

# Housing Site Development Projects

## Definition & Background

A housing site development project is a comprehensive land development scheme implemented by the public sector through active participation in every stage of the process, including land acquisition, development, supply, and management. In December 1980, the Housing Site Development Promotion Act was established to ensure that sufficient land was available for the construction of apartment complexes. By the end of 2006, an estimated total land area of 639.674 million m<sup>2</sup> was designated for housing development districts nationwide, with 37.106 million m<sup>2</sup> in 41 districts in Seoul. Most of the housing site development projects in downtown Seoul were implemented by public institutions. Such projects can only be initiated after purchasing the sites. This scheme is effective to prevent the privatization of development gains as well as to construct urban infrastructure and convenience facilities.

<Table 1> Designation of Housing Site Development Project Districts (as of the end of 2006) (Units: 1,000 m<sup>2</sup>, (%))

Division	Total	Korea Land Corporation	Korea National Housing Corporation	Local Government Agencies
Nationwide	639,674 (100.00)	344,313 (53.83)	171,325 (26.78)	124,036 (19.39)
Metropolitan Areas of Major Cities	336,123 (100.00)	190,042 (56.54)	88,199 (26.24)	57,882 (17.22)
Seoul	37,106 (100.00)	6,438 (17.35)	7,378 (19.88)	23,290 (62.77)

Source: Ministry of Construction & Transportation, 2007; 2007 Housing Business Manual, p.160; Housing Seoul, 2008, Internal Data

## Changing Characteristics of Housing Site Development Projects

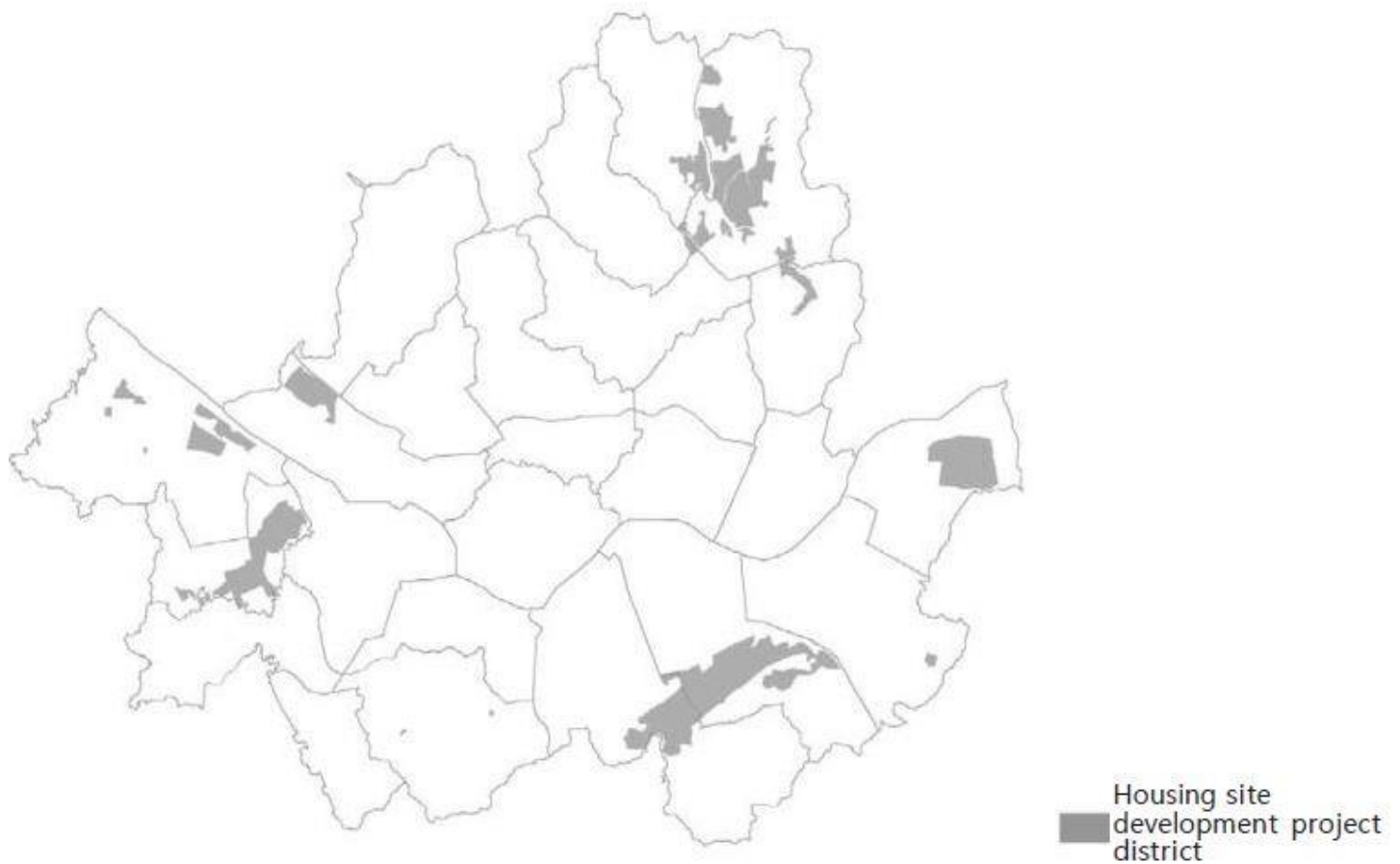
In 1980, the government initiated a plan to construct 5 million housing units and established the Housing Site Development Promotion Act (enacted in December 1980) as part of its effort to secure more land. The establishment of this Act enabled a project entity to purchase large amounts of land on the outskirts of the major cities at affordable prices and rapidly promote projects within a short period of time. Before the enactment of the Act, a land readjustment project had been used to secure land lots. However, the project was effective for small land parcels, but unsuitable for securing large housing sites for collective construction of high-density apartment complexes due to the increase in housing construction costs caused by higher land prices.

