

**Translation**

**For Information**

**May 2015**

**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 2015)**

**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 2015.

**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 instead of six-month intervals.

- 3. This paper, which is appended with the progress report (**Annex**) of the MTR Corporation Limited (“MTRCL”), reports on the major works progress, indicators and financial situation for the period between 1 January and 31 March 2015.

### **REVISED XRL PROGRAMME TO COMPLETE**

4. Over the reporting period, HyD, with the assistance of its monitoring and verification (“M&V”) consultant, continued to monitor systematically the implementation of the XRL project by MTRCL under its monitoring mechanism. This includes meetings at various levels (such as meetings of the Project Supervision Committee (“PSC”) chaired by the Director of Highways, Project Coordination Meetings chaired by an Assistant Director of HyD, Contract Review Meetings (“CRMs”) chaired by HyD’s Chief Engineer) and regular site inspections.

5. HyD continued to monitor closely the progress of the remaining works of the XRL project against the revised Programme to Complete (“PTC”) proposed by MTRCL in May 2014 (i.e. commissioning of the XRL by end 2017) and how MTRCL followed up the issues raised by HyD which required attention in order for MTRCL to achieve the target of commissioning the XRL by end 2017. For example, whether the respective contractors had made their best endeavours in implementing the works; whether various assumed production rates have been met persistently, etc. Apart from using the established mechanisms under the Entrustment Agreement on the XRL project to monitor MTRCL’s implementation of the XRL project, HyD also requested MTRCL to enhance its monitoring mechanisms over works progress including a focus on the critical contracts and the sequence of works.

6. At the recent meetings of the PSC (i.e. meetings on 30 January 2015, 27 February 2015 and 27 March 2015), MTRCL reported that the progress of XRL works, including those of the critical contracts (see paragraphs 7-15 below),

remained falling behind the PTC. HyD and its M&V consultant also noticed the delay of works in certain contracts was getting increasingly serious as the target production rates could not be met continuously. MTRCL explained that the delay of works was caused by a shortage of manpower and resources on the part of contractors, poor co-ordination of sequences of works, insufficient work fronts and unforeseen difficulties in works. HyD and its M&V consultant also noticed in their regular monitoring mechanism that similar problems had resulted in continuous failure on meeting the target production rates. HyD expressed its grave concern over the issue of persistent delay of works and whether MTRCL could complete the project in accordance with the PTC at the PSC meetings and in its letters to MTRCL. MTRCL was also urged to strengthen measures to recover the delay. In response, MTRCL said that it would continue to explore and review enhanced measures to catch up with the progress. Moreover, MTRCL said that it was carrying out a review of the PTC, which was expected to be completed in the second quarter of 2015. MTRCL would then submit the review report to HyD.

## **PROGRESS UPDATE OF THE PROJECT**

7. As stated in MTRCL's progress report, the overall progress of the Hong Kong section of the XRL was 68.7% as at the end of March 2015, indicating a delay when compared to the planned progress of 73.7% in the PTC. This indicated that if the delay could not be recovered, the targeted commissioning of XRL by end 2017 could not be achieved. Based on the progress figures in the past few months, the overall delay of works has worsened and reached a very critical state. HyD was highly doubtful on whether MTRCL could achieve the target for commissioning of XRL in end 2017 and considered that there might be further delay. The progress of works of some critical contracts is as follows.

(a) Construction of West Kowloon Terminus (WKT) North (Contract 810A)

8. According to MTRCL's progress report, about 87% of excavation

works and 36% of concrete structural works for WKT North (Contract 810A) were completed. The overall structural concrete works for the station was unsatisfactory, with a 12% shortfall against the 48% of the PTC. The lateral support works at B3 level (within the north Top Down Area), a critical milestone identified in the second report of the MTRCL's Independent Board Committee ("IBC"), was completed in March 2015 as scheduled. The Independent Experts of MTRCL considered that the completion of lateral support works would help boost the productivity for the contract works. However, HyD considered that better co-ordination of sequences of works with more manpower and work fronts would still be required at the work sites to recover the delay in concrete works. The effectiveness of improvement measures of MTRCL and the progress of the next critical item, such as the excavation of overburden soil under B3 level within the Top Down Area to expose more rock surface to facilitate a larger scale of blasting works, would be followed up and monitored by HyD through regular site inspections and monthly CRMs and ad-hoc meetings.

9. There are three critical paths for the construction of the WKT North, namely (i) excavation works near Jordan Road for the northern portion of the WKT; (ii) steelwork fabrication for the Station Entrance Building ("SEB"); and (iii) construction works for the Lin Cheung Road Underpass. Their current progress is set out below.

