

Building Control in Japan

- Part E -

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Ver. 1910

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| Chapter 15 | City Planning in Japan |
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Chapter 15 City Planning in Japan

(Reference) Two-layered City Plan

In many countries, city plan is decided with two-layered structure as shown in below.

Conceptual plan (It may cover wide area, such as the whole area of the local government.)

| | |
|-------------------|---|
| Function | It provides Concept , which shows policy of the specific City Plan, and is used as guidance for formulation of lower category of city plan, as guidance for formulation of various infrastructure plans, such as arterial roads. |
| Name in countries | “Master Plan” in Japan, “Master Plan” in USA, “F Plan” in Germany, “SCOT” in France. |



Specific plans (Each specific plan covers smaller areas than that of upper city plan, in general.)

| | |
|-------------------|---|
| Function | They provide Criteria , which are used for the judgement whether each application of construction plan is allowed or not. |
| Name in countries | “Land Use Plan and Zoning Code” in Japan, “Zoning Map and Zoning Code (or Planning Code)” in USA, “B Plan” in Germany, “PLU or Municipality Map” in France. |

Remark: Many countries set surrounding area of the urbanized area as the area in which development activities are not allowed in principle. It is called “Urbanization Control Area” in Japan. These areas are designated in “Upper city plan” in many countries.

City Plan and Building Control in Japan

City Plan

Master Plan

- Provides concept of city plan, and
- Provides area division into UPA and UCA related to urbanization control.

Land Use Plan provides:

- location of various Land Use Zones,
- limit values of **building height**, **FAR** (Floor Area Ratio) and **BCR** (Building Coverage Ratio),
- location of **external wall lines**,
- etc.

Major Public Facilities Plan

includes plans of:

- Primary Roads,
- Primary Parks,
- etc.

Major Urban Development Projects Plan

includes plans of:

- Land Readjustment Projects,
- Urban Redevelopment Projects,
- etc.

Implementation Methods
(next page)

City Plan (See previous page)

Master Plan

Land Use Plan

Major Public Facilities Plan

Major Urban Development Projects Plan

Implementation Methods

- Realization of planned major public facilities, and
- Restriction of building construction on the site of planned major public facilities.

- Realization of planned major projects, and
- Restriction of building construction on the site of planned projects.

Building control based on:

- The land use zone and some values indicated in the land use plan, and
- Technical requirements from the viewpoints of city plan, which are provided in CPL (City Planning Law) and BSL (Building Standard Law).

Restriction of building construction in areas where UCA (Urban Control Area) is designated.

Body to determine City Plan

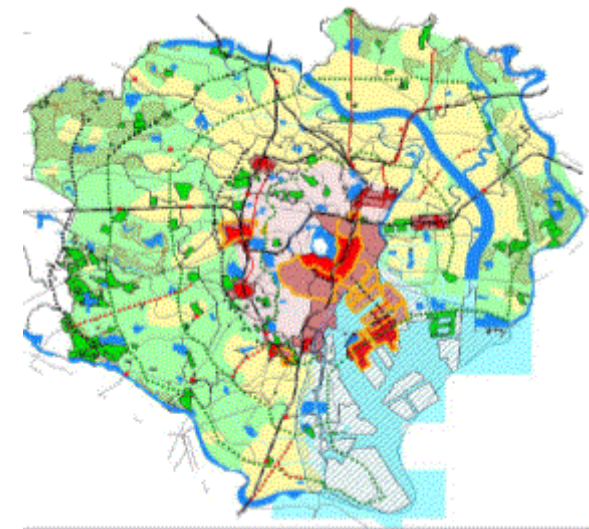
| Contents of City Plan | | Municipalities | Prefectures |
|----------------------------|--------------------------------|--|-------------|
| Master Plan | | Master Plan of City Planning Area | ○ |
| | | Municipal Master Plan | ○ |
| Land Use Control | Area Division into UPA and UCA | | ○ |
| | Land Use Zoning | Land Use Zone | ○ |
| | | Special Land Use Zone | ○ |
| | | Height Control District | ○ |
| | | Fire Protection District | ○ |
| | | Special District for Urban Renaissance | ○ |
| | | Landscape Zone | ○ |
| Public Facilities | | Road | △ ○ (*1) |
| | | Railway | ○ |
| | | Park, Green Area, Plaza | ○(*1) △ |
| | | Water Supply | ○ ○ (*2) |
| | | Electricity/Gas | ○ |
| | | River | △ ○ (*1) |
| | | School | ○ |
| | | Hospital, Day Care Center | ○ |
| Urban Development Projects | | Land Readjustment Projects | ○(*1) △ |
| | | Urban Redevelopment Projects | ○(*1) △ |
| District Plan | | ○ | |

