

중·소규모 유휴공간을 활용한 민간주도·공공지원형 임대주택 사업 활성화 방안

Activation Plan Private-led Public-funded Housing by Small and Medium-Sized Unused Resources

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SUMMARY

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Chapter 1. Introduction

For a number of years, the government has pursued policies towards large-scale construction to stabilize the housing market. However, there are difficulties in securing large-scale land for housing supply, including for the recent designation of the third new city district. Accordingly, a multifaceted approach has been attempted in recent years that involves a mixture of remodeling, purchasing, and leasing in addition to construction at medium- and small-scale project sites, from new projects or the constructions of large-scale complexes. However, in metropolitan areas with a substantial demand for housing, it is challenging to find large-scale as well as medium- and small-scale housing projects, triggering a greater need to create housing supply using underused land or unused unused resources (space with potential for use).

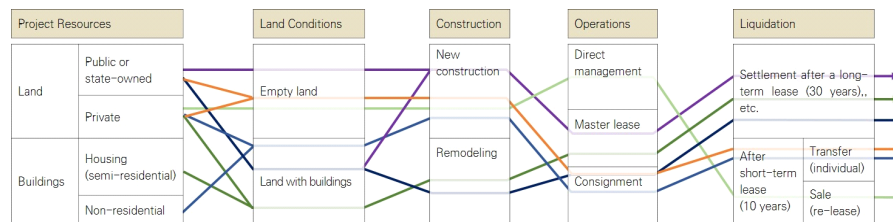
In addition, total project costs are continuously rising due to the public-led housing supply. Thus, the government is switching to supplying housing more through cooperation with the private sector to respond to the increasing financial burden. In addition, considering that 82.2% of young households lived in private rental houses as of

2020, if the supply of private rental housing is reduced, the impact on the housing-vulnerable population will be even more significant. However, although private participation is actively required in rental housing projects, there is a need to expand the conditions for participation, which currently limit participants to corporate rental housing operators with capital and non-profit social economy entities.

Under these conditions, this study intends to analyze specific factors that prevent the activation of unused space for the supply of public-private housing, which remains at a pilot level, and seek ways to overcome obstacles based on the analysis results.

The purposes of the study include: first, increasing residential satisfaction through reasonable housing sizes, residential environments (housing services), and rental costs; second, enhancing project feasibility by utilizing unused space in appropriate locations; third, establishing a direction for nurturing mid-sized rental housing operators (focusing on operating businesses rather than construction businesses). Through the above, we will derive a rental housing project model that leverages unused space and can be operated long-term by the private sector.

The scope of the study is to explore the possibility of utilization in housing projects by targeting small- and medium-sized unused spaces (land and buildings) that are both privately and publicly owned. In addition, it covers the process of creating, operating, and terminating (settlement) rental housing projects from the beginning to the end and simulates project feasibility based on target sites where actual projects are viable.



Example of a combination of project procedures and methods

Source: Research Team

The spatial scope of the study covers Seoul and the metropolitan area, where there is substantial demand for rental housing, as well as unused space in low-density national and public land and private land such as general residential areas that can assure residential environments.

Chapter 2. Analysis of Institutional and Policy Trends of Public-Private Rental Housing Projects

Public-private cooperation that leads to private participation in housing policy can be broadly divided into operation consignment, leasing, and development using REITs by integrating land or building ownership, development projects, and cooperation between entities. The results and implications of public-private rental housing are summarized as follows.

During development using REITs, the supply of public-supported private rental REITs increased to 107 cases (89,620 households, average of 837 households per project site) in the second quarter of 2023, with an average investment of 45.6 billion won per REIT. Amidst the lack of good quality rental housing, from the tenant's perspective, public-supported private rental housing has expanded housing options by supplying rental housing through the fund's priming role and served as a housing ladder to purchasing a home through predictable rent payments. From the perspective of housing supply, the participation of the private sector has reduced the government's financial burden and established a stable supply base for rental housing. From the perspective of housing and urban development, the structure of the housing supply business has been diversified, and the role of the public sector has been nurtured in the housing development finance sector. In other words, the primer of fund investment led to an inflow of private capital, revitalized the rental market, demonstrated public-private partnerships, and contributed to the development of the real estate industry. However, the Special Act on Private Rental Housing and its Enforcement Decree do not contain any provisions on settlement with the project developer or disposal of the housing after the mandatory rental period ends. With the revision of the law in August 2020, the mandatory rental period for public-supported private rental housing operators was increased from the current eight years to ten years, which has the disadvantage of further reducing the motivation for private businesses to participate. As the Housing Welfare Roadmap focused on strengthening housing support for vulnerable populations and strengthening publicness, regulations that had been relaxed under the New Stay policy were again strengthened, resulting in a decrease in supply compared to the New Stay policy period. As a result, as of 2020, the combined volume of public and registered

