint Subcommittee in April 2017. The reduction is partly attributable to the exclusion of the relevant portion of the Artist Square Bridge from the project scope (see paragraph 17 below) and partly to reflect the updated cost estimates of the remaining items. We will finalise the cost estimates before making submission to the Public Works Subcommittee.

(c)	Underground road in Zone 3B, and remaining works of underground road in Zone 3A of the integrated basement	348.4	
(d)	Protection works for the existing AET in Zone 3B of the integrated basement	238.3	
(e)	Drainage box culvert in Zone 3B of the integrated basement	45.6	
(f)	Necessary EM&A works for items (b) to (e) above	31.1	
(g)	Consultants' fees for –	41.4	
	(i) contract administration	22.9	
	(ii) management of resident site staff	8.0	
	(iii) EM&A programme	0.6	
	(iv) Monitoring and auditing on entrusted works	9.9	
(h)	Remuneration of resident site staff	160.4	
(i)	In-house management cost payable to WKCDA for the entrusted works	60.3	
(j)	Contingency	268.4	
	Sub-total	2,997.6	(in September 2016 prices)
(k)	Provision for price adjustment	640.9	
	Total	3,638.5	(in MOD prices)

PUBLIC CONSULTATION

15. We consulted the Yau Tsim Mong District Council and its Food, Environmental Hygiene and Public Works Committee on 21 August 2014 and 16 March 2017 respectively. Members supported in principle the proposed works.

16. We gazetted the proposed underground road in Zone 3A and Zone 3B of the integrated basement under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 13 February 2015. No objection was received during the

statutory objection period. The authorization notice was gazetted on 30 April 2015.

17. We consulted the Joint Subcommittee on 21 April 2017 and the item was discussed together with another funding proposal to upgrade part of 754CL entitled “Infrastructure Works for West Kowloon Cultural District, Phase 1” to Category A to carry out the construction works of the main section of the proposed Artist Square Bridge (ASB) and beautification works for the existing subway across the junction of Austin Road West and Canton Road. Members raised concerns mainly on the high estimated cost of the proposed ASB. The Joint Subcommittee did not support submission of the funding proposals to the Public Works Subcommittee, and requested the Administration to provide supplementary information on the cost breakdown of the proposed ASB. As we are critically reviewing the ASB project with WKCDA, we plan to consult the Joint Subcommittee on the updated funding proposal of the ASB at a later stage. Accordingly, we have excluded the cost of the remaining section of the ASB (about \$100 million in MOD prices⁶, being a component of our original proposal for upgrading part of 763CL to Category A) and will incorporate it into the funding application for the ASB when the project is ready for submission to LegCo. To tie in with the implementation programme of the LTC and other topside developments in Zone 3B of the integrated basement, we need to commence the proposed works as set out in paragraphs 2(b) to 2(f) above in the third quarter of 2017 to dovetail the phased implementation of WKCD.

ENVIRONMENTAL IMPLICATIONS

18. The engineering feasibility study of the WKCD development is a designated project under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO), requiring an Environmental Impact Assessment (EIA) report to be approved under the EIAO. The proposed works forming part of the WKCD development cover an underground road serving WKCD which is a designated project under Schedule 2 of the EIAO, requiring an environmental permit for its construction and operation. In November 2013, the EIA report for the WKCD development (which includes the proposed works) was approved under the EIAO, and an environmental permit was obtained for the construction and operation of the underground road. The EIA report concluded that the environmental impact of the proposed works can be controlled to within the criteria under the EIAO and the Technical Memorandum on EIA process. We will implement the mitigation measures as recommended in the approved EIA report and as required under the environmental permit. The mitigation measures recommended for the

⁶ This is the MOD price of the construction cost and related costs (including consultants’ fees, remuneration of resident site staff, in-house management cost, contingency and price adjustment) of the remaining section of the proposed ASB.

construction phase mainly include adoption of quieter equipment and movable noise barriers or noise insulating fabric to minimise construction noise impact, and regular watering of the site and provision of wheel-washing facilities for dust control.

19. At planning and design stages, we have considered the design and construction method of the proposed works to reduce generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil and broken concrete) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁷. We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste and the use of non-timber formwork to further reduce generation of construction waste.

20. At construction stage, we will require the contractors to submit plans for approval setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plans. We will require the contractors to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at receptor project sites and landfills respectively through a trip-ticket system.

HERITAGE IMPLICATIONS

21. The proposed works will not affect any heritage sites, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. The proposed works do not require any private land acquisition.

BACKGROUND INFORMATION

23. The WKCD development is one of the ten major infrastructure projects included in the Chief Executive's 2007-08 Policy Address for promoting the long-

⁷ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

term development of arts and culture, and supporting Hong Kong as a creative economy and Asia's World City.

