

Translation

**For Information
October 2012**

**Legislative Council Panel on Transport
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**

(5th Half-yearly Report for the Period ending 30 June 2012)

INTRODUCTION

This is the fifth half-yearly report on the construction of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project.

BACKGROUND

2. At the meeting of the Subcommittee on Matters Relating to Railways (the Railways Subcommittee) under the Legislative Council Panel on Transport in April 2010, Members agreed that reports on progress update and financial situation of the Hong Kong section of the XRL should be submitted at six-month intervals. In April 2012, the Administration submitted the fourth half-yearly report on the progress of construction and financial situation of the Hong Kong section of the XRL project for the period between 1 July and 31 December 2011. This paper is the fifth half-yearly report on the progress of construction and financial situation of the XRL project for the period between 1 January and 30 June 2012.

OVERALL PROGRESS OF THE XRL PROJECT

(I) Major Works

3. As at 30 June 2012, 38 major construction contracts¹ together with other minor contracts were awarded with a total awarded value of \$44.49 billion. They included contracts for tunnelling works, construction works of the West Kowloon Terminus (WKT) and electrical and mechanical (E&M) contracts, which amounted to about \$22.4 billion, \$14.43 billion and \$7.66 billion respectively.

4. The lists of major contracts awarded in this reporting period and the award schedule for the next reporting period are shown at **Annex 1**.

5. The overall progress is summarised below –

(a) Railway tunnels – The first tunnel boring machine (TBM) started operating at the Mai Po works site in September 2011. The other two TBMs also commenced tunnel boring works at the Nam Cheong works site in February and April of 2012. Tunnel blasting works are in full swing at the works sites in Shek Yam, Kwai Chung, Pat Heung and Ngau Tam Mei.

(b) WKT – Excavation works for the main structure of the Terminus have been completed by 29%. Works for underground concrete structure are underway at the southern part of the Terminus.

(c) E&M works – Tendering of major contracts is generally completed. Contractors are working on the detailed design of systems and procurement of supplies and equipment.

6. Details of the progress of works are set out at **Annex 2**. The Government will continue to monitor closely the progress of the XRL project through the established mechanism.

¹ Major construction contract means individual contract with value above \$50 million.

(II) Pre-construction preparatory work and interface issues

(a) Temporary traffic arrangements

7. To facilitate the works of the XRL project, we have continued to implement temporary traffic management measures of different scales. We have also continued to maintain close liaison with the local communities and relevant District Councillors on such arrangements and the related works. Our efforts would include consulting District Councillors and the affected owners/occupiers on the specific details, arranging site visits to assess the results of temporary traffic management measures, and listening to related views for improvement as far as possible. Moreover, we have kept owners/occupiers of the relevant housing estates and buildings informed of the latest traffic arrangements so that the residents and business operators would be aware of such arrangements as early as possible and have better understanding of the works concerned.

(b) Temporary monitoring points and community liaison in Tai Kok Tsui (TKT)

8. Representatives of the Government and the MTR Corporation Limited (MTRCL) have continued to keep close dialogue with TKT residents on the progress of the project and residents' concerns over the project. Since January 2012, the contractor of the MTRCL has approached and liaised with the owners/occupiers of residential and commercial units in TKT. In view of the community's concerns and to further enhance safety, the MTRCL established temporary monitoring points in buildings around the XRL tunnelling works sites to monitor the conditions of these buildings during the works. In the process, the MTRCL has briefed the owners/occupiers on the purpose and procedure of installing the monitoring devices, the frequency of monitoring activities, and the maintenance and management of such devices.

9. Separately, over 130 enquiries were handled by the XRL Information Centre in the first half of 2012. The XRL Community Ambassadors have actively reached out to the local community. Apart from visiting and maintaining frequent contacts with the business operators and residents in TKT, they have also played an active role in community activities, such as participating in major festive events held by local groups, organising

parent-child activities, paying visits to centres for the elderly, and arranging for school talks and meetings with the Community Liaison Group of the XRL project. Details on the liaison with TKT residents are set out at **Annex 3**.

(c) Handling of enquiries and complaints received during the construction period

10. The Government and MTRCL have always attached great importance to communication with the public and local communities. Members of the public can make use of various channels including mailing, fax, e-mail, dedicated MTR Projects Hotlines and Community Liaison Groups to express their views or make enquiries concerning the XRL project. Enquiries or complaints received concerning the XRL project were mainly about the tidiness and cleanliness of works sites, traffic management, noises caused by tunnel blasting, conditions of local wells, suspected damages to buildings, etc. On receipt of an enquiry or complaint, the Government and MTRCL would promptly contact the enquirer or complainant to acknowledge receipt of the case, and would investigate the details and follow up.