The Housing Site Development Promotion Act (hereinafter, the Housing Act) also stipulates the urban planning functions of the Urban Planning Bureau. The Act enabled the pre-designation and eventual large-scale takeover of affordable green zones or farmland. It also allowed for the conversion of those areas to residential areas in the development project-planning phase; and further allowed the acquisition of land at reasonable prices, thereby accelerating development. It is consistent with public development in that a public entity can purchase the entire land for development so as to keep the development gains out of private hands and in the public sector, where they will be reinvested in future housing site development projects.

With the establishment of the Housing Act, housing site development under the Housing Construction Promotion Act (hereinafter, the Promotion Act), which was actively promoted in the late 1970s, was implemented on small-scale development projects, while large-scale development was conducted in a way that individual complexes were developed under the Promotion Act after a housing site was developed according to the Housing Act. Furthermore, with the establishment of the Housing Act, the government designated approximately 3,306 m<sup>2</sup> in thirty cities as the first housing sites. In 1986, the government prohibited adjustment projects in the Metropolitan area and six major cities, making public development projects under the Housing Act the main method of supplying new housing sites. This sparked active promotion of the Housing Act along with the Two Million Housing Unit Construction Plan adopted by the government in 1988. Between the 1980s and 1990s, the development of large-scale housing projects was undertaken in areas such as Gaepo, Godeok, Mokdong, Sanggye, Junggye, and Suseo, and in five new towns in the Metropolitan area, where individual residential complexes were built under the Promotion Act after the implementation of housing site development programs for which the Housing Act was applicable.

In the late 1980s, public development was actively promoted thanks to the Housing Act. In 1988, the government set up offices of regional corporations in Seoul and Daegu and public development agencies in cities and provinces across the nation, in a bid to expand public development by local governments so that the governments could earn development gains and expand local finance. The SMG and local governments began to participate in large-scale public housing site development projects, which hitherto had been led primarily by housing corporations and land corporations.

<Figure 1> Seoul's Housing Site Development Project Districts



<Table 2> Seoul's Housing Site Development Project Districts

Division	Local Government	District	Location	Area (1,000 m <sup>2</sup> )	Number of Houses (Household(s))	District Designation Date	Project Completion	Project Operator
Total		41		33,228	306,451			
1980s	Gangdong-gu	Godeok	Godeok-dong	3,148	19,010 31,923	'81. 4	'88.12	Korea Land Corporation
	Gangnam-gu	Gaepo 2	Gaepo-dong	335		'81. 4	'82.7	Seoul City
	Gangnam-gu	Gaepo 1	Gaepo-dong	1,694		'81. 4	'84.12	Korea Land Corporation
	Seocho-gu, Gangnam	Gaepo 3	Gaepo, Yangjae-dong	6,494	800	'81. 4	'88.12	Seoul City
	Nowon-gu	Wongye 1	Wolgye-dong	75	800	'82. 2	'83.9	Seoul City
	Yangcheon-gu	Mok-dong	Mok-dong	4,375	26,629	'83. 6	'95.3	Seoul City
	Nowon-gu	Wongae 2	Wolgye-dong	246	4,840	'84. 4	'86.6	Seoul City
	Mapo-gu	Seongsan	Seongsan-dong	189	3,710	'84. 4	'86.12	Seoul City
	Songpa-gu	Munjeong	Munjeong-dong	423	4,494	'85. 10	'88.11	Seoul City
	Nowon-gu	Sanggye	Sanggye-dong	3,308	39,782	'85. 4	'91.12	Korea National Housing Corporation
	Nowon-gu	Junggye	Junggye-dong	1,596	24,865	'85. 4	'92.6	Korea Land Corporation
	Dobong-gu	Changdong	Changdong	497	6,500	'86. 7	'92.11	Korea National Housing Corporation
	Gangbuk-gu	Bun-dong	Bun-dong	360	6,511	'86. 7	'93.12	Korea National Housing Corporation
Nowon-gu	Junggye 2	Junggye-	1,344	16,660	'86.12	'98.12	Seoul City	