24. In January 2013, FC approved the upgrading of **753CL**, entitled "Infrastructure Works for West Kowloon Cultural District, phase 1 – design and site investigation" to Category A at an estimated cost of \$478.0 million in MOD prices. The design and site investigation of government infrastructure works in Zones 3A and 3B of the integrated basement (related to the underground road and associated works) form part of the works entrusted to WKCDA under **753CL**, and are proceeding in stages to suit the phased implementation of the integrated basement.

25. We upgraded **763CL** to Category B on 28 June 2013.

26. In March 2014, we created a Category D item to fund the design of the advance works and site investigation works for Zone 3B of the integrated basement at an estimated cost of \$27.3 million in MOD prices under **Subhead 7100CX**, entitled "New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme". The works under this Category D item were entrusted to WKCDA and substantially completed.

27. In July 2015, FC approved the upgrading of part of **763CL** as **791CL**, entitled "Integrated Basement for West Kowloon Cultural District – first and second stages of design, site investigation and construction works" to Category A at an estimated cost of \$2,919.5 million in MOD prices. The works were entrusted to WKCDA, with construction works targeted for substantial completion in the first quarter of 2019 and the design and site investigation works to be substantially completed by end of 2019.

WAY FORWARD

28. We plan to seek funding support of the Public Works Subcommittee in June 2017 and then FC's funding approval to enable commencement of the proposed works in the third quarter of 2017.

LEGEND: 圖例:

- Batch 1 WKCDA's Facilities
第一批管理局設施
- Batch 2 WKCDA's Facilities
第二批管理局設施
- Remaining WKCDA's Facilities
餘下管理局設施
- Hotel, Office and Residential Development and Other Arts and Cultural Facilities
酒店、辦公室及住宅發展及其他文化藝術設施
- Underground road
地下行車路
- Airport Express Tunnels
機場快綫隧道
- Zone of Integrated Basement
綜合地庫分區
- (2021) Target Completion Dates
預計落成日期

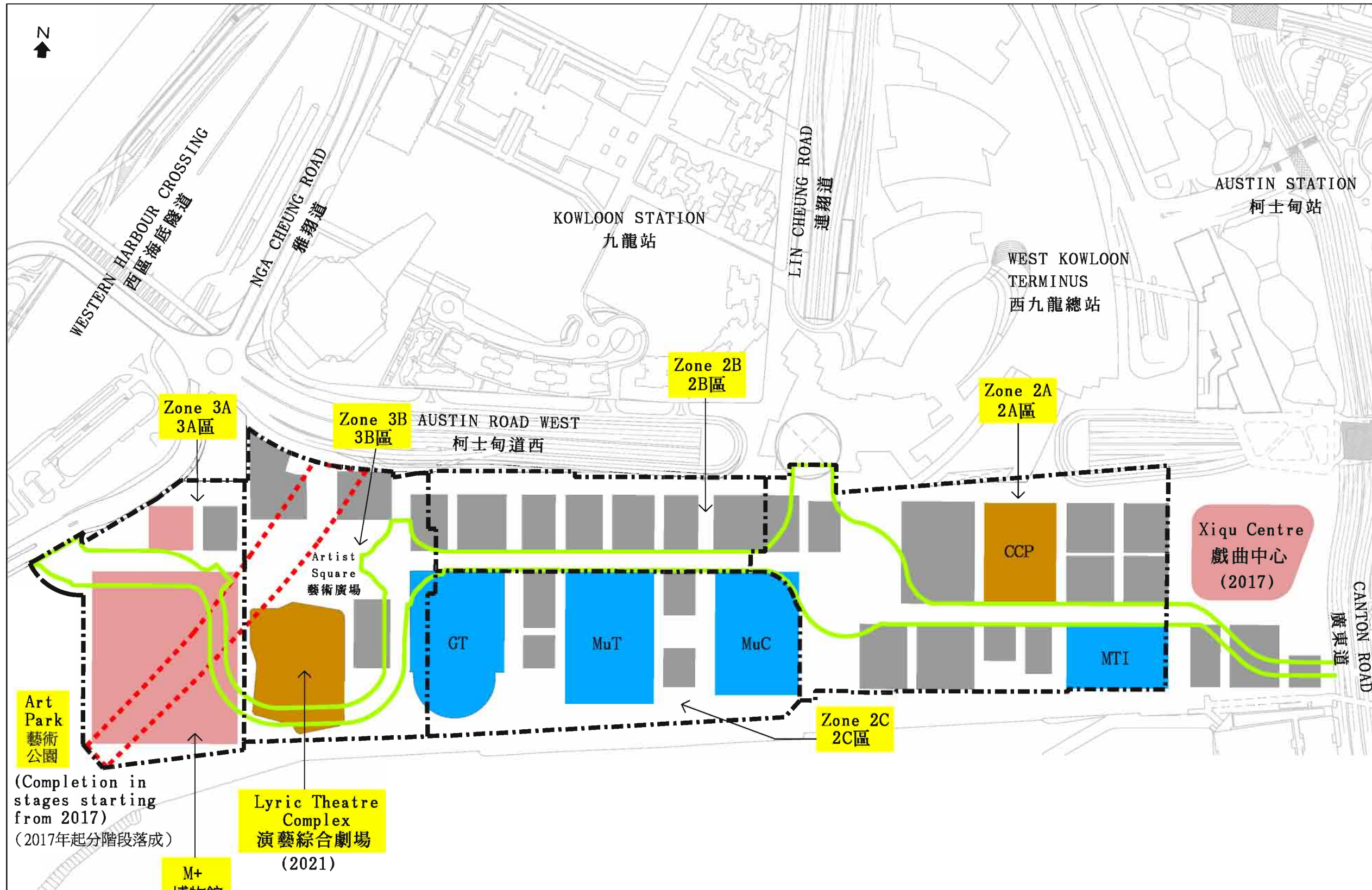
NOTES: 註釋:

