

Translation

For Information

May 2018

**Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways**

**Progress and Financial Situation of the
Construction of the Hong Kong Section of the
Guangzhou-Shenzhen-Hong Kong Express Rail Link**

(Quarterly Report for the Period ending 31 March 2018)

INTRODUCTION

This paper aims to brief Members on the major works progress and financial situation of the construction of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (“XRL”) and the relevant monitoring work carried out by the Highways Department (“HyD”) for the period ending 31 March 2018.

BACKGROUND

2. At the meeting of the Subcommittee on Matters Relating to Railways (“RSC”) under the Legislative Council (“LegCo”) Panel on Transport in April 2010, Members agreed that reports on progress update and financial situation of the construction of the Hong Kong section of the XRL should be submitted at six-month intervals. To enhance the reporting to the LegCo on the progress update and financial situation of the construction of the Hong Kong section of the XRL, such reports have been submitted to the RSC at quarterly intervals since the fourth quarter of 2014.

— 3. This paper, which is appended with the progress report (**Annex**) of the MTR Corporation Limited (“MTRCL”), reports on the major works progress,

indicators, financial situation for the first quarter of 2018 (i.e. from 1 January to 31 March 2018), and an overview of trial operations.

PROGRESS UPDATE OF THE PROJECT

4. The HyD, with the assistance of its Monitoring and Verification (“M&V”) Consultant, continued to monitor systematically the implementation of the works on the Hong Kong Section of the XRL by the MTRCL under its monitoring mechanism and took appropriate follow-up actions. Such mechanism includes meetings at various levels (such as meetings of the Project Supervision Committee chaired by the Director of Highways, Project Coordination Meetings chaired by an Assistant Director of HyD, Contract Review Meetings chaired by HyD’s Chief Engineer) and regular site inspections.

5. Since the third quarter in 2015, the Government has been monitoring the progress of the remaining works of the XRL project against the revised commissioning target of the XRL in the third quarter of 2018.

6. As stated in the MTRCL’s progress report, the overall progress of the Hong Kong Section of the XRL was 99.4% as at the end of March 2018, which was ahead of the planned progress of 98.2% based on the target of commissioning of the XRL in the third quarter of 2018. According to assessment by the HyD of the Programme to Complete submitted by the MTRCL against the commissioning target of the third quarter of 2018, the major works of the entire XRL project have been substantially completed. The remaining critical works are largely at the West Kowloon Station (“WKS”), including works at the port areas, those for electrical and mechanical (“E&M”) systems and building services (“BS”), as well as the works related to fire services installation, and require continual and close coordination and monitoring. As regards the railway system, the integrated testing and commissioning for connection to the high speed rail network of the Mainland commenced in July 2017 and has now been substantially completed. Moreover, the MTRCL formally commenced trial operations in early April 2018 to prepare

for the commissioning of the XRL in September 2018. The progress of the relevant works is set out below.

(a) Construction of West Kowloon Station and Nearby Roads

7. The works for Architectural Builder's Works and Finishes on various floor levels of the WKS were substantially completed, and the majority of E&M and BS systems had also been installed and tested. The associated works in "Hong Kong Port Area" and "Mainland Port Area" including false ceiling installation, finishes works, tile flooring and screeding works, and installation of immigration counters were also substantially completed. The installation of clearance facilities was underway and its progress was critical. In addition, the hardware for passenger facilities at the WKS including passenger service counters, tourist information centre etc. have been progressively put in place.