10. Critical path (i) (excavation works for the northern portion of WKT) involves removal of a significant quantity of rock. To enhance the efficiency of the excavation works, MTRCL obtained the blasting permit in September 2014 and conducted the first two (out of four) stages of blasts in end December 2014. The third stage of blast commenced in January 2015. With the completion of the lateral support works at B3 level in the northern portion of the WKT at end March, excavation and bedrock blasting could be carried out in a more extensive area. However, the effectiveness of bedrock blasting on the progress of excavation is not obvious at present due to various constraints on site. Regarding the fourth stage (which is the final stage), MTRCL expected that it would commence in mid-2015 and be carried out in parallel with the third

stage. Since the commencement of the blasting works, MTRCL's records have shown that the impact due to vibration arising from the blasting works is minimal. HyD will continue to closely monitor the results of the blasting works and impacts on the surrounding buildings.

11. HyD was very concerned about the progress of critical path (ii) (steelwork fabrication for the SEB), which was highly complicated. HyD noticed that MTRCL was working very hard with the contractor to formulate proposals to overcome various works-related difficulties, including the fabrication, delivery and erection of the steelwork, as well as the planning and implementation of the temporary works. To tie in with the progress of the steelwork fabrication for the SEB, the contractor set up two additional fabrication yards in the Mainland to expedite the fabrication of temporary supporting steel structure for the steelwork. However, MTRCL's progress report has indicated that the forecast completion date for the fabrication of temporary supporting steel structure has slipped. On the other hand, there are also considerably serious delays in the current fabrication of steelwork elements for the SEB. It is expected that the forecast completion date for the entire SEB steelwork is likely to be seriously affected. MTRCL is exploring further mitigation measures to catch up with the progress such as the revision of the design and sequence for the fire coating works of some pre-fabricated structural steel elements.

12. As regards critical path (iii) (the construction works for the Lin Cheung Road Underpass), MTRCL has submitted its proposal for the complete closure of Lin Cheung Road northbound between Austin Road West and Jordan Road to provide space for the works for the Lin Cheung Road Underpass and reduce the associated risks. Having discussed with relevant Government departments, and consulted the District Council and relevant stakeholders, MTRCL implemented the temporary traffic scheme on 1 April 2015. HyD and MTRCL are closely monitoring the impact on the traffic in the vicinity.

(b) Construction of Tai Kong Po to Tse Uk Tsuen Tunnels (Contract 823A)

13. The two tunnel boring machines (“TBMs”) commenced tunnelling works for the uptrack South Tunnel and North Tunnel in late October and late November 2014. The operation has been generally smooth and the excavation rates have generally met with the expected ones. HyD will continuously ask MTRCL to closely monitor the progress of works and the performance of the two TBMs in the remaining tunnel boring works at regular meetings and during site inspections.

(c) Construction of Huanggang to Mai Po Tunnels (Contract 826)

14. Regarding the cross-boundary tunnel section, the two TBMs have completed the tunnelling works for the Shenzhen section of the XRL and commenced those for the Hong Kong section of the XRL. The TBMs for north bound and south bound left the marble zone in late December 2014 and mid-March 2015 respectively. They are now heading towards Mai Po. MTRCL forecasted that the excavation for north bound and south bound tunnels would be completed in the third and fourth quarter of 2015 respectively, which would be about 8 weeks and 30 weeks behind the planned progress. HyD is very concerned about the overall progress delay of the tunnelling works, especially the performance of the two TBMs at the composite (soil and rock) stratum and the progress of works for the cross passages between the south and north bound tunnels. It has also requested MTRCL in writing and at regular PSC meetings to explain the delay and urged MTRCL to take effective mitigation measures and proposals to catch up with the progress, such as the contractor to strengthen its maintenance resources persistently in order to speed up the maintenance works of TBMs, and to step up the communication between the top management of MTRCL and the contractor.

(d) Other Works Contracts

15. As for the progress of the remaining construction works, HyD and its M&V consultant noted that continuous delays remained in the works of the WKT Approach Tunnel (South) (Contract 811B) and the Ngau Tam Mei to Tai Kong Po Tunnels (Contract 824). MTRCL has proposed measures to recover

the delays, and HyD has explored and implemented step-up measures with MTRCL to further help catch up with the progress. To improve the progress of excavation works under Contract 811B, MTRCL has suggested to the contractor that additional egresses should be provided at various locations for the delivery of spoil from its work sites such as building platforms and adding egresses at locations vacated upon the reprovisioning of Jordan Road. However, improvement on the progress of excavation has yet to be seen, as additional egresses for the delivery of spoil from work sites have not been provided until the second quarter of 2015 due to site arrangement. In view of the delay in the tunnel lining works under Contract 824 and the shortage of resources and manpower of the contractor, HyD has written to MTRCL to express its concern and request effective mitigation measures and proposals to recover the delay, as well as information on the resources and manpower of work sites for the reference and monitoring of HyD and its M&V consultant. HyD would request MTRCL to follow-up on different possible situations of delays, and would assist MTRCL, where necessary, in solving any works-related problems as early as possible to help recover the delays. HyD has also requested MTRCL to implement the improvement measures for catching up progress as soon as possible.

