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

#### **Latest Progress of Enhancement of MTR Station Facilities**

#### **Purpose**

This paper briefs the Subcommittee on the latest progress of the enhancement of station facilities by the MTR Corporation Limited ("MTRCL").

#### **Background**

- 2. The MTRCL is committed to providing safe, reliable and smooth railway service for over 5 million passenger trips per day. The public demand and expectation over the MTRCL as the major transport operator has been on the rise over the years. To maintain quality railway service, the MTRCL invests billions of dollars<sup>1</sup> annually in enhancing, revitalising and maintaining its railway assets and infrastructure, including enhancing the facilities at the 93 stations under the current railway network.
- 3. In enhancing our station facilities, the MTRCL attaches great importance to the views of passengers and stakeholders in the community. We also strive to overcome the constraints at each station caused by its unique features, history, construction parameters, and usable areas. In our endeavour for continuous improvement by learning from past experience, the MTRCL seeks to improve the design and planning for future stations to give more convenience to passengers.
- 4. The ensuing paragraphs highlight the key improvement works carried out at our stations.

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<sup>&</sup>lt;sup>1</sup> The MTRCL invested over 6 billion dollars in 2014 in enhancing, revitalising and maintaining its railway assets and infrastructure. This investment has increased significantly per year to over 8 billion dollars in 2016, which accounts for more than 40% of the 17.7. billion dollars revenue from the Corporation's Hong Kong transport operations. Over 8 billion dollars has also been invested in 2017.

## A. Adding barrier-free facilities and enhancing station accessibility

#### **Installation of new passenger lifts**

- 5. At present, all MTR stations are equipped with at least one barrier-free access to facilitate physically-challenged persons to enter or leave stations. These accesses are equipped with passenger lifts, wheelchair aids, stair lifts or ramps. As far as practicable, the MTRCL aims to provide one passenger lift connecting the street level with station concourse in every station. Nevertheless, as installation of passenger lifts was not included in the design of some of the existing stations (in particular those constructed in the 1970s or 1980s in the urban areas), various factors would need to be taken into account when considering such installation, including space availability in the stations, technical feasibility and complexity of the construction, implication on evacuation arrangement etc., coupled with the limitations brought by the surrounding environment of the stations and land ownership.
- 6. During the last six years from 2012 to 2017, the MTRCL has installed passenger lifts connecting station concourse with the street level at 13 older stations<sup>2</sup>, making 56 out of 93 stations in the MTR network installed with passenger lifts. For other 34 stations, installation of these lifts is not necessary as they are either at-grade, equipped with ramps for wheelchair access, or passengers can get access to the MTR stations through nearby facilities (e.g. shopping malls).
- 7. As regards the remaining three stations that are currently without lifts connecting station concourse with the street level, i.e. Diamond Hill Station, Fortress Hill Station and Tin Hau Station, the MTRCL is now actively planning and implementing the relevant lift installation works. new passenger lift is being installed at Diamond Hill Station in conjunction with the Shatin-to-Central Link ("SCL") project. For Fortress Hill Station, the MTRCL has originally planned to extend the two existing lifts adjacent to Entrance/Exit A connecting street level with mid-level downwards to the underground station concourse. Taking into consideration the Government's proposed construction of a "Braemar Hill Pedestrian Link", the MTRCL is now exploring with relevant Government departments the synergy effect of the pedestrian link and MTR Fortress Hill Station lift works. Depending on the outcome, the MTRCL will At Tin Hau Station, the MTRCL is now planning adopt the viable option. to install a vertical platform lift at Entrance/Exit B connecting the station

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<sup>&</sup>lt;sup>2</sup> These are Shau Kei Wan, Yau Ma Tei, Admiralty, Tsim Sha Tsui, Lai King, Sai Wan Ho, Lai Chi Kok, Cheung Sha Wan, Sham Shui Po, Prince Edward, Jordan, Sheung Wan and Shek Kip Mei stations.

concourse and King's Road to facilitate passengers in wheelchairs to enter and leave the station. At the same time, the MTRCL will also install three new escalators at Entrance/Exit A. The installation works will commence in mid-2018 and is targeted to be completed by 2021. When constructing new railway lines, subject to the actual conditions and relevant factors, the MTRCL has incorporated passenger lifts connecting the station platforms, concourse, and the street level, as a standing design.

