

**For Information
September 2011**

**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**

(3rd Half-yearly Report for the Period ending 30 June 2011)

INTRODUCTION

This is the third 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 Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways (the Railways Subcommittee) in April 2010, Members agreed that progress reports on the construction works of the Hong Kong section of the XRL should be submitted at six-month intervals. Members also agreed on the scope and issues to be covered in the half-yearly reports, which should include the progress update of the construction works of the XRL and its financial situation. Further to the second half-yearly report submitted by the Administration in March 2011 on the progress of construction and financial situation of the Hong Kong section of the XRL project for the period between 1 July 2010 and 31 December 2010, this paper is the third half-yearly report on the progress of construction and financial situation of the XRL project for the period between 1 January 2011 and 30 June 2011.

OVERALL PROGRESS OF THE XRL PROJECT

(I) Major Works

3. As at 30 June 2011, 21 major construction contracts¹ have been awarded, making up a total awarded value of \$28.5 billion. They are contracts for tunnelling works, foundation works of the West Kowloon Terminus (WKT) and electrical and mechanical (E&M) contracts, which amount to about \$22.4 billion, \$5.4 billion and \$0.7 billion respectively. Among the 21 major construction contracts, four were awarded in the first half of 2011, amounting to \$4 billion.

4. In the second half of 2011, the second station works contract for the WKT and 13 E&M contracts will be awarded. The lists of major contracts awarded in this reporting period and the award schedule for the next reporting period are shown in **Annex 1**.

5. The overall progress of the key areas of works is summarised below-

- (a) Railway tunnels - Excavation works for the launching shafts for tunnel boring machines (TBM) are underway as scheduled. The first TBM was delivered to the site at Mai Po in June 2011 for assembly and tunnel boring works will commence once the assembly is completed. Tunnel drilling and blasting works are underway at works sites in Shek Yam, Kwai Chung and Pat Heung.
- (b) WKT - Diaphragm wall works are almost completed, and over 90% of the piling works have been completed. The works are expected to be completed in the third quarter of 2011. Moreover, as the WKT is an underground station, major excavation works for the station commenced in April 2011.
- (c) E&M works - Procurement of the works contracts is in good progress. The first three contracts were awarded in this reporting period.

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

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

through the monitoring mechanism.

(II) Pre-construction preparatory works and interface issues

(a) Temporary traffic arrangements

7. The second stage of the Temporary Traffic Management Scheme (TTMS) in West Kowloon was implemented on 2 January 2011 to facilitate construction of the WKT and the 3-tier depressed road system. The Administration closed the southbound lanes of Lin Cheung Road and part of Wui Cheung Road on 2 January 2011. The traffic is diverted to a temporary road with five lanes, equivalent to the capacity of the closed roads. Tsim Sha Tsui-bound traffic from the Western Harbour Crossing now enjoys a slightly shorter route with fewer junctions.

8. Prior to the implementation of the second stage of the TTMS, we have conducted briefings for the District Council concerned on the TTMS arrangements, liaised closely with stakeholders and listened to many constructive views. Moreover, we have publicised the TTMS arrangements through different means, such as distributing leaflets, making radio broadcasts in road tunnels, posting publicity posters and notices in the areas concerned, and issuing XRL Newsletters. In addition, we held a media briefing on the TTMS on 30 December 2010 to alert, via the media, the public of the arrangements under the TTMS on the day of its implementation. The TTMS has been in smooth operation so far. Instead of bringing adverse impact on the traffic situation, the TTMS has slightly improved the traffic conditions in the area, and was commended by members of the Traffic and Transport Committee of the Yau Tsim Mong District Council at its meeting on 3 March 2011.

9. At its meeting on 20 May 2011, the Subcommittee requested us to provide further information on the traffic flow in West Kowloon for a review of the impact of the TTMS on the traffic situation in the district. The MTR Corporation Limited (MTRCL) thus conducted a traffic flow survey for West Kowloon in June 2011. The scope of the survey includes the traffic flow, tailback length and journey time in West Kowloon in different peak periods during weekdays and weekends. The findings of the survey reveal that the TTMS has not affected the traffic conditions of the road sections concerned. For the major road junctions, their reserve capacities before and after

implementation of the TTMS remain much the same, with some junctions even have their reserve capacities improved. The reserve capacity of the junction of Jordan Road/Canton Road/Ferry Street in the peak period on Friday evening has increased from -6% to at least 15%. For the junction at Jordan Road/Lin Cheung Road (northbound), the reserve capacity is at least 32% as compared with at most 7% before. A comparison of junction performance before and after implementation of the TTMS is shown at — **Annex 3**.