16. HyD and its M&V consultant assessed that the timely completion of the critical contracts (Contracts 810A, 823A and 826) under the PTC would be subject to effective implementation of the various improvement measures mentioned above. HyD wrote to MTRCL in January 2015 expressing its grave concern over the continuous delay in works progress and urging MTRCL for proactive follow-up actions and measures to catch up with the progress. MTRCL responded that the PTC and its associated risks were under review, which was expected to be completed in the second quarter of 2015.

(e) Electrical and Mechanical Systems and XRL Trains

17. Installation of various electrical and mechanical (E&M) systems at the Shek Kong Main Building, Running Maintenance Shed, Traction Power Station, Trackside Building Services Maintenance Building and Security Centre has been

completed. Acceptance test and inspection were conducted by the Fire Services Department (FSD) in February 2015. As for other major facilities at Shek Kong (such as the Stabling Sidings, Emergency Rescue Siding, Shek Kong Plant Building (South)/(North), Train Wash Plant and Operation Control Centre, etc.), works under various E&M contracts are expected to be in place in mid-2015. These contracts are on Power Supply (Contract 845), Building Services for Tunnel Ventilation Facilities and Emergency Rescue Siding and Building Services for Shek Kong Stabling Sidings (Contracts 855 and 856), Lifts (Contract 847), Radio Communication System and Fixed Communication System (Contracts 849 and 851), Signalling System - Trackside Equipment (Contract 841A), etc.

18. The contractors for Trackwork, Overhead Line and Trackside Auxiliaries (Contracts 830 and 846) have gained access to about 68% of the tunnel area for carrying out the installation works.

19. Works for the Tunnel Environmental Control System (Contract 843) at various ventilation buildings and the other E&M contracts were underway as scheduled. The low voltage feeder panel at Nam Cheong ventilation building began to supply electricity in February 2015. The 25kv Traction Infeed Transformers were delivered to the ventilation building at Mongkok in the first quarter of 2015. Installation is underway. Installation for the ventilation building at Kwai Chung is substantially completed. Acceptance test and inspection will be conducted by FSD in 2015. The installation work at the ventilation building in Mai Po is in its final stage.

20. At WKT, the respective E&M contractors have strengthened their plant and manpower resources to recover the progress of works for various E&M systems (including low voltage Electrical Installation (Contract 816C), Environmental Control System (Contract 816A), Lifts and Escalators and Moving Walkways (Contracts 847 and 848), Fire Services, Plumbing and Drainage Systems (Contract 816D)) and to lessen the impact caused by the delays of civil engineering works at various zones and levels. Progress of installation of lifts is still being affected by insufficient work fronts at WKT.



HyD has repeatedly reminded MTRCL to arrange for the earliest release of all floors of the lift shafts at the works site to ensure the effective installation works by the lift contractor.

21. The first XRL train, Rolling Stock (Contract 840), would be delivered to Hong Kong in 2015 for advance testing. As the peak of the installation works for E&M systems would be tightly interlaced with the integrated testing and commissioning phase of the whole railway system, close communication and collaboration amongst different Government departments would be critical to the timely completion of the project. HyD would continue to take the leading role to accomplish this goal.

#### **XRL LATEST COST TO COMPLETE**

22. The Government received a letter from MTRCL on 24 July 2014 informing the Government that the Cost to Complete (“CTC”) for the Hong Kong section of the XRL was \$71.52 billion. MTRCL also announced the CTC in August 2014. The estimate is based on the PTC under which the XRL would be in commission by the end of 2017. It is about \$6.5 billion more than the Entrustment Cost of \$65 billion, and also exceeds the Approved Project Estimate.

23. Based on the information provided by MTRCL and with the assistance of the M&V consultant, HyD has completed the assessment of MTRCL's CTC. In their review, HyD and its M&V consultant identified certain items which had not been included in the CTC or which would need to be reviewed to ensure adequate coverage in the risk allowances. Based upon this review, HyD and its M&V consultant considered MTRCL's CTC tended to be on the low side for budgeting purpose. HyD also noted the second report of the MTRCL IBC reported a similar conclusion reached by its own appointed experts. HyD urged MTRCL in November 2014 to review again the CTC in view of the reports of the MTRCL IBC and HyD's review findings, and to advise how the identified items which had not been included in the CTC would be addressed and allowed

for.