8. The three-tiered underpass at the junction of Austin Road West and Lin Cheung Road in the vicinity of WKS had been completed and opened for public use in stages. The first two stages (including part of the first level of the underpass on Austin Road West and the loop road near MTR Kowloon Station on Austin Road West, a section of the underpass between Lin Cheung Road and Austin Road West and loop road at Austin Road West near MTR Austin Station) were opened to public in September 2017 and December 2017 respectively. Stage 3 (including the remaining road and underpass connecting Lin Cheung Road and Austin Road West) was also planned to open in early May 2018. The MTRCL envisaged that the remaining road facilities could be opened by the third quarter of 2018 in stages. In addition, the construction of seven footbridges and two subways connecting the WKS and adjacent areas was nearing their completion and would open at an appropriate time by the second quarter of 2018. Upon the opening of these facilities, an efficient pedestrian link would be provided to connect to the WKS.

9. Although the major construction works at the WKS had been substantially completed, there were still considerable number of contractors' staff, personnel for trial operations and inspections working at the same location

at the same time. As such, proper management and coordination would continue to be required so that the remaining works, trial operations and inspections could be carried out concurrently in an orderly and smooth manner. The HyD would closely monitor the MTRCL's works in conjunction with its M&V Consultant, and coordinate the installation of the relevant clearance facilities.

(b) Fire Services Installations and Inspections

10. The works on fire services installation at the tunnel sections, Shek Kong Stabling Sidings and various ventilation buildings had been substantially completed. The fire services installation works at the WKS was also substantially completed and the final stage of internal testing was being carried out. Though the inspection of part of the fire services installation had been completed, the overall progress of fire services inspection remained critical but was forecast to be completed by the middle of 2018. The Fire Services Department had arranged sufficient manpower to meet the needs of fire services inspection.

(c) Electrical and Mechanical Systems Installation

11. The Main Control System for the Hong Kong Section of XRL was connected to respective control systems in the Mainland with interface tests amongst these systems were completed. The installation of remaining E&M equipment at WKS had also been substantially completed and is being tested.

12. All lifts in ventilation buildings and ancillary buildings were tested with "Use Permits" obtained from the Electrical and Mechanical Services Department ("EMSD"). The installation of lifts and escalators at WKS was in their final stage. The application process for "Use Permits" from EMSD was gradually progressing and envisaged to be completed by the second quarter of 2018.

13. For the ticketing system, the installation works of all automatic ticket

vending machines at WKS were completed. Installation of passenger ticket gates, ticket sales facilities and the associated tests were progressing in tandem.

(d) High Speed Trains

14. All nine sets of high speed trains had passed various tests, including reliability run tests, and could be put into trial operations.

(e) Trial Operations

15. With the completion of major works of the Hong Kong Section of the XRL, the MTRCL commenced trial operations in April 2018 which covers run-in of various systems for safety and reliability, and training of staff to familiarize themselves with the various operation systems and operating environment through the simulation of actual operating environment. During trial operations, the MTRCL would conduct drills and exercises in conjunction with relevant emergency and rescue departments on different scenarios that may occur during the operation of XRL to ensure that the entire railway system is safe and sound.

**Transport and Housing Bureau
Highways Department
May 2018**

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Subcommittee on Matters Relating to Railways**

**Progress and Financial Situation of the Construction of the
Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link**

(Report for the period between 1 January and 31 March 2018)

INTRODUCTION

This paper presents the construction progress of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (“XRL”) project up to 31 March 2018.

BACKGROUND

2. The progress reported below is based on the target of completing the XRL project to allow for passenger service in the third quarter of 2018 (“2018 Schedule for Completion”). This paper outlines major works progress, key performance indicators (“KPIs”), as well as financial status for the period between 1 January and 31 March 2018.

MAJOR WORKS PROGRESS OF THE XRL PROJECT

(I) Overall Progress of the Construction Works

3. As at 31 March 2018, overall the XRL project was 99.4%¹ complete against the planned progress of 98.2% according to the 2018 Schedule for Completion. With substantial completion of main works, the Project has entered into trial operations stage starting from April 2018.