10. Parts of the southbound and northbound lanes of Sham Mong Road and Hoi Wang Road have been narrowed for the works on modification of storm-water drainage system, ground improvement works (i.e. grouting) and removal of underground obstructions. We have briefed the District Council and stakeholders concerned on the temporary traffic arrangements. We will continue to liaise with the local community and the District Council on the arrangement concerned.

(b) Condition surveys and community liaison in Tai Kok Tsui (TKT)

11. Representatives of the Government and the MTRCL have continued to keep close dialogue with TKT residents on the project progress update and residents' concerns over the project. By the end of June 2011, we completed condition survey for about 640 individual units (the ratio is comparable to other railway projects). The XRL Community Ambassadors have distributed the survey reports to owners of the surveyed units and briefed them on the content of the report. In addition, over 200 enquiries were received at the XRL Information Centre in the first half of 2011.

12. In addition to proactive participation in community activities to reach out to the local residents, the MTRCL has also organised school talks and arranged for regular meetings with the Community Liaison Group of the XRL project to maintain close liaison with TKT residents. Details are set out in **Annex 4**. —

(c) Land resumption in Choi Yuen Tsuen (CYT)

13. Land resumption in CYT was completed in May 2011. All villagers and business operators have voluntarily moved out of CYT. With proper

rehousing arrangements, all CYT residents have moved to public rental housing, Home Ownership Scheme flats, temporary pre-fabricated houses, interim housing or other self-arranged housing.

14. For CYT residents joining collective agricultural resite and requiring temporary residence, the MTRCL has lent them pre-fabricated houses that are erected on the vacant land of the lots they newly acquired. The arrangement provides the residents with temporary housing upon their moving out of CYT, and allows them more time to plan for and build their new houses. The villagers voluntarily surrendered their houses in CYT in May 2011.

15. For the whole process of land resumption in CYT, the Government has granted CYT villagers land compensation and ex-gratia allowances amounting to over \$250 million, including about \$160 million of ex-gratia land compensation, about \$72 million of ex-gratia cash allowance under the Special Ex-gratia Rehousing Package, over \$14 million of crop ex-gratia allowance, over \$8 million of miscellaneous permanent improvements to farm ex-gratia allowance, and over \$1 million of domestic removal allowance. Only a few households have not yet collected the payments for the various compensation and ex-gratia allowances.

16. Upon completion of the land resumption, the XRL contractors have commenced the works for site formation, diversion of existing utilities and site investigation in CYT to prepare the site for the foundation works of the XRL.

(d) Public engagement and community involvement activities

17. The MTRCL has liaised with the relevant District Councils, community organisations and schools to hold site hoarding design competitions for the Hong Kong section of the XRL project. This will enhance not only the community environment but also public understanding of the Hong Kong section of the XRL project. Award-winning designs will be displayed on the XRL site hoardings in the districts concerned. The site hoarding design competition for the Kwai Tsing district was held in the fourth quarter of 2010 and the awards presentation ceremony cum fun day was held on 22 January 2011. The competition for the Sham Shui Po district was also held in the first quarter of 2011 and the awards presentation ceremony was held in 18 May 2011. The MTRCL is organising the site hoarding design competitions

for the Yau Tsim Mong district and the Tsuen Wan district, which are expected to be held between the third and fourth quarters of 2011.

(III) Employment opportunities

18. By the end of June 2011, about 2,440 construction workers and 1,250 technical/professional staff members were employed to work on the XRL project. The MTRCL held a Job Fair for the Construction Industry on 26 and 27 February 2011 to attract more young people to join the industry. 23 leading contractors in the industry participated in the Fair and offered over 2,000 jobs. The Fair drew more than 2,200 visitors and received over 3,300 job applications. The detailed information on job opportunities created by the XRL project as well as the types of jobs involved is set out at **Annex 5**.

UPDATED FINANCIAL SITUATION OF THE XRL PROJECT

19. As at 30 June 2011, the cumulative expenditure for the awarded contracts was \$9,937 million. All in all, the award of contracts is on schedule and within budget.

20. 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 in **Annex 6**.

THE NEXT HALF-YEARLY REPORT

21. The next half-yearly report covering the period from 1 July 2011 to 31 December 2011 will be issued in the first quarter of 2012. At the same time, we are closely monitoring the investigation results of the Wenzhou incident so that we can learn from the experience to further improve the safety of the Hong Kong section of the XRL project.

