

Members of the Subcommittee of Matters Relating to Railways visited the staff toilet facilities at MTR Central Station on 22 April 2008. This paper aims to provide supplementary information requested by the Subcommittee's Secretariat and suggestions raised by Members in providing public toilet facilities at MTR underground stations.

2. Most MTR stations were built in the 1970s and 1980s. In view of the short travelling time and availability of public toilets in the vicinity of most commercial buildings or shopping arcades located in the urban areas, public toilets were not a built-in feature for those MTR stations.

3. As stated in the papers submitted by the Corporation in July 2007 and January 2008, substantial technical difficulties have been identified in retrofitting public toilets at existing underground MTR stations. Details as specified in Paragraph 4 to 9 below:

## Limitation in the capacity of the sewage system

4. The current sewage system at stations is designed with capacity for low usage only. Substantial modifications would be needed to meet a comparatively larger volume of foul sewage if public toilets are to be provided. For underground stations, such modifications would be even more difficult as there are only three types of possible connections between the underground station box and the ground level, namely station entrances, vent shafts or service manhole for drainage. Installing sewage pipes through station entrances is not desirable due to possible unpleasant smell and outlook. There is also limited ceiling space for installing such pipes all the way leading to the vent shafts. As for service manhole and sewage pipes, modifications to increase their capacity may cause serious impact on road traffic given that these facilities are usually located beneath the surface of busy roads.

## Proximity of high voltage equipment

5. Stations are laid with electric and telecommunication cables and it is of our priority to maintain such facilities in good shape and safe operation without any interference. Toilet drains should not be located in the vicinity of the cables, particularly high voltage power supply equipment or overhead line equipment, in order to minimise the risk of their possible impact on railway operation and to avoid corrosion or electrical insulation breakdown that may lead to disruption of railway service. In most underground stations, the concourse level is located above the platform level where overhead line wires are located on top of the running tracks with a lot of electrical installations at both platform ends. Hence, it is difficult to identify suitable locations for retrofitting public toilets at the concourse level of underground stations.

### Separate ventilation system

6. To maintain a hygienic and pleasant travelling environment, an efficient ventilation system is paramount to all railway stations. If public toilets are to be provided in the stations, a separate ventilation system from the existing station main ventilation system would be required in order to avoid bringing the stink of toilets and sewage pipes to the station areas. For underground stations, there is little room left for building a separate ventilation system as most of the station areas are already fully occupied. The long path of the ventilation system would need to go through the busy areas filled with cables, piping and ducting before reaching the vent shaft. The impact brought by the external ventilation exhausts of the toilet facilities to nearby areas would also need to be carefully considered.

### Spatial criteria for passenger flow

7. The spatial requirement for station passenger facilities such as staircases, escalators, entry/exit gates, platform supervision booths, and customer service centres, and the requirement of adequate room for passenger flow and emergency evacuation impose substantial constraints in finding suitable locations for retrofitting toilets.

8. The Corporation has also considered the suggestion of converting part of the station shop area into toilet space. Yet, after examining the technical constraints in different areas, namely limited capacity of sewage system, proximity of high voltage equipment and the need for separate ventilation system, it was revealed that the constraint lies beyond just the space issue, but more due to limitation of system capacity of the station.

9. In view of the above technical constraints, it is therefore concluded that the suggestion for retrofitting of public toilets at existing underground stations is too difficult to be realised.

## **Toilets currently provided in the system**

10. Amongst the 82 stations in the MTR system, public toilets are already available in 37 stations (including all stations of the Airport Express Line, Disneyland Resort Line, East Rail Line, West Rail Line, Ma On Shan Line and some stations of the Tung Chung Line). Public toilets have also been built by the Corporation in the Public Transport Interchanges at Hang Hau, Tiu Keng Leng and Tseung Kwan O Stations of Tseung Kwan O Line. In other stations, staff toilets inside stations are also available for public use upon request.

11. To provide better customer service, the locations of nearby public toilets are shown in the street maps inside each station.

12. For example, public toilets are available in the vicinity of Central Station. Passengers are informed of the location of public toilets facilities in the surrounding commercial buildings,

shopping malls and those provided by government from the street maps in station concourse and station leaflets.

13. Furthermore, the Corporation has conducted a survey to ascertain the availability of public toilets available in the vicinity of stations within a reasonable walking distance and time such that the Corporation could examine the feasibility of providing street-level toilets at those stations that do not meet the above criteria. A walking distance of 200m (i.e. about a 4-minute walk) from the station as a yardstick has been adopted in the survey.

14. Through the survey, we have ascertained that public toilets are readily available within a 200m distance (or a 4-minute walk) of most MTR stations (including underground and aboveground/at-grade stations), with the exception of three stations, namely Ngau Tau Kok, Prince Edward and Quarry Bay Stations. For the above three stations that do not have public toilets within 200m of the station, the Corporation is prepared to

retrofit public toilets at the street levels (including separate cubicle for passengers with disabilities) in the vicinity of these stations for the benefit of the traveling public.

### **Opening up staff toilet for public use**

15. Passengers in need can ask for staff assistance in using staff toilet facilities inside the station. They can also choose to use the public toilet facilities available in nearby shopping malls and commercial buildings.

16. Members have also proposed to reconstruct the existing staff toilets facilities and open for public access. However, it faces the following constraints as detailed in Paragraph 17 to 19 below:

### **Inadequate staff toilet facilities for public use**

17. Staff toilet facilities are provided for staff working in the



railway stations, including station staff on duty, station maintenance staff, platform assistants, customer service assistants, staff of shop tenants, cleaning workers, security staff, workers of contractors as well as police officers of the Railway District. The sewage system of staff toilets is designed and built according to the usage of these working staff.

18. Taking Central Station as an example, there are 4 staff toilets consisting of a total of 11 cubicles. During peak hours, there are over 200 staff working inside the station, which means each cubicle has to serve about 20 people on average in that period, representing a heavy demand on the staff toilets. For other MTR stations, the majority of which are much smaller than Central Station, only 3 to 9 cubicles are available for staff use. Current usage and demand on existing staff toilet facilities are already high. As stipulated in the Occupational Safety and Health Ordinance, employers have the obligation to ensure that the workplace is provided with sufficient and suitable latrine and washing conveniences for staff use. If staff toilets are to be

opened for public access, the toilet facilities for staff use will be inadequate.

### Impact to station security and operations

19. Most staff toilets are located next to restricted areas of the stations such as Station Control Room, Machine Room and Audit Room. If staff toilets are to be open up for free public access, there will be increased risks on station operations and railway safety.

### **Way Forward**

20. For future new lines and extensions, the Corporation will include the provision of public toilets within, or adjacent to, stations in the overall design parameters, e.g. the West Island Line. The provision will be subject to geographical constraints, views of the local communities with regard to the proposed locations of the toilets at street level, locations of the proposed

external ventilation exhausts, and the necessary regulatory approval.

21. The Corporation has already displayed information at stations to provide information to passengers on the availability of toilets nearby. In addition, the Corporation has also posted notices at stations to remind passengers in need to approach station staff for assistance in using staff toilet facilities. The Corporation will follow up on Member's request on improving these notices.

MTR Corporation

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