(d) Public engagement and community involvement activities

11. Apart from participating in various activities and volunteer services to enhance community involvement, the MTRCL has also arranged frequent school talks and regular meetings with the Community Liaison Groups of the XRL project to maintain close communication with local residents. Moreover, we have invited representatives of the relevant District Councils, Community Liaison Groups and schools to visit the XRL Visitors' Centre in the MTR Austin Station, where relevant information on the XRL project is vividly depicted via exhibition panels and models.

(III) Employment opportunities

12. At the end of June 2012, about 3 900 construction workers and 2 100 technical/professional staff members were employed to engage in the construction works for the tunnels and the WKT. It is estimated that the total project manpower figure will gradually increase to 11 500 during the peak period in 2013, including 9 200 construction workers and 2 300 technical and

professional staff.

13. On 20 May 2012, the MTRCL participated in the Construction Safety Week, which was held by the Development Bureau, Construction Industry Council and Hong Kong Construction Association to raise safety awareness and commitment at all levels of the construction sector. The campaign also featured a job fair to attract more young people to join the local construction sector.

UPDATED FINANCIAL SITUATION OF THE XRL PROJECT

14. As at 30 June 2012, the cumulative expenditure for the awarded contracts was \$19.985 billion. All in all, the award of contracts is on schedule and within budget.

15. We will continue to monitor the progress of the project to ensure that it is within the approved budget and will be completed as scheduled with high quality. Details of the financial situation of the XRL project are shown at
— **Annex 4.**

THE NEXT HALF-YEARLY REPORT

16. The half-yearly report covering the period from 1 July 2012 to 31 December 2012 will be issued in the first quarter of 2013.

Transport and Housing Bureau
October 2012

**Major contracts awarded in this reporting period and
award schedule for the next reporting period**

Table 1 – List of major contracts awarded in this reporting period

Contract number and title	Date of award	Awarded contract sum (\$ million)
(A) Railway Tunnels		
All contracts were awarded	--	--
(B) West Kowloon Terminus (WKT)		
815A – Supply of Metal Doors and Frames including Ironmongery	9 May 2012	99
Total:		99
(C) Electrical and Mechanical (E&M) Works		
840 – Rolling Stock	7 Mar 2012	1,744
841A – Signalling System – Trackside Equipment	7 Mar 2012	308
841B – Signalling System – Trainborne Equipment	7 Mar 2012	182
852 – Ticketing System	16 Apr 2012	166
861A – Locomotives and Flat Wagons	13 Mar 2012	78
Total:		2,478

Table 2 – Award schedule for major contracts between 1 July 2012 and 31 December 2012

Contract number and title

(A) Railway Tunnels

- All major contracts were awarded

(B) WKT

- All major contracts were awarded

(C) E&M Works

- 854 – Security Access Management System
- 861C – Rail Maintenance Vehicles

Detailed half-yearly progress report of works ending 30 June 2012

(I) Progress of works

Tunnels – The tunnel boring machine (TBM) has commenced tunnel boring works for the southbound tunnel from the Mai Po
New launching shaft and bored a distance of about 600 metres (m).
Territories It has successfully passed through San Tin Highway and is
Section heading for the Ngau Tam Mei shaft.

Shaft excavation works at the Ngau Tam Mei² site continue with the adoption of the drill and blast method to a distance of about 70m underground. The works are expected to be completed in the third quarter of 2012.

Excavation works for the main shaft at the Tai Kong Po site was completed in May 2012. The shaft and the northbound tunnel shaft completed earlier are used as tunnel access during the construction of the tunnel between Ngau Tam Mei and the southern end of Tai Kong Po. A total distance of 140m has been excavated northward for this section of tunnel.

² To address the residents' concerns over water levels of wells in the area, the MTRCL, relevant Rural Committee, Village Representatives and District Councillors have invited experts from the Faculty of Engineering of the University of Hong Kong to conduct an independent investigation on the fluctuation of groundwater in Ngau Tam Mei. The investigation, which concluded in the third quarter of 2012, confirmed the validity of the "60m influence zone" set by the MTRCL. It also proposed further monitoring the area within 300m from the shaft and to increase the volume of underground water recharging for maintaining a stable groundwater level. Meanwhile, the Government has requested that the MTRCL continue to closely monitor the water discharged by the contractor from the works site to ensure that the water quality adheres to the relevant standards as stipulated in the Water Pollution Control Ordinance under the Environmental Protection Department.

