

## A Study on the Mitigation Modeling for Conservation of Green Space in the Redevelopment Process of Collective Housing Sites

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### [SYNOPSIS]

Although many of the collective housing sites developed in late 1950s through 60s in and around metropolitan areas of Japan are now reserved with affluent green open space, it has been an unusual case that those environmental stock is well preserved and strategically converted to the assets of residential environment in the process redevelopment of the housing sites. This study has been focused on clarifying the conditions on which the environmental stock of green space is preserved and restored as well as it is contributed to creating new value of environment in renewed residential areas. Also, the scope of the work is extended toward proposing a set of models for planning and designing the redevelopment projects on the real sites of the case studies.

It is a working hypothesis in this research that theories and practices of environmental mitigation, a methodology for conservation and restoration of natural environment applied to environment conscious land development, would provide a solid foundation on which the models are developed. It means that the environmental stock of green space becomes the target of a mitigation project and the design and planning methods to avoid, reduce or compensate negative impacts and influences caused by the redevelopment are the final objective of the study.

The case studies are conducted for 4 areas of collective housing site in Kinki district developed in 1950s and 60s by Japan Housing Corporation (Urban Development Corporation at present) by following the steps indicated below.

- (1) Survey and analysis of the process through which the environmental stock of green space is developed
- (2) Evaluation of environmental location of green space
- (3) Proposal of redevelopment model to avoid, reduce or compensate negative impacts on the stock of green space

As a consequence, it is suggested that several patterns are assumed for developing process of the environmental stock of green space in the sites for the case studies, and that the mitigation model would be pursued in the scope of redevelopment projects in which those pattern would be preserved. In particular, by applying a certain guideline to arrangement of architectural units and street pattern with a good coordination with land form, several models of the mitigation for maximizing the effects of environmental stock and giving a new meaning to the preserved green space are proposed.