

## Provision of Improved Accessibility and Availability of Neighbourhood Facilities in detached housing area

Seong, Eun-Young  
Lim, Kang-Ryoon

### 1. Introduction

This study is aimed to find measures to improve the usability of public facilities for the detached housing areas, relatively deficient in than apartment housing areas with complex planning and construction. The standard of facility supply is limited and it is the main differentiating factor for the accessibility to public facilities in different housing areas. For the apartment housing, public facilities are supplied according to their number of households and population, whereas for the detached housing, there is no applicable guideline for boundaries except the administrative districts. It is necessary to change the supply method to maintenance existing facilities and to infill new ones depending on the necessity and demand in the detached housing areas. Therefore, this study defines ‘neighborhood facility’ combining the diverse concepts of the necessary supporting facility for improving quality of life and vitalizing networking between the residents, and sets the form of ‘neighborhood facility’ with accumulated facilities in the vicinity as small and multi-functional facility. The purpose of this study is to understand the supply, demand, and necessity of related facilities to guide the supply policy to provide small and multi-functional neighborhood facility in the detached housing areas.

### 2. The Concept of Neighborhood Facility and Supply Considerations

“Neighborhood facility” is located near the residential area and provides

space for education, culture, health-care, and etc. to promote individual and community activity among neighbors. Supply of neighborhood facility basically provides facilities adjacent to residents and improves the individual quality of life by cultural, educational, and sports activities, but ultimately opens the opportunity to communicate between local residents thus encouraging settlement and revitalization of the neighborhood. Neighborhood facilities should primarily function as small libraries, cultural, sports, and communal facilities.

Supplying neighborhood facility owns different perspectives from supplying ordinary community facility in following aspects. First, it considers the continuity of existing housings and settlement of residents, rather than entirely eliminating detached housing. Second, the basis for supply is focused on the voice of demand, not on authoritative distribution of facilities. Third, unlike the ordinary large-scale community centers, it composes flexible space for various functions with minimum size and units to support neighborhood activities. Moreover, following points need to be considered in providing these facilities: flexibility to accommodate possible change in local community and residents' characteristics, spatial efficiency in small and multi-functional facilities, proximity between facilities themselves and with residents, and equity in distribution through setting spatial units.

### 3. Supply and Demand of Neighborhood Facilities in Detached Housing Areas

The paradigm of diverse policies and projects has been shifting to improve the living environment of detached housing areas. Happy House re-vitalization project emphasized Happy House Center as community space, and Human Town plan focused on resident welfare facilities and public amenities to reinforce the community. Recent revision on the Housing Act updated the criteria on installing community facility enabling the residents to choose their neighborhood facilities. Furthermore, Seoul Metropolitan Government launched projects to expand community space incorporating community experts to invigorate residential community, and distributing manuals and case-studies on such theme. These changes resulted in an increase in the demand of community facility, especially for small and dispersed sites to maximize utilization of facilities within limited resources.

However, neighborhood facilities in detached housing areas have to be constructed and operated in the vicinity of residents, according to local ordinances and criteria on each facility, to provide cultural exposure and educational opportunity for the local residents. Therefore, supplied facilities and operating programs exhibit qualitative and quantitative gaps between districts with different population and fiscal independence, with problems on site procurement and inferior accessibility obstructing the construction and successful provision of service for the locals.

Based on the current condition of neighborhood facilities in the detached housing area, this study performed multi-faceted analysis on the attributes of the residential area and residents, and present situation of provided facilities, focusing on accessibility, proximity, frequency and satisfaction on the usage, and demand characteristics. The result shows following attributes and limits.

First, the demand and current utilization of neighborhood facilities vary according to the attributes of the area and residents.

Second, the influencing factors on satisfaction of the facility show significant difference between their functions. For cultural facilities, it is highly correlated with users' age, distance in time, and income.

Third, for neighborhood facility, public facility is preferred.

Fourth, residents prefer to use multi-functional facilities near their residence, resulting in higher usage of public community centers.

Fifth, proximity had to be measured not only on physical distance but also on behavioral distance to match the reality.

Sixth, the condition of residential area, with hills or flat, affects on the accessible distance and area.

Seventh, the accessibility limit for neighborhood facility in detached housing area can be suggested to 10-minute walking distance (540m ~ 660m), although distance is not the only affecting attribute.

Eighth, larger scale facility can promote access from distance, but proximity of facility can promote frequent usage.

#### 4. Plan for Providing Neighborhood Facilities in Detached Housing Areas

This study set up fundamental provision objectives and facility types in supplying neighborhood facilities in detached housing areas, and generated provision strategy based on them.

Basic spatial composition and functions of facilities need to integrate multi-functionality into small libraries as a center for all ages to use, and to harmonize between programs and other facilities reflecting the attributes of local residents. To enhance the using frequency and satisfaction, improvement of accessibility is the most prior task for the spatial consideration. Moreover, new provisional perspective to overcome the limitation of accessibility and active measures to improve the access in accordance with the characteristics of residential area.

The forms of neighborhood facility provision can be different in various residential areas according to the existing concepts and conditions of facilities, characteristics of the area and residents. Basically, however, new facilities can be provided for districts deficient in the number of facilities, and renewal of the function and facility can be applied to the other districts without proper demand and condition. Therefore this study prepared following forms of facility provision: new facility type to construct new buildings, remodeling type to combine and expand existing facilities, and re-networking type to reinforce the mutual connection and relationship between functions rather than improving physical facilities.

Public investment in facilities have to aim for virtuous circle of housing areas, facilities, and residents. Thus the provision of neighborhood facilities in detached housing areas have to be deliberately executed on the ground of continuity of housing and facilities, and to prepare a management system guaranteeing sustained operation after the initial provision. For the provision strategy for neighborhood facilities this study suggests as follows. First, an integrated system is required for understanding current status of facility provision and for reorganizing the facilities based on the provision types. Second, the criteria on installing community facilities have to include the distance between facilities, in addition to current population basis. Third, the criteria and ordinances expanded to consider the characteristics of each district, and the criteria for apartment housing areas also have to be evolved by

integrating legal concepts and such criteria. Fourth, assessment system for neighborhood facilities have to be prepared and operated.

## 5. Conclusion

The level of satisfaction for neighborhood facilities in detached housing areas tends to be low in accessibility, quality of facility, and etc. with limitation as separate ownership, boundaries, and management, unlike the apartment housing area with plans to cover one site with one complete town. This study explored on the conditions and residents' usage characteristics of neighborhood facilities in detached housing areas, and suggests provisional plans for small and multi-functional facilities to improve accessibility and the quality of facilities. However, the selected districts cannot represent all the detached housing areas, and the study focused only on the public provision of facilities, drawing limitation on directly applying this plan and strategy to public policy. Therefore, further study and verification have to be followed to establish provision policy on neighborhood facilities in diverse districts with different types.

**Keyword : Detached housing area, Neighborhood facility, Community facility, Provision of facilities**