(*1) except some cases (*2) for city water supply service only

(Example) Master Plan of Tokyo

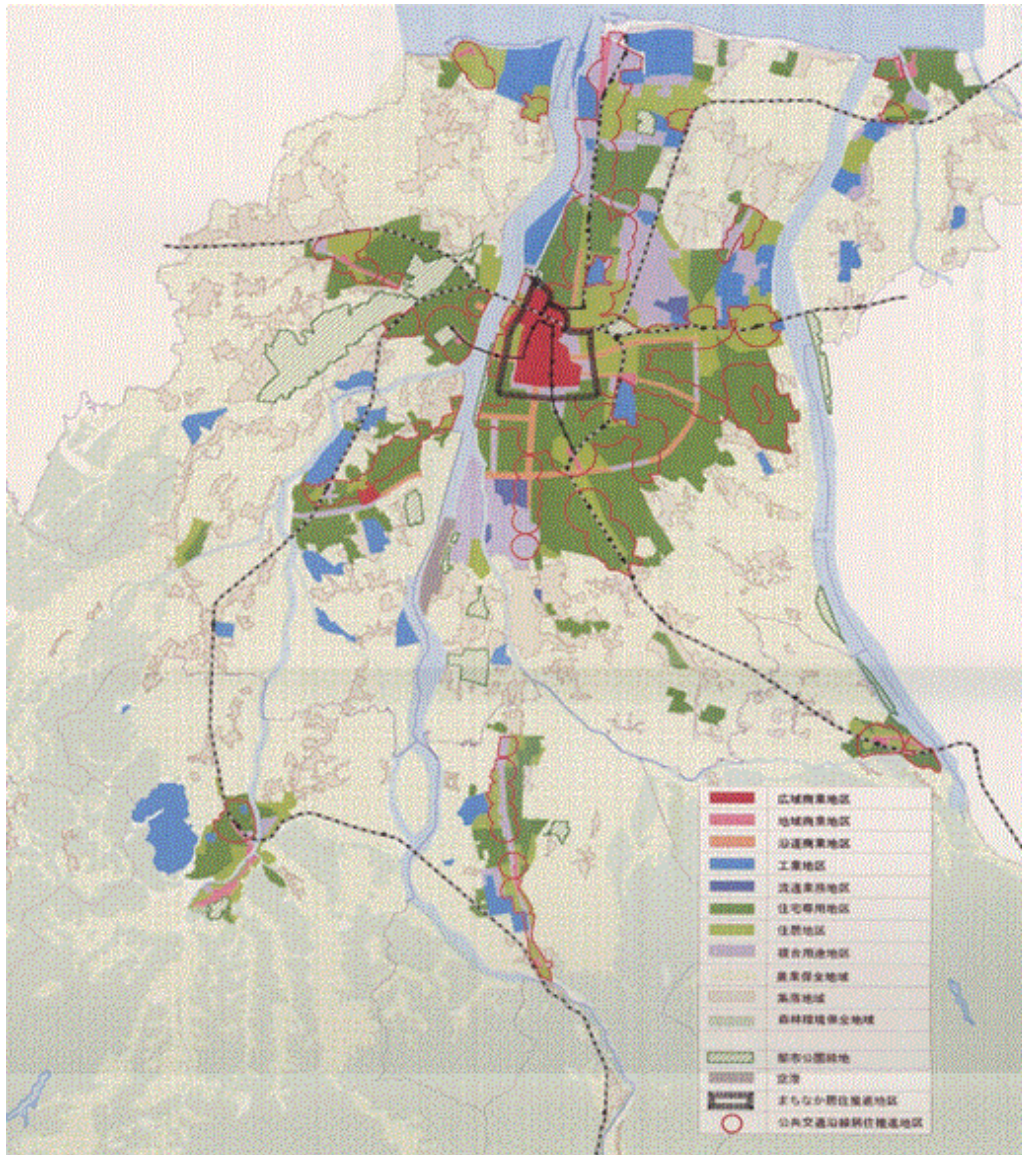
Concept of Tokyo Megalopolis

Master Plan for Urbanization Promotion Area (UPA) of Tokyo

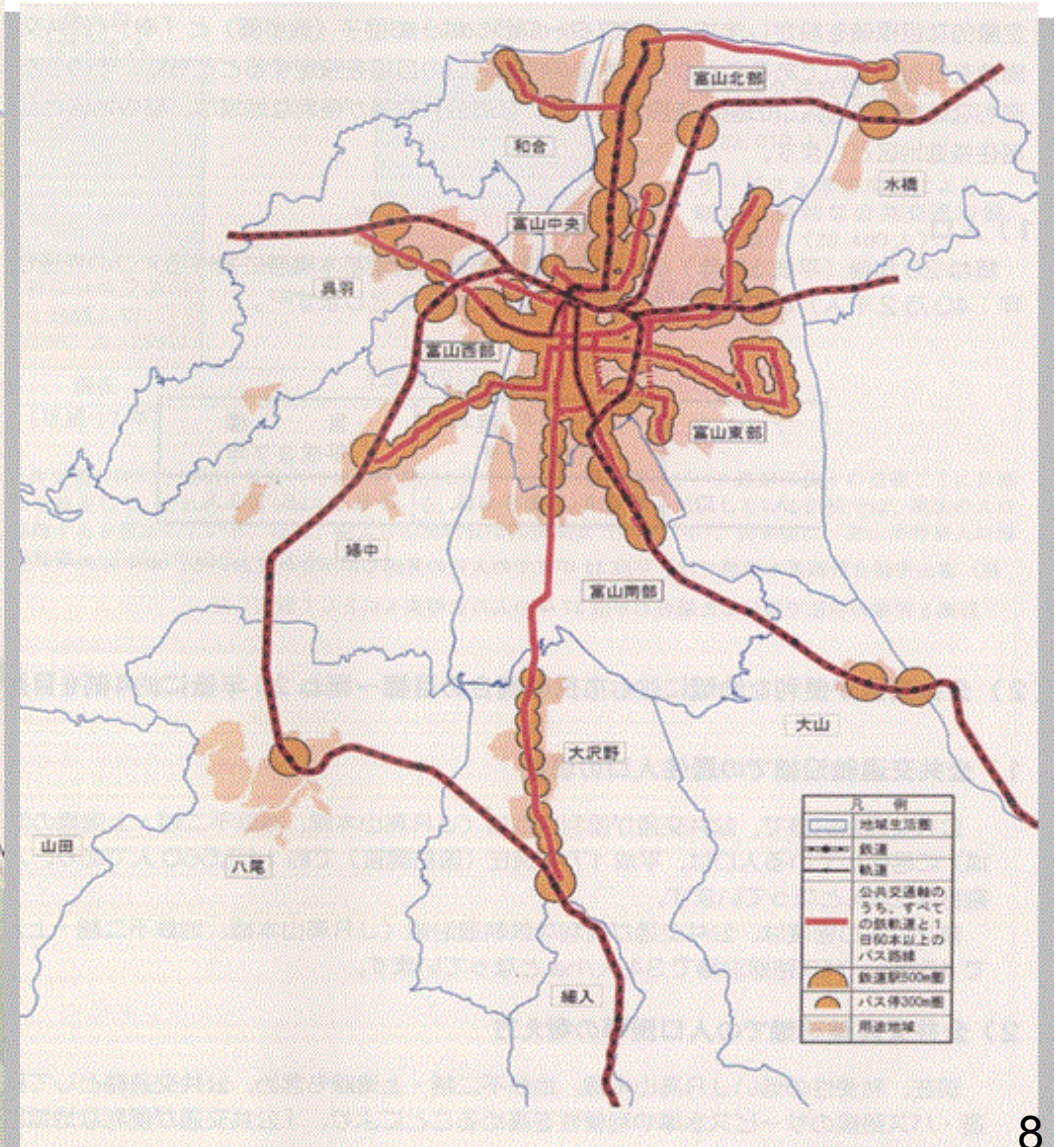


(Example) Municipal Master Plan of Toyama City

Concept Image of Land Use



Compact City with Public Transport Service



System of City Plan Proposal

(in case that the approving body is municipalities)

Proposal of City Plan to municipality by land owners, community planning NPOs, etc.

<Conditions necessary to submit a proposal>

- Area of a specified size or larger
- Conformation to standards of the City Planning Law
- Agreement of 2/3 or more of land owners

Judgment by the municipal govt. whether it approves or review City Plan according to the proposal, or not.

If No,

Public Hearing
and Explanation
Meeting

Draft Plan

If Yes,

Submission of
concerned
residents' opinion

Public announcement

Deliberation by Municipal
City Planning Council

City Plan approval

Submission of the proposal
to City Planning Council.