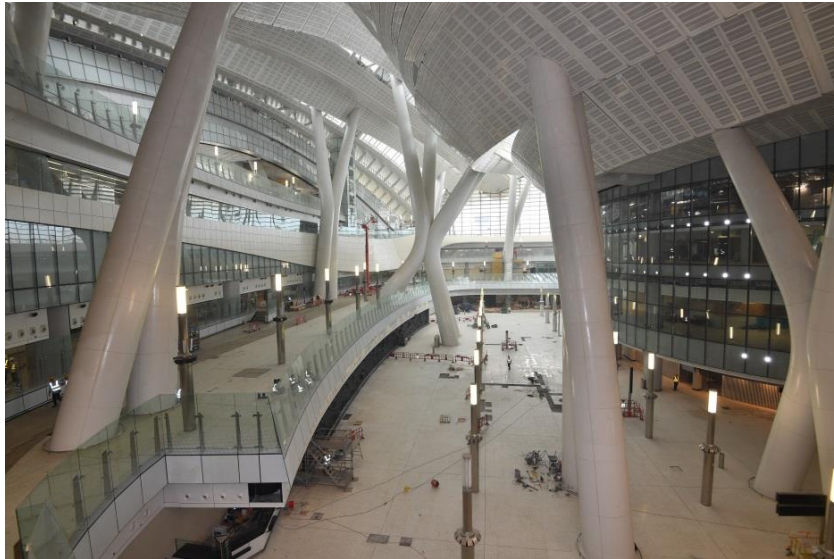
(II) Major Progress of the Construction of Hong Kong West Kowloon Station

4. The construction of Hong Kong West Kowloon Station (“the Station”) has been substantially completed. The remaining Architectural Builders’ Works and Finishes (“ABWF”) and building services works at the Station as well as external road works are continuing. Meanwhile, landscaping works at the Station and adjacent areas has commenced.



The construction of Hong Kong West Kowloon Station has been substantially completed

¹ Sum of all weighted percentages completed of all major contracts



An internal view of Hong Kong West Kowloon Station



Landscaping works at Hong Kong West Kowloon Station

5. For the Customs, Immigration and Quarantine (“CIQ”) areas of both Hong Kong and the Mainland at Level B2 and B3, respective users have been given access to commence their follow-on installation works progressively.

6. The external works in the vicinity of the Station, including ABWF works at the footbridges connecting the Station with adjacent areas and the West Kowloon Station Bus Terminus (“Bus Terminus”) located at the north of the Station, as well as road works for the remaining sections of the Lin Cheung Road and Austin Road West Underpass are ongoing and will be gradually opened starting in the second quarter of 2018.

(III) XRL Trains, E&M and Signaling Systems

7. Works under various E&M contracts are in progress with the overall completion rate at 98.4% as at the end of March 2018.

8. Testing and commissioning (“T&C”) of all nine sets of high-speed train for the XRL project (“XRL trains”) has been completed for trial operations to commence in April 2018.

9. Different high-speed train models which will be operating in Hong Kong under the management of China Railway Corporation are required to be assessed for compatibility with the Hong Kong section. Assessments such as gauging, emergency brake, coupling, pull-out rescue, etc. continues. The assessment reports will be submitted to relevant government departments for review.

10. The fine-tuning for signaling system, the subsequent site regression tests and third-party independent tests have been completed with satisfactory results. Recent System Performance Trial also demonstrated that the commissioned system continues to function properly prior to trial operations.

11. Fire Services Department (“FSD”) inspection of the building services in all the Ventilation Buildings (“VBs”), ancillary buildings along the tunnel sections and Shek Kong Stabling Sidings, as well as inspection of the tunnel ventilation system and the trackside auxiliaries along the tunnel sections has been completed.

12. Installation of the Main Control System (“MCS”) in the Station has been substantially completed. Testing of MCS with other interface systems including lifts and escalators is in progress and is targeted for completion in the second quarter of 2018.

13. In addition to the Automatic Ticketing Machines, all ticket gates have also been installed at the Station. T&C for the ticketing system is being carried out progressively and is targeted for completion in the second quarter of 2018.