24. MTRCL is reviewing again the CTC, which was expected to be completed in the second quarter of 2015. MTRCL also indicated in its progress report at the Annex that the CTC “may be revised significantly upwards”. The Government is very much concerned with MTRCL’s latest estimate of the CTC for the XRL project; a thorough and detailed assessment would be conducted upon formal receipt of the review result from MTRCL.

25. The above-mentioned review of MTRCL’s CTC estimate only focuses on the engineering estimate of the cost required to complete the whole XRL project, and has not taken into account any consideration which would certainly be made on the obligations regarding project cost overrun. The Government will assess MTRCL’s obligations regarding project implementation, works delay and project cost overrun, and will reserve all the rights to pursue the warranties and obligations from MTRCL.

**Transport and Housing Bureau**  
**Highways Department**  
**May 2015**

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

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Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link**

**(Report for the Period between 1 January and 31 March 2015)**

**INTRODUCTION**

This is the progress report on the construction of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (“XRL”) project.

**BACKGROUND**

2. This paper outlines the critical challenges and the latest progress update of the XRL project under the revised programme, and to report the project progress, key performance indicators (“KPIs”) and financial status for the period between 1 January and 31 March 2015.

**MAJOR WORKS PROGRESS OF THE XRL PROJECT**

**(I) Critical Challenges of the Target Opening (Contracts 810A, 823A and 826)**

3. In the meeting of the Subcommittee on 5 May 2014, the Corporation highlighted that the Contracts 810A, 823A and 826 are critical contracts. The

following will focus on the critical challenges currently faced in the above three contracts.

(a) West Kowloon Terminus Station North (Contract 810A) – Multi-works carried out in parallel under complex construction environment

4. The excavation works in the vicinity of Jordan Road, which require the removal of considerable large boulders and bedrock, are still a critical challenge. Production blasting had commenced since January 2015 and the rock excavation is 28.4% complete as at 31 March 2015. The permanent lateral support (diaphragm action) at the basement Level B3 in this critical area was achieved on 20 March 2015 which is a major milestone of this contract. Overall excavation in both the hard ground conditions near the Jordan Road area and the station core area is 88% complete against the planned 79%.

5. Concrete production is still below the target by 12% as at 31 March 2015. The shortfall is in the non critical area. Contractors are trying to optimize and prioritize the excavation and concrete structure construction sequence. In parallel, contractors also need to secure sufficient labour resources such as steel fixers and carpenters to increase production.

6. The full closure of Lin Cheung Road northbound between Austin Road West and Jordan Road is scheduled for 1 April 2015. This will provide greater programme certainty for the construction of Lin Cheung Road Underpass.

7. The station structure will become a landmark in the West Kowloon area when completed. The complexity of its steel roof structure in term of the precision requirements in both fabrication and erection is relatively uncommon in Hong Kong. Substantial temporary support is required to shore up the permanent structural members for the in situ adjustment during erection. As of end March 2015, the erection of both the temporary and permanent steel members of the roof structure completed 45% and 16% respectively, which is in delay as compared to the planned completion of 93% and 35% respectively. In order to increase the

production of temporary steel works, additional off site fabrication yards and resources have been arranged. Contractors will continue to develop additional measures together with the Corporation to further improve both fabrication and erection of the temporary and permanent steel structures. The completion of this structure to be ready for the opening in end 2017 is at high risk.

(b) The tunnel connecting Tsat Sing Kong and Tai Kong Po (Contract 823A) in Yuen Long District – Close observation is still required on the performance of the TBM after modification

8. Two tunnel boring machines (“TBM”) are deployed for the tunnel excavation for this section. Both TBM’s are now making satisfactory progress.

9. The northern TBM commenced excavation of the remaining northbound tunnel from Tsat Sing Kong to Tai Kong Po in Q4 2014. The progress is currently ahead of programme by 28 weeks.

10. The southern TBM, despite encountering hard rock and failing to achieve the planned rate, still continues to advance without serious performance delay that may impact the overall tunnel completion.

(c) Cross-boundary tunnel section (Contract 826) – Substantial wear and tear of the TBM is affecting performance

11. The northbound TBM excavating in the direction towards Mai Po from the boundary, made good progress through the marble zone in Q1 2015. Its output improved after leaving the marble zone. However, heavy clay content in the alluvial subsoil conditions was encountered after excavating some distance from the marble zone and impacted the performance of the slurry circulation system of the TBM operation, causing substantial slow-down of progress.

12. The southbound TBM had exited the marble zone in March 2015, and completed 36% of the tunnel excavation, which is behind the target of 100%.