			dong					
	Nowon-gu	Wolgye 4	Wolgye-dong	150	4,300	'89.12	'94.6	Korea National Housing Corporation
	Gangnam-gu	Daechi	Daechi-dong	240	4,198	'89. 3	'96.7	Seoul City
	Gangnam-gu	Suseo	Suseo-dong	1,335	16,353	'89. 3	'96.7	Seoul City
	Secho-gu	Woomyeon	Woomyeon-dong	157	2,327	'89. 3	'96.12	Korea National Housing Corporation
1990s	Gangseo-gu	Gayang	Gayang-dong	977	16,462	'89. 5	'96.7	Seoul City
	Gangseo-gu	Deungchon	Deungchon-dong	763	12,306	'90. 7	'96.6	Korea National Housing Corporation
	Nowon-gu	Shillim	Shillim-dong	27	960	'90. 7	'96.12	Seoul City
	Gangseo-gu	Banghwa 2	Banghwa-dong	89	1,995	'90. 9	'96.6	Seoul City
	Gangseo-gu	Banghwa	Banghwa-dong	640	8,101	'90. 3	'97.8	Seoul City
	Jungang, Nowon-gu	Sinnae	Sinnae Gongneung-g-dong	1,032	12,007	'90. 3		Seoul City
	Nowon-gu	Wolgye 3	Wolgye-dong	203	3,744	90. 9	'97.7	Seoul City
	Nowon-gu	Gongneung 1	Gongneung-g-dong	175	3,420	'90. 9	'97.1	Seoul City
	Songpa-gu	Geoyo	Geoyo-dong	184	4,008	'91.12	'98.8	Seoul City
	Nowon-gu	Wolgye 6	Wolgye-dong	136	2,475	'91.12	'99.12	Seoul City
	Nowon-gu	Wolgye 6	Wolgye-dong	36	981	'91.12	'00.6	Seoul City
	Dobong-gu	Changdong 2	Changdong	22	609	'91.12	'00.9	Seoul City
	Nowon-gu	Gongneung 2	Gongneung-g-dong	386	5,365	'91.12		Seoul City
	Nowon-gu	Sanggye2	Sanggye-dong	283	4,607	'91.12		Seoul City
	Nowon-gu	Sanggye3	Sanggye-dong	54	1,053	'91.12		Seoul City
	Gwanak-gu	Bongcheon	Bongcheon-dong	25	564	'91.12		Seoul City
	Gangseo-gu	Hwagok	Sinjeong-dong	29	625	'92.12	'99.12	Seoul City
	Yangcheon-gu	Sinjeong	Sinjeong-dong	122	1,302	'96. 4		Seoul City
	Yangcheon-gu	Sinjeong 2	Sinjeong-dong	140	1,800	'96. 4		Seoul City
	Dobong-gu	Dobong	Dobong-dong	70	584	'97. 3		Seoul City
	Mapo-gu	Sangam	Sangam, Seongsan-dong	1,629	6,307	'97. 3		Seoul City
	Yangcheon-gu	Sintu-ri	Sinjeong-dong	180	3,444	'99.12	'00.6	Seoul City

Source: Urban Planning Bureau of Seoul, 2008, Internal Data

### Typical Housing Site Development Project Districts

#### Gaepo District

In response to the Five-million Housing Unit Construction Plan initiated by the government, the entire areas of Gaepo-dong and Irwon-dong in Seoul were designated as districts for project implementation in order to supply affordable housing sites to tackle the housing shortage. These areas were chosen to absorb the increase in population expected with the development of Gangnam in the mid-1970s. The Gaepo District encompasses Gaepo-dong and Irwon-dong in Gangnam-gu, Seoul, i.e. an area of 1,693,559 m<sup>2</sup>. The area is located

13 km southeast of downtown Seoul, 12 km east of the center of the large residential areas in Yeongdeungpo, and 5 km northeast of Gwacheon. On April 11, 1981, Gaepo was designated as a district for housing site development. The development was commenced on December 24, 1981 and completed in December 1984. The development master plan included detached housing (20%) and multi-family housing (80%) designed to accommodate 23,309 people or 5,287 households. A survey on land compensation was conducted from April to September 1981 in order to reach an agreement on compensation. The cost of the project totaled KRW 37.242 billion, including land (66.7%) and site development costs (33.3%).

### **Godeok District**

Godeok was designated as a district for housing site development in April 1981, with construction beginning on May 3, 1982 and finishing on December 30, 1985. The total project area was 3,148,450 m<sup>2</sup>, with costs totaling KRW 81.294 billion (land costs: KRW 49.359 billion; site development costs: KRW 31.935 billion). The Godeok district encompassed all of Godeok-dong and Myeongil-dong in Gangdong-gu, Seoul, located about 1.6 km east of the downtown area and about 2 km from the center of Cheonho-dong. The composition of the housing site in the Godeok district was intended to accommodate 75,250 people, or 18,820 households. The excellent clinical services available in Myeongil Park (in central and outskirt development prohibited zones) were utilized to create suburban-type housing complexes. Residential areas (55.6%) were properly modeled with multi-family, detached, and tenement housing units. The size of a detached house was based on the requirement of 231.4 m<sup>2</sup> per parcel. Commercial areas (3.4%) were established in the center of the district, and the public corporation planned the first urban design for the commercial areas to ensure the proper placement of business facilities. Land for public use accounted for 33%. Sufficient land was set aside for educational facilities, such as six elementary schools, four middle schools, and six high schools to serve 75,000 persons. The daily water supply available amounted to 400 liters per person. The intercepting pipelines were installed at the Tancheon Sewage Treatment Plant to treat the sewage, for which the SMG covered KRW 11 billion (16%) of the cost.

### **Junggye District**

The Junggye district was designated for housing site development on April 10, 1985, under the supervision of the Korea Land Corporation. On October 29, 1985, the Corporation initiated a land compensation program after a development approval was obtained on April 2, 1986, and construction was completed on June 29, 1992. The total area of the project was 1,597,675 m<sup>2</sup>, with costs totaling KRW 140.369 billion. The Junggye district encompasses Junggye-dong, Hagye-dong, and Gongneung-dong in Dobong-gu, Seoul. Most of the land owners lived in other regions. More than 95% of the residents were the urban poor, who worked at the adjacent brickyards and lived in greenhouses and board-framed houses. Despite the poor living conditions, local residents actively conducted autonomous activities, establishing a countermeasure committee and a resident representative group. The committee served as an important basis for organizing the Multi-family Housing Association, a part of the Junggye District Relocation Plan.