Ticket gates have been installed at Hong Kong West Kowloon Station

14. At the Station, E&M contractors have been given access to all areas for E&M installation under Contracts 810A, 810B and 811B. Building services of the Station were 98.8% complete.

15. There is a total of 148 lifts to be installed in various locations including the Station and VBs etc., out of which 137 lifts have already gone through the initial functional (Stage 1) testing while 85 lifts have obtained Use Permits. Installation of remaining 11 lifts is underway.

16. All 71 escalators at the Station have been installed and have gone through initial functional (Stage 1) testing, out of which 38 escalators have obtained Use Permits. Installation and testing for the rest of the lifts and escalators is targeted for completion in the second quarter of 2018.

17. Installation of the Environmental Control System, power supply system and fire services equipment at the Station has been substantially completed. Air conditioning for Levels B1 to B4, as well as lighting for the majority of the Station is now functional and ready.

18. FSD inspection is underway at the Station and it is expected that the outstanding inspection including inspection for the alteration and additional works due to co-location arrangements would be completed in the second quarter of 2018.

(IV) Construction Challenges

(a) Hong Kong West Kowloon Station

19. All works for Mainland CIQ areas under the purview of the Corporation have been substantially completed. Equipment installation in the CIQ areas, which is the responsibility of the respective governments, is on the critical path and has a direct impact on the operational readiness for the target opening in September 2018. The Corporation will continue to liaise closely with the Mainland authorities through the HKSAR Government on progress of the equipment and system installation works.

(b) Labour Issues

20. As at the end of March 2018, a daily average of 5,400 construction workers, technical personnel and professionals were employed for the works.

(V) Preparation and Interface Works

21. With an understanding that the Corporation will be appointed as the operator of the XRL, necessary preparation works have been carried out according to the scheduled opening. Recruitment and training of staff have started progressively in line with the trial operations schedule to ensure sufficient manpower for the pre-opening preparations.

22. Train captains for XRL have been recruited and trained in advance. As the XRL is part of the National High-speed Rail Network, train captains are required to fulfil the same requirements and obtain necessary qualifications prescribed by the National Railway Administration (“NRA”). Train captains are required to complete comprehensive training, including classroom lectures and 3-month practical training, and pass relevant examinations. As of 31 March 2018, a total of 45 staff members have obtained the license issued by the NRA for driving high-speed trains, while another 24 will undertake driving examination in the second quarter of 2018.

23. Trial operations, which covers run-in of various train services and station facilities systems such as signaling system and ticketing system, drills and exercises on railway services, commenced on 1 April 2018. Information on future operations of the XRL is shown in Annex 3.

(VI) Updated Financial Situation of the XRL project

24. As at 31 March 2018, the cumulative expenditure for the awarded contracts was \$70.2 billion.

25. The Corporation will continue to closely monitor the costs and progress of the XRL project. Details of the financial situation of the project are shown in Annex 2.

MTR Corporation Limited

May 2018

Annex 1 - KPIs of Major Works Progress

Summary of the Construction Progress of the XRL Project

Works Commencement Date	26 January 2010
Target Completion Date	Q3 2018
Works Progress	Overall completion progress: 99.4% [as at end March 2018]

Progress of Key Civil Works Contracts

Cumulative progress of contracts for the Station construction:

Contract No.	Concrete structural works	Station excavation works
	End March 2018	End March 2018
810A	100% (99.6%)	100% (100%)
810B	100% (100%)	100% (100%)

Percentage in brackets is the planned progress of the Q3 2018 Schedule for Completion

Cumulative progress of contracts for tunnel construction:

Contract No.	Actual progress	Planned progress*
	End March 2018	End March 2018
811A	100%	100%
811B	99.7%	95.4%
820	100%	100%
821	100%	100%
822	100%	100%
823A	100%	100%
823B	100%	100%
824	100%	100%
825	100%	100%
826	100%	100%