If they do
not agree
on refusal,

If they agree
on refusal,

Notification to the proponent
of the reason to refuse the
proposal

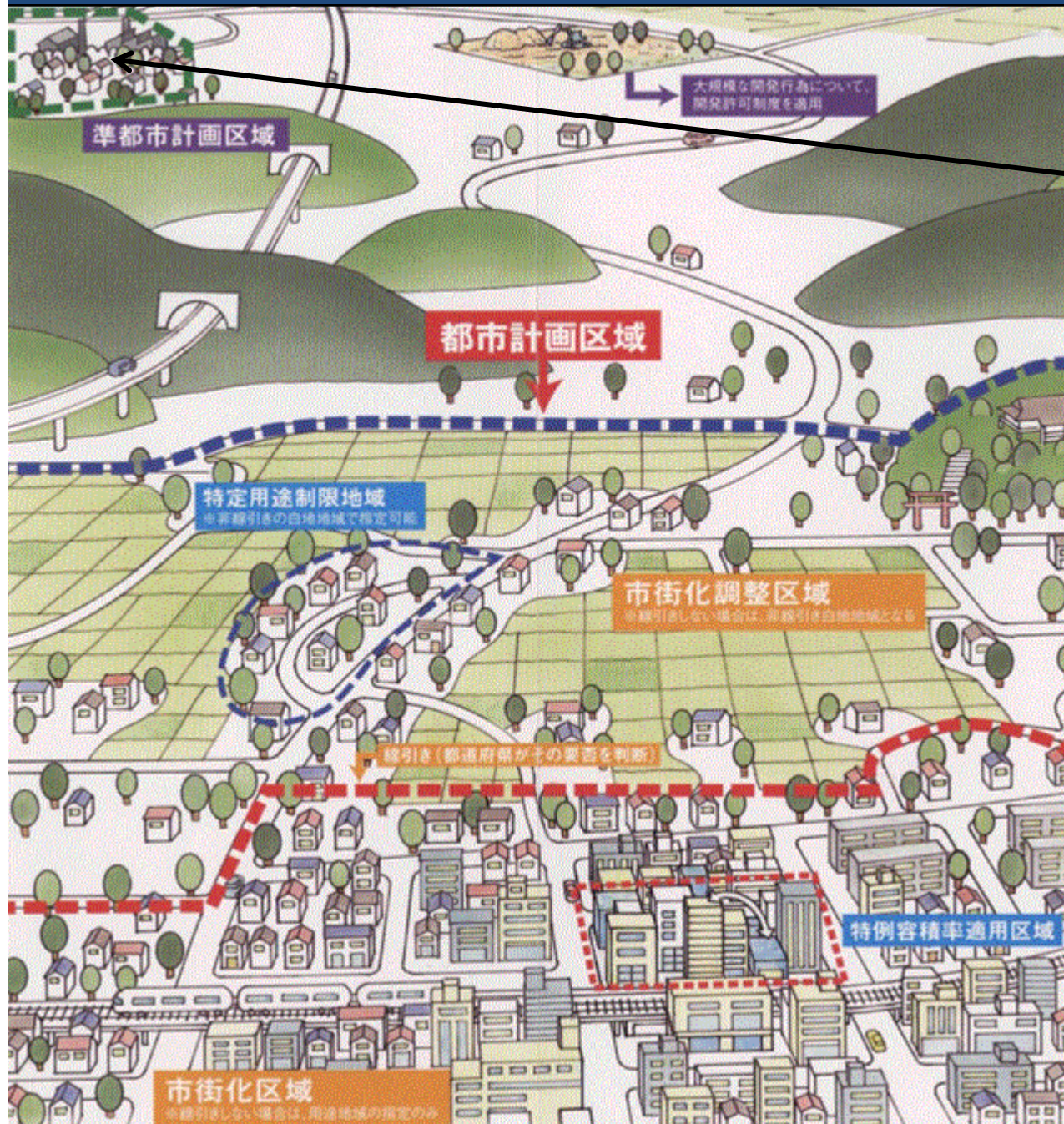
Chapter 16 Urbanization Control, Major Public Facilities, and Major Urban Development Projects

16-1 City Planning Area and Area Division into UPA and UCA

16-2 Major Public Facilities

16-3 Major Urban Development Projects

16-1 City Planning Area and Area Division into UPA and UCA



Quasi City Planning Area

Urbanization
Control Area
(UCA)

City
Planning
Area

Urbanization
Promotion
Area (UPA)

City Planning Area (Article 5 of CPL)

An area that needs to be improved, developed and preserved as a unified urban area.

- Population is more than 10,000.
- Be conformance to the above within about 10 years.
- Population of the central city area is more than 3,000.
- There are tourist resources such as a hot spring.
- Many buildings were lost due to the disaster, etc.

The prefectural governor shall designate an area for which integrated

- (1) improvement,
- (2) development, and
- (3) Preservation

as a unified urban area are necessary.

Quasi City Planning Area (Article 5-2 of CPL)

To cope with the expansion of urban-style land use to areas outside city planning areas caused by the progress of motorization, each municipality can designate **quasi city planning areas**.

A quasi city planning area does not require a positive approach to improvement and development as in the case of a *city planning area*. It, however, requires **control on land use** that match local conditions.

Area Division into UPA and UCA (Article 7 of CPL)

City Planning Area of large cities are divided into Urbanization Promotion Area (UPA) and Urbanization Control Area (UCA). It aims:

- (1) to prevent urban sprawl and
- (2) to realize building up according to a plan.

Urbanization Promotion Area (UPA) consists of:

- urbanized areas, and
- areas where urbanization shall be promoted within 10 years.

In Urbanization Control Area (UCA),

- urbanization shall be controlled, and
- development activities shall be restricted in principle.

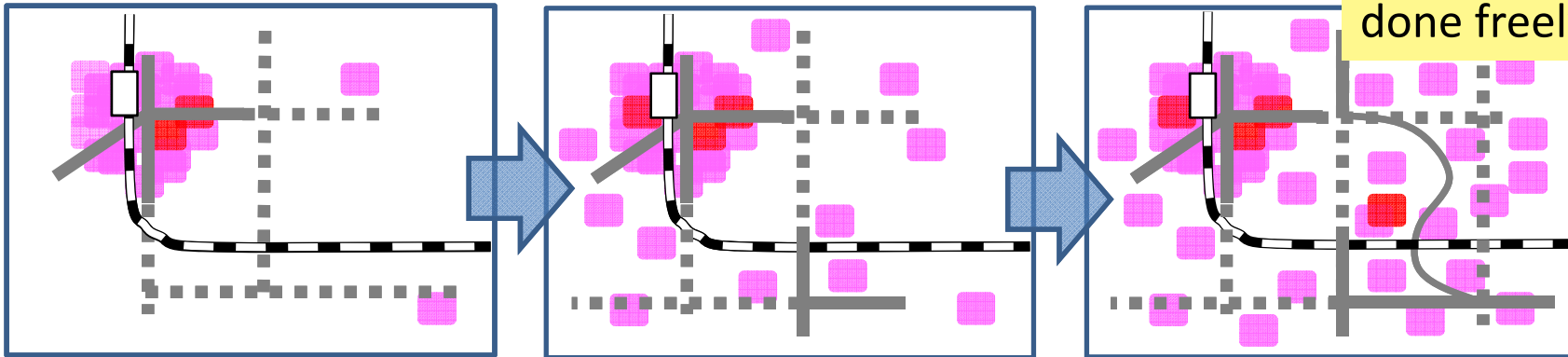
Severe Control in Urbanization Control Area (UCA)

In Urbanization Control Area (UCA), the following development activity and building construction can **only** be allowed in principle:

- Buildings that are needed for **agriculture, fishery or forestry**, and houses for the people engaging in these industries. (Article 29, Article 34)
- Activities consistent to the **Urban Development Project authorized in the City Plan**, such as Land Readjustment Project. (Article 29)
- **Buildings consistent to the District Plan** determined in the City Plan. (Article 34)

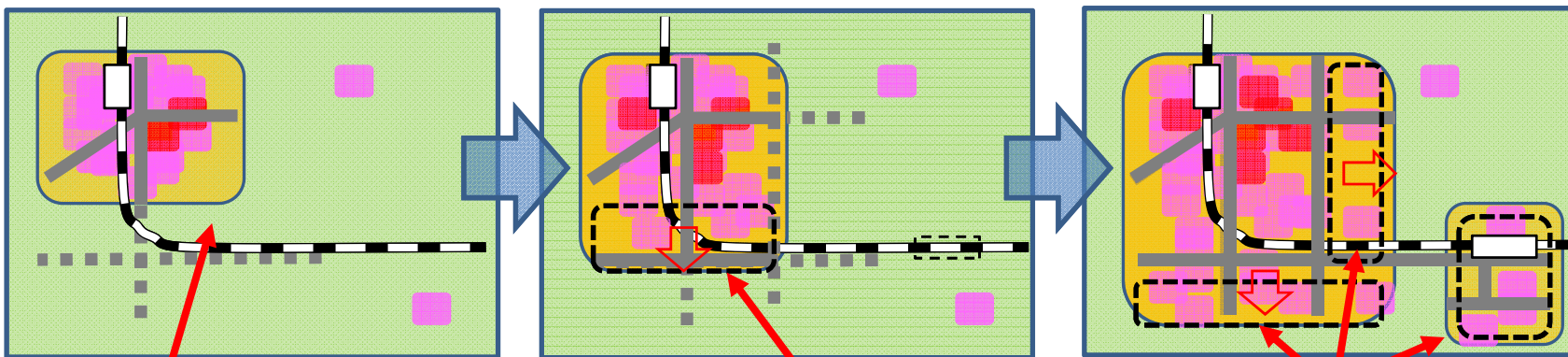
How to Control Urban Expansion

Without the area division system, urban sprawl may progress.