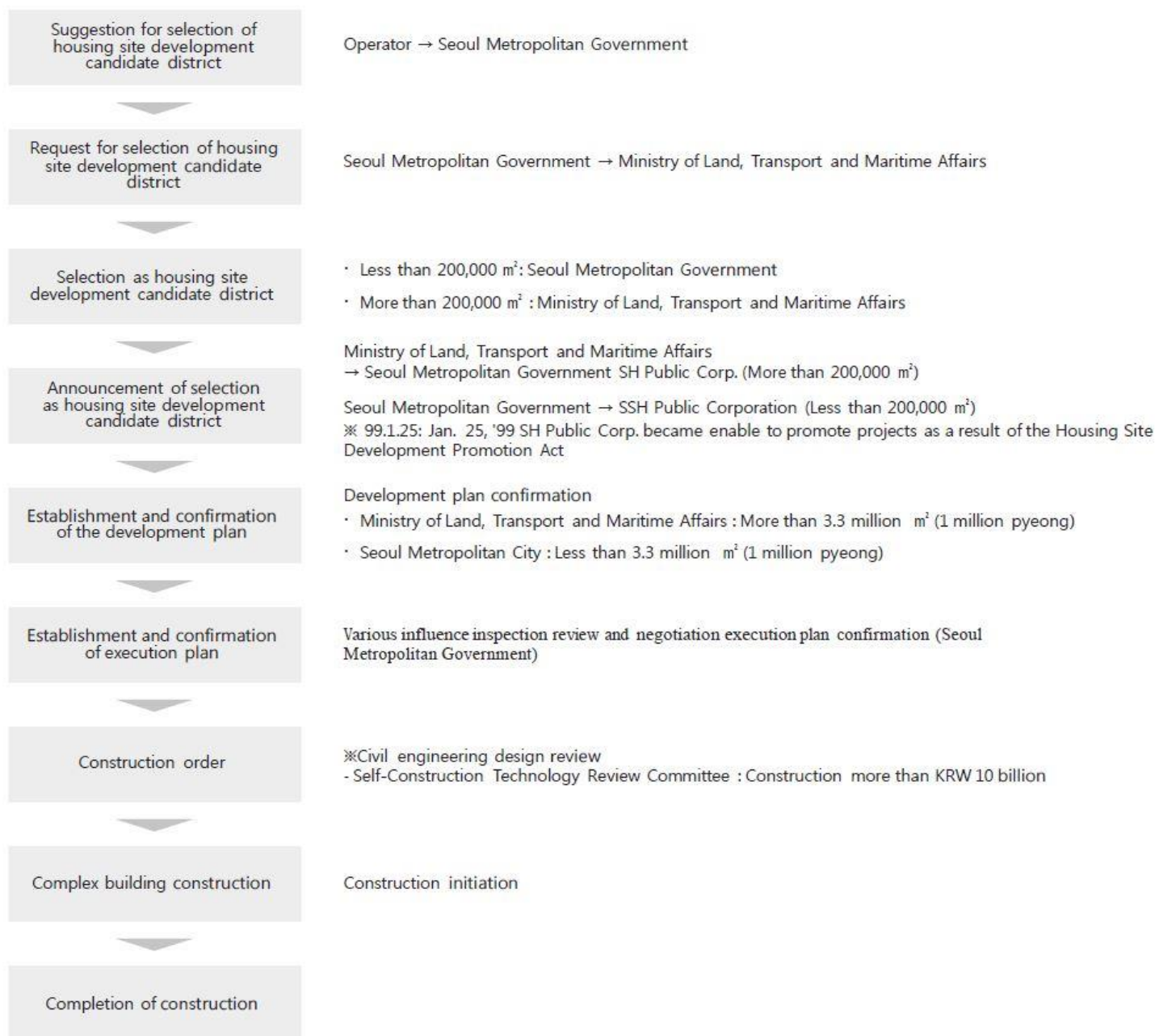
With a design to accommodate 99,460 people, the plan earmarked 866,849 m<sup>2</sup> (54.4%) of the available land for housing, 33,462 m<sup>2</sup> (2.1%) for commercial purposes, and 692,307 m<sup>2</sup> (43.5%) for public use. The plan did not, however, include land for single-detached housing. A joint relocation measure was implemented through close coordination with the nearby Korea National Housing Corporation and the Sanggye district, which became the first district where land development was implemented by both public and private entities. It was also the first public district to receive multi-housing land because it was impossible to provide the single-unit houses as part of migration measures as the development was implemented only in public districts.

## **Promotion of Housing Site Development Projects**

### **Procedure**

A housing site development project is proposed by a project operator such as the government, local government agencies, the Korea Land Corporation, the Korea National Housing Corporation, or regional corporations. Then Minister of Land, Transport & Maritime Affairs designates a preliminary housing development district, pursuant to a review by the Housing Policy Committee. A public announcement of the proposal and gathering the opinions of the relevant local government agency and residents, and consultations between the Central Administration Organization and the Ministry of Land, Transport & Maritime Affairs should be preceded. Since 2000, whenever a specific area is designated or rejected as an estimated housing development district, the area is deemed to be either designated or rejected as a Type 1 District-unit Planning Area in accordance with Article 51 of the National Land Planning & Utilization Act. When a district is designated for development, land will be supplied according to the housing site development plans, implementation plans, and housing site supply plans. While mayors and governors have the power to approve proposals, only the Ministry of Land, Transport & Maritime Affairs has the authority to approve the designation of the district larger than 200,000 m<sup>2</sup> and housing land development of an area larger than 330,000 m<sup>2</sup>.

<Figure 2> Procedure for Housing Site Development in Seoul



### Housing Site Development Processing Standard

The main purpose of housing site development projects is to supply land for mass housing in response to the increased demand for housing resulting from rapid urbanization. Housing site development plans are established in accordance with the Housing Site Development Guidelines. These guidelines set standards for the distribution of housing construction land, the housing allocation for each lot size for multi-family housing, the method of supplying housing sites, and the supply prices.

<Table 3> Ratios for the Allocation of Housing Construction Land

Area	Use of Land for Multi-family Housing		Single-detached Housing Construction Land
	Apartment Complexes	Tenement /Multi-household Housing	
1. Metropolitan Seoul and Busan	60% minimum	20% maximum	1. Metropolitan Seoul and Busan
2. Metropolitan Areas (except Busan and Incheon)	40% minimum	20% maximum	2. Metropolitan Areas (except Busan and Incheon)
3. City Areas	50% minimum		50% maximum
4. Other Areas	The entity entrusted with the authority to approve housing site development projects will be determined according to regional conditions.		

