

# Report No. 49 of the Director of Audit — Chapter 11

## PROVISION OF FOOTBRIDGES AND SUBWAYS

### Summary

1. Most pedestrian crossing facilities are provided at grade (at the same level of the road). Footbridges and subways, constructed at levels different from that of roads, separate vehicular traffic and pedestrian flows. Compared to at-grade crossings, grade-separated crossings provide better safety protection to pedestrians and cause less disruption to traffic. The total number of footbridges and subways in the territory increased significantly from 422 in 1986 to 1,065 in 2006. The Transport Department (TD) has the overall responsibility for providing pedestrian crossings, including footbridges and subways. The Highways Department (HyD) and the Civil Engineering and Development Department (CEDD) implement works projects for constructing footbridges and subways. The HyD is also responsible for maintaining most of the facilities. The Audit Commission (Audit) has recently conducted a review of the planning, provision and utilisation of footbridges and subways, and found that there is room for improvement.

#### Monitoring of footbridge and subway utilisation

2. *Need to monitor utilisation of footbridges and subways.* The construction of a footbridge or a subway involves substantial capital cost. Considerable recurrent costs are incurred on operating and maintaining these facilities. However, the TD did not have a standing practice of conducting a post-implementation review of a footbridge or a subway after its construction. In 2003, the Census and Statistics Department found in a survey that 58.5% of the respondents selected at-grade signal-controlled crossings as the most preferred type of crossing, and footbridges and subways without escalators were the least preferred. Therefore, the utilisation of some footbridges and subways might be adversely affected by the presence of nearby at-grade crossings and other factors. *Audit has recommended that the Commissioner for Transport should: (a) conduct a review to identify footbridges and subways with low utilisation and ascertain the underlying reasons; and (b) regularly monitor the utilisation of footbridges and subways.*

#### A subway in Sai Wan Ho

3. *Planning of crossing facilities.* In December 2003, a subway (Subway X) was constructed across Oi Shun Road near Tai On Street in Sai Wan Ho. Before the construction, some members of the Eastern District Council raised reservations about the provision of the subway. The utilisation of the subway has been low since its opening in

December 2003. Local residents found the subway inconvenient to use and some even jaywalked instead of using it. In view of the low traffic flow along Oi Shun Road, the residents requested the provision of an at-grade pedestrian crossing along the subway alignment. In January 2007, the TD agreed to provide a signal-controlled crossing on a temporary basis. The crossing is expected to be installed in early 2008.

4. When the new at-grade crossing along the alignment of Subway X is open for use, there is a possibility that the utilisation of Subway X would further decrease. The TD has planned to conduct a review of the crossing facilities at the road junction upon the full occupation of the housing developments in the Aldrich Bay area. *Audit has recommended that the Commissioner for Transport should: (a) in planning footbridges and subways in future, take into account: (i) local residents' views and their preferred type of crossing facility, and (ii) the pedestrian and traffic flows in the area; and (b) conduct a review of the use of Subway X, and draw up a timetable for reviewing the provision of pedestrian crossing facilities at the junction of Oi Shun Road and Tai On Street.*

#### **Five footbridges with nearby at-grade crossings**

5. Audit sample check has revealed that, owing to the presence of nearby at-grade crossings, the utilisation of the following five footbridges is low:

- (a) a footbridge built in 1990 across Yen Chow Street near Cheong San Lane in Sham Shui Po (Footbridge A);
- (b) a footbridge built in 1971 across Chai Wan Road near Wan Tsui Road in Chai Wan (Footbridge B);
- (c) a footbridge built in 1985 across Shau Kei Wan Road near Tai On Street in Sai Wan Ho (Footbridge C);
- (d) a footbridge built in 1985 across King's Road near Java Road in North Point (Footbridge D); and
- (e) a footbridge built in 1985 across King's Road near Tong Shui Road in North Point (Footbridge E).

6. *Need for a maintenance strategy.* In recent years, concerns had been raised over the low utilisation of the above five footbridges. The TD said that the utilisation of these footbridges had been affected by the changes in the traffic pattern and the subsequent installation of at-grade crossings in the areas. But the five footbridges require substantial recurrent operation and maintenance costs. *Audit has recommended that the Commissioner for Transport and the Director of Highways should formulate a strategy for the future maintenance of the five footbridges, taking into account expected utilisation, pedestrian needs, and the cost of maintenance.*