1. GENERAL ARRANGEMENT AND DEMARCATION BETWEEN DIFFERENT ZONES OF INTEGRATED BASEMENT SUBJECT TO DETAILED DESIGN.
綜合地庫的布局及分區分界有待詳細設計確定

項目名稱 project title
763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT
THIRD STAGE OF CONSTRUCTION WORKS
763CL(部分) - 西九文化區綜合地庫第三階段的建造工程

圖則名稱 drawing title
ZONING PLAN OF THE INTEGRATED BASEMENT AND THE PROPOSED WORKS
綜合地庫發展分區圖及擬議工程

比例 scale
Not to scale 不按比例



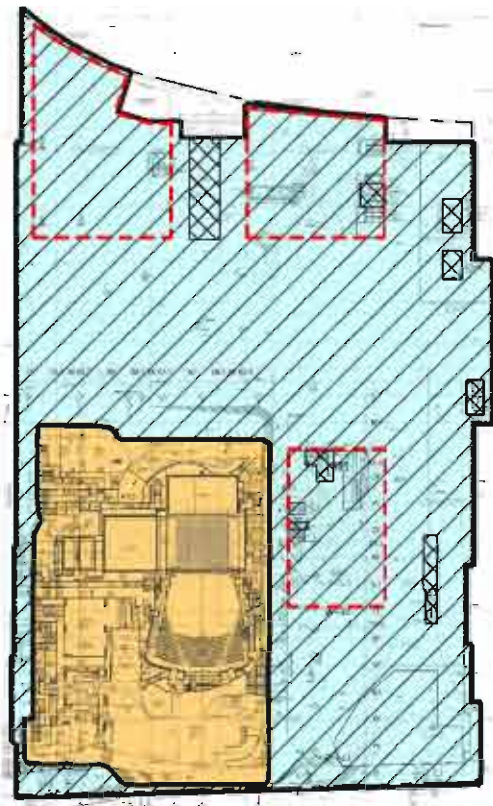
Art Park
藝術公園
(Completion in stages starting from 2017)
(2017年起分階段落成)

M+
博物館
(2018)

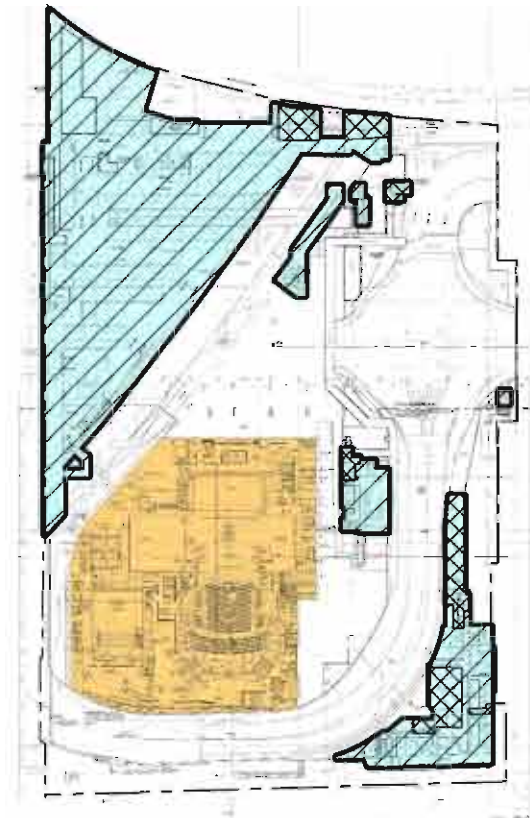
Lyric Theatre Complex
演藝綜合劇場
(2021)

GT	Great Theatre 大劇院
MuT	Musical Theatre 音樂劇院
MuC	Music Centre 音樂中心
CCP	Centre for Contemporary Performance 當代表演中心
MTI	Medium Theatre I 中型劇場I