13. The delay of the southbound TBM is having an adverse impact to project completion. The Contractor is developing recovery measures and contingency plans with the Corporation to mitigate the impact.

14. One of the mitigation measures is to proceed with the cross passages excavation concurrently with the tunnel excavation. Ground freezing prior to excavation of two of the six cross passages between the two tunnels commenced in Q1 2015.

## **(II) Overall Progress of Construction Works**

### **(a) Tunnel construction – New Territories section**

15. Tse Uk Tsuen to Shek Yam Tunnel section (Contract 822) was completed with track laying and related works now in progress. The Shing Mun Ventilation Building structural works were over 70% complete.

16. Track-laying and overhead line installation at the Tai Kong Po and Tse Uk Tsuen tunnels (Contract 823A) is progressing well.

17. The Ngau Tam Mei to Tai Kong Po Tunnels (Contract 824) achieved breakthrough in January 2015 and March 2015 for the southbound and northbound tunnels respectively, a major achievement for this contract. The tunnel lining production, however, suffered further delay due to insufficient labour resources. This contract may become one of the critical contracts due to the bottleneck it creates for continuation of the track works from the urban to the New Territories tunnel sections. The Corporation is working closely with the contractor to develop improvement measures to mitigate the delay.

18. The Mai Po to Ngau Tam Mei Tunnels (Contract 825) achieved steady progress in Q1 2015. The northbound TBM was dismantled and removed from the tunnel; and construction of cross passages between the two running tunnels and walkways along both sides of the tunnel progressed satisfactorily.

19. The structural works of the Plant Buildings North and South for Shek Kong Stabling Sidings (SSS) and Emergency Rescue Siding (ERS) (Contract 823B) have been substantially completed. The structural works for all 14 buildings in SSS had been completed and electrical and mechanical (E&M) installation is in progress.

(b) Tunnel construction - Urban section

20. All tunnel construction between Mei Lai Road (Mei Foo) and Hoi Ting Road (West Kowloon) (Contract 820) was completed with the last section at the Hoi Ting Road retrieval shaft being cast in March 2015. Track-laying and overhead line installation will commence in the southbound tunnel in the near future.

21. The Northern Approach Tunnel near Hoi Ting Road (Contract 811A) was successfully completed. The structural works for the ventilation building and traction substation were substantially completed with E&M installation in progress.

22. Structural works for the Southern Approach Tunnel near Jordan Road (Contract 811B) were more than 80% complete. All slabs at B3 levels at the top-down area were 95% complete by end March 2015. Other works including the new Public Transport Interchange (PTI) and the installation of related underground utilities are in progress.

(c) Construction of West Kowloon Terminus (Contracts 810A and 810B)

23. Approximate 93% of the overall excavation works and 48% of the concrete works had been completed for the West Kowloon Terminus (WKT). The excavation and concrete works of the Austin Road West Underpass reached 52% and 23% completion, respectively.

24. At the central part (core area) of WKT, concreting work at different slabs

levels is in progress, while E&M contractors were given access to carry out works at some of the floor areas at both WKT north and south during the reporting period. B3 slab had been cast near the former Jordan Road, achieving the permanent lateral support at the basement Level B3 (diaphragm action) and allowing excavation to Level B4.

25. In addition to moving ahead the excavation and construction works of WKT, the Corporation deployed staff to the overseas and the Mainland fabrication yards to closely monitor the manufacturing of the mega-sized structural steel members for the station steel roof entrance structure; as well as the large-scale erection works at WKT site. The contractor also added an additional fabrication facility to increase production of the temporary steel structures which is behind schedule.

(d) E&M system and signaling system

26. Installation and testing of major E&M equipment were in progress at WKT. The E&M contractors had strengthened their resources and machineries to cope with the increasing access given to them at the WKT. As at 31 March 2015, the E&M contractor gained access to 69,700m<sup>2</sup> at the WKT representing 16% of the total floor area which is in delay as compared to the planned access area of 33%.

27. Building services works at the Mongkok West Ventilation Building were in progress and CLP will arrange delivery of the 25kv Traction Infeed Transformers in April 2015.

28. Installation of E&M equipment including ventilation system and telecom equipment continues at several ventilation buildings and tunnel section. Energization of the Motor Control Centre at Nam Cheong Ventilation Building was achieved in February 2015.

29. The track works related contractors were given access to about 68% of the XRL tunnels to carry out overhead line installation and track-laying. The



track-laying in the southbound tunnel between Nam Cheong and Tai Mo Shan was expected to complete in April 2015.

30. Phase I statutory inspection of the SSS by the Fire Services Department (FSD) was conducted in February and March 2015. Phase II statutory inspection by the FSD is scheduled for June 2015.