#### Replacement of existing lifts

8. Since 2014, the MTRCL is replacing 25 hydraulic lifts at various stations by phrases with traction lifts to facilitate movement of passengers entering and leaving stations, and between station concourses and platforms. Replacement of 23 lifts at 15 stations<sup>3</sup> from 2015 to January 2018 has been completed and put into service. The replacement of the remaining 2 hydraulic lifts at 2 stations<sup>4</sup> is targeted for completion within 2018.

#### **Refurbishment of escalators**

- 9. Currently, there are close to 1 100 escalators in the MTR network. The MTRCL has an established, stringent maintenance and repairing regime for escalators. The design, construction, inspection, testing, operation and repairing of all the escalators in the MTR network need to comply with the Lifts and Escalators Ordinance, and the Code of Practice issued by the Electrical and Mechanical Services Department ("EMSD"). Approval of EMSD is needed before the escalators are put into service. The escalators will be checked and maintained by escalator contractors every two weeks, and on top of that, there are regular inspections in order to meet the statutory requirements and ensure that the escalators are safe and reliable.
- 10. The life expectancy of escalators in the MTR network in general is more than 40 years. For prudence's sake, the MTRCL will arrange a major overhaul for the escalators which have been in use for around 25 years. The MTRCL has launched a refurbishment programme for the escalators in the network since 2002. Up to end of 2017, a total of 361

These are Mong Kok, Kowloon Tong, Heng Fa Chuen, Quarry Bay, Ngau Tau Kok, Kwun Tong, Olympic, Yau Ma Tei, Sheung Shui, Lok Fu, Prince Edward, Kowloon Bay, Fanling, Causeway Bay and North Point stations.

<sup>&</sup>lt;sup>4</sup> These are Wan Chai and Fortress Hill stations.

escalators have been refurbished. In 2017 alone, the MTRCL has refurbished 25 escalators located at stations like Quarry Bay, North Point and Lam Tin. We are now refurbishing another five escalators located in Shau Kei Wan, Lam Tin and Quarry Bay stations, the works of which is targeted for completion by the first quarter of 2018. The MTRCL will continue the refurbishment programme for escalators at other stations which have been in use for around 25 years. Different from the regular maintenance and repairing procedures, when refurbishment is being carried out, the contractors are required to conduct thorough maintenance and repairing works for all the parts of the escalators and replace worn-out The refurbishment works for each escalator takes around three During this period, inconvenience caused to passengers is months. We hope passengers would understand. unavoidable.

# Enhancement of connectivity within stations and provision of additional exits

11. To enhance the connectivity of different levels within a station, and improve the passenger flow, we have added lifts and escalators connecting station concourses and platforms respectively at Kowloon Tong and Mong Kok stations. A lift connecting station concourse and platform is now being installed at Tsuen Wan Station. The relevant works is targeted for completion by mid-2018. In tandem with new railway lines, the MTRCL has installed escalators at Diamond Hill, Admiralty, and Hung Hom stations to facilitate passenger movements. The MTRCL also plans to install escalators at Tung Chung Station platform, with works targeted for completion by end of 2022. Furthermore, the MTRCL plans to build a new entrance and widen a staircase on the Hung Hom-bound platform at Sheung Shui Station to improve the passenger flow at station. The preparatory works have commenced and are targeted for completion by 2020.