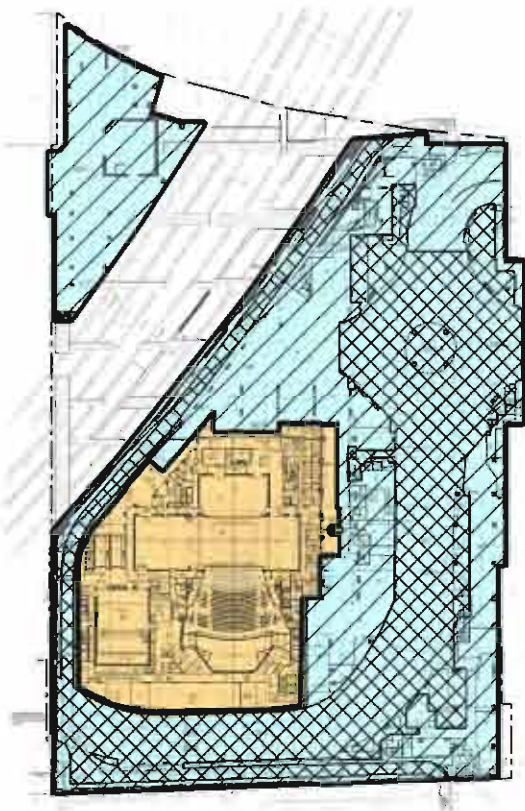
Zone 分區	Proposed Major Works under Third Stage (see Pages 2 to 3 of 3 for details) 第三階段的擬議主要工程 (詳見頁 2/3 至 3/3)
3A	Construction of remaining works of the underground road 建造地下行車路餘下工程
3B	Construction of essential basement structure, underground road and associated facilities, the protection works for the existing Airport Express tunnels and the remaining foundation works 建造基本地庫結構、地下行車路及相關設施、機場快綫隧道的保護工程及餘下地基工程



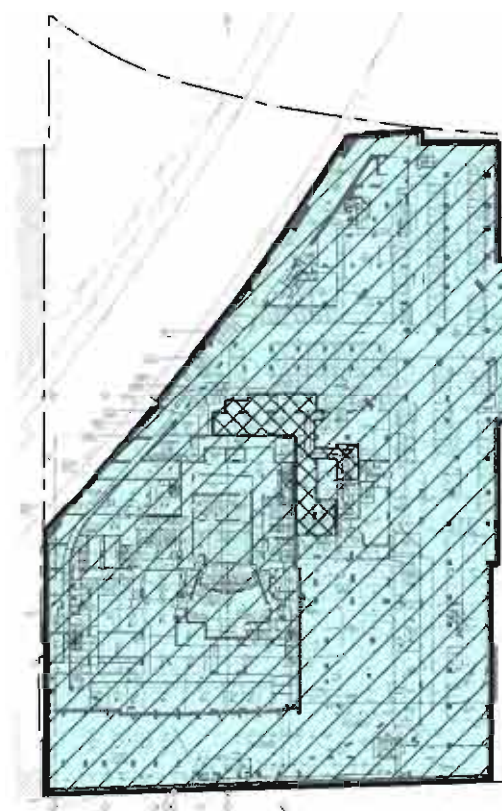
GROUND LEVEL
地面



B1M LEVEL
地庫第一層(閣樓)







B1 LEVEL
地庫第一層



B2 LEVEL
地庫第二層

Legend :

圖例












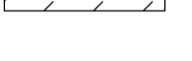



-  Proposed Essential Basement Structure (WKCDA's Facilities)
擬議基本地庫結構 (西九管理局設施)
-  Proposed Essential Basement Structure (Government Facilities)
擬議基本地庫結構(政府設施)
-  Lyric Theatre Complex
演藝綜合劇場
-  Topside Development
上蓋發展