31. Start-up testing and commissioning of chiller plant at Shek Kong Main Building commenced. E&M works at Operation Control Centre were in progress. Use Permits (Lift) for the first 3 lifts in XRL at Shek Kong Main Building were received from Electrical and Mechanical Services Department.

(f) Overall progress

32. As at 31 March 2015, the overall completion progress of the XRL project was 68.7%<sup>1</sup> against the planned progress of 73.7%.

**(III) Preparation and Interface Works**

(a) Temporary traffic arrangements

33. The Corporation reported the latest works progress, as well as both existing and proposed temporary traffic management schemes to the Traffic and Transport Committee of Yau Tsim Mong District Council (YTMDC T&TC) in March 2015, which included further details on the proposed full closure of Lin Cheung Road northbound. On community engagement, briefings were arranged to all estates atop the Kowloon Station to brief residents about the road closure and related alternate routes, with tailored leaflet distributed in March 2015 to alert about the implementation dates. Relevant information is also uploaded to the XRL dedicated website for public information.

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<sup>1</sup> Sum of all weighted percentage complete of all major contracts

(b) Blasting works at WKT Station North (Contract 810A)

34. Community stakeholders continues to be given advance notifications through SMS on the estimated blasting time on the day of blasting, with hotline set up to address the related enquiries. No major concern was noted from the blasting so far, while a few cases on the delayed blasts had been well addressed.

(c) Tunneling works and community liaison for the urban section

35. Community visits to the estates' management offices and store operators in the Tai Kok Tsui and Hoi Wang Road areas were conducted. Stakeholders in the vicinity were aware of the completion of the tunneling works in the area.

(d) Communication with residents of Yau Tam Mei Tsuen (YTMT)

36. At the requests of YTMT residents, representatives of the Corporation and relevant Government departments attended over 270 site inspections, visits and residents meetings in order to maintain direct communication with the local stakeholders to explain the works in details and listened to their views.

37. As for the complaints referred by LegCo Public Complaints Office, the Corporation had been handling every case with care when dealing with the residents and had replied to the Office on the follow-ups. The Corporation and its contractor will keep close dialogues with the residents to minimise the impact of the works on the local community.

(e) Handling of enquiries and complaints

38. Members of the public can make use of various channels to express their views or make enquiries concerning the XRL project including MTR Projects Hotline, site inspections and meeting. Enquires or complaints received concerning the XRL project over the past 3 months were mainly about the tidiness and cleanliness of work sites, environmental implications, traffic management and suspected damages to buildings, etc. Cases have been followed up.

39. The XRL Information Centre handled 18 project related enquiries during the period of January to March 2015.

(f) Public engagement and community involvement activities

40. During January to March 2015, school talks were arranged for 5 secondary schools and 3 primary schools about XRL project and related information on the latest works progress.

**(IV) Employment Opportunities**

41. As at the end of March 2015, a daily average of about 6,774 construction workers and technical/professional staff members were employed for the construction and E&M works for the tunnels and the WKT. The XRL project will continue to seek deployment of manpower resources actively to meet the project needs.

**(V) Updated Financial Situation of the XRL project**

42. As at 31 March 2015, the cumulative expenditure for the awarded contracts was \$44.9505 billion.

43. In view of the revised programme for the opening in end 2017, in July 2014, the Corporation provided to Government our project cost estimate at that time for the XRL project of HK\$71.52 billion, inclusive of future insurance and project management costs. With the complexity of the project, particularly the works at the WKT, the Corporation is reviewing again the project cost estimate and the target completion date (and any possible delay in respect thereof). Taking into account the continued construction challenges and recommendations from the Independent Board Committee, the cost estimate may be revised

significantly upwards. It is expected that this review will be completed within the Q2 of 2015, after which we will formally report the findings to Government. Thereafter, we will continue to monitor and review the project cost and completion date. Details of the financial situation of the XRL project are shown at Annex 3.

**MTR Corporation Limited**

**May 2015**

## Annex 1 - KPIs of Major Works Progress

### Summary of the Construction Progress of the XRL Project

Works Commencement Date	26 January 2010
Target Opening Date	End of 2017, under the Corporation's revised programme
Works Progress	<ul style="list-style-type: none"> <li>• Overall completion progress: 68.7% [as at end March 2015]</li> <li>• Project expenditure: HK\$44.9505 billion [as at end March 2015]</li> </ul>

### Progress of Key Civil Works Contracts

Cumulative progress of contracts for WKT construction:

Contract No.	Concrete structural works		Terminus excavation works	
	End December 2014	End March 2015	End December 2014	End March 2015
810A	30%	36% (48%)	79%	87% (79%)
810B	79%	84% (98%)	99%	100% (100%)