7. **Ramp closure.** In 2001, there was illegal occupation by street sleepers at Footbridge A. The Sham Shui Po District Office coordinated joint operations with the government departments concerned to tackle the street-sleeper problem, but without much success. In September 2003, the Government was urged to demolish the footbridge if the problem could not be resolved. In March 2004, to make the street sleepers leave, the eastern ramp of Footbridge A was closed. Audit considers that if ramp closure is required, both the eastern and western ramps should be closed. Otherwise, users on wheelchairs going up the western ramp would be inconvenienced upon finding that the eastern ramp is closed. Audit field visits in May and July 2007 found that the western ramp was blocked by trolleys and debris. In September 2007, the Home Affairs Department said that the street-sleeper problem at Footbridge A had been resolved. *Audit has recommended that the Commissioner for Transport should review the arrangement of closing the eastern ramp of Footbridge A.*

## **Two subways and a footbridge connecting to sites pending development**

8. **A subway in Yau Ma Tei.** In January 1997, the HyD constructed a subway (Subway Y) across Ferry Street, connecting Ching Ping Street to sites in a reclamation area pending development. In June 2000, the HyD noted that street sleepers had occupied the subway. Despite several operations to clear the street sleepers, the problem persisted. In June 2001, in order to tackle the problem, the Yau Tsim Mong District Office proposed to close the subway. The TD considered that the low utilisation of the subway was due to the presence of street sleepers and the existence of nearby at-grade crossings. In 2004, the proposal to close Subway Y was not pursued as the street-sleeper problem had been contained. Audit noted that, 10 years after its construction in 1997, the utilisation of Subway Y was still low because the sites in the nearby reclamation area had not yet been developed, and the pedestrian flows were low.

9. **A footbridge and a subway in Tin Shui Wai.** In May 2004, the CEDD constructed a footbridge (Footbridge F) and a subway (Subway Z) across Wetland Park Road near Tin Yip Road, connecting to a vacant site which was planned for residential and commercial developments. In April 2007, after a review of the land use, the Planning Department reduced the plot ratio of the site from 2 to 1.5. As at September 2007, the Planning Department was preparing the Planning Brief for the site. As it may take some years before the site is developed, Footbridge F and Subway Z have been provided long before the development of the adjoining site. Audit considers that there is room for improvement in planning future projects. *Audit has recommended that, for provision of footbridges or subways at sites pending development, the Commissioner for Transport, the Director of Highways and the Director of Civil Engineering and Development should: (a) take measures to match the timing of provision of the facilities with that of the development of the sites as far as practicable; and (b) consider the feasibility of deferring the provision of the footbridges and subways and requiring developers to construct the facilities, if the sites are intended for private development.*

### **A footbridge built by a subvented organisation**

10. *Crossing facilities near the Hong Kong Baptist University.* In October 1998, the Hong Kong Baptist University (HKBU) constructed a footbridge (Footbridge G) across Junction Road near Renfrew Road as part of its campus development project. The construction of the footbridge was funded by the Government and it is open to public use. The utilisation of Footbridge G has been low since its opening in October 1998 as pedestrians prefer to use the nearby at-grade crossings. In June and December 1999, the HKBU requested the TD to consider deleting the at-grade crossing across Junction Road near Renfrew Road. In reply, the TD mentioned that pedestrians might find Footbridge G less attractive as they had to walk uphill and use staircases, and decided to retain the at-grade crossing. In 2007, the HKBU is planning to construct a pedestrian walkway system (comprising covered escalators and sheltered walkways) for the HKBU campus. The walkway system would facilitate the use of Footbridge G. *Audit has recommended that the Commissioner for Transport should, in planning for a footbridge or a subway to be constructed by a subvented organisation, take into account the expected utilisation of the facility. Audit has also recommended that the Hong Kong Baptist University should seek funding approval for the timely development of the proposed pedestrian walkway system.*

### **A partly demolished footbridge**

11. *Footbridges in Sai Ying Pun.* In early 1990, Footbridge H and two other footbridges were constructed in Sai Ying Pun for crossing Connaught Road West. In 1993, to make way for the construction of the Western Harbour Crossing interchange, the northern portion of Footbridge H and the other two footbridges were demolished. A remaining portion of Footbridge H spanning across Western Street was retained. In March 2003, members of the Central and Western District Council said that few pedestrians used Footbridge H because there was a nearby at-grade crossing. In view of the low utilisation, they requested the TD to consider demolishing the footbridge. In July 2003, the Central and Western District Council proposed that the Government should consider carrying out the demolition works when there were other works projects near Footbridge H. *Audit has recommended that the Commissioner for Transport and the Director of Highways should: (a) conduct a review of the costs and benefits of retaining Footbridge H; and (b) in future footbridge demolition works, consider the option of demolishing the whole footbridge instead of leaving behind a portion which has a limited function as a crossing facility.*

### **Response from the Administration**

12. The Administration has accepted the audit recommendations.

November 2007