

# auri research brief

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## Use status of multiple-use acknowledgement and its development

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The regulation of multiple-use acknowledgement is a system that allows flexible use of buildings by allowing two or more uses of a space. After five years since the enactment of the regulation, however, the number of cases in operation has been insignificant. Lack of awareness of the regulation and difficulties in applying facility standards to existing buildings have been cited as the causes. In order to increase the practicality of the multi-use acknowledgement in the future, it is necessary to improve publicity and guidance, follow-up research on deregulation, and deliberation.

- The 'multiple-use' provision acknowledges multi-functional and multi-purpose use of buildings

Can you renovate your house to operate a pottery workshop? Can the church building be used as a private educational institute during the week? This is possible if the building is for multiple uses. Originally, a space could only be designated for a single use by law. Now, in accordance with the provisions of the Acknowledgement of Multiple Uses of the Building Act, the owner of a building can apply for building permission, a notification of building construction, permission for or a report on the change of use, or the alteration of entries in the building register for the multiple uses of the relevant building.

Multiple uses mean designating two or more uses for one space. If multiple uses are acknowledged, the same space can be used for different purposes. This is different from mixed use. A mixed use is a combination of individual spaces with various uses. The use of mixed-use buildings is mainly divided into floors, an example of which is a mixed-use building with shops on the lower floors and houses on the upper floors. In contrast, a multiple-use building can be said to be a multifunctional, multipurpose space. For example, a gym could be used as an exhibition hall, meeting room, or even a wedding hall.

Experts saw that it was economical to use space flexibly rather than exclusively in a modern city where the population density is high and land prices are high (Grant, 2002; Shin *et al.*, 2009; Lee, 2014). Recently, the need for variable architectural design has also been raised to increase spatial efficiency (Park, 1985; Pan *et al.*, 2019). Neighborhood living facilities, efficiency apartments, small libraries in detached houses, daycare centers in apartments, and cafes in flower shops can be seen as examples of government policy that recognizes multiple-use spaces. The multiple-use acknowledgement introduced in the Building Act does not predetermine the functions to be mixed with by the government but expands applicable buildings and relaxes the regulations according to the needs. A single space is allowed for a flexible use of facilities to accommodate various activities. When the system was introduced, the government expected that people would flexibly use buildings by season, day of the week, and demand through multiple-use acknowledgement (Ministry of Land, Infrastructure and Transport, 2015).

## ● Characteristics of Multiple-Use Acknowledgement

According to Article 19-2 of the Building Act, the owner of a building may

apply for multiple uses of a building as a building permission under Article 11, a notification of building construction under Article 14, and permission for or a report on the change of use or the alteration of entries in the building register under Article 19 of the same Act. In order to determine multiple uses, the building standards and location standards for each use must be satisfied. The 29 uses are classified into 9 facility groups with similar characteristics. In principle, multiple uses within the same facility group are allowed. However, it is possible to allow the use of other facility groups after deliberation by the Building Committee.

There is a difference from the change of use regulation, and the characteristics of this regulation will be discussed by comparing the two regulations. First, unlike the change of use, the characteristics must go through the deliberation of the Building Committee if necessary. To apply for a change of use, a building permission is required if the use to be changed is of a facility group with stronger building standards and a notification is required if the use to be changed is of a facility group with weaker standards. For multiple uses, the deliberation of the Building Committee is required regardless of the difference in the applied building standards if each use to be applied for belongs to a different facility group. Second, all standards in accordance with relevant laws and regulations for each use must be met. Change of use may be managed by applying *mutatis mutandis* building standards such as location standards for the intended use, stairs and exits, fire protection divisions, and fire-resistant structures, as well as standards under individual laws. In this case, the same applies to permission or notification. In the case of multiple uses, both the location standards and building standards for each intended use must be complied. If the standards are different, the stronger standards are to be applied. Third, change of use is an act that occurs after a building has been built, whereas multiple uses can be applied to new buildings as well. According to Article 19 (2) of the Building Act, the subject of change of use is "any person who intends to change the use of a building approved to use." The change of use applies to buildings that have been approved to use, but in the case of multiple-use acknowledgement, the change of use can also be applied to building permission and notification of building construction.