Note: For Nos. 1, 2 & 3 above, the entity with the authority to approve housing site development projects may adjust the allocation ratio within a range of 20% based on the regional conditions.

Source: Article 13, Housing Site Development Guidelines

A land lot for construction of multi-family housing is chosen according to the size needed for the number of families, unit sizes, the number of floors to be built, and the floor area ratio (FAR) for each household. Areas designated for the construction of single detached housing should be developed in parcel units of 165~660 m<sup>2</sup> per plot of land. In metropolitan areas, apartment complexes should be constructed on at least 60% of development sites, with a maximum of 20% for tenement/multi-household buildings, and a maximum of 20% for single detached housing. Within Seoul, land for single detached housing is rarely provided.

In September 1989, land was provided to supply 20-50% of multi-family housing land for public lease housing construction. Houses for permanent lease and 50-year lease were mainly constructed from 1989 to 1990, and for 5-year public lease from 1990 to 2003.

<Table 4> Supply Standard for Rental Housing Construction Land

	Details of Transition
Sept. 1989	- Minimum 30% of land for construction of multi-family housing
Nov. 1990	- Minimum 20% of land for construction of multi-family housing
Dec. 2003	- Minimum 40% of land for construction of multi-family housing

Source: Korea Land Corporation, 2007, Housing Site Development Guidelines

The size of houses was regulated: a house of 60m<sup>2</sup> or smaller should be more than 30% of the total houses to be constructed, and a house of 85m<sup>2</sup> or smaller should be more than 60%, and a house larger than 85m<sup>2</sup> should be less than 40%. However, the entity authorized to approve housing site development projects may adjust these percentages within a 10% range when deemed necessary based on the prevailing regional conditions.

<Table 5> Allocation Percentage for Dwelling Scale of Multi-family Housing Construction Land

Period	60m <sup>2</sup> or less	85m <sup>2</sup> or less	More than 85m <sup>2</sup>
Aug. 1995	30-50%	- 70% or more including 60m <sup>2</sup> or below	- Below 30%
Feb. 1996	- Metropolitan areas/cities: 30% or more - Other areas: 20% or more	- 60% or more including 60m <sup>2</sup> or below	- Below 40%
Jan. 1998	- Metropolitan areas/cities: 30% or more - Other areas: 20% or more	- 60% or more including 60m <sup>2</sup> or below	- Below 40%
Dec. 1998	- Metropolitan areas /cities: 30% or more - Other areas: 20% or more	- 50% or more including 60m <sup>2</sup> or below	- Below 50%
Aug. 2001	- Metropolitan areas/cities: 30% or more - Other areas: 20% or more	- 60% or more including 60m <sup>2</sup> or below	- Below 40%

Note: Starting from 1998, the entity authorized to approve housing site development projects may adjust the percentages within a 10% range after considering the regional conditions.

Source: Article 13 of Housing Site Development Guidelines

Competitive bidding prices vary within 60% of the construction costs in accordance with the usage of housing site supply prices. In Seoul and the metropolitan area, the price of the land lot for public lease housing of 85 m<sup>2</sup> or smaller is 60-85% of the construction cost; a building plot for housing units of 60 m<sup>2</sup> or smaller is provided at 95% of the construction cost; public land is provided at 100% of the construction cost; and housing construction land in lots of 60-85 m<sup>2</sup> is provided at 110% of the construction cost. Commercial land is provided according to competitive bids, other sites according to appraisals.

<Table 6> Housing Land Supply According to Application & Supply Price (Based on End Users)

Application	Supply Method	Supply Price (Remarks)
Commercial sites	Competitive bid	- Bid
Supermarkets	Competitive bid	- Bid
Religious buildings	Lottery	- Appraised value
Kindergartens	Lottery	- Appraised value
Public government buildings	Private contract	- Construction cost
Parking lots	Competitive bid	- Bid
Parking lots	Lottery	- Appraised value

Medical centers	Lottery	- Appraised value
Telecommunications facilities	Private contract	- Appraised value
Comprehensive energy facilities	Private contract	- Appraised value
Power supply equipment	Private contract	- Appraised value
Urban factories, integrated facilities of venture enterprises, software business facilities	Private contract	- Appraised value
Agriculture-related facilities	Lottery	- Appraised value
Social welfare facilities	Private contract Private contract	- Construction cost (social welfare corporations) - Appraised value

Note 1. If a large housing site project (at least 3.3 million m<sup>2</sup>) is developed as part of a new town construction project, some of the aforementioned standard may be adjusted in special cases.

Note 2. Electricity and gas may be provided at the construction cost if the receiver is subject to the Framework Act on the Management of Government-Invested Institutions.

Source: Article 13, Housing Site Development Guidelines

### Management of Housing Site Development Projects

Following the revision of the National Land Planning & Utilization Act in 2000, the housing development sites and projects was changed to be managed under a district-unit plan. This revision requires that districts designated for housing development projects include district-unit plans upon approval of the project implementation plan, and also provides details related to the Type 1 District-unit Plan and plans for implementation.

The development of housing site projects was mainly focused on apartment complexes; hence, it is necessary to prepare individual reconstruction and remodeling projects through a district-unit plan rather than through the Redevelopment Master Plan of Urban Central and Residential Areas. A floor area ratio for development requires to be continuously managed after the project is completed, to prevent the overloading of infrastructure at the initial planning phase.