Transport and Housing Bureau
September 2011

**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)		
810B – WKT Station (South)	12 Jan 2011	3,321
Total:		3,321
(C) Electrical and Mechanical (E&M) Works		
843 – Tunnel Environmental Control System	3 May 2011	260
855 – Building Services for Tunnel Ventilation Buildings and Emergency Rescue Siding	12 Jan 2011	297
856 – Building Services for Shek Kong Stabling Sidings	1 Feb 2011	140
Total:		697

Table 2 - Award schedule for major contracts between 1 July 2011 and 31 December 2011

Contract number and title

(A) Railway Tunnels

- All contracts were awarded

(B) WKT

- 810A – WKT Station (North)

(C) E&M Works

- 816A – WKT – Environmental Control System
- 816B – WKT – Building Services Control System
- 816C – WKT – Electrical Installation
- 816D – WKT – Fire Services, Plumbing and Drainage
- 830 – Trackwork and Overhead Line System
- 846 – Trackside Auxiliaries
- 847 – Lifts
- 848 – Escalators and Moving Walkways
- 849 – Radio Communications System
- 851 – Fixed Communications System
- 853 – Main Control System

Detailed half-yearly progress report of works ending 30 June 2011

(I) Progress of works

Tunnels – At the Mai Po works site, the excavation works for the tunnel
New boring machine (TBM) launching shaft are substantially
Territories completed. The first TBM for the XRL project was
Section delivered to the site in early June for assembly. Tunnel
boring works for the section between Mai Po and Ngau Tam
Mei are expected to commence in the third quarter of 2011.

Moreover, works for tunnel shafts are also underway at the
Tai Kong Po and Ngau Tam Mei works sites to prepare for
the tunnel works.

At the site for Shek Kong Emergency Rescue Siding and
Stabling Sidings, clearance of structures thereon and site
formation works are nearly completed with ancillary facilities
installed to prepare for the foundation works commencing in
the latter half of this year.

At the Sheung Tsuen works site in Pat Heung, drilling and
blasting works for the construction of ventilation tunnel were
commenced in May 2011 after completion of site formation
and slope stabilisation works.

To construct the ventilation facilities at the Shing Mun works site, pipe piles are being installed on the site at the junction of Cheung Shan Estate Road West and Cheung Shan Estate Road East to prepare for the excavation works for ventilation shaft.

For the site at the junction of Wing Yip Street/Tai Lin Pai Road in Kwai Chung, drilling and blasting works for ventilation tunnel were commenced in mid-February 2011. As regards the section of approach tunnel at Cheung Wing Road in Shek Yam, the excavation works were completed in late April 2011 and the tunnel was about 500 metre in length. Drilling and blasting works for the main railway tunnel have been commenced.

**Tunnels –
Urban Section** Diaphragm wall construction at the northern and southern sections of the West Kowloon Terminus (WKT) Approach Tunnel was completed by 90% and 45% respectively. Excavation works for the cut-and-cover tunnels are expected to commence in the third quarter of 2011.

Since April 2011, ground improvement works (i.e. grouting) have been underway at Hoi Wang Road to prepare for the tunnel boring works commencing in 2012. The ground improvement works will be conducted in phases to minimise the size of the works area and the impact on the traffic on Hoi Wang Road.

Advance works for tunnel boring are underway along Sham Mong Road, including the removal of many underground obstructions and diversion of existing utilities.

Upon completion of the construction of diaphragm walls for the TBM launching shafts at Nam Cheong in May 2011, 20% of the excavation works for the shafts have been completed. It is expected that by the time the shafts are completed in the fourth quarter of this year, the two TBMs used for constructing this tunnel section will be delivered by the manufacturer to the site for assembly.

WKT

The diaphragm wall construction works at WKT were completed in phases in the first half of 2011, and the excavation works at WKT were commenced in April this year. The depth of excavation has reached 2 metre above Principal Datum in most parts of the site. Most of the excavated materials were removed by sea via the barging facilities on site. The arrangement could reduce the number of trucks visiting the site and hence their impact on the local traffic.

**Electrical and
Mechanical
(E&M) Works**

In this reporting period, 12 E&M works tender documents were issued with 3 contracts awarded. The contactors are working on the detailed design for the systems and will submit information on the manufacturers of the key apparatus.

(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.

