CHAPTER 3

EXCAVATION PERMIT

MANAGEMENT SYSTEM

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Background

3.1 Before the launch of the Excavation Permit Management System (XPMS), an obsolete system known as Utility Management System (UMS) was used by Highways Department (HyD) for the processing of excavation permit (XP) applications under the Land (Miscellaneous Provisions) Ordinance. The UMS was conceived over 10 years ago and was rolled out in October 1997. At that time, it had a client-server architecture serving HyD. Advice on Lighting, Signing and Guarding proposals from Hong Kong Police Force (HKPF) and Temporary Traffic Management proposals from Transport Department (TD) for road works were delivered to HyD in hard copy. Textual data from the applicants were submitted in text files for uploading to the system, and geographic data were submitted in paper form for HyD staff to digitize into the system. In September 2002, a web-based system known as Internet Interface to Utility Management System (IIUMS) was rolled out to enable the HKPF, TD and applicants to process the application via the Internet. The data in the two separate systems were synchronized twice a day. In April 2004, an enhancement on both systems was rolled out to cope with the business changes brought about by the legislative amendments to the Land (Miscellaneous Provisions) Ordinance.

3.2 To take advantage of the latest development in information technology and to further improve the efficiency of excavation permit processing, HyD commissioned the Office of the Government Chief Information Officer (OGCIO) to study the redevelopment of UMS. The study was completed in 2006. The result of the study recommended that a new single Web-based computer system should be developed to replace the UMS in order to improve the efficiency and effectiveness of road opening management. The advantages of the new computer system would include eliminating the need of data replication and maintenance of two existing separate systems; enhancing the capacity of electronic information management and submission/dissemination; and promoting electronic submissions. In this connection, HyD in late 2006 started the development of XPMS.

Introduction to XPMS

3.3 XPMS is a brand new web based system with the following development objectives borne in mind:

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- Inclusion of all types of Permit under HyD's jurisdiction, such as Expressway Works Permit, Road Works Permit and Excavation Permit, in a single e-platform for processing. The permit processes should be aligned as far as possible though they are under various legislation framework.
- Inclusion of other government authorities such as TD, HKPF and Leisure and Cultural Services Department for processing of permit through a single e-platform.
- Streamlining and optimization of the XP Processes

3.4   The permit processing in XPMS follows the streamlined workflow of the permit business.   No matter the user is the applicant, XP Processing Team, TD or HKPF, he/she can login the system to a user workbench, which essentially consists of an in-box for the user.   Permit processing tasks would be routed to the user for processing by the system automatically in accordance with the permit workflow.

3.5   The XPMS brings in many major improvements in terms of user friendliness, transparency and efficiency.   For example, the requirement for an application submitted through signed paper form or by e-cert signed submission is no more required.   Data are updated real time and efficiency of permit processing is improved.   There is no more daily downtime of the system for replication.

3.6   The XPMS applies many new information technologies and provides many new functions.   For example, the Geographical Information System (GIS) features are enriched.   Users can also keep track of the permit process easily through the process trail records. Supporting features such as user account administration, search and report generation are reorganized and enhanced.   The system hardware and storage capacity are also significantly upgraded.

3.7   The entire process of XP application in XPMS can be divided into four major phases, which are "Registration", "Assessment", "Permit Processing" and "Works Management".   A flow chart illustrating these four major phases and its related activities is shown in Figure 3.1.   Further details of the XP processing are described in the subsequent chapters of this Manual.

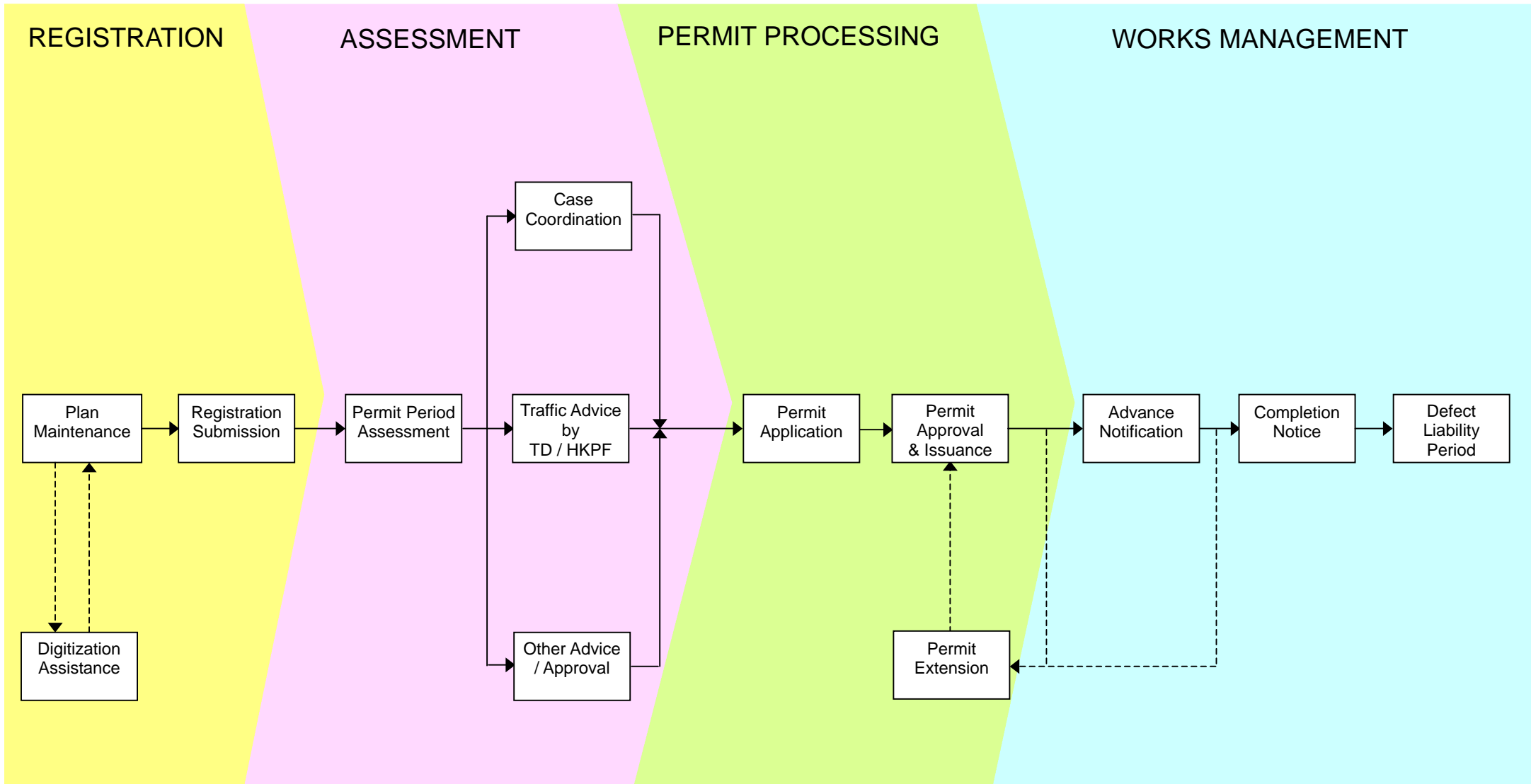**Major Phases and Activities of Excavation Permit Processing in XPMS**

Figure 3.1