Cumulative progress of E&M works:

E&M Works Progress	Actual progress	Planned progress*
	End March 2018	End March 2018
Station Building Services	98.8%	91.5%
Track Laid	100%	100%
Overall installation	98.6%	94.5%
Overall E&M	98.4%	95.5%

** Percentage is the planned progress of the Q3 2018 Schedule for Completion*

Annex 2 - Financial Expenditure

Expenditure report ending 31 March 2018

Table 1 – Situation of Expenditure

	Awarded contract sum for the contracts (\$ million)	Cumulative expenditure (\$ million)
Railway Tunnels	22,550.4	31,015.4
Station	14,742.0	27,819.8
E&M Works	8,437.1	11,371.7
Total	45,729.5	70,206.9

Table 2 – Situation of substantiated claims

	Claims resolved			Claims unresolved		
	Number	Amount claimed originally* (\$ million)	Amount awarded# (\$ million)	Number	Amount claimed* (\$ million)	Interim award (\$ million)
Railway Tunnels	159	4,811	2,470	426	7,733	2,254
Station	129	10,066	6,285	281	1,668	742
E&M Works	18	1,022	707	100	4,532	1,719
Total	306	15,899	9,462	807	13,933	4,715

*Amount stated in the contractor's detailed claim report.

The amount awarded means the payment for claims resolved.

As at 31 March 2018, the Corporation had received 1,113 substantiated claims and the amount claimed in total was approximately \$29.8 billion, representing 65.2% of the awarded contract sum for the contracts. The Corporation has been discussing the details of the claims with the contractors concerned, and would thoroughly assess the amount claimed. The Corporation would process each claim in a prudent manner, and the contractors would have to provide sufficient justifications and information. As at 31 March 2018, 306 cases were resolved and about \$9,462 million was awarded, representing about 20.7% of the awarded contract sum for the contracts. Subject to the needs of individual works and progress of the relevant assessment and discussion, interim awards amounting to about \$4,715 million have been made for some cases.

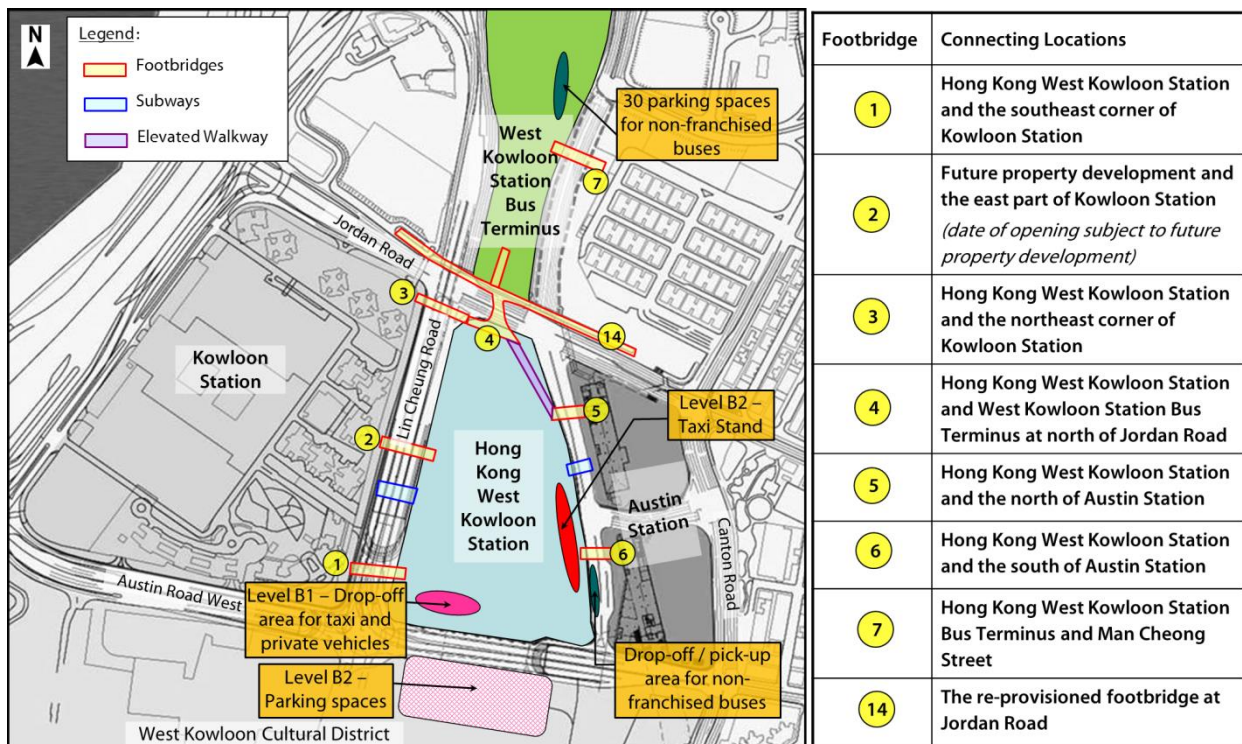
Annex 3 - Future Operations of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (“XRL”)