#### **Provision of wide gates**

12. For the convenience of passengers, since late 2013, the MTRCL has provided additional wide gates at stations by three phases, with the aim of installing at least two wide gates in each station<sup>5</sup>. The first two phases involving the addition of wide gates in 55 stations have been completed in 2013 and early 2016. The third phase involving another 13 stations began in mid-2016. The whole programme is expected to be completed by the third quarter of 2018.

# B. Provision of convenient facilities for passengers

#### **Provision of new toilets**

- 13. When designing and planning new railway lines, the MTRCL will provide toilets for passengers in or near the new stations. For the two new stations commissioned in 2016 along the Kwun Tong Line Extension (i.e. Ho Man Tin and Whampoa stations), and the five new stations along the South Island Line (i.e. Ocean Park, Wong Chuk Hang, Lei Tung, and South Horizon stations and the extended part of Admiralty Station), toilets are provided. Similar arrangement will be made to new stations along the SCL under construction.
- As regards existing stations, since 2015, The MTRCL has been providing toilets for passengers in 10 interchange stations<sup>6</sup> when these stations are under major renovation works. Amongst them, the new toilets in Mong Kok, Prince Edward and Admiralty stations have been opened for use in 2015 and 2016 respectively. The installation of new toilets at Tiu Keng Leng and Yau Tong stations has commenced in October and December 2017 respectively, and are expected to be completed in the first half of 2019. Relevant works at Lai King and Central stations will commence in March 2018, and is expected to be ready for service in the The toilet installation works in the remaining 3 second half of 2019. stations (i.e. Tsim Sha Tsui, Yau Ma Tei and North Point stations) will be carried out alongside major enhancement works. The MTRCL will strive to complete them by 2020.

<sup>5</sup> Amongst the 93 stations in the MTR network (except the Racecourse and Airport stations), 24 stations have already been installed with two or more wide gates.

<sup>&</sup>lt;sup>6</sup> These are Mong Kok, Prince Edward, Admiralty, Tsim Sha Tsui, Yau Ma Tei, Lai King, Central, North Point, Yau Tong and Tiu Keng Leng stations.

15. When planning and implementing toilet installation works, statutory requirements and technical feasibility (including the availability of suitable locations for placing ventilation shafts, septic tanks and other auxiliary facilities) need to be fully taken in account, hence it is technically challenging. The MTRCL will continue to tackle these problems. Besides, we will gradually refurbish some toilets, amongst which the refurbishment works at Nam Cheong and Hung Hom stations will be completed within 2018.

#### **Provision of breastfeeding facilities**

- 16. The MTRCL appreciate passengers' demand for breastfeeding facilities at MTR stations. When designing and planning for future new railway lines, the MTRCL will provide baby care rooms for passengers in new stations.
- 17. For existing stations with no provision made for baby care/breastfeeding facilities in their original designs, in planning and adding these facilities, the availability of space, passenger flow, and evacuation arrangements at stations need to be fully taken into account to ensure passenger safety. The MTRCL has planned to install both public toilets and baby care rooms at seven interchange stations<sup>7</sup> alongside with their respective major renovation works.
- 18. As provision of baby care rooms and other facilities in existing stations would involve substantial relayout and alteration works, it would take time for design and implementation. To provide convenience earlier to passengers in the interim period before the completion of the facilities, after communicating with our staff and soliciting their support, the MTRCL has since 21 December 2017 set aside some space for breastfeeding purpose at the staff rest rooms located in 20 interchange stations <sup>8</sup>, so that passengers could breastfeed in a more comfortable environment. Passengers with such need in other stations could also approach our station staff for assistance. Our staff would try to identify suitable location within station area for breastfeeding purpose.

<sup>7</sup> Tsim Sha Tsui, Yau Ma Tei, Lai King, Central, North Point, Yau Tong and Tiu Keng Leng stations

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<sup>&</sup>lt;sup>8</sup> Kowloon Tong, Tsim Sha Tsui, Yau Ma Tei, Mong Kok, Prince Edward, Mei Foo, Lai King, Central, Admiralty, Quarry Bay, North Point, Yau Tong, Tiu Keng Leng, Hong Kong, Kowloon, Sunny Bay, Nam Cheong, Tsing Yi, Hung Hom and Tai Wai stations.