Development can be done freely.

With the area division system, urban sprawl can be controlled along with the development of public facility such as road, railway etc.,.

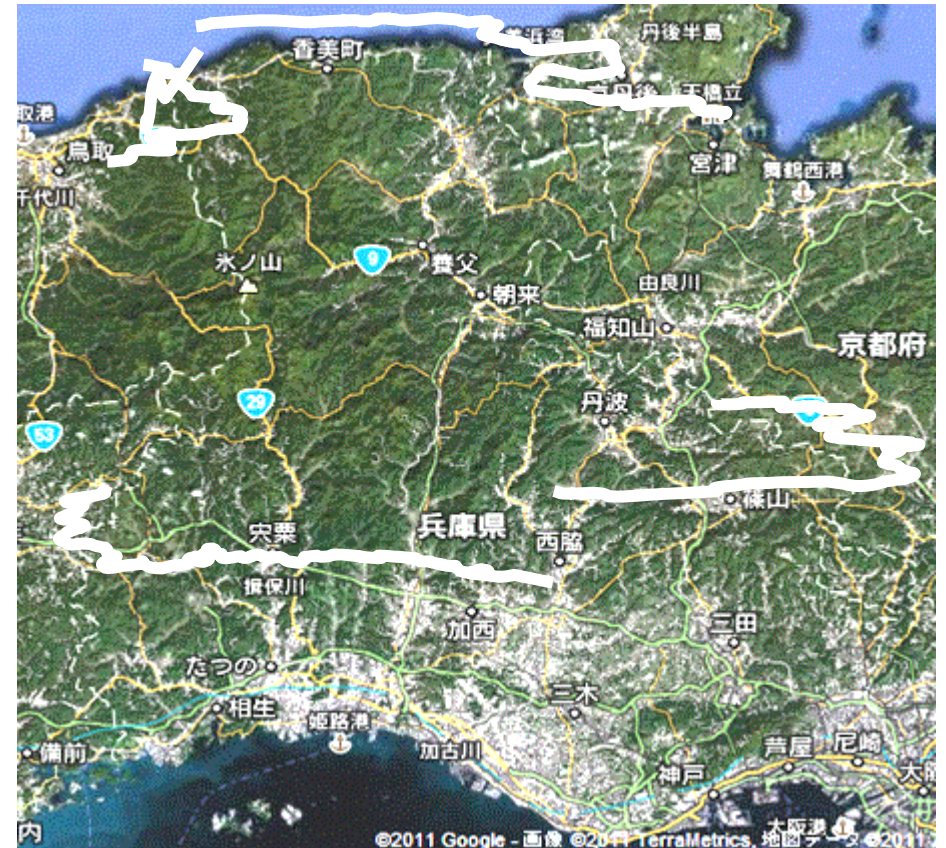
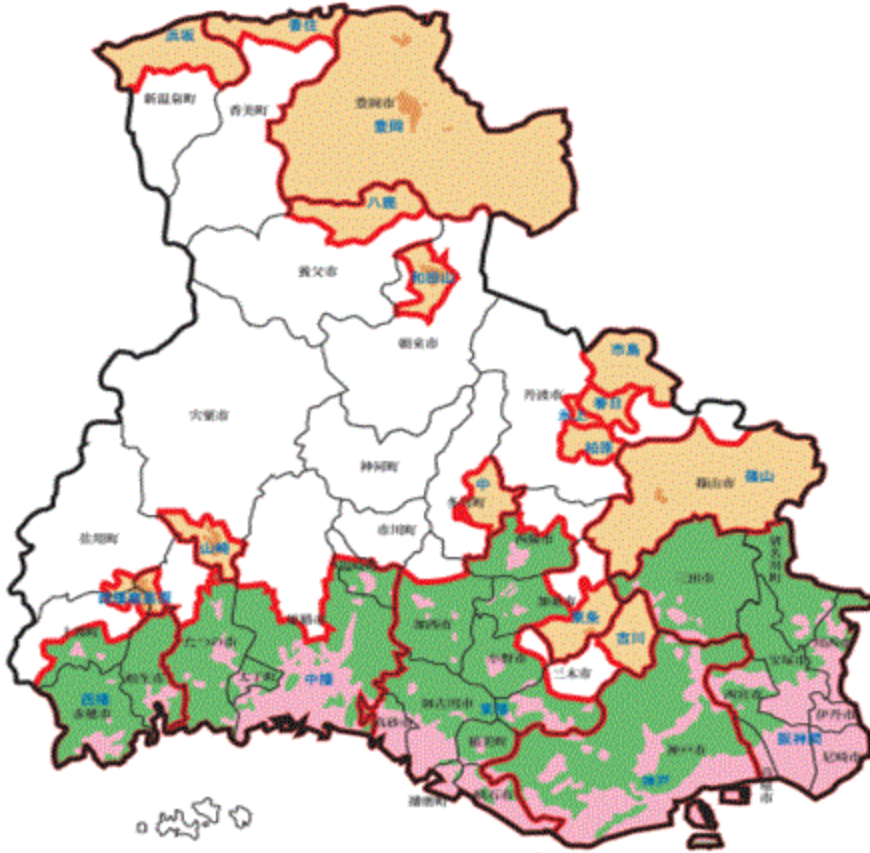


Urbanization Promotion Area

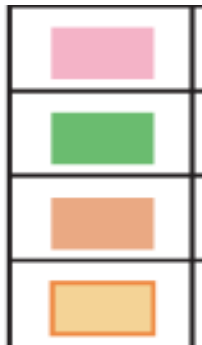
Expanded Urbanization Promotion Area (such as the area where Land-Readjustment Project was done.)

Urbanization Control Area (Development is not allowed in principle.)

(Example) Area Division in Hyogo prefecture



Colored areas means “City Planning Area”. White areas are out of “City Planning Area”.