### Housing Site Development Project: Mok-dong District

#### Overview

The Mok-dong district spans across Mok 1-dong, Mok 5-dong, Mok 6-dong, Sinjeong 1-dong, Sinjeong 2-dong, and Sinjeong 6-dong in Yangcheon-gu. It was established as a large “new town” geared towards apartment complexes, and comprises the Anyang Stream, Mok-dong Sports Stadium, and unique green zones, as well as neighborhood parks with sports facilities situated within apartment complexes.

In the district, the subway Line 2, 5 and 7 are well connected. However, the stations are located on the outskirts of the complex, so public transportation is not readily available. The Gyeongin Expressway passes through the district, and the area is also traversed by Nambu Beltway, the Seobu Expressway, and the Sindorim overpass. However, traffic congestion frequently occurs on the arterial roads including the Gyeongin Expressway, Omok-ro, and Sinjeong-ro.

#### Appointment of Estimated Housing Site Development Districts

In April 1983, the SMG announced the Southwest Regional Development Plan to create high-density residential complexes in the Mok-dong district; and the following month it requested housing site development districts for an estimated 4,375,000 m<sup>2</sup> of the Mok-dong district. The request was approved in June. The purpose of the proposal was to boost the stagnated areas and develop a multi-core downtown of the Mok-dong district, which would be re-oriented as a large bed town in the southwest region. Furthermore, the proposal was aimed at alleviating the housing shortage by supplying a large number of apartment complexes through a large-scale housing site development.

After applying for district designation, the SMG announced that its Mok-dong New Town Development Plan would implement parcel and rental at a 2:1 ratio, including 25,000 apartment units ranging from 66 m<sup>2</sup> - 181 m<sup>2</sup>, aiming at constructing a "world-class new town." In addition, the plan included eleven schools, regional heating from a new combined heat and power plant, and a public design contest for the construction master planning of Mok-dong New Town.

The Mok-dong district development was initiated in April 1984 with the construction of apartment complexes and completed in November 1989. In 1988, the region was separated from Gangseo-gu to be Yangcheon-gu, and construction of the central axis and strategic means of the Mok-dong district development began. The central axis of the Mok-dong new town adopted a form in which the central axis of the Hook new town plan was configured in the form of the letter S and the two piled alongside. The central axis was a strip, 150m in width and 4.5 km in length, and covered an area of 607,000 m<sup>2</sup>. It connected south and north, with a linear traffic system connecting each major *gu* district.



<Table 7> History of Mok-dong District Development

Period	Details	Remarks
May 1983	Request for housing site development district estimation	
Jun. 1983	- Housing site development district estimated	- Notice No. 201 of the Ministry of Construction & Transportation
Sept. 1983	- Approval granted for housing site development plan	
Oct. 1983	- Housing site development project implementation plan submitted for approval	
Nov. 1983	- Housing site development plan approved	- Notice No. 373 of the Ministry of Construction & Transportation
Jan. 1984	- Housing site development project implementation plan approved	- 4,375,000m <sup>2</sup>
Mar. 1984	- Master Plan for housing site development project approved	
Jul. 1984	- Passed deliberation of the Central Design Council of the Ministry of Construction and Transportation	- Seoul City Notice No. 995
Mar. 1995	- Housing site development projects completed	
2006	- Redevelopment of the district-unit planning of the central district	

Source: Seoul Special City, 1991, An Evaluation of Mok-dong Public Development, p.881~888

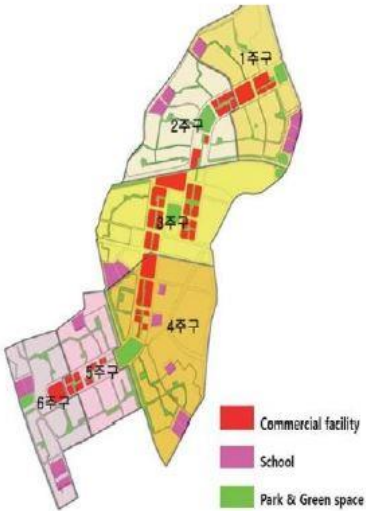
### Characteristics of the Mok-dong Housing Site Development Plan

The Mok-dong district was a central part of the Gangseo-*gu* region. The project in this area was modeled after the linear central axis planning in the Hook New Town Proposal (1961), with the aim of mitigating the housing shortage and stabilizing housing prices, while using the development profits for the public development of high-density residential complexes, reinvesting the collected funds, and expanding urban infrastructure.

#### Planning Characteristics: Composition of Linear & Overlapping Living Zones

The Mok-dong district is a “bed town” with commercial districts at its center. The living zones are classified into three main districts, six sub-districts, and twenty divisions via a linear arrangement of the commercial areas. The plan was intended to provide opportunities to select various services and satisfy the needs of the residents by overlapping high-, medium- and low-quality living zones on the central axis of a linear alignment.

<Table 8> Classification of the Mok-dong District Living Zones

	Division	No. of Parts	Characteristics	Radius of life (m)	Population	Required Facilities
	Mid-living zone		All estimated target		100,000-120,000	
	Main Districts	3	North district Center district South district	800~1200	40,000-50,000	Middle/high schools Shopping centers
	Sub-Districts	6	Neighborhood living areas of life center in the central axis	400~800	20,000	Elementary schools Neighborhood parks Shopping centers Dong Office
	Division of a district	20	General goods voucher	200~300	7,000	General stores Kindergartens Playgrounds

### Multi-family Housing Complex: Low-density focused on medium and large housing

The residential area of the Mok-dong district consists of fourteen districts, with the number of households accommodated in each district 1,902 households on average, but the number varying from 1,300 to 3,100 households. The medium to large houses were provided



mainly for middle-class residents. In terms of distribution by size, units smaller than 60 m<sup>2</sup> account for 22.5%, units smaller than 85 m<sup>2</sup>, 35.8%, and units smaller than 85 m<sup>2</sup>, 41.7%. To sum, units larger than 85m<sup>2</sup> account for 77.5% of the total houses. Specifically, units larger than 85 m<sup>2</sup> account for 50% of the houses in Apartment Complex 1, 2, 3, 5, 9, and 13.