- **Cause of low utility of the provision**

Since the introduction of the multiple-use acknowledgement in 2016, the

actual application has been scant. Kim *et al.* (2021) investigated buildings that were acknowledged for multiple uses in local governments across the country. As a result, the number of cases was a total of 10 (as of June 2021). The provision was newly established on January 19, 2016, and approximately 5 years have passed as of the time of the investigation. During the same period, 115,189 cases were applied for change of use (January 2016 to June 2021),<sup>1)</sup> whereas the number of cases of multiple-use acknowledgement is significantly smaller. This can be interpreted that the utility of the provision is low.

The low utility of the provision may be that the provision is not well informed, or the benefit-cost ratio is minimal. In fact, according to the results of the survey from the above study, which asked of 45 architects, 84.5% of the respondents answered that they did not know well about the provisions, or they knew the provisions but did not know what they were in detail. Also, when asked about the obstacles when applying for multiple-use acknowledgement, the major responses were 'insufficient understanding of administrative personnel about the provision' followed by 'difficulty in applying multiple-use acknowledgement to existing buildings.' Among experts, insufficient awareness of the provisions and difficulties in applying required building standards to existing buildings are pointed out as the cause of the practicality issue of the provisions.

## ● Cases of multiple-use acknowledgement

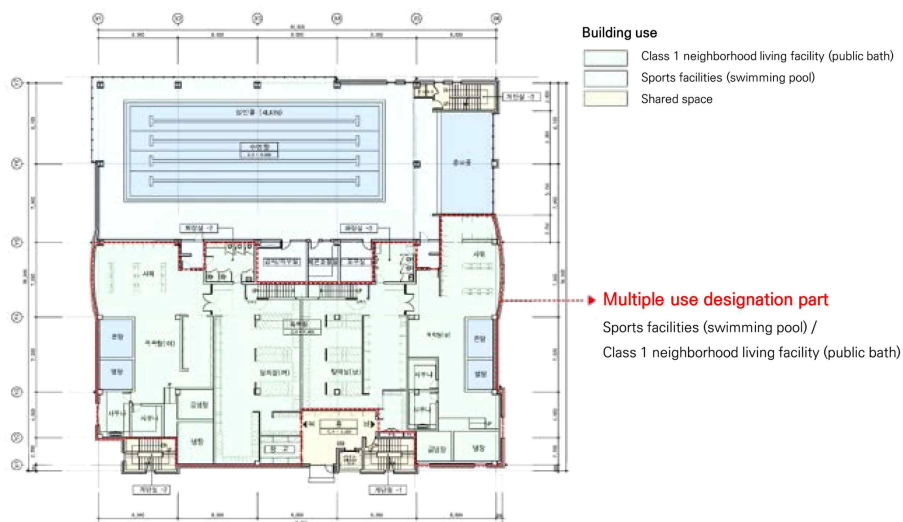
Eight out of 10 cases acknowledged for multiple uses were mixed uses within the same facility group. In two cases among them, multiple uses of different facility groups were acknowledged after deliberation. Among the cases where acknowledgement for multiple uses were applied within the same facility group, five cases were between groups of neighborhood living facilities, one case between automobile-related groups, one case between groups of facilities for industrial purposes, and one case between groups of facilities for education and welfare. Most of the cases took advantage of the provision to obtain a synergistic effect such as improving convenience of use and attracting customers. In some cases, local governments encouraged to apply for multiple uses to strengthen management.

Case #6 from the 'Cases of Multiple-Use Acknowledgement' is a sports center located in Goesan-gun, Chungcheongbuk-do. There is a swimming pool on the 2nd floor and a sauna on the 3rd floor. There is no public bath in the sauna on



the 3rd floor, and it was planned that the users of the sauna would use the shower room in the swimming pool at the 2nd floor (the part marked with a red dotted line in the drawing below). In Goesan-gun, the shower room in the swimming pool was also used by the users of the sauna. Thus, the standard for sewage generated at the facility should be raised to the level applied to the public bath. The daily sewage generation of swimming pools, saunas, and public baths is 15 L/m<sup>2</sup>, 16 L/m<sup>2</sup>, and 46 L/m<sup>2</sup>, respectively.<sup>2)</sup> The standards applied to public baths are in accordance with the Public Sanitation Control Act. Accordingly, Goesan-gun induced the owner to designate the shower room for the use of a swimming pool and a public bath. The swimming pool belongs to the group of facilities for commerce as an exercise facility, and the sauna belongs to the Class 1 neighborhood living facility as a public bath. Since the uses belong to different facility groups, the owner went through deliberation by the building committee during the building construction process. In addition, facilities were expanded based on standards suitable for both uses in accordance with relevant laws such as the Fire Prevention, Installation, Maintenance, and Safety Management of Firefighting Facilities Act, the Special Act on Safety Management of Multi-Use Businesses, and the Sewerage Act. The architect in charge of the design said that there was no difficulty in complying with the building standards for multiple uses, and the possibility of using the multiple-use acknowledgement provisions for new buildings was positively evaluated.<sup>3)</sup>