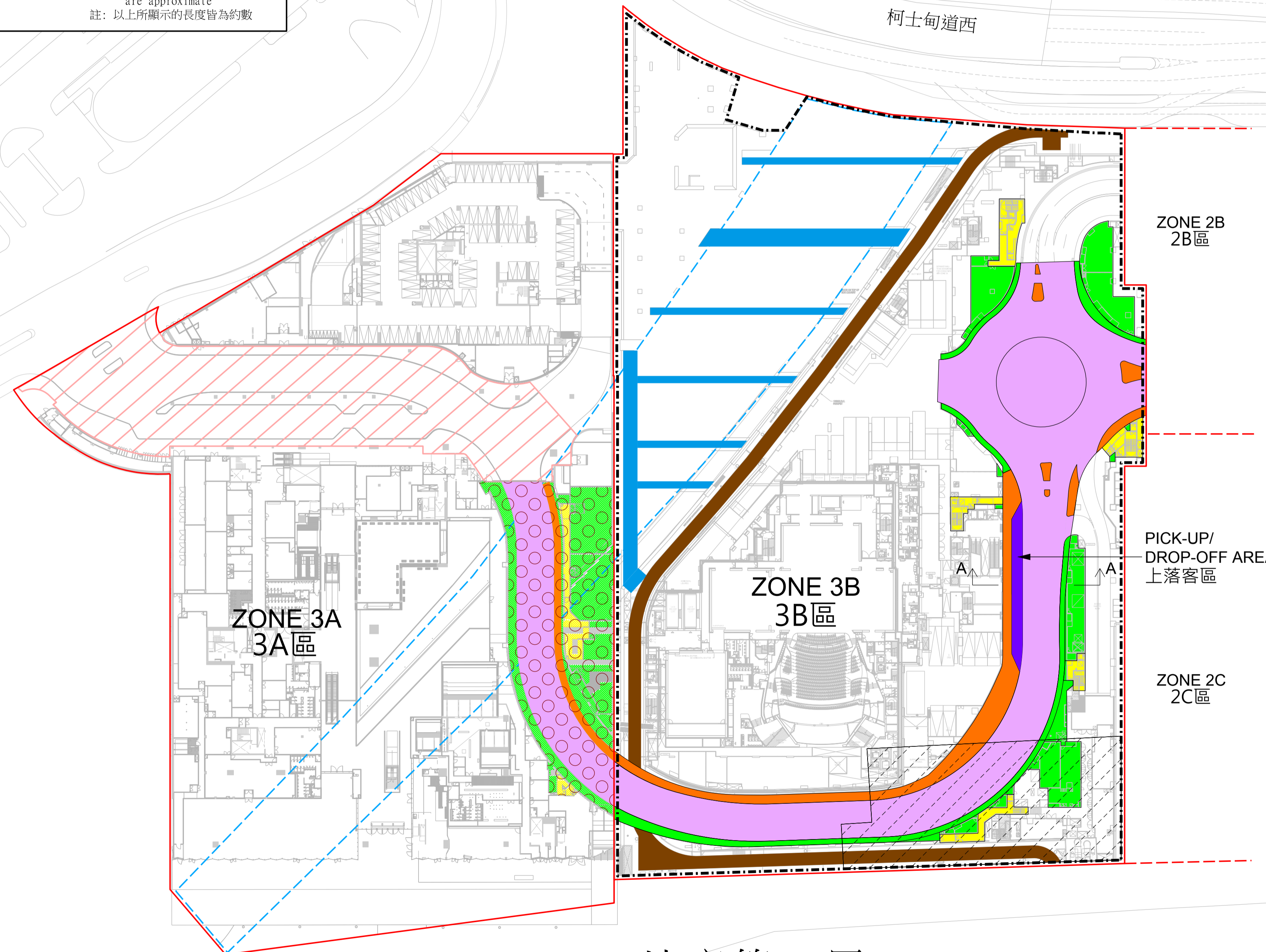
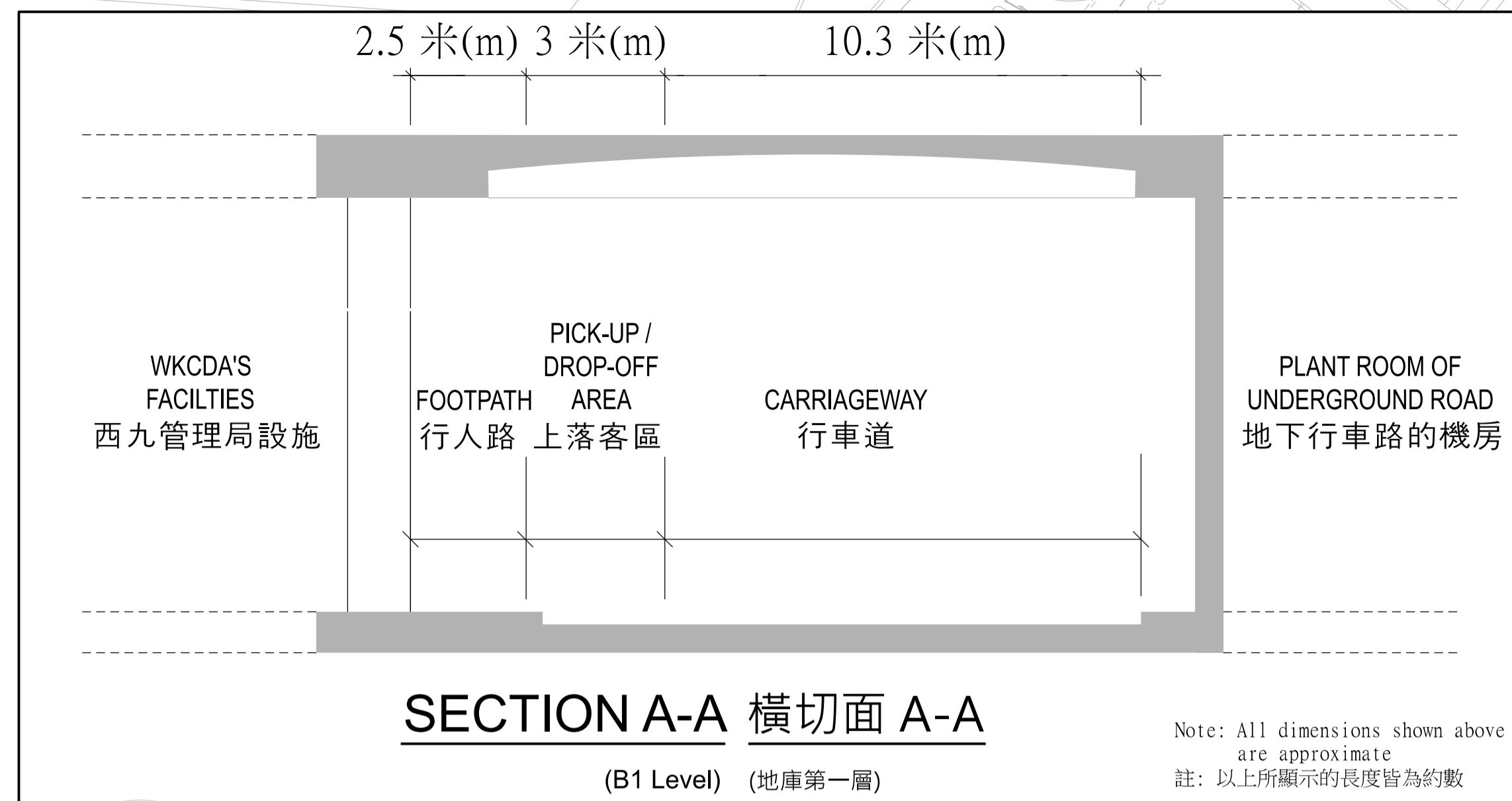
項目名稱 Project title
763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT
THIRD STAGE OF CONSTRUCTION WORKS
763CL(部分) - 西九文化區綜合地庫
第三階段的建造工程

