

政府總部
運輸及房屋局
運輸科
香港花園道美利大廈



**Transport and
Housing Bureau
Government
Secretariat
Transport Branch**
Murray Building, Garden Road,
Hong Kong

本局檔號 Our Ref. THB(T)12/1/60(08) Pt. 5

來函檔號 Your Ref.

Tel: 2189 2199
Fax: 2537 5246

17 November 2008

Ms. Joanne Mak
Clerk to Subcommittee
Subcommittee on Matters Relating to Railways
Panel on Transport
Legislative Council Secretariat
8 Jackson Road
Central
Hong Kong
(Fax: 2121 0420)

Dear Ms. Mak,

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

Meeting on 21 November 2008

Thank you for your letter of 5 November 2008.

Pre-merger MTR Corporation completed retrofitting of PSDs for its 30 underground stations in 2006. MTR Corporation Limited (MTRCL) decided in January 2008 that it would proceed with the retrofitting of APGs for the 8 at-grade and above-ground stations of the pre-merger MTR network. MTRCL also explained this decision and the timetable for the retrofitting works in its papers to the Subcommittee on Matters Relating to Railways (the Subcommittee) in January and April 2008 respectively. The Subcommittee also discussed the above at the meeting on 27 March 2008.

— A paper submitted by MTRCL on the progress of the retrofitting works is at the Annex.

As regards East Rail Line stations, MTRCL explained at the Subcommittee meeting on 27 March 2008 that due to safety considerations, MTRCL would need to assess the outcome of the mechanical gap fillers (MGFs) trial before considering the retrofitting of APGs. The MGF trial has already commenced in mid-2008.

We have been monitoring closely the progress of the retrofitting works by MTRCL, with a view that they could be completed as soon as possible; and will continue to encourage MTRCL to actively consider implementing practicable measures to further enhance rail platform safety.

Yours sincerely,



(Mrs Hedy Chu)

for Secretary for Transport and Housing

c.c.

MTRCL

(Attn: Ms. Ida Leung)

Fax: 2795 9991

Director of Electrical and
Mechanical Services

(Attn: Mr. Alan Chow)

Fax: 3579 2016

Legislative Council Panel on Transport
Subcommittee on Matters relating to Railways

Rail safety and installation of platform screen doors

Purpose

This paper sets out the overall progress of the Automatic Platform Gates (APGs) retrofit at the 8 at-grade and aboveground stations of the pre-merger MTR system.

Background

2. At the request of the Subcommittee of the last Legislative Council at the meeting on 27 March 2008, the Corporation submitted a paper CB(1)1398/07-08(01) in April 2008 on the programme of APGs retrofit at the 8 at-grade and aboveground stations of the pre-merger MTR system.

3. Following the completion of a detailed feasibility study, the Corporation has decided to proceed with retrofitting of APGs at these stations, namely Kwai Fong, Kwai Hing and Tsuen Wan Stations of Tsuen Wan Line; Kowloon Bay, Ngau Tau Kok and Kwun Tong Stations of Kwun Tong Line; and Chai Wan and Heng Fa Chuen Stations of Island Line. Estimated total cost of the retrofitting works is at about \$300 million.

Progress in retrofitting of APGs

4. The Corporation aims to complete the APGs retrofit work at all 8 above-mentioned stations by 2012 as scheduled. Retrofitting of APGs at platforms of an operating railway line involves highly complicated works including major modifications to the platform structure, ventilation

system and earthing protection system. Concrete breaking and installation works have to be carried out during the very tight non-operating hours in the night time so that disruption to railway service could be minimised. The Corporation is also conscious of the noise issue in association with the works and will hence work closely with the contractor in controlling noises generated. Temporary mitigation measures such as erecting portable noise barriers will be implemented during the works to mitigate possible noise nuisance caused to nearby residents and this will inevitably further reduce the time available for the installation works every night. The Corporation understands that both Members of the Legislative Council and the general public would like to see the commencement of retrofitting of APG as soon as possible and has devised a work programme. With a goal to speeding up the retrofitting programme, MTR will condense the works involved as much as possible. Key highlights of the programme and timetable are as follows :-