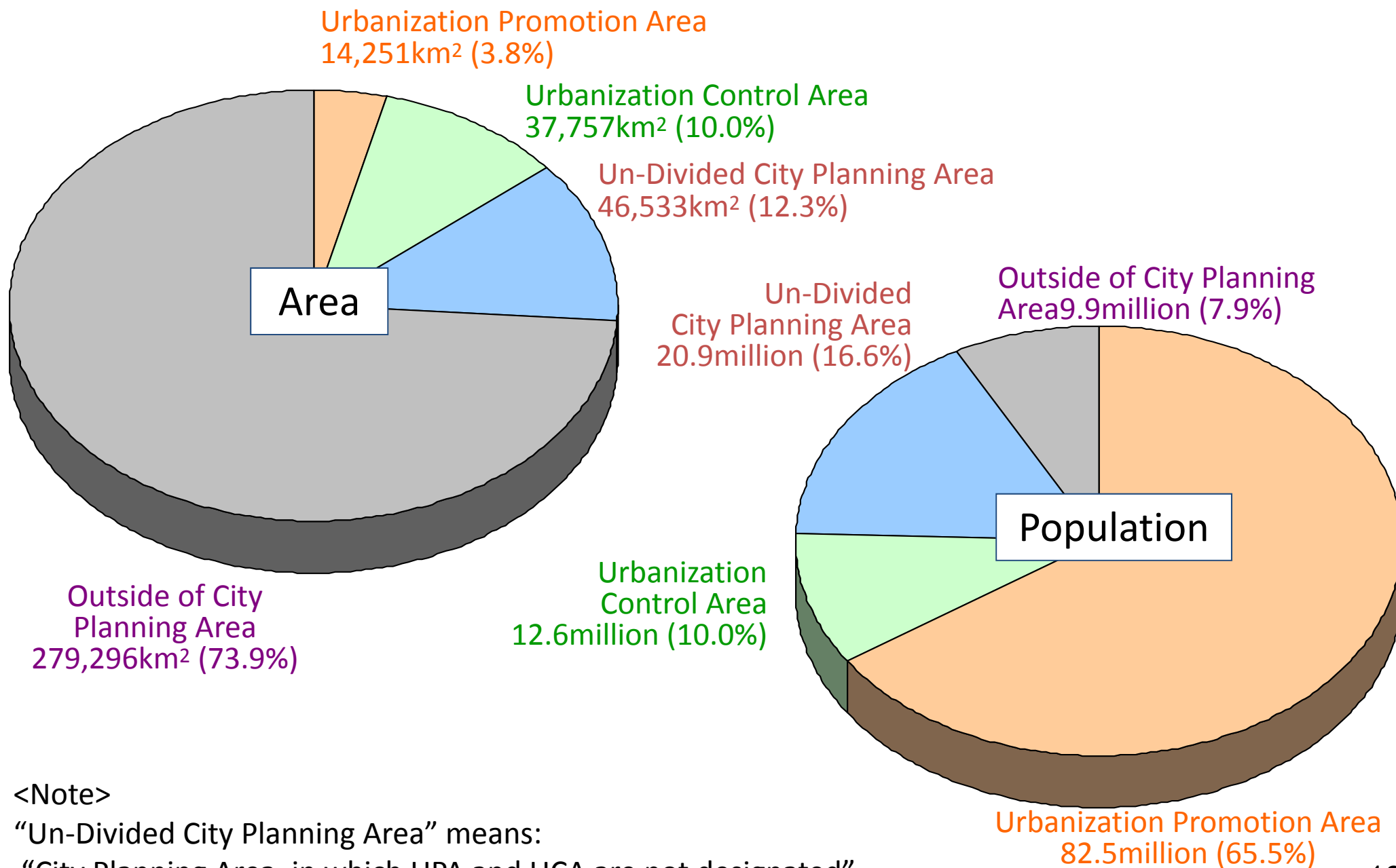
UPA in City Planning Area

UCA in City Planning Area

City Planning Area, which does not have UPA and UCA, but has land use zones.

City Planning Area, which does not have UPA, UCA, and land use zones.

Land Area and Population of City Planning Area



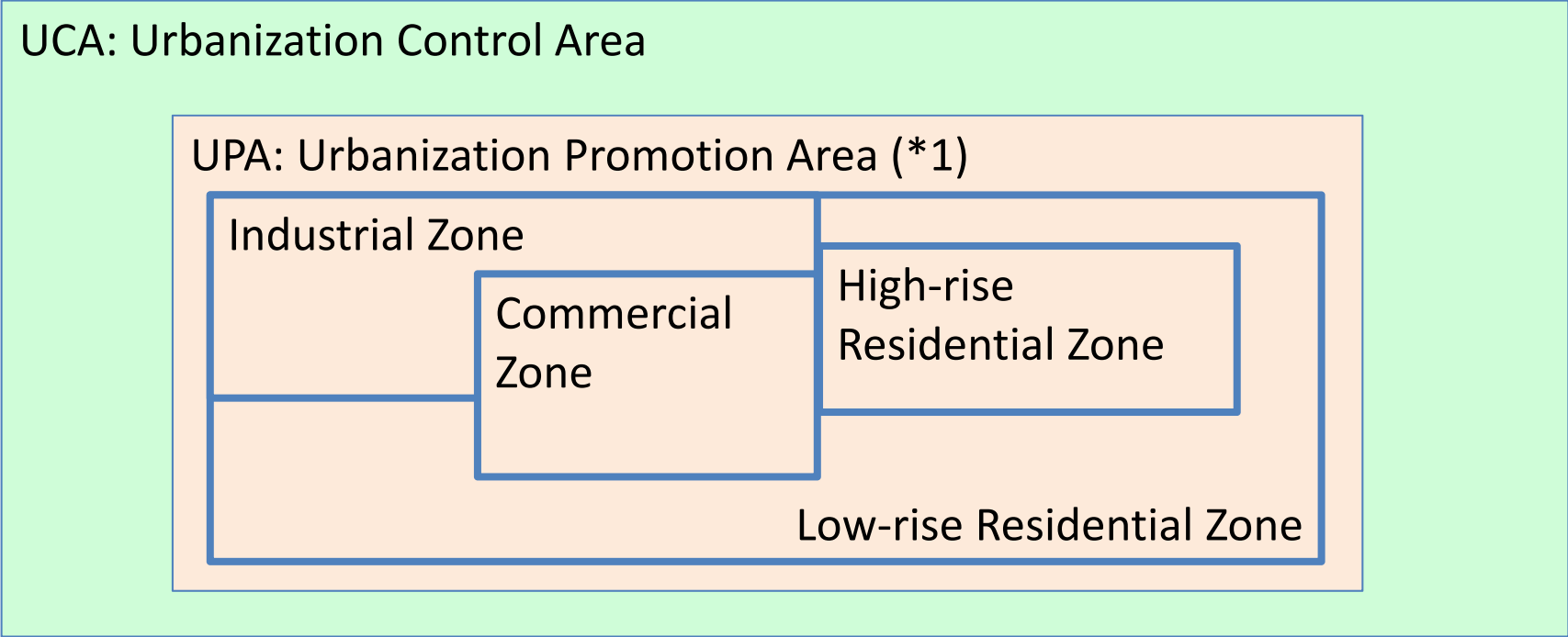
<Note>

“Un-Divided City Planning Area” means:

“City Planning Area, in which UPA and UCA are not designated”.