private rentals is only 3.27 million households. Therefore, in order to revitalize public-supported private leasing, some argue that securitization through REIT share sales should be allowed to ensure the sustainability of leasing businesses. In September 2022, publicness was strengthened by raising the fund dividend standard for excess profits in investment conditions related to HUG fund investments in private rental housing. This has lowered private investment and made it difficult to simultaneously improve project feasibility and strengthen the publicness necessary to attract private operators. Public-supported private rental housing is popular among mid-sized construction companies that have difficulty securing work because the supplier can finance construction costs at a low interest rate (2–2.8%), and the operator can set the sale price after the completion of the lease. However, performances decreased sharply in the first half of 2023, and the recent surge in construction costs has made it difficult to make a profit, which is believed to be the reason for the increased burden on operators. Limitations have also been pointed out regarding housing stability as perceived by the public. Despite improvements such as strengthening publicness, from the consumer's perspective, the cost of living in public-supported private rental housing is similar to New Stay. In addition, since conversion to sale is possible after the eight-year lease period, criticism has emerged that it was insufficient to relieve the housing anxiety of ordinary people. Among the social housing types of operation consignment, land lease social housing, where the private sector builds buildings on public land through public-private joint investment, presents a new policy direction that can establish a long-term housing supply structure that has low rents and reserves public land. This has the advantage of securing usage fees obtained through land leases as a public resource. Notably, land leases utilizing unused public land have been used previously, especially in Seoul. But these have not been revitalized because of institutional limitations, and the land rent and construction costs paid by citizens were too high when using land leases. Social housing with a private purchase agreement through a non-housing remodeling project can improve housing quality through private construction and enable rapid supply in urban areas where it is difficult to secure land. However, problems in obtaining project feasibility have been pointed out because, while the cost of remodeling non-housing facilities into houses at a level that meets architectural standards is considerable, these construction costs are not reflected in the purchase cost. Rigid architectural standards also act as an obstacle to finding a project target. LH launched

the Public Offering for Remodeling Projects of Changing Non-residential Use with Private Purchase Agreements in January 2021. After subsequent screening, 23 of 28 business applications were excluded from purchase. The main reason was that the floor thickness did not meet the Regulations on Housing Construction Standards, etc. (concrete slab thickness of 210 mm). Accordingly, there was opposition from operators regarding whether it was appropriate to apply building standards applicable to housing in projects targeting non-housing. The model shows the possibility that social housing projects can provide small-scale and customized affordable rental housing for young people in terms of housing welfare, achieve results in terms of realizing residential value such as tailoring demand, participation, and community revitalization, and save public finances as private entities take responsibility for construction, management, and operation. On the other hand, it is also a business model that lays the foundation for the participation of private operators who lack capital in the rental market but aim to create social value. Still, financial considerations for stable business promotion are insufficient in the circumstances of small social housing operators participating in projects with inadequate capital. In addition, there are fundamental limitations in the business structure when it comes to securing sufficient community space or operating programs that meet the original purpose of social housing.

The following is a summary of considerations for improving project feasibility in medium- and small-scale rental housing projects. Although both developers and operators ignore these are small and medium-sized rental housing projects, there is a need to understand and approach them from the perspective of impact investment in affordable housing with private-sector participation rather than focusing on project feasibility.