圖則名稱 Drawing title
Proposed Essential Basement Structure in Zone 3B
擬議3B區基本地庫結構

比例 Scale
Not To Scale 不按比例

LEGEND: 圖例:

-  AIRPORT EXPRESS TUNNELS (AET)
機場快綫隧道
- CONSTRUCTION WORKS IN ZONE 3B**
3B區的建造工程
-  PROPOSED FOOTPATH AND TRAFFIC ISLAND
擬議行人路及安全島
-  PROPOSED CARRIAGEWAY
擬議行車道
-  PROPOSED PICK-UP/DROP-OFF AREA
擬議上落客區
-  PROPOSED ASSOCIATED PLANT ROOMS AND OTHER ANCILLARY FACILITIES
擬議相關的機房及其他附屬設施
-  PROPOSED ASSOCIATED MEANS OF ESCAPE / MEANS OF ACCESS FOR FIREFIGHTING AND RESCUE
擬議相關的走火通道 / 消防救援通道
-  PROPOSED BOX CULVERT
擬議箱形暗渠
-  APPROXIMATE BOUNDARY OF ESSENTIAL BASEMENT STRUCTURE OF ZONE 3B
3B區基本地庫結構的大約界線
-  PROPOSED PROTECTION WORKS FOR AET
擬議機場快綫隧道保護工程
-  PROPOSED REMAINING FOUNDATION WORKS IN ZONE 3B (BELOW THE ESSENTIAL BASEMENT STRUCTURE)
3B區的擬議餘下地基工程 (在基本地庫結構之下)
- REMAINING WORKS FOR UNDERGROUND ROAD IN ZONE 3A**
3A區地下行車路的餘下工程
-  PROPOSED FOOTPATH AND TRAFFIC ISLAND
擬議行人路及安全島
-  PROPOSED CARRIAGEWAY
擬議行車道
-  PROPOSED ASSOCIATED PLANT ROOMS AND OTHER ANCILLARY FACILITIES
擬議相關的機房及其他附屬設施
-  PROPOSED ASSOCIATED MEANS OF ESCAPE / MEANS OF ACCESS FOR FIREFIGHTING AND RESCUE
擬議相關的走火通道 / 消防救援通道
-  PROPOSED ASSOCIATED WORKS TO CONNECT THE REMAINING SECTION OF UNDERGROUND ROAD IN ZONE 3A
擬議連接3A區餘下地下行車路的相关工程