<Table 9> Mok-dong District Housing Unit Sizes

Area	Total	Maximum of 60 m <sup>2</sup>	Maximum of 85 m <sup>2</sup>	Above 85 m <sup>2</sup>
Complex 1	1,882 (100.0)	240 (12.8)	502 (26.7)	1,140 (60.6)
Complex 2	1,640 (100.0)	-	400 (24.4)	1,240 (75.6)
Complex 3	1,588 (100.0)	-	646 (40.7)	942 (59.3)
Complex 4	1,382 (100.0)	594 (43.0)	240 (17.4)	548 (39.7)
Complex 5	1,848 (100.0)	-	525 (28.4)	1,323 (71.6)
Complex 6	1,362 (100.0)	594 (43.6)	240 (17.6)	528 (38.0)
Complex 7	2,550 (100.0)	720 (28.2)	1,200 (47.1)	630 (24.7)
Complex 8	1,352 (100.0)	834 (61.7)	278 (20.6)	240 (17.8)
Complex 9	2,030 (100.0)	240 (11.8)	621 (30.6)	1,169 (57.6)
Complex 10	2,160 (100.0)	570 (26.4)	584 (27.0)	1,006 (46.7)
Complex 11	1,595 (100.0)	760 (47.6)	835 (52.4)	-
Complex 12	1,860 (100.0)	470 (25.3)	1,390 (74.7)	-
Complex 13	2,280 (100.0)	240 (10.5)	804 (35.3)	1,236 (54.2)
Complex 14	3,100 (100.0)	720 (23.2)	1,270 (41.0)	1,110 (35.8)
Total	26,629 (100.0)	5,982 (22.5)	9,535 (35.8)	11,112 (41.7)

Note: Lease housing overlaps with housing sizes due to the supply amount of each complex.

Source: Seoul City, 1991, An Evaluation of Mok-dong Public Development, p.940-941

Apartment buildings were constructed sequentially from 1985 to 1988. All of the buildings standing today are older than twenty years. The buildings were allowed to be reconstructed from 2013, but there was no demand. The average floor area ratio is 143%, varying by complex from 117.2 to 164.5%. The FAR by complex is within 120% (except Complex 8, 13, and 14), and the average density per household is 130.7 units per hectare, which is extremely low.

The number of available parking spaces per household is 0.6, which indicates a serious parking shortage in the district.

<Table 10> Mok-dong District Complexes: Vehicles & Parking Spaces per Household

	Households (Parcel + Lease)	Parking Spaces	Parking Spaces per Household
Complex 1	1,882	1,104	0.6
Complex 2	1,640	1,306	0.8
Complex 3	1,588	1,199	0.8
Complex 4	1,382	757	0.5

Complex 5	1,848	1,444	0.8
Complex 6	1,362	783	0.6
Complex 7	2,550 (2,130 +420)	1,251	0.5
Complex 8	1,352	617	0.5
Complex 9	2,030	1,466	0.7
Complex 10	2,160 (1,560+600)	1,397	0.6
Complex 11	1,595	646	0.4
Complex 12	1,860	873	0.5
Complex 13	2,280	1,625	0.7
Complex 14	3,100 (810+2,290)	1,879	0.6
Total	26,629 (18,512+8,117)	16,347	0.66

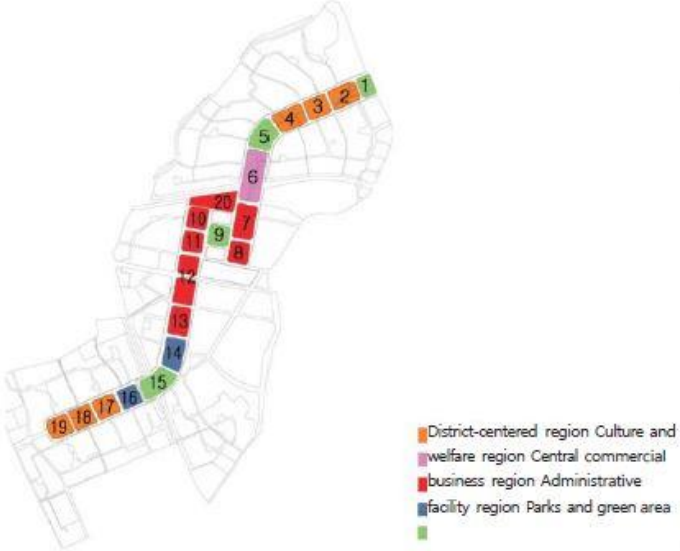
Note: Vehicles per household = Available parking spaces/ Number of households

Source: Seoul City, 1991, An Evaluation of Mok-dong Public Development, p.579

#### **Central Commercial Area: Large-scale Parcel & Postponement of Sales Causes Delay in Revitalization**

All of the Mok-dong district's central facilities are located on the central axis, and the district center of the aggregated neighborhood is nearby the south and north of the axis, while commercial business facilities are located in the center. General administration, public and cultural welfare facilities are located between the complexes. In terms of the central commercial area, business facilities account for 31.3% of the land lot, multi-purpose buildings, 29.0%, and cultural facilities, 8.9%. However, multi-purpose buildings account for 46.9% in terms of the total floor area, most of which were constructed after the Asian financial crisis in the late 1990s. Despite the claim that the Mok-dong district is a major neighborhood in the southwest area of Seoul, the number of businesses in the Mok-dong district is extremely lower than the city's average. This is because the central commercial land which could serve 14.0 businesses and 89.0 persons per 10,000 m<sup>2</sup> was simply sold.