In addition, in the case of medium- and small-scale rental housing, as this kind of business is more sensitive to interest rates, it is necessary to actively utilize financial techniques and seek ways to minimize financial costs through public support in order to achieve public objectives. In general rental housing projects, guaranteed loans are essential to receive financial support from the public, including the private sector. Still, fund loans are not required but are an option that can be used when necessary. However, a guarantee must be used together when using a fund loan through a rental REIT. In the case of the small- and medium-sized public-private rental housing projects that are the subject of this study, their competitiveness in future cash income

and project feasibility is disadvantageous compared to other businesses. Rather than promoting business through PF guarantees, most use them for unique contract guarantees for urban housing for new construction purchase agreements, rental housing purchase fund guarantees, and fund loan products. If project costs are raised through a variety of fund investments, loans, guarantees, etc., the profitability of the project feasibility may deteriorate due to additional financial costs, but it is necessary in terms of securitizing funds and increasing the return on equity capital. Therefore, minimizing financial fees using public asset management companies can also be considered.

For sites in the Seoul metropolitan area, which is the main target of this study, the proportion of the total project cost is even greater if the site is located near a station or has good transportation accessibility. Therefore, measures to minimize land costs should be considered a top priority. There are ways to purchase small parcels of land with low project feasibility, as well as ways to buy unused land that cannot be developed at a low price or to use it by paying an appropriate rent during the rental project period without purchasing it. This study seeks to examine the use of unused land and land lease purchase agreements. In addition, specific strategies are required to generate profits during the rental period, such as strengthening the supply of small houses and renting profit-generating facilities or parking spaces.

Chapter 3. Analysis and Feasibility Study of Small and Medium-sized unused Space Utilization in Housing Policy

Previously, it was essential to secure project feasibility to trigger motivation for participation in medium- and small-scale rental housing projects, and to this end, there was a need to devise strategies to reduce the project's financial burden and generate profits. In particular, the need for a plan to reduce land costs was emphasized to alleviate the burden of gold costs. In this chapter, we aim to identify the characteristics of unused spaces that can be used in domestic medium- and small-scale rental housing projects by

focusing on housing supply cases created to reduce land costs and propose ways to revitalize them.

A variety of resources can be utilized in the project, but as a way to minimize costs, examples of housing using bare land, cases of complex infrastructure utilization, and cases of new construction after the demolition of low-use buildings were selected. Each case was analyzed, with a focus on the overall operating structure of the project, the characteristics of the unused space utilized, and the performance and implications of the case at issue during the project implementation process.

☐ Identification of characteristics of unused spaces to be utilized in rental housing projects

We derived the characteristics of unused space that can be utilized in rental housing projects through a literature review and case study analysis. First, we identified unused spaces with good transportation accessibility that allows for smart, public transportation-oriented development and areas near stations where a socially integrated zoning system can be applied. In addition, when building a complex with unused infrastructure or buildings, it is necessary to manage and respond to variables that arise due to differences in the implementation process of civil engineering and construction projects. Underground civil infrastructure, such as water supply and sewerage facilities, roads, railways, and pumping stations, should be placed at the bottom, and housing should be built above the ground. Therefore, unless the function of the infrastructure is abolished, the structure of the infrastructure and housing should be independent and designed so that entry and exit flow lines and management flow lines can be distinguished. In this design process, the initially expected project cost doubles, which does not fit the purpose of utilizing unused space to reduce project costs, and the project is sometimes halted. In addition, if preliminary research and information on infrastructure are not carefully reviewed during the planning process, the project may be canceled due to unexpected obstacles and variables. Therefore, if civil engineering facilities and complex construction are required, a decision on whether to pursue the project must be made through careful and specific planning. In that respect, it is reasonable to prioritize and review land used for housing and buildings that can easily be combined as unused space resources. In particular, constructing a complex on the upper part of a railway track and railway station takes two to three times longer than

construction on a general site, leading to increased construction costs. Therefore, this type of site also becomes an unused space that is not advantageous regarding project feasibility.

- Measures to enhance project feasibility of medium- and small-scale rental housing projects using unused spaces

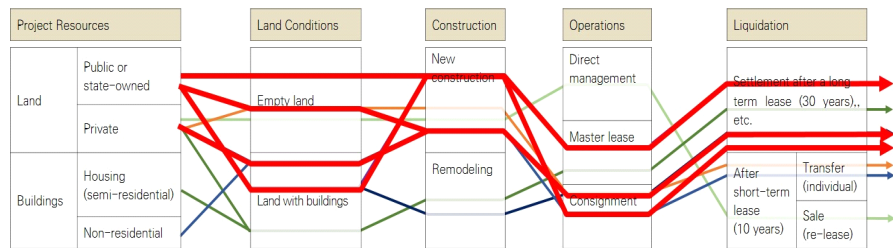
Small and medium-sized rental housing is an area that private operators tend to ignore because it is challenging to secure project feasibility. However, by actively utilizing unused space, it is possible to reduce initial project costs through a purchase agreement that leases land at a lower cost rather than purchasing it or by carefully selecting unused space that is easy to develop, eliminating business obstacles and controlling factors that increase project costs. In addition, measures to improve project feasibility as much as possible through a smart residential service (IoT) platform or a plan to integrate the operation and management of as many households as possible and a combination of profit facilities should be considered.