#### Examples of buildings acknowledged for multiple uses (sports facilities: Class 1 neighborhood living facilities)



Source: Kim *et al.* (2021, p.24)

Case #9 shows a medical welfare facility for senior citizens in Miryang, Gyeongsangnam-do. The building owner is operating a dialysis nursing hospital that combines nursing and medical functions for dialysis patients who need long-term hospitalization. While this facility was opened and operated as a nursing home in 2014, the artificial kidney center was newly installed in 2019 and acknowledged for multiple uses. Elderly facilities and medical facilities belong to the same group of facilities and are not subject to architectural deliberation, but some of the facility standards are different from each other. This is because, in the case of facilities for the elderly, facilities must be installed in accordance with the Welfare of Senior Citizens Act, and medical institutions must comply with the facility standards according to the Medical Service Act. Recently, many welfare facilities for senior citizens have both nursing and medical functions, and it is expected that the demand for similar spaces will increase as the population ages.

Case #10 is a facility for the disabled and a vocational rehabilitation service located in Uiryeong-gun, Gyeongsangnam-do. This is a case of applying for multiple uses to use some of the welfare facilities for the disabled in 2020 for workplace purposes. Welfare facilities for the disabled are facilities for senior citizens and children and belong to the group of facilities for education and welfare, and the workplace is a Class 2 neighborhood living facility with a total floor area of less than 500m<sup>2</sup> and belongs to the group of neighborhood living facility. As multiple uses between different facility groups, multiple uses were allowed through the deliberation of the Building Committee. However, if you look at the opinions of the deliberation, you will find that there are also requests that deviate from the legal obligations for the acknowledgement of multiple uses. Such requests include the need for additional installation of outdoor resting facilities and ventilation (supply and exhaust) facilities for workers, and the need for floor tiles for inducing disabled people and detailed floor coverings.

## Examples of multiple uses

Case		Sector		Details
		Group of facilities (use) according to Article 14 of the Enforcement Decree of the Building Act		
1		Automobile inspection facility	+ Repair shop	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of building mark</li></ul>
		1. Group of facilities relating to motor vehicles (Motor vehicle-related facilities)	1. Group of facilities relating to motor vehicles (Motor vehicle-related facilities)	
2		Fitness center	+ Resting restaurant	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of use</li><li>- Changed the detached house to a fitness center and a resting restaurant</li></ul>
		7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	7. Group of neighborhood living facilities (Class 1 neighborhood living facilities)	
3		General restaurant	+ Internet computer game facility	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of use</li></ul>
		7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	
4		General restaurant	+ Office	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of use</li></ul>
		7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	
5		Factory	+ Resource recycling-related facility	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of building mark</li></ul>
		2. Group of facilities for industrial purposes (Factories)	2. Group of facilities for industrial purposes (Resource recycling-related facilities)	

Case		Sector		Details
		Group of facilities (use) according to Article 14 of the Enforcement Decree of the Building Act		
6		Swimming pool	+ Public bath	<ul style="list-style-type: none"><li>- Multiple uses between different facility groups</li><li>- Application for building permission (new construction)</li><li>- Apply to raise the standard for calculating the amount of sewage generated in the bathroom in the swimming pool to match the standard for the public bath as a Class 1 neighborhood living facility</li></ul>
		5. Group of facilities for commerce (Sports facilities)	7. Group of neighborhood living facilities (Class 1 neighborhood living facilities)	
7		Internet computer game facility	+ Retail store	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of use</li><li>- Changed general game providing facilities to internet computer game facility and retail store</li></ul>
		7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	7. Group of neighborhood living facilities (Class 1 neighborhood living facilities)	
8		Resting restaurant	+ Religious assembly facility	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of building mark</li></ul>
		7. Group of neighborhood living facilities (Class 1 neighborhood living facilities)	7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	
9		Welfare facility for senior citizens	+ Medical facility	<ul style="list-style-type: none"><li>- Multiple uses between the same facility group</li><li>- Application for change of building mark</li></ul>
		6. Group of facilities for education and welfare (Facilities for senior citizens and children)	6. Group of facilities for education and welfare (Medical facilities)	
10		Welfare facilities for persons with disability	+ manufacturing store	<ul style="list-style-type: none"><li>- Multiple uses between different facility groups</li><li>- Application for change of use</li></ul>
		6. Group of facilities for education and welfare (Facilities for senior citizens and children)	7. Group of neighborhood living facilities (Class 2 neighborhood living facilities)	