<Table 11> Mok-dong District: Functions & Facilities by Central Commercial Block

	Zone	Block	Main Use
		1	Park and other green areas
	District center	2	Education commercial (dwelling withhold)
		3	Living facility (withhold)
		4	District center
	Cultural & welfare district	5	Park and other green areas
		6	Cultural welfare
	Central commercial business zone	7	Commercial business
		8	Business center
		9	Park culture
		10	Business center
		20	Commercial business
		11	Commercial business
		12	Urban design excluding zone (commercial)
		13	Commercial business
	Administrative facility zone	14	Administration
		15	Park and other green areas
		16	Administration
	District center	17	Cultural welfare
		18	District center
19		Living facility (withhold)	

Source: Seoul City, 1991, An Evaluation of Mok-dong Public Development, p.68

Transportation: Worsening stagnation of central roads due to increasing traffic volumes

The road network in the Mok-dong district consists of three arterial roads and outer ring roads that pass through the inside of the district, as well as an internal beltway. One of the most notable features of the road network is the one-way ring road of the central axis. This one-way feature allows left turns without the need for traffic signals, while signal interlocking reduces the straight traffic travel time. In terms of road design, intersections at the local distribution roads and underpasses at Jemulpo-ro and Omok-ro (Mok-dong's central axis and arterial roads) particularly stand out.

Measures are needed to improve the traffic flow. There is an increase in straight traffic from the district's arterial roads to the Mok-dong central axis in anticipation of further development and the concentration of traffic volume around the central axis road (the Mok-dong East and West roads) and Jemulpo-ro, all of which penetrate the Mok-dong district. On Jemulpo-ro, traffic is concentrated from Yeouido and Downtown Seoul, and from Incheon and Bucheon, while congestion occurs on the Mok-dong central axis road due to straight traffic from the outer areas connected to Sinwol-ro and Sinjeong-ro.

<Figure 3> Mok-dong District: Road Network & Traffic Volume



**General**

A housing site development project is a project that the government or a public institution provides real estate, develops sites, and builds housing in order to sell or lease it to end users. Development projects have contributed to stabilize real-estate prices (unlike land readjustment projects) because development profits from the public sector and profits from the private sector were absorbed, rather than being used to buy more land (and thereby driving up prices), and because project operation is limited to public entities. The public sector chooses affordable real estate and develops the site, while a private company constructs housing on the site, enabling more effective management of such problems as excessive speculation arising from the private sector’s project implementation.

Since housing development projects limit project operators to public entities, such a scheme was effective in stabilizing housing prices by providing an affordable supply of land and ensuring that development gains were absorbed by the public sector, unlike land readjustment projects of the past. The systematic organization of “new towns” with public facilities and infrastructure also contributed to urban development. Despite the construction of infrastructure in accordance with the installation of service facilities through housing site development projects, infrastructure is still insufficient due to social and economic changes. The rules for landscaping, the construction of rest areas within green zones, parking lots, nurseries, sports facilities, and other neighborhood infrastructure were different in the 1980s from today. The lack of adequate parking lots was the most serious problem. There was no required ratio of unit size to number of parking spaces in the early 1980s, but later standards were established: 0 vehicles for the area of smaller than 40 m<sup>2</sup>, 0.4-0.6 vehicles for areas ranged 40-85 m<sup>2</sup>, and 1.0-2.0 vehicles for areas larger than 85 m<sup>2</sup>. The current standards are one or more spaces per household, but the lack of parking spaces has remained an ongoing problem for buildings constructed in the 1980s.

<Table 12> Land Readjustment Projects, Urban Development Projects, & Housing Site Development Projects: A Comparison

	Land Readjustment Projects (Urban development projects based on replotting)	Housing Site Development Projects	Urban Development Projects
Purpose	Promotion of land utility Redevelopment of public facilities	Resolution of urgent housing shortage	Urban development of complex functions

Applicable Act	Land Compartmentalization & Rearrangement Projects Act	Housing Site Development Promotion Act	Urban Development Act
Project Site	Land readjustment project district	Estimated housing site development district	Urban development districts
Project Operator	Land owner association Central & local government Korea National Housing Corporation Korea Land Corporation	Government, local government agency Korea Land Corporation Korea National Housing Corporation Regional corporations and public-private corporations	Government, local government agency Joint-investment corporation Individual landowners or associations
Project Method	Replotting	Whole take-over	Choose either whole takeover, replotting, or a mix of both
Land Supply	Replotting after reduction of house lot size	Supply to construction companies at cost of construction or less	Depended on project methods
Funding	Provided by landowners	Provided by project operator	Indirect government support Provided by project operator
Infrastructure	Lack of clarity on entity responsible for construction	Lack of clarity on entity responsible for construction	Specifies entity responsible for construction
Development Profits	Privatizes development gains	Gains returned to society	Gains returned to society
Development Pattern	Low-density, low-rise buildings	High-density, high-rise buildings	High-density, high-rise buildings
Advantages	No investment burden Reduction of civil complaints	Supply of affordable housing sites Development profits returned to society Systematic development and efficient use of land	Urban development of complex functions Private-sector participation Clarification of responsibility for infrastructure
Disadvantages	Delay of project completion due to conflict between owners Increased real estate prices and speculation	Civil complaints from existing landowners Increased financial burden of project operators Expansion of local money supply due to excessive compensation for land → Increased real estate prices and speculation	Project target site relatively limited Private developers find it difficult to secure project target sites

Source: Won Dong-il, Ahn Hyung-soon, Kang Jun-mo, 2005, "A Comparative Study on the Changes in Land Policy & Residential Development Systems of South Korea and China," Korea Planners Association, 2005 Regular Journal (11. 4~5) Source Book, p.432

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Development of Gangnam

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