- (i) **Tendering** –The project involves highly complicated technical issues commanding thorough initial preparation. It is crucial for the Corporation to set out elaborate project requirements, follow prescribed tendering procedures and allow sufficient time for the tenderers to draw up suitable programme of works when preparing the tender submissions. The Corporation has already commenced tendering process as scheduled and aims to complete tendering within the year. The project contract is scheduled to be awarded as planned in January 2009;
- (ii) **Design** - With the experience gained from general works project, it is considered that initial preparation including design, testing etc are essential to a smooth rollout of the later stages of works. Following contract award, the successful bidder will be required to work out a detailed proposal which will include fail-safe electrical and mechanical equipment and apparatus designs, interface

with other various railway systems, installation and test plans for each of the 8 stations. All these plans will be carefully reviewed by the Corporation in order that they will not cause any adverse effect to the day-to-day railway operation. The Corporation plans to complete the design for the project within 2009, including the preliminary design to be carried out in the 1st to early 2nd quarter and the detailed design to be completed by mid-2nd quarter to 4th quarter;

(iii) **Prototype on site testing** –At the later stage of the detailed design (i.e. the 4th quarter 2009 to the 2nd quarter 2010), the contractor will proceed with prototype testing. The contractor will produce prototype according to detailed design specification and demonstrate its compliance with required safety and reliability standards in factory environment;

(iv) **Manufacturing** – In order to further condense the work programme, the manufacturing process will take place at the later stage of prototype testing (between 2010 and 2011). The contractor will order materials, carry out production, assembly and testing, and make modifications as required;

Concurrently, trial installation will commence at Heng Fa Chuen Station in the 3rd to 4th quarter 2010. The Corporation will conduct review on trial installation in the 1st quarter 2011, including work sequence, noise mitigation measures, signalling interface etc and seek modifications and improvements as required; and

(v) **Installation** – After reviewing the effectiveness of trial installation and introducing appropriate refinement and

improvement, full-scale installation works and acceptance tests at the other 7 stations will commence gradually in 2nd to 4th quarter 2011.

5. The Corporation expects the entire project to be completed by 2012.

6. The Corporation has already commenced tendering process as scheduled and so far each of the work items has been completed as scheduled. The progress of individual programme items is as follows :-

Programme item	Progress made
i. Tender Pre-qualification	Completed
ii. Tendering	Completed
iii. Tender assessment	In progress

7. With a goal to expedite the programme as far as practicable, the Corporation will continue to closely monitor the programme of works and manage the project progress.

Non-enclosed platforms at East Rail Line

8. East Rail Line has been designed and built for the operation of trains of different sizes. These trains include freight trains, through trains and domestic passenger trains. The cross-sectional dimensions of the freight wagons and through train passenger coaches are much larger than that of the domestic passengers trains. Owing to geographical constraints, some East Rail Line stations are sited at curves. Combination of these two factors invariably leads to the issue of wide platform gaps. Satisfactory wide platform gap mitigating measures will need to be put in place before installation of APGs can be considered because APGs will cause sight line obstructions to wide platform gaps. Both pre-merger KCRC and the post-merger MTRC have been incessantly working on the technical solutions.

Mechanical Gap Fillers System

9. The Corporation has commenced a trial on the Mechanical Gap Fillers (MGF) System in mid-2008 at Lo Wu Station. Under the test, a solid mechanical gap filler plate will automatically extend from the platform edge after the arrival of a train, and automatically retract after the train doors are closed and before the train departs. The MGF system has a sophisticated interface with various railway systems, such as signalling and train control, etc. Due to safety consideration, elaborate verifications for the communications between the MGF system and the various railway systems are required. The trial is now being conducted in phases to test functionality of the full system. Works on the installation and testing of MGFs at Lo Wu Station are in progress.

10. By its very nature, the automatic extension and retraction of MGF will incur additional platform dwell time and cause lengthening of total journey time. The Corporation will closely monitor such implication to train service and operations during the trial.

Conclusion

11. The Corporation has taken practicable measures in order that the APGs retrofitting at the 8 at-grade and above-ground stations can be completed as soon as possible. On the MGF, we will continue the trial at Lo Wu Station and will explore ways to enhance the efficiency of the system taking into account future railway planning.

MTR Corporation Limited

November 2008