The first TBM for the construction of section of the tunnel between Tai Kong Po and Tse Uk Tsuen was delivered to the Tsat Sing Kong site between February and March 2012. Assembly of boring components is underway inside the shaft. It is expected that excavation works will commence in the third quarter of 2012. Another TBM will be delivered to the tunnel launching shaft near Tse Uk Tsuen north of Kam Sheung Road in the third quarter of 2012 for assembly.

Phase 1 traffic diversion measures have been implemented at the section of Kam Tin Road which is near Shek Kong Vegetable Station since January 2012 for the construction of diaphragm walls across Kam Tin Road and the preparation works of Phase 2.

Construction of underground diaphragm walls at the works site for Shek Kong Emergency Rescue Siding has been completed by stages. The cut-and-cover tunnelling works have commenced. Structural works for the relevant buildings of the Stabling Sidings are underway.

With the completion of the blasting works in June 2012, the ventilation tunnel at Sheung Tsuen in Pat Heung has reached the alignment of the Tai Mo Shan underground railway tunnels. This part of railway tunnel has now extended 270m southward. Subsequent to the blasting works north of the Shek Yam site, over 18% of the excavation works of the 7.6km-long tunnel between Tse Uk Tsuen and Shek Yam has

been completed.

At the works site of the ventilation shaft at the junction of Cheung Shan Estate Road West and Cheung Shan Estate Road East, acoustic shields were installed on the shaft opening to reduce the impact of works inside the shaft on the surrounding environment.

Good progress was made on the construction (by blasting) of the 2.7km-long Kwai Chung Section of the railway tunnels. Excavation works of a 1.7km-long section have been completed. Lining of the tunnel will commence in the third quarter of 2012.

**Tunnels –
Urban Section**

Two TBMs used for the construction of the tunnel between Mei Lai Road and Hoi Ting Road started operation in February and April 2012 to kick off the northward and southward boring works for the southbound tunnel from the shaft at the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po. In mid-June, the TBM of the northern section successfully passed through the junction of Lai Chi Kok Road and Cheung Sha Wan Road below ground, where the existing Tsuen Wan Line of the MTR operated.

Implementation of traffic diversion measures continues at Hoi Wang Road to facilitate grouting works. Similar works are also underway within Tai Kok Tsui district to facilitate tunnel boring works.

Reprovisioning of the footbridge connecting Sham Mong Road, Sham Shui Po and Hoi Lai Shopping Centre has started. Upon the completion of the foundation works in the third quarter of 2012, the main structure of the footbridge would be placed on the bridge piers. It is expected that the whole reprovisioning would be completed at the beginning of 2013.

The section of Jordan Road between Lin Cheung Road and the temporary DIA (N) Road shifted to the south to the temporary D3E Road on 12 February 2012. This was followed immediately by the works for the WKT Approach Tunnels across Jordan Road. In April 2012, routes for pedestrians along Jordan Road to the Kowloon Station shifted to the north to the temporary footbridge to make way for the demolition of the existing FB14 footbridge.

Construction of B1 floor for a section of the WKT Approach Tunnels, about 100m-long and located at the immediate north of Jordan Road, is underway intensively. It would serve as a temporary carriageway for Jordan Road to be shifted to the north in the third quarter of 2012.

WKT

Major excavation works for the WKT continue to proceed in full speed. So far, a total of 820 000m³ of excavated soil (about 29% of the total amount) have been removed by sea with barges from the waterfront works site in West Kowloon.

The concrete structure of the underground station to the south

of Austin Road is being constructed by inverse construction method. The southern end of the terminus has reached level B2 (a total of four levels from B1 to B4).

At the east of Kowloon Station, a temporary vehicular bridge is being constructed at a section of Lin Cheung Road between Jordan Road and Austin Road West to cater for the traffic diversion in the third quarter in 2012. The original carriageway would be used for the construction of the western part of the terminus.

Electrical and Mechanical (E&M) Works In this reporting period, all major works contracts, including those related to passenger trains and signalling systems, have been awarded.

Contractors continue to work on the detailed design of the systems concerned. Procurement of major materials and machinery, including rails, ventilation tunnels and overhead electricity supply equipment, has been confirmed by contractors and pre-production preparation work is underway.

(II) Preparatory work and interface issues

Major Temporary Traffic Measures The second stage of the Temporary Traffic Management Scheme (TTMS) in West Kowloon was implemented on 2 January 2011 and remains in effect.

Temporary diversion of the traffic on a section of Jordan

Road between Kowloon Station and Austin Station to the south of the road section was effected in February 2012. The arrangement will continue to be effective until the third quarter of 2012 when the temporary carriageway at the north is completed.

Also, some minor TTMSs are being implemented at various locations along Sham Mong Road and Hoi Wang Road to make room for removal of underground tunnel obstructions or ground improvement works and diversion of existing utilities.