Chapter 4. Private-led Public-supported Rental Housing Project Models Leveraging unused Spaces

To determine revitalization measures, we set the primary direction of the simulation as follows. First, secure a suitable residential environment in an appropriate location. Second, actively consider reducing initial project costs and operating long-term leases. Third, ensure both profitability and publicness by combining profit-generating and public facilities. Lastly, consider a support system in which the private sector leads, but the public shares risks.

Based on the characteristics and selection criteria for unused spaces available for rental housing discussed above, a business model was derived by considering the conditions of the target site where the actual simulation can be performed. In addition, due to the nature of the simulation, the model was derived by considering the possibility of

occurrence under general conditions rather than limiting the requirements to particular situations or environments with a rare frequency of actual occurrence.



Derivation of business models

Source: Research Team

We considered a method of consignment operation by constructing a new building on land with existing vacant land and buildings within the site (low-use site) or a leased method using the concept of a master lease as a reasonable operation method. The model was designed to ensure publicness and residential safety while allowing long-term rental operation as much as possible. Through this derivation process, the following three business models were derived.

① Type A: Land lease development

- Complex model of railroad station building office + rental housing

This transit-oriented development (TOD) model seeks to develop rental housing by leasing publicly owned land adjacent to a subway station and establishing surface rights, and is suitable for complex development in station areas.

② Type B: Combined development of public and private lands

- Planning with reference to Seoul's coexistence housing model

This model refers to the coexistence housing model that Seoul is pursuing as of 2023 and involves building public housing by combining private underused and unused land with public resources to overcome limitations in public land supply. Among the three business methods of coexistence housing, divided into the use of private land, joint investment, and private-public cooperation, the joint-investment business model is where a corporation invested in by the public and private sector builds public housing. While project sites for coexistence housing are over 3000 m² in area or have more than

100 public housing units, this study conducts a simulation of business feasibility on smaller parcels of lands.

- Combined development of private and public land unsuitable for sole development

This method secures project feasibility while supplying rental housing in subway areas by developing private land near stations, which is challenging to develop due to low project feasibility or limitations in lot shape, location, and scale, together with adjacent publicly owned land to ensure the participation of private landowners.

③ Type C: Complex development of unused state-owned lands

- A complex model of public-contribution rental housing for unused state-owned land

This business method includes the development of rental housing and provides public contributions for rental housing development through changes of use and increases in floor area ratios in the process of developing complex government buildings that require remodeling due to unused national and public lands, such as government building land, US military quarters, underuse land, etc.

Conditions of major business models (plan)

	Type A Land Lease Development	Type B Combined Development of Public + Private Lands	Type C Complex Development of unused State-owned Land
Description	Complex housing with railroad station buildings	Joint housing through joint investments	Rental housing at public office complexes
Housing type	(Common) Alternative ① Small rental housing Alternative ② Rental dormitory		
Land acquisition	Lease (with surface rights)	Shared by proportional owners (mixed ownership)	State-owned land (no change in ownership)
Multi-dimensional use	Upper floors: rental housing Lower floors: railroad offices/living SOC/retail facilities Underground: subway, railway, community facilities for residents (residential service support facilities)	- No mixed-use facilities, consisting of houses and living facilities - Upper floors: public rental housing + private rental (association) housing - Lower floor: community facilities for residents (residential service support facilities)	- Complex development of rental housing, public buildings, and living infrastructure - Upper floors: rental housing - Lower floors: public buildings and living SOC/living facilities
Regulatory innovation plan	Minimal parking space	After the lease period, the remaining assets are sold to joint entities.	Changes in district unit plans (including residential use)
Improvement of publicness	Supply of rental houses in excellent urban locations	Supply of public rental houses, public announcement of subway areas	Engagement of public developers, public contribution facilities

Source: Research Team

In the results of the simulation, the business structure of medium- and small-scale rental housing through private leadership and public support, for which there were high initial expectations, had significant limitations. This was confirmed by applying various conditions and alternatives in the simulation.