*Percentage in bracket is the planned progress*




Cumulative progress of contracts for other tunnel sections:




Contract No.	Tunnel excavation works			
	End December 2014		End March 2015	
	Northbound	Southbound	Northbound	Southbound
811B	77%	77%	84% (100%)	84% (100%)
811A	100%	100%	100% (100%)	100% (100%)
820	100%	100%	100% (100%)	100% (100%)
821	100%	100%	100% (100%)	100% (100%)

822	100%	100%	100% (100%)	100% (100%)
823A	13%	100%	57% (31%)	100% (100%)
824	92%	95%	100% (100%)	100% (100%)
825	100%	100%	100% (100%)	100% (100%)
826	34%	25%	58% (80%)	36% (100%)




*Percentage in bracket is the planned progress*




**Annex 2 - Progress Photos**




<p><b>New Territories Section - Cross-boundary Tunnel Section</b></p>	<p>Install temporary ring support at Cross Passage-1(826)</p>	
<p><b>New Territories Section - Mai Po to Ngau Tam Mei Tunnel Section</b></p>	<p>Excavation for Cross Passage-13 in progress (825)</p>	
	<p>Water proofing works at Cross Passage-15 in progress (825)</p>	



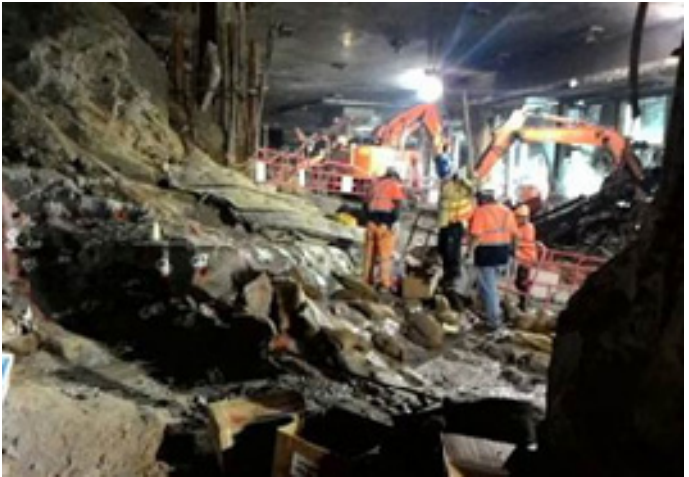
<p><b>New Territories Section - Ngau Tam Mei to Tai Kong Po Tunnel Section</b></p>	<p>Cavern condition (824)</p>	
	<p>Birdview of Ngau Tam Mei Ventilation Building 2 (824)</p>	
<p><b>New Territories Section - Tai Kong Po to Tse Uk Tsuen Tunnel Section</b></p>	<p>Construction of cross passages (823A)</p>	

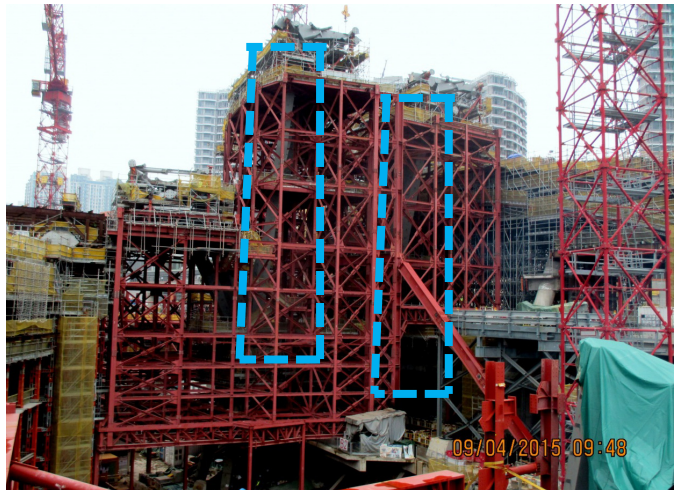




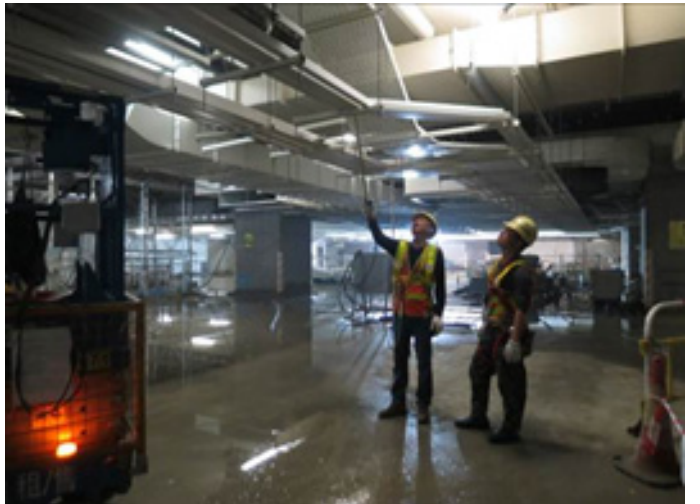
	<p>South TBM Up Track excavation in progress (823A)</p>	
<p><b>New Territories Section - Shek Kong Stabling Sidings and Emergency Rescue Siding</b></p>	<p>General view of SOC Canopy &amp; Feeder Station (823B)</p>	
<p><b>New Territories Section - Tse Uk Tsuen to Shek Yam (Tai Mo Shan) Tunnel Section</b></p>	<p>Pat Heung Vehicular Access Adit (822)</p>	

