

Web/mobile-based information system for the Korean Building Regulation (e-KBC)

Youngchan You(ycyou@kict.re.kr), Sunwoo Park

KICT

Abstract

The Korean "Building Act" was enacted in 1962 to improve the safety, function, environment, and aesthetic of buildings by setting standards for building sites, structures, facilities, etc. and has reached the present time through more than 100th revisions. At the early stage of 1970s, most of the building regulations were operated under the only "Building Act" because buildings were small and simple. However, a necessities of special-purposed acts increased for facilities and safety such as fire fighting, electricity and ICT as buildings grew in size and were used for various new purposed. Naturally new acts related with buildings and city (so-called "building-related regulation") have been enacted by each ministry to cope with various increased social and environmental demands, such as quality of life, safety and global climate change. As a results, The 436 building-related acts (as of April, '19) are operated by each ministry including MOCT (Ministry of Land, Infrastructure and Transport), making it difficult to understand and identify the application criteria depending on the circumstances.

On the other hand, it is practically impossible to integrate or unify all the building-related regulations as they are one of the legal provisions enacted based on each acts. However, misunderstanding or even fail in application of each building-related regulations may cause confusion and even disaster in the process of actual building design and an approval by building officials. Therefore, 'a systematic building regulations information system' was required for an architect, planners, engineers and building officials (from public to professional level) to easily access and understand all the building-related regulations.

To meet these needs, MOCT first enacted a new Article 25th(Public Announcement, etc. of the Building Regulations of Korea) in "Framework Act on Building" in 2015, which will be legal basis of 'Building Regulations of Korea'. And the prior effort to announce 'Building Regulations of Korea' for systematic management of building-related regulations, KICT has been currently developing "Web/Mobile-based Information System for the Korean Building Regulation (so-called, e-KBC)" by the commission of MOCT since 2014 to provide a convenient building regulation information system service to the public. The main services of 'e-KBC' information system are as follows.

1) Categorized search service for Korean Building Regulation

This service provides 436 building-related regulations by classifying each provisions into general, administrative, life stage, and technical/standards regulations categories. In case of the technical/standards category, specific provisions to be considered during the building designs phase are screened by a land lot number and building use classification based on built-in DB of provision attribute. Also, this service arranges the relevant act, presidential/ministry decree, notices, and ordinances by analysing the delegation relationship of each provision.

2) Analytical service for buildable and scale of buildings for specific condition.

This service provides provisions that should be considered in the planning stage of a building with the aim of providing information for the buildable and size limit by analyzing relevant building-related regulation and ordinances for the needs of building owners or architects.

Keywords: *Building act, Building related regulation, Korea Building Code, e-KBC, Computing System*