B1 Level 地庫第一層

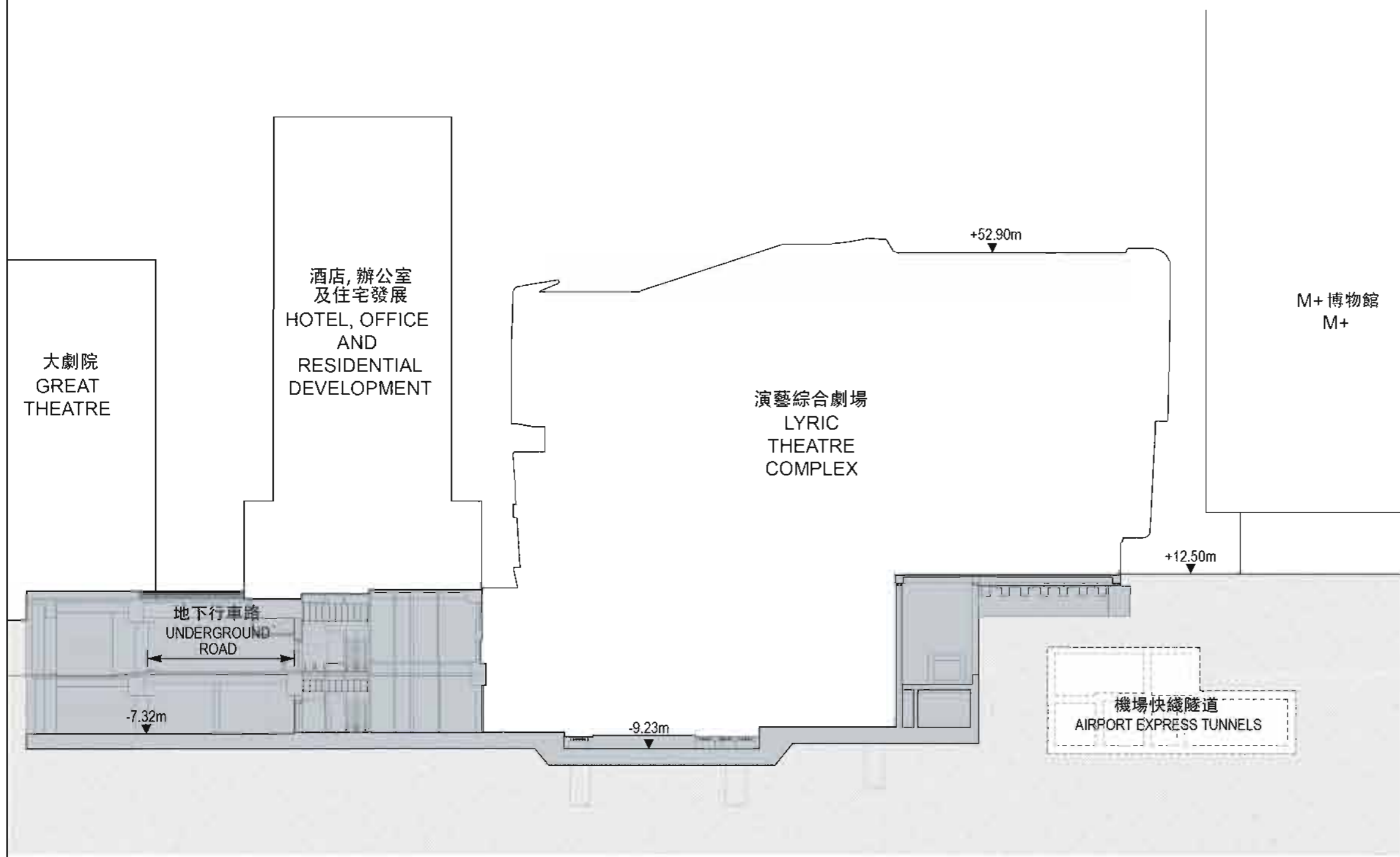
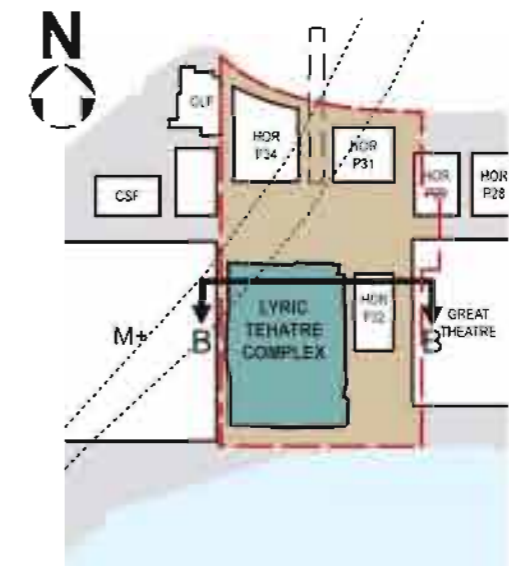
VICTORIA HARBOUR
維多利亞港

項目名稱 project title
763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT - THIRD STAGE OF CONSTRUCTION WORKS
763CL(部分) - 西九文化區綜合地庫 - 第三階段的建造工程

圖則名稱 drawing title
PROPOSED UNDERGROUND ROAD, AET PROTECTION WORKS, OTHER INFRASTRUCTURE WORKS AND REMAINING FOUNDATION WORKS
擬議地下行車路、機場快綫隧道的保護工程、其他基礎建設工程及餘下地基工程