The target is to commence XRL passenger services in September 2018. Information relating to connectivity, train services and fares, ticketing and station retail facilities for XRL is set out below.

Connectivity

The Hong Kong West Kowloon Station (“the Station”) is conveniently located within the central part of the city. Passengers can reach most parts of Hong Kong using different transportation modes, including the Airport Express and MTR Tung Chung Line and West Rail Line through Kowloon Station and Austin Station respectively.

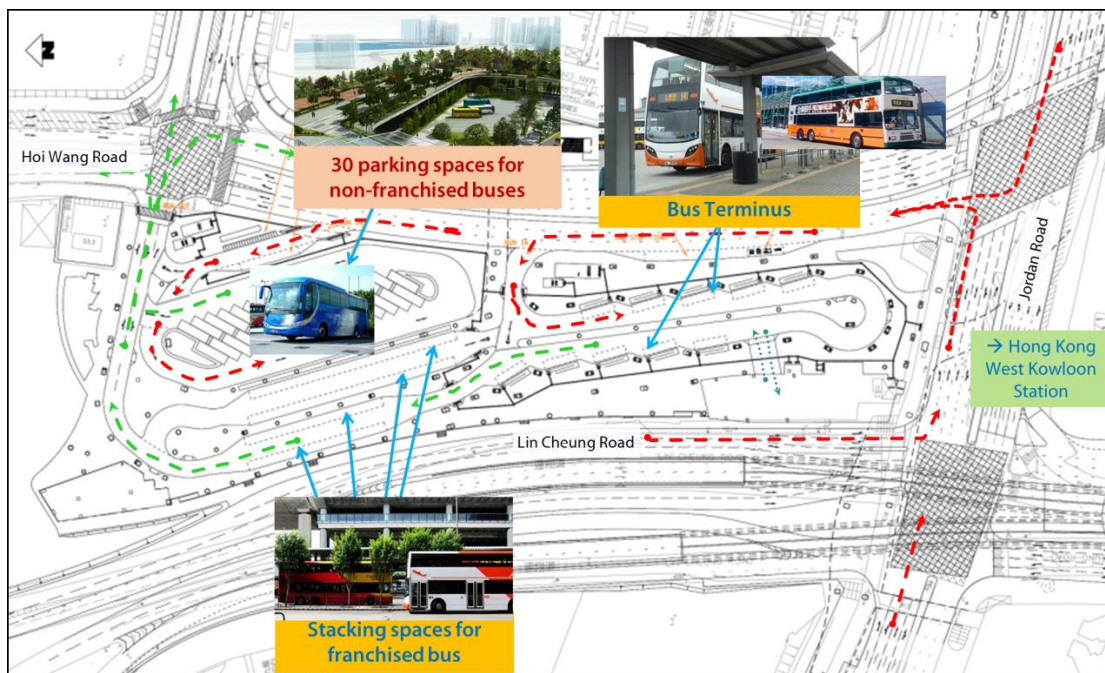
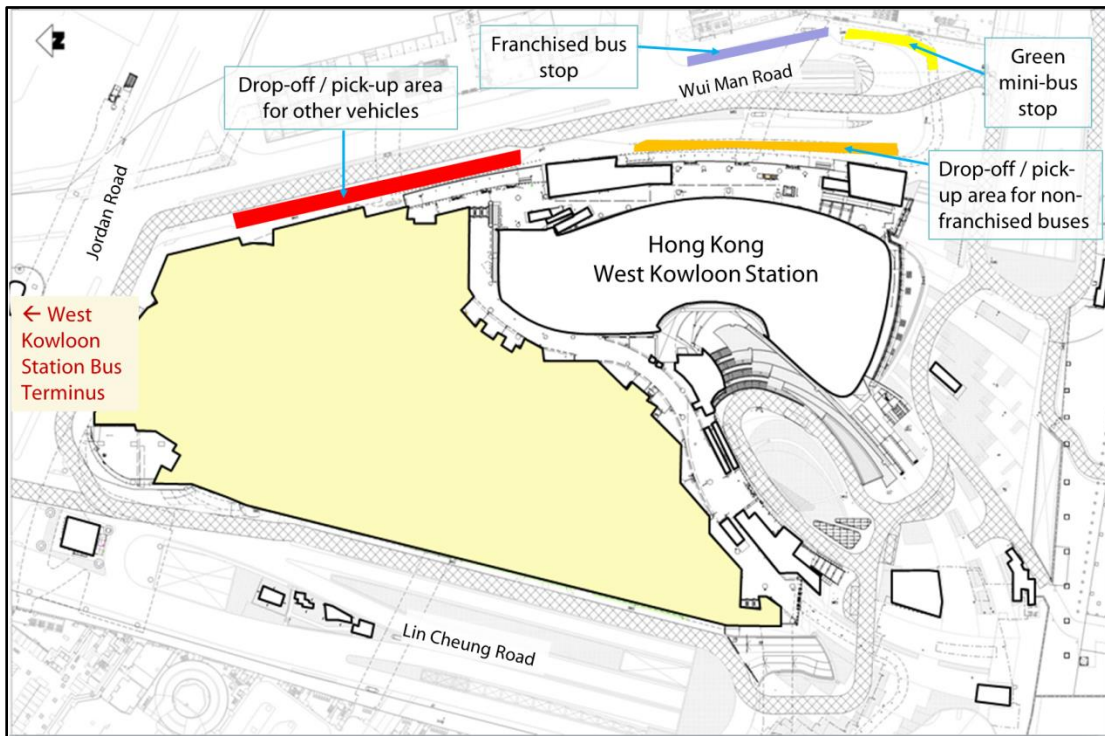
The Station is also well connected to surrounding areas with footbridges and subways. In addition to the reinstated Jordan Road footbridge, there are seven newly constructed footbridges connecting the Station with adjacent areas. At the western side of the Station, three footbridges are connected to Kowloon Station and nearby locations. Two footbridges at the eastern side of the Station are connected to Austin Station. At the northern side of the Station, one footbridge crosses the Jordan Road footbridge and is connected to the West Kowloon Station Bus Terminus (“Bus Terminus”), while at the eastern side of the Bus Terminus, there is another footbridge connected to Man Cheong Street. Other than the footbridges, two subways are also being constructed connecting the Station with Lin Cheung Road footpath and Austin Station respectively.