Some minor TTMSs are still effective in West Kowloon area to facilitate construction of the 3-tier depressed road system, as well as a temporary carriageway and a temporary footbridge to prepare for the next stage of TTMS, which involves temporary diversion of the section of Jordan Road between Kowloon Station and Austin Station and a footbridge to the north of the road section. The next stage of TTMS will be implemented in the fourth quarter of this year. The third and fourth stages of TTMS are smaller in scale and will only involve minor diversion of existing roads to new roads nearby.

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

We will continue our consultation with the relevant District Council for the various stages of TTMS.

Rehousing Arrangements for Choi Yuen Tsuen (CYT) Villagers With proper rehousing arrangements, all CYT residents have moved to public rental housing, Home Ownership Scheme (HOS) flats, temporary pre-fabricated houses, interim housing or other self-arranged housing.

When processing applications for rehousing to public rental housing, we adopted a compassionate approach and examined individual cases on their own merits for the possibility of rehousing on compassionate ground. The same approach was adopted when we processed applications for interim housing.

Regarding the rehousing arrangements, out of about 240 affected CYT households, 25 households have moved to public rental housing, 11 households have moved to interim housing, 35 households have purchased HOS flats, more than 70 households have their applications for agricultural resite approved (of which 35 households joining collective agricultural resite have moved to the pre-fabricated houses lent by the MTRCL). Some households have lived together with their family members in the above-mentioned HOS flats or domestic houses under the agricultural resite policy. The remaining households had self-arranged housing.

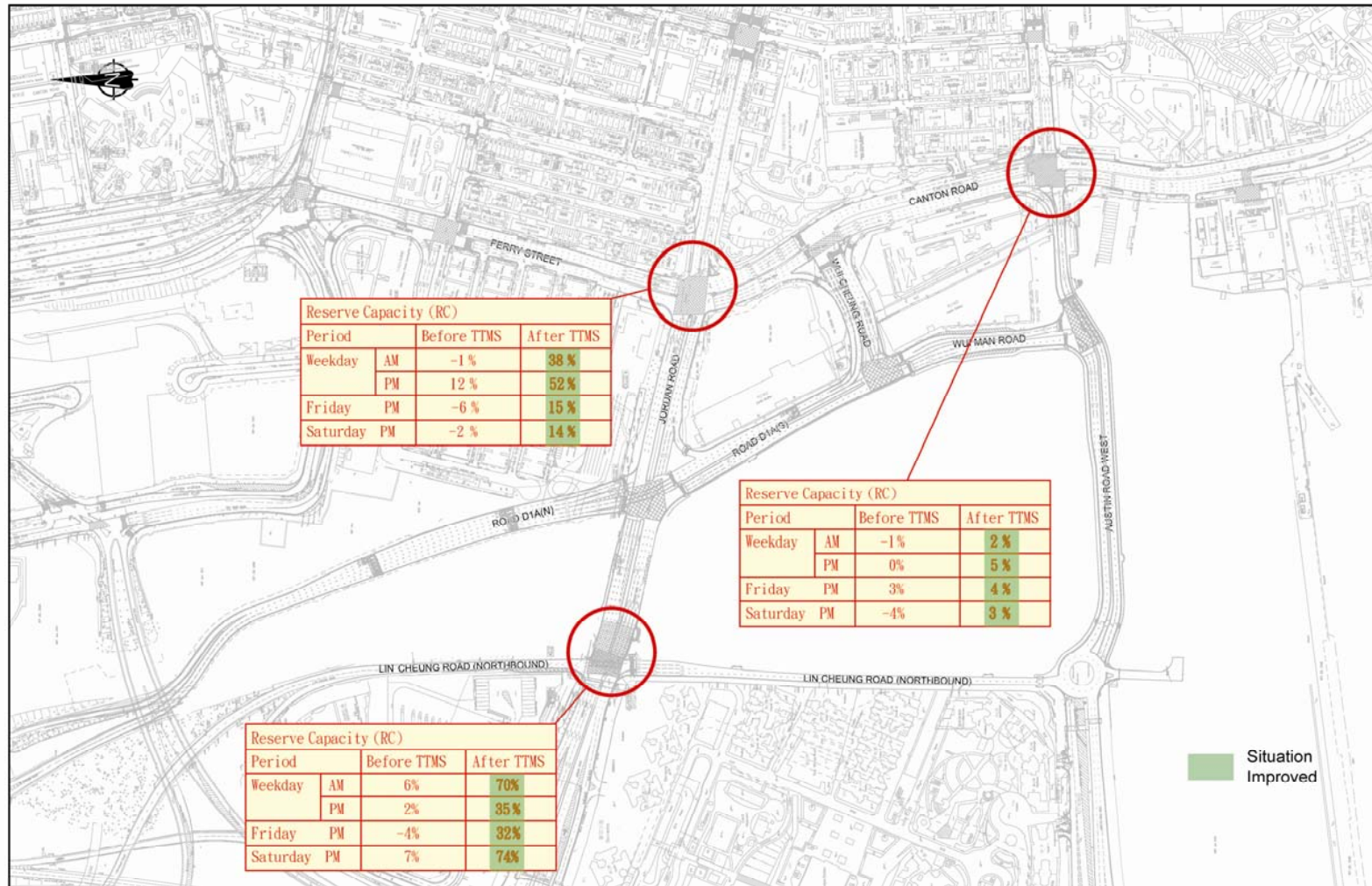
Agricultural Resite In March 2011, CYT villagers joining collective agricultural resite expressed their willingness to accept temporary housing in pre-fabricated houses lent by the MTRCL to allow them more time to plan for and build their new houses.