## Replacement of chillers

- 19. Since most of the MTR stations are built underground, the stations are equipped with chillers and ventilation systems to ensure comfortable journeys for passengers. The function of chillers is to adjust station temperature, while that of ventilation systems is to introduce fresh air from outside of the stations and facilitate good ventilation within The MTRCL is implementing a massive programme to replace 160 air-cooled chillers (around 50% of the total). These chillers were installed at 36 MTR stations along seven MTR lines and four MTR depots. Among the 160 to be replaced, 120 would be replaced with new air cooled chillers with Variable Speed Drive which is more energy-saving than the current ones with Constant Speed Drive. Separately, if installation conditions permit, the remaining 40 chillers will be replaced with watercooled chillers with Variable Speed Drive, which is more energy-saving. The new chillers after the replacement works will enable electricity energy saving by 20% to 30%.
- 20. The replacement programme will be carried out by phases from 2017 to 2023, with 27 chillers to be replaced each year on average. The replacement at Wan Chai Station has been completed in 2017. The MTRCL has also commenced the relevant works in mid-December 2017 in seven stations and two depots<sup>9</sup>. The works are in good progress and is expected to complete by end of March 2018. The MTRCL will closely monitor the situation during the replacement works and implement appropriate contingency measures (such as using temporary fans) to maintain a comfortable environment.

#### **Enhancement of information services**

21. To further strengthen communication by providing more timely information to passengers, the MTRCL has installed new LCD passenger information display system on station platforms at stations along the Tung Chung Line, Airport Express, Kwun Tong Line, Tsuen Wan Line, Island Line and Ma On Shan Line. The same installation at stations along Tseung Kwan O Line, East Rail Line and West Rail Line are being carried out. Furthermore, real-time information on train frequency is also provided through the passenger information displays installed above the ticket gates in designated stations along Tung Chung Line.

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Seven stations are Lo Wu, Tai Wo, Sha Tin, Kowloon Tong, Sheung Wan, Sai Wan Ho and Tung Chung stations, 2 depots are Tsuen Wan Depot and Siu Ho Wan Depot.

- 22. Since the use of cell phones and other mobile devices has become indispensable in the daily lives of Hong Kong residents, since late February 2017, the MTRCL has provided a free mobile device charging service at 13 MTR stations <sup>10</sup>. Also since 2013, free Wi-Fi hotspots have been provided at all MTR heavy rail stations, so that passengers can access the Internet in the MTR Network. In 2017, one additional free Wi-Fi hotpot has been added in Lo Wu and Lok Ma Chau stations respectively.
- 23. The MTRCL has further leveraged on digitalisation and technology to continuously improve the MTR Mobile App. Since September 2017, the MTR Mobile App has offered some new functions, including "In-station Finder" and "Fast Exit" and "Chatbot", offering passengers a more personalised service. In addition, effective from 16 December 2017, passengers can use mobile payments (Alipay or WeChat Pay) to purchase single journey tickets from designated ticket issuing machines at Lo Wu and Lok Ma Chau stations. This provides greater convenience to passengers on their journey.

#### Way forward

- 24. The MTRCL will continue to invest more resources in enhancing the station facilities and to provide passengers with more convenient and comfortable services. Through various channels (such as station surveys and online feedback forms) and communication with stakeholders and groups, the MTRCL will continue to gather views from passengers on station facilities to make room for improvement and enhance passenger experience.
- 25. Members are invited to note the paper.

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<sup>&</sup>lt;sup>10</sup> These are Central, Admiralty, Wan Chai, Causeway Bay, Quarry Bay, Tai Koo, Hong Kong, Kowloon Tong, Kowloon Bay, Tsuen Wan, Kwai Fong, Sham Shui Po and Mong Kok stations.