(Reference) Function of New Development Restraint

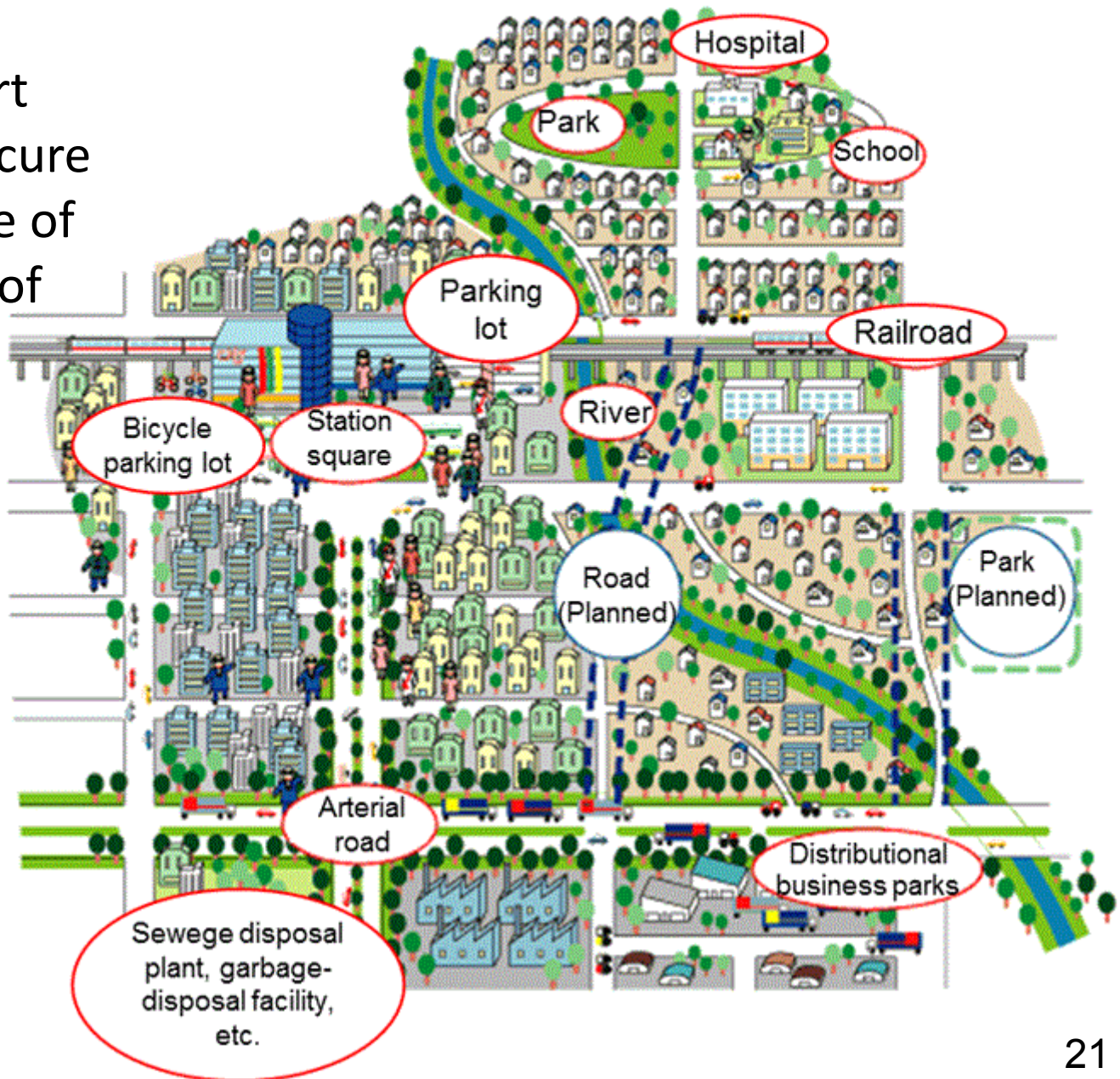
In many countries, city plan sets the area where new development is restrained, in **surroundings of the urbanized area**.

| Country | New Development Restraint |
|---------|---|
| Japan | <p>New development is restrained in principle in “Urbanization Control Area”, which is designated in “Master Plan”.</p>  <p>The diagram illustrates the hierarchy of land use zones in Japan. It features a large light green rectangle labeled 'UCA: Urbanization Control Area'. Inside this rectangle is a smaller light orange rectangle labeled 'UPA: Urbanization Promotion Area (*1)'. Within the UPA, there are four distinct land use zones outlined in blue: 'Industrial Zone' (top left), 'Commercial Zone' (bottom left, partially overlapping the Industrial Zone), 'High-rise Residential Zone' (top right), and 'Low-rise Residential Zone' (bottom right, partially overlapping the High-rise Residential Zone).</p> <p>(*1) In UPA, Land Use Zones are designated in principle. Building construction is permitted when it complies with Zoning Code responding to the Land Use Zone.</p> |

| | |
|---------|--|
| Germany | <p>New development is restrained in principle in “Outlying Area”, which is judged, site by site.</p> <div data-bbox="344 161 1435 738"> <p>Outlying Area</p> <div data-bbox="425 247 1104 627"> <p>Built-up Area (*2)</p> <div data-bbox="474 316 732 608"> <p>B-plan Area (*3)</p> <p>B-plan Area (*3)</p> </div> <div data-bbox="741 368 987 517"> <p>B-plan Area (*3)</p> </div> </div> <div data-bbox="1137 368 1395 517"> <p>B-plan Area (*3)</p> </div> </div> <p>(*2) Building construction is permitted when it is similar with conditions is size and type to the ones surrounding area. (*3) Building construction is permitted when it complies with Zoning Code provided in B-plan.</p> |
| France | <p>New development is restrained in principle in the area other than “the areas where construction is permitted”, which is designated in “PLU or Municipality Map”</p> <div data-bbox="344 922 1435 1460"> <p>The area other than “the areas where construction is permitted”</p> <div data-bbox="474 1082 1323 1428"> <p>“The area where construction is permitted” (*4)</p> </div> </div> <p>(*4) Building construction is permitted when it complies with Zoning Code provided in PLU or Municipality Map.</p> |