比例 Scale
Not To Scale 不按比例

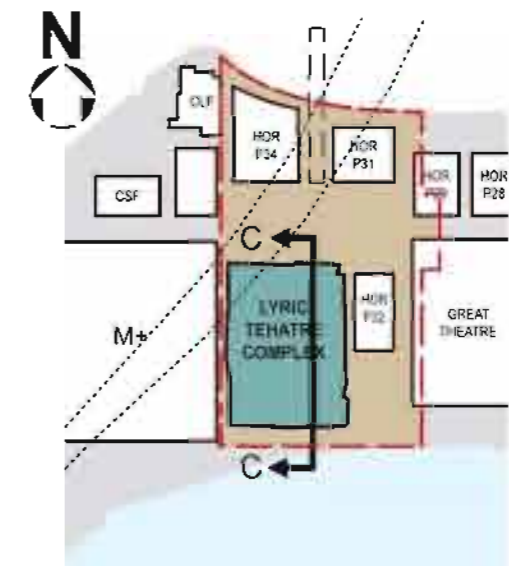
Legend: 圖例:
 綜合地庫3B區
 ZONE 3B INTEGRATED BASEMENT



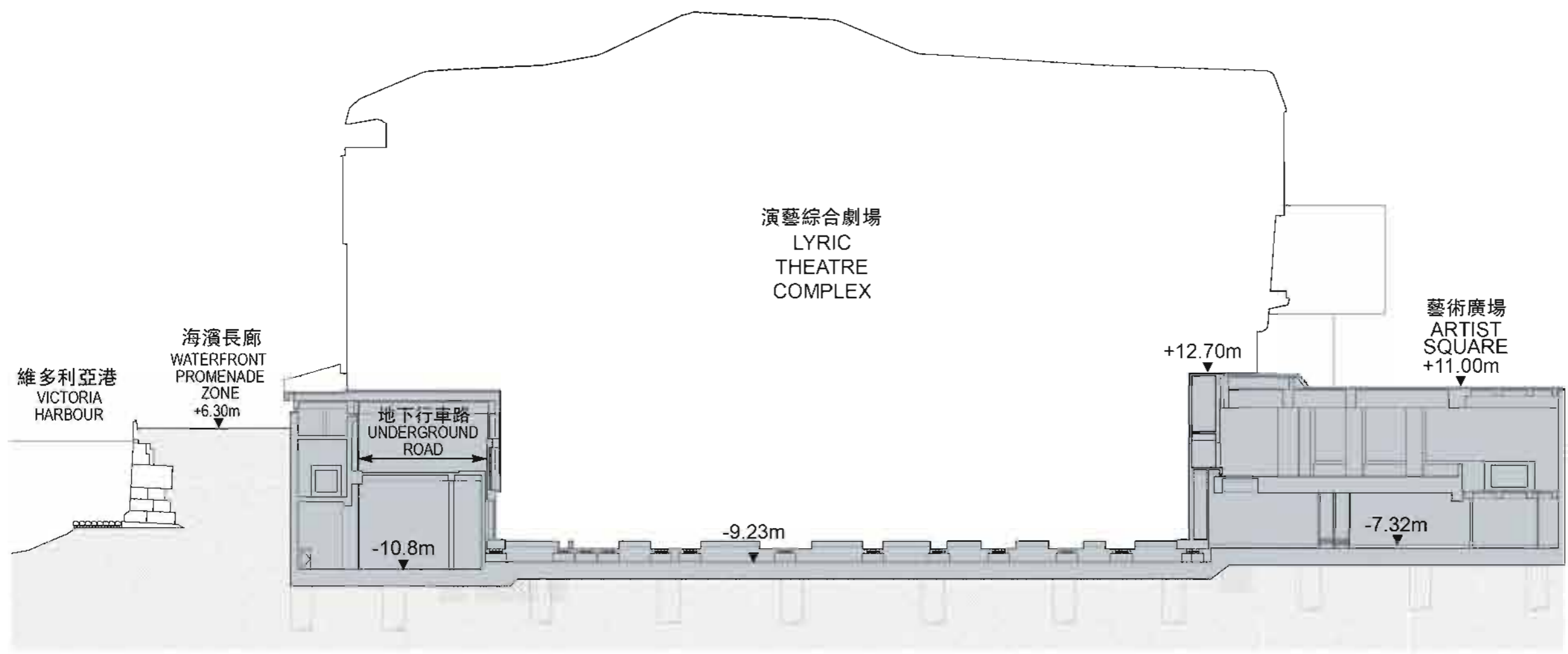
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 763CL(部分) - 西九文化區綜合地庫第三階段的建造工程

圖則名稱 drawing title
 Section B-B
 橫切面 B-B

比例 scale
 Not to scale 不按比例



Legend: 圖例:
 綜合地庫3B區
 ZONE 3B INTEGRATED BASEMENT



項目名稱 project title
 763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT THIRD STAGE OF CONSTRUCTION WORKS

763CL(部分) - 西九文化區綜合地庫第三階段的建造工程

圖則名稱 drawing title
 Section C-C
 橫切面 C-C

比例 scale
 Not to scale 不按比例