In April 2011, the MTRCL completed the construction of 18 blocks of pre-fabricated houses, providing 35 units in total. There are a living room and two bedrooms in each unit, with a usable area of 400 square feet. The villagers started to move into the pre-fabricated houses in April 2011. In early May 2011, they completed their moving and voluntarily surrendered their houses in CYT to the Lands Department.

Since the villagers' moving to the pre-fabricated houses, representatives from the departments concerned and the MTRCL have paid visits to the villagers. In general, the villagers found their living conditions satisfactory.

— **Employment Opportunities** Details set out at **Annex 5**.

A comparison of junction performance in Peak Periods on Weekday, Friday and Saturday before and after implementation of the 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 2011, representatives of TKT residents and the local community were briefed on the progress of the XRL project, and their views on the advance works for the project were sought, including the effective methods of construction and mitigation measures to reduce the impact of the works on the local community. Apart from obtaining information from the Community Liaison Group, TKT residents often visited the XRL Information Centre at the New Kowloon Plaza for details of the XRL project. The XRL Community Ambassadors also conducted home visits to explain details of the works to the residents direct. In the first half of 2011, over 200 visitors visited the Information Centre, and over 220 enquiries were handled.

2. On 6 March 2011, the XRL Community Ambassador Team of the MTRCL participated in the annual temple festival of TKT. Apart from running an XRL-themed games booth to enhance the residents' understanding of the XRL project and the related works, the Team also arranged for its members to brief participants of the temple festival on the project details with the aid of exhibition panels. In addition, the Team arranged for children of the district to visit the MTR Tsing Yi Operations Control Centre on 22 April 2011, i.e. during the Easter holidays, to enhance their understanding of the railway services and operations.

3. Condition surveys are currently in progress to protect the interest of the owners and the MTRCL. Among the 19 relevant buildings requiring strata resumption, condition surveys in the common areas of 16 buildings have been completed and relevant report delivered to the respective Owner Corporations. Condition surveys for around 640 flat units (the ratio is comparable to other railway projects) have been completed and their survey reports are being issued to the relevant owners.

Detailed information on job opportunities created by the XRL project

Up to the end of June 2011, about 2,440 construction workers and 1,250 technical/professional staff are currently employed by the contractors of the XRL project. They are mainly engaged in the construction works for the tunnels and the West Kowloon Terminus.

2. In the next reporting period from 1 July 2011 to 31 December 2011, it is anticipated that 3,100 construction workers and 1,300 technical/professional staff will be employed for the XRL project. It is estimated that the total project manpower figure will gradually increase to the peak of 11,000 in 2013, which includes 9,200 construction workers and 1,800 technical/professional staff.

Half-yearly expenditure report ending 30 June 2011

Table 1 - Situation of expenditure

	Awarded contract sum for the contracts (\$ million)	Cumulative expenditure (\$ million)	Estimated amount* of unresolved claim (\$ million)
Railway Tunnels	22,365	7,035	0
West Kowloon Terminus (WKT)	5,419	2,872	316
Electrical and Mechanical (E&M) Works	698	30	0
Total	28,482	9,937	316

* 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	0	0	0	0	0	0
WKT	0	0	0	31	316	65
E&M Works	0	0	0	0	0	0
Total	0	0	0	31	316	65

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

As at 30 June 2011, we received 31 substantiated claims and the amount claimed in total was \$316 million representing 1.1% 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. All substantiated claims are still being processed and remain unresolved. Subject to the needs of individual works and progress of the relevant assessment and discussion, interim award amounting to about \$65 million has been made for some cases. 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.

2. As regards the claims, the Government and the 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.