16-2 Major Public Facilities

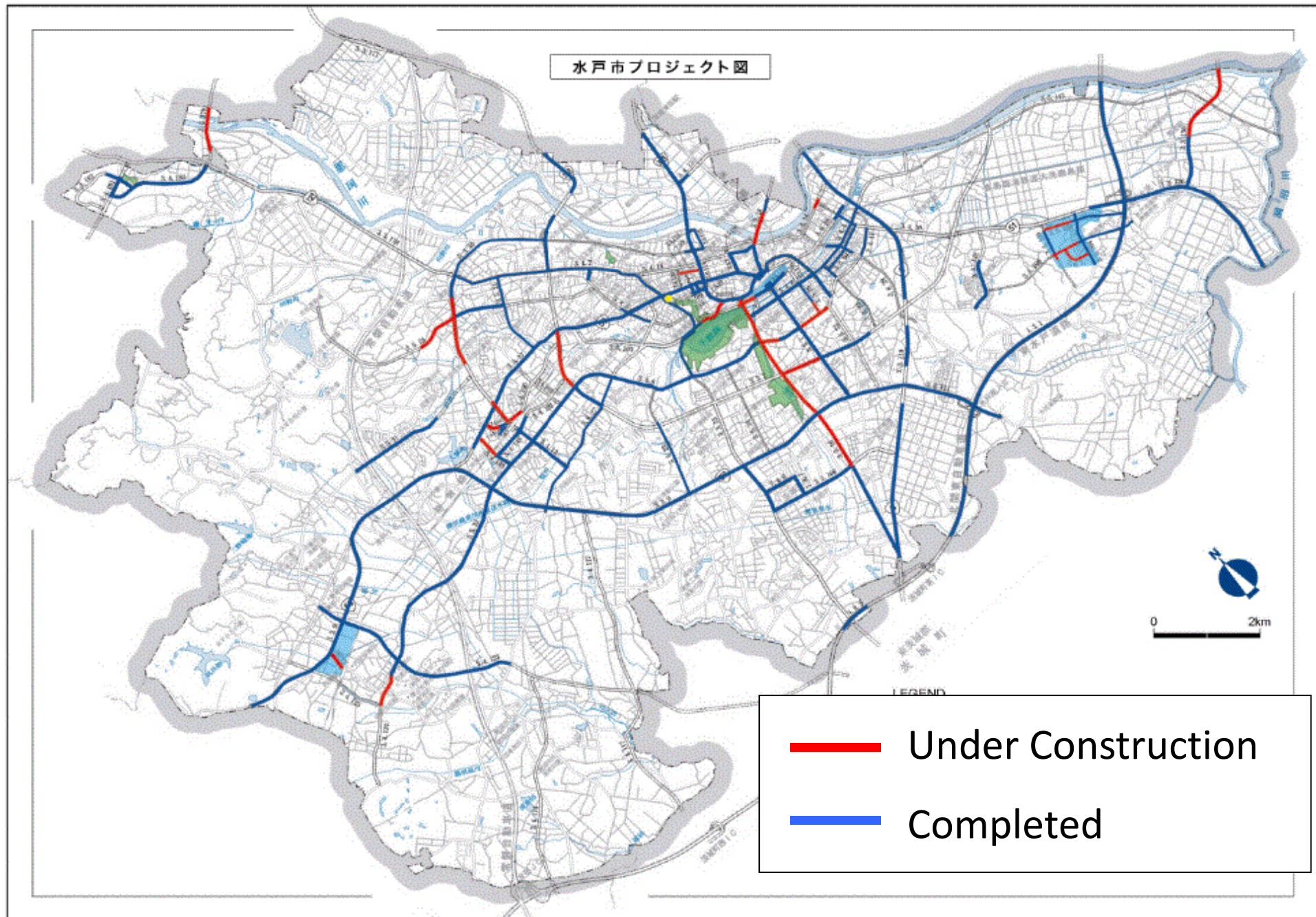
Major Public Facilities are ...
facilities necessary to support
smooth city activities and secure
improvement of convenience of
city people and securement of
good environment.



Major Public Facilities, which can be designated in the City Plan

| Types | examples |
|-------------------------------------|--|
| Transport Facilities | road, urban transit system, car park, automobile terminal, etc. |
| Public Space | park, green area, plaza, etc. |
| Utilities | water, sewerage, electricity/gas, waste treatment facility, etc. |
| Waterway | river, canal |
| Education and Cultural Facilities | school, library, research facility |
| Medical and Social Welfare Facility | hospital, day care center |
| Others | |

(Example) Road Construction Plan in City Plan (Mito City)



Building Restriction under CPL, Article 53

Person who intends to construct a building in:

- areas of public facilities designated in the city plan, or
 - executing areas of urban development projects based on the city plan,
- must obtain special permission from the prefectural governor in accordance with the provisions of the relevant MLIT Ordinance.

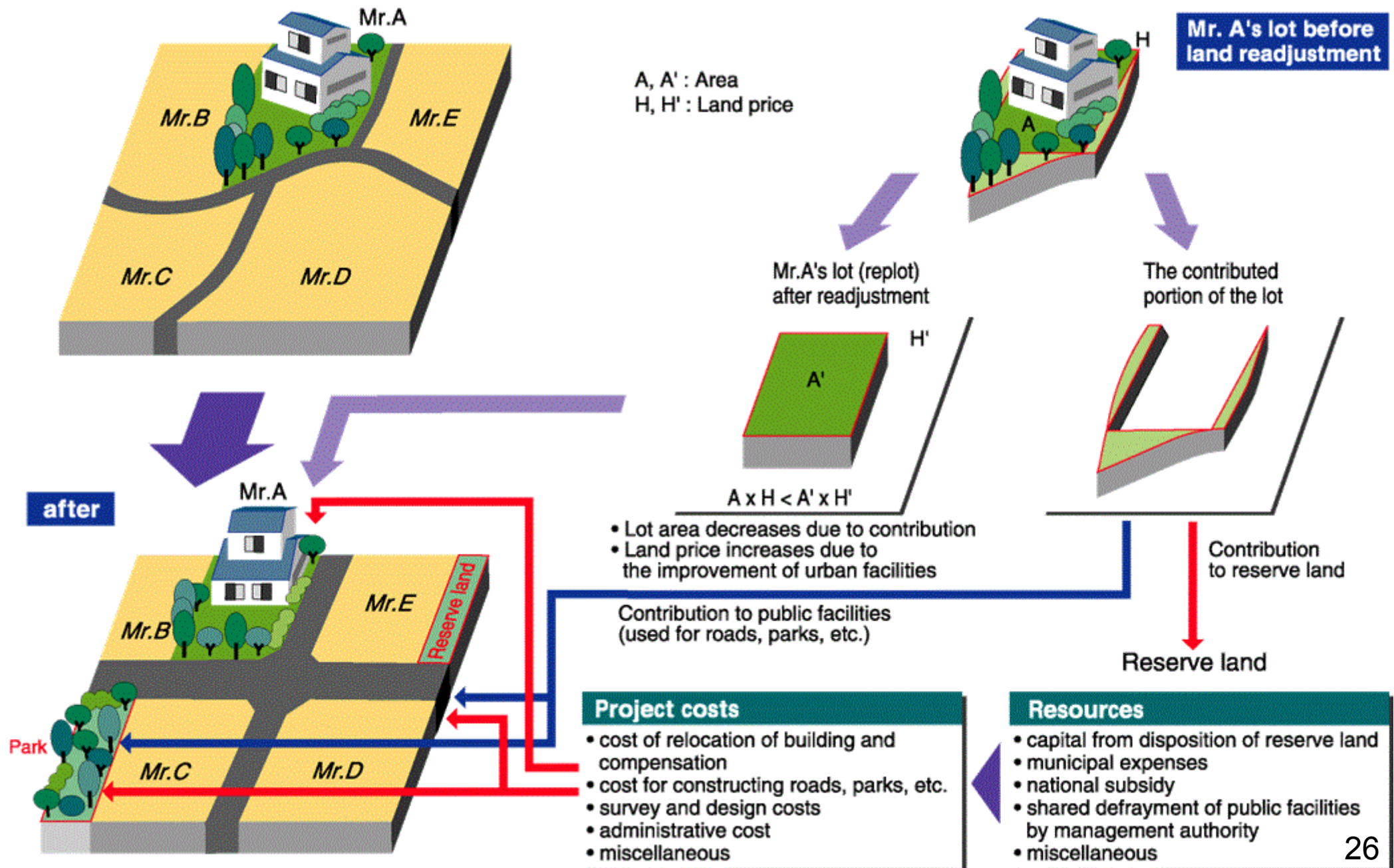
<Exception>

- (1) Minor activities established by Cabinet order, and
- (2) Development activities undertaken as emergency measures necessitated in case of unexpected disaster.