We will continue our consultation with the relevant District Councils and local communities for the various stages of TTMS.

Liaison with Tai Kok Tsui Residents

The Government and the MTR Corporation Limited (MTRCL) have been liaising closely with Tai Kok Tsui (TKT) residents. In the first half of 2012, the Community Liaison Group held meetings to brief representatives of TKT residents and the local community on the progress of the XRL project, and seek their views on the works for the project (including the grouting works around Kok Cheung Street, Tai Tsun Street and Chung Wui Street in TKT conducted in phases since the first quarter of 2012) so that relevant construction methods and effective mitigation measures could be adopted to reduce the impact of the works on the neighbourhood. During the works period, we maintained close contact with local stakeholders and business operators while the XRL Community Ambassador Team (CAT) and Project Team also made frequent visits to TKT to explain details of the works and listen to views of the local community.

2. In the first half of 2012, the XRL Information Centre handled over 130 XRL-related enquiries made by residents of TKT and other districts. The Centre, originally located at the New Kowloon Plaza, moved to the XRL site office in Nam Cheong Park in June 2012. The new Centre is more spacious and displays models of the XRL project for public visit.

3. We are aware of the concern of TKT owners/occupiers over the resumption of certain underground strata. To address public concern, we have published promotional leaflets and posters and held roving exhibitions at various locations in TKT so that residents could have better understanding of the construction methods of the XRL project, operation and benefits of tunnel boring machines and arrangements for underground strata resumption.

4. To foster the relationship with the local community and maintain close liaison and collaboration with local stakeholders, the MTRCL has organised and participated in various activities in TKT. On 4 March 2012, the CAT once again took part in the annual temple festival of TKT by setting up XRL-themed games booths and exhibition panels to brief participants on the latest progress of the XRL project. Moreover, the CAT joined a local community centre in organising a parent-child visit to the Hong Kong Railway Museum on

11 April 2012, i.e. during the Easter holidays. Participants were also briefed on the XRL project to enhance their understanding of the railway development in Hong Kong. Prior to the Dragon Boat Festival, the CAT and XRL Project Team visited centres for the elderly in TKT on 13 June and 22 June respectively to celebrate the festival with the elders.

5. To protect the interests of both the owners and the MTRCL, the MTRCL have continued to arrange for condition surveys upon owners' request. Among the 19 affected buildings, condition surveys for the common areas of 16 buildings have been completed with the relevant reports delivered to the respective owner corporations. As regards individual flat units, condition surveys for some 700 flat units (the engagement ratio is comparable to other railway projects) have been completed as at 30 June 2012.

Half-yearly expenditure report ending 30 June 2012

Table 1 – Situation of expenditure

	Awarded contract sum for the contracts (\$ million)	Cumulative expenditure (\$ million)	Estimated amount* of unresolved claim (\$ million)
Railway Tunnels	22,390	13,008	1,844
West Kowloon Terminus (WKT)	14,435	6,279	908
Electrical and Mechanical (E&M) Works	7,666	698	0
Total	44,491	19,985	2,752

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

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	10	102	63	90	1,995	151
WKT	46	247	187	66	949	41
E&M Works	0	0	0	0	0	0
Total	56	349	250	156	2,944	192

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

The Government and the MTR Corporation Limited (MTRCL) have conducted risk assessment at the planning and budgeting stages of the project to minimise claims arising from the public works. Nevertheless, there are often unforeseeable situations in the course of works. For instance, the foundation or excavation works may come across larger amount of or more complicated obstructions than expected. As this will add difficulties to the works, the contractors may have to use more machines or switch to other machines that are more suitable and employ more staff to cope with these situations. The contractors will submit claims in accordance with the contract terms to pay for the additional expenditures. The MTRCL will examine claims and assess the amount concerned based on the relevant contract terms, justifications, documents, records, etc.

2. As at 30 June 2012, the MTRCL received 212 substantiated claims and the amount claimed in total was \$3,293 million, representing 7.4% of the awarded contract sum for the contracts. The MTRCL is discussing the details of the claims with the contractors concerned, and will thoroughly assess the amount claimed. The MTRCL will process each claim in a prudent manner, and the contractors will have to provide sufficient justifications and information. So far, 56 cases have been resolved and \$250 million has been awarded, representing about 0.56% of the awarded contract sum for the contracts. Subject to the needs of individual works and progress of the relevant assessment and discussion, interim award amounting to about \$192 million has been made for some cases. The MTRCL will continue to handle the cases cautiously. We estimate that the amount claimed can be fully covered by the contingencies of the project and will not result in cost overrun.