Key results of simulations

	Type A Land Lease Development		Type B Combined Development of Public + Private Lands		Type C Complex Development of unused State-owned Land	
	Small houses	Small houses+Rental dormitory	Small houses	Small houses+Rental dormitory	Small houses	Small houses+Rental dormitory
Scale of private rental houses	172 units	190 units	53 units	57 units	113 units	125 units
Lease period	20+ years		Sales after 20 years		25+ years	
Return on equity(%)	8.6%	18.4%	0.7%	0.6%	13.4%	16.5%
How to improve project feasibility	Better rental income with rental dormitory without no land purchase		Better profitability through rental dormitory and initial risk sharing of some units through public purchase agreements		No land purchase; lower fees, interest, and land lease than private rental REITs based on participation of public AMC	
Institutional support	Unification of regulations for affordable land lease		Lower areas of minimum project sites by considering the actual sizes of unused sites near stations		Further encouragement of private participation in state-owned land and changes in district plans	

Source: Research Team

- Re-addressed low returns of medium- and small-scale rental housing projects

Among the three models, a return on equity of 10% or more was foreseeable only from Type A Land Lease Development and Type C Complex Development of State-owned Land. Type A and Type C were simulated by leasing or contracting development rather than purchasing land. Type B Combined Development of Public + Private Lands, which had the lowest project feasibility, involved purchasing private and public land, and the initial project cost was relatively large compared to other types but with low rates of return.

- Need to consider projects through leasing or consignment rather than purchasing land

The results showed that the initial project cost had the most sensitive effect on project feasibility, and among the initial project costs, the land purchase cost was the most significant variable. Development through lease or consignment without changing the land ownership was advantageous in terms of profitability.

- Need to consider various complexities and cooperation between private and public sectors

Type B, although led by the private sector, showed a very small rate of return of 0.6% to 0.7%, even though the public shared the initial project cost through purchase agreements. In addition, Type C was viable only with public participation on state-owned land.

- Ability to ensure architectural and spatial publicness for residents and regions

As another significant consideration, rather than simply focusing on project feasibility and utilizing the developable floor area ratio to the maximum, the simulation sought to secure as many common or open community spaces in the middle of the house as possible to ensure residential performance and a comfortable environment. In addition, more than half of the site area has been secured for public spaces, such as open spaces and living convenience facilities available to anyone outside or for resident use.

Securing a satisfactory residential environment and public open space with a business model that utilized small and medium-sized unused resources had been difficult. However, the simulation showed minimum project feasibility and architectural and spatial publicness can be secured simultaneously.

- More public support is needed for medium- and small-scale rental housing projects.

The simulation confirmed that public support is effective for medium- and small-scale rental housing projects. Among the three types, the two models with a predicted equity rate of return of more than 10% includes cases where the land was leased at a low cost with public support rather than purchasing.

Even if it is rental housing promoted by private participation projects under the Special

Act on Public Housing or the Special Act On Private Rental Housing, medium- and small-scale rental housing requires more active public support than large-scale rental housing due to the business structure.

Chapter 5. Policy Measures to Revitalize Private-led Public-supported Rental Housing

- Relax the standard size of projects eligible for support.

In order to revitalize medium- and small-scale rental housing projects, it is necessary to adjust the scope of support targets by considering the size of the available space, minimum project feasibility and publicness, etc. Considering the average size of unused land in Seoul and the characteristics of station areas in the Gyeonggi region, to support the promotion of small and medium-sized projects and improve the feasibility, a review of measures to realize a station area business district with 50 households and 500 m² is required.

- Establish standards for small and medium-sized rental housing project sites based on local conditions.

The Seoul Metropolitan Government has adjusted the scope of the station area in accordance with local conditions. It promotes the supply of housing for the housing-vulnerable population by adding project site conditions (within 50 m from the road boundary along the main road) to facilitate the supply of new housing. However, based on the research results, we proposed necessary ordinances for the Gyeonggi-do region, where there is still a high demand for rental housing. Yet, no relevant projects or ordinances have been prepared. Among the overall ordinance bills, the scope of the station area was flexibly applied to the general positions in Chapter 1.

