

5. Zhang jie, zhu rensheng, wang chunfang. Advances in the application of bacillus subtilis in agriculture [J]. Modern agricultural science and technology, 2019, (13) : 163-170.

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THE RESEARCH ABOUT RECONSTRUCTION OF RESIDENTIAL BUILDING

Chen Jingke
Belarusian National Technical University
e-mail: 2971587370@qq.com

Summary. *This paper analyzes and studies the status quo of old houses in the city, and shows the contradictions between old houses and modern life. These contradictions can be resolved to a certain extent through low-cost renovation. And put forward the principles and principles of transformation.*

Since the 1980s, China has built many urban apartments to solve people's living problems. With the development of society, many changes have taken place in the family population, composition(structure), and people's expectations for comfort and effectiveness. People have more demands for housing: such as the desire to increase the area of the house and improve the house type. The problems of old houses are beginning to become prominent.

Old-fashioned housing accounts for a considerable proportion of the total existing housing in cities. The structure of these houses is basically intact, but due to the early construction period, the facilities such as bathroom and kitchen equipment may not be perfect, and the corresponding municipal pipelines for tap water/natural gas/sewage are lacking. The layout is not ideal. In addition, there are problems such as small balcony area, inability to flexibly control temperature of heating, and unreasonable parking facilities.

Reconstruction rather than demolishing and rebuilding houses can reduce the formation of construction waste, which has a positive significance for environmental protection. Adjusting and changing the architectural space according to the development requirements of the city or building and meeting the needs of urban residents are a comprehensive work that selectively preserves or protects and improves environmental quality through various methods.

Commonly used transformation methods are as follow:

- *Adjusting the building area of the apartment, such as combining two small units into a large unit;
- *Adding elevators, wheelchair passages, and accessibility measures in the residence as needed;
- *Adjusting the use of the internal space of the residence to expand the kitchen, bathroom and auxiliary rooms.

Principles of residential reconstruction:

1. The renovation design should be oriented towards the future, combining with the concepts of building energy saving, harmless waste disposal and barrier-free design. [1, c .234-237]

2. According to the specific conditions of the residence, different degrees of transformation can be divided into: general repair, replacement of doors and windows, addition of equipment, addition of floors, and overall renovation of the internal structure of the reservation. There are many ways to update according to the specific situation of the building: *rebuild totally, rebuild partly, renovation, infilling, interior change, and repair.*

3. The renovation should be carried out in different stages and different goals. According to the actual situation, a variety of solutions are provided to meet the needs of different residents.

4. The transformed residences should have better climate adaptability. For example, the thermal insulation performance of northern residences should be improved, and the ventilation and moisture-proof performance of southern residences should be improved.

References

1. Han Yi. Research on Policy and Redevelopment of Old Residential Districts Renewal and Reconstruction -2005 Vol 19, 3 "Engineering Construction and Archives" P234-237.