Connectivity of Hong Kong West Kowloon Station

There are also other public transport services, such as franchised buses and green mini-buses (“GMBs”), serving passengers going to the Station. The Bus Terminus is located at the north of the Station, while the area for bus and GMB stops is located at Wui Man Road near the eastern entrance of the Station. The detailed public transport arrangements including new franchised bus routes are being formulated by the Transport Department in consultation with the District Councils concerned.

There are 30 parking spaces for non-franchised buses located at the north of the Bus Terminus. Meanwhile, 10 loading and unloading bays for non-franchised buses are located next to the eastern entrance of the Station. For passengers who take taxi or private vehicles to get to the Station, the drop-off area is located at Level B1 while the taxi pick-up area and 493 public parking spaces are available at Level B2 in the Station.



Public transport arrangements in the vicinity of Hong Kong West Kowloon Station

Train Services and Fare

XRL will connect Hong Kong with the National High-speed Rail Network of over 25,000 km to bring a convenient and comfortable new travelling experience to passengers. According to the Memorandum of Understanding on the Agreements for Preparation of Key Operational Issues for the XRL signed between the HKSAR Government and the China Railway Corporation on 29 January 2018, other than the

short-haul trains running between the Station and the Futian, Shenzhen North, Humen and Guangzhou South stations, there will be long-haul trains to/from 14 Mainland cities including Beijing, Shanghai, Kunming, Guilin, Guiyang, Shijiazhuang, Zhengzhou, Wuhan, Changsha, Hangzhou, Nanchang, Fuzhou, Xiamen and Shantou upon the commissioning of XRL. Both parties plan to operate 127 train pairs daily, comprising 114 pairs of short-haul trains and 13 pairs of long-haul trains during the peak period at the early stage of commissioning. The train schedule could be adjusted subject to the actual operational needs. Passengers can also reach other Mainland cities by interchanging (the main short-haul interchange stations are Shenzhen North and Guangzhou South). The Government is in discussion with the China Railway Corporation on the actual operating arrangements of the XRL and will announce the outcomes of the discussion and details of operating arrangements to the Panel of Transport of the Legislative Council and the public at the appropriate time.

According to the train fares announced by the Government earlier, the adult fare for “Second Class” single journey ticket between the Station and Futian, Shenzhen North, Humen, Guangzhou South will be about HK\$80, 90, 210 and 260 respectively. The fares are set in Renminbi (“RMB”) and will be converted to Hong Kong Dollars according to the prevailing market exchange rate.

Ticketing

Same as the Mainland high-speed rail, passenger real-name ticketing system will be applicable to ticketing of XRL. Passengers may, by producing their Mainland Travel Permit for Hong Kong and Macao residents (i.e. Home Return Permits), PRC Resident Identity Card, PRC Exit/Entry Permit for traveling to and from Hong Kong and Macao, Mainland Travel Permit for Taiwan residents or foreign Passports, buy and collect tickets for high-speed rail journeys that start or terminate in the Station through the Hong Kong ticketing system, and they can do so online, through telephone, ticketing counters and ticket machines at the Station, as well as designated ticket agents in Hong Kong. Alternatively, they can also buy and collect tickets in the Mainland through the Mainland ticketing system.

The Hong Kong operator of XRL does not have the authority to sell tickets of journeys with both departure and arrival points being in the Mainland of China, i.e. non cross-boundary journeys. Discussions are underway with the Mainland high-speed rail operator on the setting up of ticketing counters at the Station to facilitate passengers to buy tickets for non cross-boundary journeys.

Station Retail

To enhance the journey experience and convenience of passengers taking XRL, a wide range of retail outlets will be available in the Station. There will be a range of services with diverse choices covering food and beverage, convenience stores, shops selling cosmetics, gifts, confectionery and lifestyle goods, etc., as well as travel agents, banks and financial service providers.

Way Forward

Discussion on detailed operational arrangements such as train frequency, daily operation hours, daily management arrangements, detailed arrangement of train services, etc. are still underway with the Government. The Corporation will work closely with the Government to ensure that XRL can operate safely and effectively to benefit the community.