- Disperse initial project risks through private and public-combined models.

Until now, private and public rental housing has been promoted with different underlying laws, purposes, and business targets. However, the simulation examined a

complex model that integrated private and public rental housing businesses. Type B chose a strategy to reduce initial costs by purchasing a portion of rental housing at the same time as public housing was constructed (purchase agreement-type rental housing) under circumstances where project feasibility is poor due to high initial project costs such as land purchase and construction costs. Then, the rental housing sector purchased by the public can be operated as an operation consignment (formerly social housing) of theme-type purchased rental housing by entrusting the operation and management to the remaining private rental housing operators. Accordingly, the private sector can reduce the risk of project cost burdens, and the public can easily entrust the difficulties of operating and managing purchased rental housing to private operators. Private operators can also integrate publicly purchased rental housing to manage vacancies and maximize rental profits, which can serve as a basis for operating housing with project feasibility and competitiveness.

- Unify the scope, period of use, and usage fees for national and public land loans.

The scope of private operators who can participate in projects utilizing national and public lands needs to be expanded in the case of public rental housing projects. It is reasonable to grow the business method in which participation is possible to a lending (lease) method rather than a selling method. The loan period for private participation development varies depending on the relevant laws: 50 years under the Special Act On Private Rental Housing, 30 years under the National Property Act (amendment to 50 years pending), 50 years under the Act on Development and Use of Station Areas, and once every five years under the Public Property and Goods Management Act. Ensuring project feasibility and unifying the rental period for long-term rental housing operations are necessary for promoting rental housing.

The land use fee is 1% per year of the property value for a rental housing project under the National Property Act and 5% per year per the Urban Railway Act. Additionally, in some instances, land is used free of charge. Inconsistent land lease fees, depending on each underlying law, pose a risk to operators. There is a need to unify the other conditions for each underlying law to be consistent with the public interest.

Chapter 6. Conclusion

The expected benefits of this study include:

- Review of the possibility of revitalizing medium- and small-scale rental housing, which is neglected in the market and policy;

Through a simulation, we examined the potential of small rental housing models with 50 to 190 units. Even though the project feasibility did not reach that of large-scale rental housing projects, we still identified diverse possibilities through public cooperation, including leasing land, combining the public and private sectors, and linking private rental houses to public developers.

- Verification of the possibility of expanding small and medium-sized operators by operating rental housing for more than 20 years;

In addition to the existing method of individual sale and settlement immediately after the mandatory 10-year lease period, this study also verified the possibility of operating rental housing for more than 20 years and up to 25 years by improving participant restrictions and project site standards under the current system and expanding participation in small and medium-sized rental housing projects.

- Suggestion of space models that satisfy residents and regions for medium- and small-scale rental housing

Even though community and public spaces that residents can appreciate were generously arranged with small housing, minimum project feasibility was also considered. This study and the cases presented a spatial model that provides open spaces and parks that residents can enjoy, making them more attractive after development than before development.

The conclusions of this study are summarized as follows.

- Medium- and small-scale rental housing projects are not easily led by the private sector and require public engagement.

Initially, this study attempted to propose a sustainable rental housing project model led by the private sector and using unused space with minimal public support. However, as seen through simulations, medium- and small-scale rental housing projects required

more active cooperation and combination with the public than large projects.

Based on these results, when designing policies for private rental housing projects, a more detailed and specific plan is needed according to the project scale and conditions. In addition, for project types and support systems, regulators should distinguish between those suitable for large-scale projects and others suitable for medium- and small-scale projects within the framework of private rental housing projects.

- Active combination and risk sharing are necessary between private and public rental housing.

When considering external situations (rising construction costs, higher interest rates, unfavorable financial costs, etc.) and the internal situation of the project (scale, location, content, etc.), the boundary between private rental housing and public rental housing becomes blurred, requiring more cooperation and combination. In particular, medium- and small-scale rental housing projects can promise a viable liftoff and long-term operation through multilaterally engaging structures that relieve initial project costs and share risks.

Keywords

unused space, medium- and small-scale rental housing, use of national and public lands, public-private rental housing, rental housing project model simulation