Kowloon City District Urban Renewal Forum

For discussion   Paper No.: DURF KC/02/2012
on 28 February 2012

Urban Renewal Authority
Building Conditions Survey

<u>Purpose</u>

This paper briefs Members of the Kowloon City District Urban Renewal Forum ("KC DURF") on the building conditions survey conducted by Urban Renewal Authority ("URA") in 2009 for completion in 2010, with a view to providing Members with a better understanding of the building conditions rating and its background.

<u>Background</u>

2.   Building condition is one of the key considerations for urban renewal, e.g. whether the concerned buildings should be rehabilitated or redeveloped. Other considerations include living conditions, social impact, heritage value, economics, etc.   Conditions of buildings (which most of old urban buildings in Hong Kong are of reinforced concrete construction) are rated in 4 categories – Good, Satisfactory, Varied and Poor.   These categories (ratings) are assessments by professionals (structural engineers or building surveyors) qualified and experienced in this field.   Assessments via surveys typically include visual inspection of the external facades and internal accessible areas such as staircases and roof, sometimes augmented by detailed investigations of the conditions of the structural elements.   These are elaborated exercises requiring much resources and hence are typically carried out on statistical samples and occasionally when required.   Other constraints include availability of access to internal areas and sometimes residents' objections.

Survey Methodology

3.   Buildings Department ("BD") carried out a comprehensive building conditions survey of pre-1981 buildings in the mid-1990's covering some 17,000 private buildings in Hong Kong.   As part of the Urban Renewal Strategy Review, URA carried out a sample survey in 2009-2010 covering some 3,000 pre-1981 buildings in the old urban areas.   The methodology and building conditions ratings (Good, Satisfactory, Varied and Poor) URA use were developed from the BD's 1990's survey.   Basically, the assessed ratings were determined by a consistent and scientific method based on the observed structural defects and their extents in various areas within the building.   The concerned structural defects (spalling, cracking, bulging, etc) are focus of the inspections, being typical problems associated with reinforced concrete buildings.   The 4 ratings generally refer to the following building conditions:-

- "Good/Satisfactory" - no or minor defects detected, nominal regular maintenance should suffice in the medium term;
- "Varied" or "Dilapidated" - building deterioration visible: need rehabilitation in due course and continued regular maintenance; and
- "Poor" or "Marked Dilapidated" - large areas of advanced structural distress, need elaborated rehabilitation urgently and repeatedly.

4.   After the survey and analyses of the results, each surveyed building would have a particular rating.   And for buildings not actually surveyed, a projected rating could be assigned using a numerical model derived from statistical analysis of all the available results from the recent URA survey and the BD's comprehensive survey in mid-1990's.   Other relevant available information were also taken into consideration including rehabilitation efforts of particular buildings under Operation Building Bright, URA and Hong Kong Housing Society rehabilitation assistance schemes.   It should be noted that the condition rating of buildings are only snapshots valid for the time of the survey inspection, as the condition would change with time via natural aging or may be improved by human interventions such as rehabilitation.

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Survey for Kowloon City

5.   Such building conditions data have been prepared for Kowloon City District.   For the consideration of KC DURF, the focus is put on the old areas of Hunghom, Ma Tau Wai, To Kwa Wan and Kowloon City.   Buildings were grouped under sub-areas bounded by larger roads.   Building conditions data are presented for all the buildings 30 years or older as a whole in each of the sub-areas, showing the relative dilapidated conditions among the different sub-areas.   The information should be useful for the consideration of KC DURF on the various urban renewal proposals and the order of priority.

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