Management of Utility Openings

The roads in Hong Kong serve a dual purpose. They provide passageway for vehicular and pedestrian traffic as well as underground space for accommodating utility services. The first function is readily recognised by the public to be important, but the second one should in fact receive similar emphasis.

Currently there are about 20 major utility undertakings (UUs) who install their services beneath public roads. Such services include fresh and flush water, electricity, gas, stormwater drains, sewers, telecommunication etc. From time to time, these underground services would require repair and maintenance as well as expansion to keep up with the rapid pace of the development and redevelopment in the territory, which constitute essential parts of the major causes of road openings.

Under the provisions of the Land (Miscellaneous Provisions) Ordinance, Highways Department (HyD) is the authority for controlling excavations in public roads through the issue of Excavation Permits (XP). In view of the large number of road openings, HyD implemented a computerised Utility Management System (UMS) in October 1997 to support XP processing, with a view to improving the co-ordination and control of utility road opening works. The UMS has been further enhanced to the current Excavation Permit Management System (XPMS) since August 2009.

Under the HyD control system, UUs are required to plan and register their road opening works at least one to six months (depends on type of road affected and anticipated duration of works) in advance of works commencement. With the XPMS, HyD will compile such registered works to identify any possible conflicts at the planning stage. Where a conflict is identified, the responsible UUs are requested to co-ordinate with each other and modify the works programme where necessary for HyD's approval so that disruption to the public will be minimized. For proposed works that may induce traffic impacts, the relevant plans will be forwarded to the Transport Department and the Hong Kong Police Force(HKPF) through the XPMS for traffic advice so that appropriate traffic arrangements can be prepared as necessary.

To avoid repeated openings, on receipt of a works proposal from UUs, HyD will check through the XPMS to see whether excavations have taken place in the same section of road within the previous three / six months, as the case may be. As a control measure, once a series of co-ordinated road opening works have been completed, XP for excavation in the same road section in general will not be issued within a period of three / six months, depending on the cases, except under emergency cases.

To enhance proper planning, it is HyD's standard practice to notify UUs on programme of major road works. This would enable UUs to plan their works cohesively during the implementation of such major works. After completion of such new constructions, road opening works in general will not be allowed within a period of five years for carriageway and one year for footway. In the case of road resurfacing works, there is a one-year opening restriction period.

In order to reduce disturbance of road opening works to traffic, two additional measures were introduced in the past. Since late 1994, XP applications for road opening works affecting certain busy roads (e.g. Nathan Road) have to be supported by 'Traffic Impact Assessment' to ensure that the proposed work will not impose intolerable impact on the traffic, and to devise traffic management measures to alleviate any adverse situation to an acceptable level. Furthermore, for excavations at certain strategic routes (e.g. Harcourt Road), day-time works are banned to avoid adverse effect to the intensive traffic.

As the control authority on road opening works, HyD imposes conditions on each XP to stipulate standards on, inter alia, safety precautions, reinstatement quality, cover depths (normal standard: not less than 450mm in footpath, not less than 900mm in carriageway) etc. HyD also arranges staff to conduct site audit inspections on road opening sites to ensure that the XP conditions are adhered to.