	<p>Pat Heung  Vehicular Access  Adit hammer  head (822)</p>	
<p><b>New Territories Section - Shek Yam to Mei Lai Road Tunnel Section</b></p>	<p>Completion of landscape work at Kwai Chung Ventilation Building (821)</p>	
<p><b>Urban Section - Mei Lai Road to Hoi Ting Road Tunnel Section</b></p>	<p>Construction of cut and cover tunnel inside 811A Retrieval Shaft (820)</p>	

<p><b>Urban Section - WKT Approach Tunnel</b></p>	<p>General view of Mong Kok Ventilation Building (811A)</p>	
	<p>Footbridge no.4 falsework removal (811B)</p>	
	<p>Ground beams rebar fixing (811B)</p>	

<p>WKT</p>	<p>Excavation underneath B3 slab at north top down area (810A)</p>	
	<p>Phase 3 blasting - laying hanging mat (810A)</p>	
	<p>Blasting under preparation (810A)</p>	

<p>Permanent steel structures at WKT (circled in blue box) (810A)</p>	 <p>A photograph of a construction site featuring a large, complex red steel structure. A blue dashed rectangular box highlights a specific vertical section of the structure. In the background, other buildings and construction cranes are visible. A timestamp in the bottom right corner reads "09/04/2015 09:48".</p>
<p>Fabrication yards overseas for permanent steel structures (810A)</p>	 <p>A photograph of an industrial fabrication yard. Large, dark-colored steel components are being assembled or welded. A prominent red crane structure is visible on the right side of the frame. Workers in safety gear are seen in the background. The scene is set outdoors with a blue building in the background.</p>
<p>Large components for permanent steel structures (810A)</p>	 <p>A photograph showing large, grey-painted steel components, likely valves or manifolds, resting on a wooden pallet. The components have various ports and flanges. A red crane structure is visible in the background. A timestamp in the bottom right corner reads "09/04/2015".</p>

	<p>Austin Road West underpass - Preparation for S3 struts installation (810B)</p>	
<p>E&amp;M System</p>	<p>Installation of chilled water pipe in Drencher and Street Hydrant Tank and Pump Room at WKT</p>	
	<p>Trunking installation at WKT B2</p>	

Rail insulation to Earth Test and Ballast Resistance Test at Restricted Area (830)



Overhead Line Continuity and Insulation Pre-test at Restricted Area (830)



Inspection to lift landing opening at WKT (847)



Demonstration of Water Spray System to Fire Service Department at Shek Kong Infeed sub station (856)



Demonstration of Smoke Ventilator function to Fire Service Department at Running Maintenance Shed (856)





## Annex 3 - Financial Expenditure

### Expenditure report ending 31 March 2015

Table 1 – Situation of Expenditure

	<b>Awarded contract sum for the contracts (\$ million)</b>	<b>Cumulative expenditure (\$ million)</b>	<b>Estimated amount* of unresolved claim (\$ million)</b>
Railway Tunnels	22,464.7	25,102.2	6,567.2
West Kowloon Terminus (“WKT”)	14,591.0	13,841.1	4,538.4
Electrical and Mechanical (“E&M”) Works	8,166.1	6,007.2	1,004.5
<b>Total</b>	<b>45,221.8</b>	<b>44,950.5</b>	<b>12,110.1</b>

\*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	82	2,258	1,207	327	7,817	1,250
WKT	46	247	187	274	5,817	1,278
E&M Works	2	0	0	63	1,019	14
<b>Total</b>	<b>130</b>	<b>2,505</b>	<b>1,394</b>	<b>664</b>	<b>14,653</b>	<b>2,542</b>

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

2. As at 31 March 2015, the Corporation received 794 substantiated claims and the amount claimed in total was about \$17.16 billion, representing 37.9% 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 2015, 130 cases were resolved and about \$1,394 million was awarded, representing about 3.08% 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 \$2,542 million was made for some cases.