Source: Kim *et al.* (2021, pp.18–35)

## ● Development of multiple-use acknowledgement provisions

For the development of multiple-use acknowledgement provisions, it is necessary to first publicize the contents of the provisions. Architectural experts generally agreed with the necessity of the provisions. It was thought that the provisions would be helpful in revitalizing private industrial activities and construction investment. However, it appears that even those engaged in architectural design are not aware of the provisions. Thus, publicity and guidance are needed.

Some deregulation is also required to promote such cases. In terms of promotion of the provisions, it is difficult to apply to existing buildings. This is because building standards for each use must be applied at the same time. Therefore, additional measures are needed on buildings subject to deregulation and the extent of deregulation of building standards.

Finally, in order to activate the multiple-use acknowledgement provisions, the process related with the deliberation needs to be improved. In order to be acknowledged for multiple uses of different facility groups, it is necessary to go through deliberation. Thus, the administrative procedure requires greater efforts than the change of use procedure. In the short term, it is necessary to establish a deliberation standard for the acknowledgement of multiple uses so that the approval can be immediately applied. In the long term, it is necessary to find a direction for improvement such as bypassing the deliberation of the Building Committee like the procedures for change of use.

- 1) Korean Statistical Information Service, Statistics Korea. (2022). Building permissions by city and province. [https://kosis.kr/statHtml/statHtml.do?orgId=116&tblId=DT\\_MLTM\\_2200&conn\\_path=I2](https://kosis.kr/statHtml/statHtml.do?orgId=116&tblId=DT_MLTM_2200&conn_path=I2) (Investigation date: 2022.3.17.)
  - 2) Among of sewage per day from a swimming pool: 15 L/m<sup>2</sup>. The formula for calculating the number of people to be treated in the septic tank:  $N = 0.075A$ . The amount of sewage generated per day in the sauna: 16 L/m<sup>2</sup>. The formula for calculating the number of people to be treated in the septic tank:  $N = 0.080A$ . The amount of sewage generated per day in the public bath: 46 L/m<sup>2</sup>. The formula for calculating the number of people to be treated in a septic tank:  $N = 0.230A$  (Source: Ministry of Environment Notice No. 2019-215 (2019. 11. 25., Partially amended). [Annexed Table] Criteria for calculating the amount of sewage generated by building use and the number of people subject to treatment in septic tanks.
  - 3) Interview with Ryu Myung-Jin, Director of ICOOP Architects Co., Ltd. (Jun 29th, 2021, Architecture & Urban Research Institute).
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- Ministry of Land, Infrastructure and Transport. (2015). The amendment bill of the Building Act for the renewal of old buildings passed by the National Assembly – Expansion of investment in construction such as reconstruction and enhancement of public safety. Press release of December 29th.
  - Kim, Eunhee, Lee, Jookyung & Oh, Minjung. (2021). A study on the improvement of multiple use standards to increase the usability of buildings. Architecture & Urban Research Institute.
  - Park, Kyunglip. (1985). A study on the functionality of multi-purpose space. Proceedings of the Korean Institute of Architecture, 1(1), 81-90.
  - Shin, Doosik, Kim, Seongsik, Jeon, Younghoon & Choi, Yunkyung. (2009). A study on the improvement direction of laws related to three-dimensional complex building space development. Proceedings of the Korean Institute of ArchitectsPlans, 25(5), 131-138.
  - Lee, Sangho. (2014). Multi-use development and three-dimensional complex space planning. Architecture, 58(6), 53-56.
  - Grant, J. (2002). Mixed use in theory and practice: Canadian experience with implementing a planning principle. Journal of the American Planning Association, 68(1), 71-84.
  - Pan, W., Turrin, M., Louter, C., Sariyildiz, S., & Sun, Y. (2019). Integrating multi-functional space and long-span structure in the early design stage of indoor sports arenas by using parametric modeling and multi-objective optimization. Journal of Building Engineering, 22, 464-485.