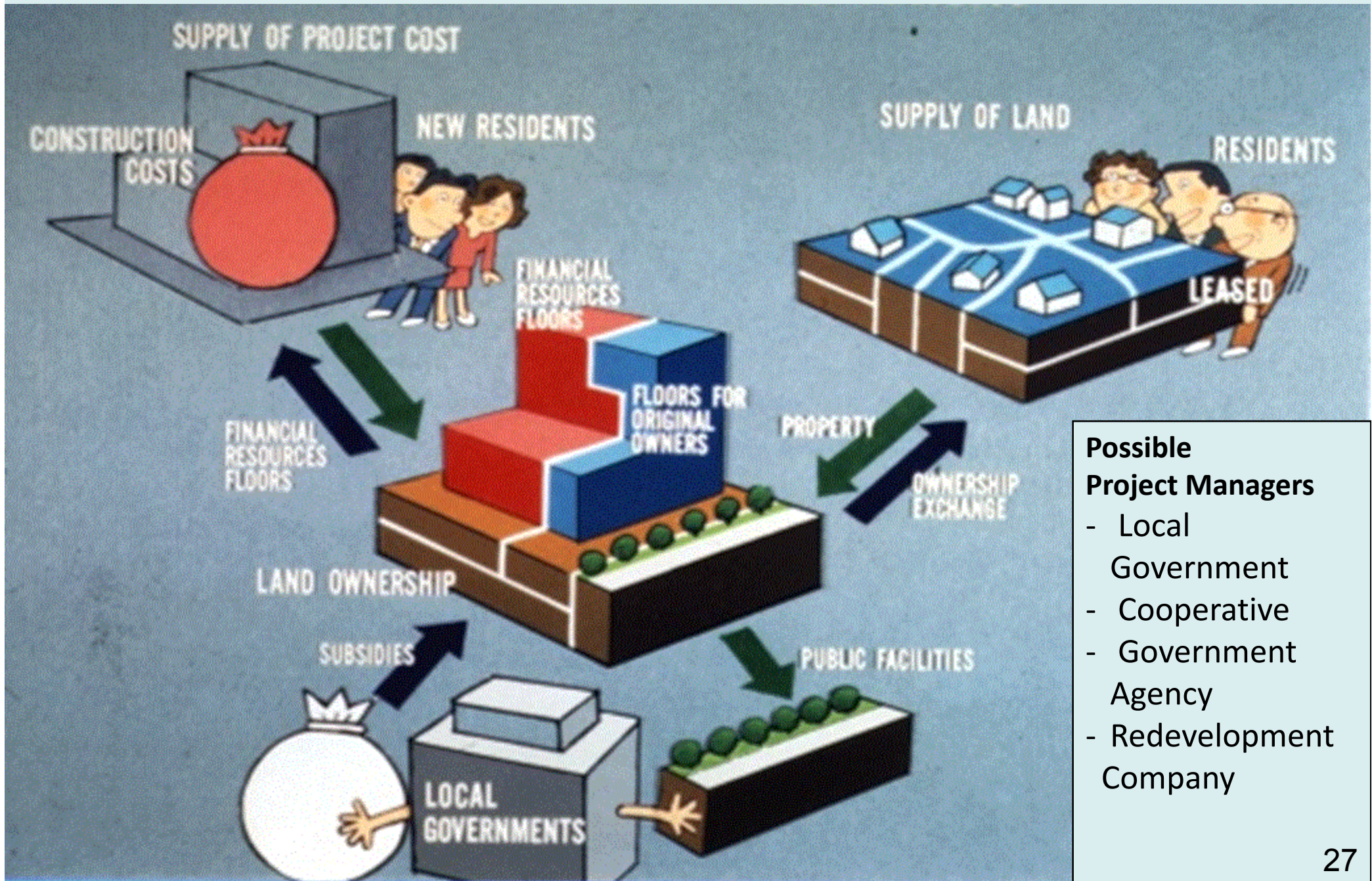
16-3 Major Urban Development Projects

| | Way of Implementation | Examples |
|---|----------------------------------|--|
| 1 | Using Land Re-plotting Measure | • <i>Land Readjustment Projects</i> |
| 2 | Using Right Conversion Measure | • <i>Urban Redevelopment Project</i> • <i>Disaster Prevention Block Improvement Project</i> |
| 3 | Using Land Expropriation Measure | • <i>New Residential Built-up Area Development Project</i> • <i>Industrial Estate Development Project, etc.</i> |

Land Readjustment Project



Urban Redevelopment Project



- Possible Project Managers**
- Local Government
 - Cooperative
 - Government Agency
 - Redevelopment Company

(1) Right Conversion

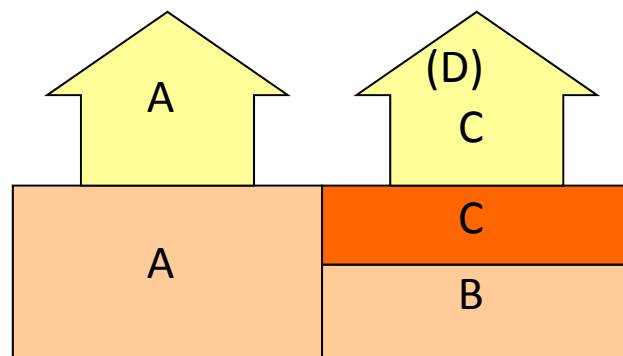
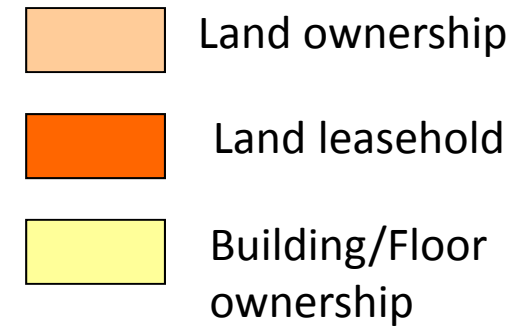
A: owns a land and building, and lives here.

B: owns a land, but does not live here.

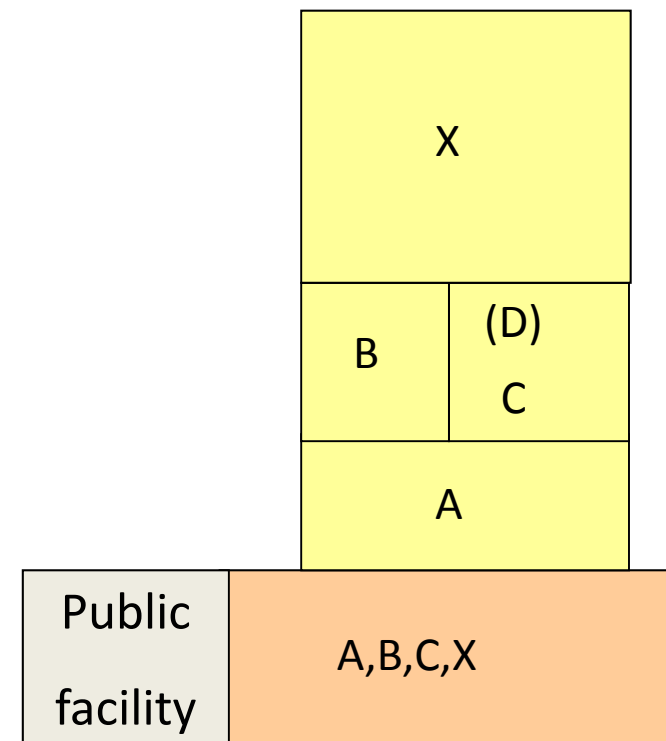
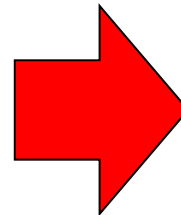
C: rents a land, owns a building, and leases the building.

D: is a tenant.

X: buys a floor of a redeveloped building. (The revenue applies to a project cost.)



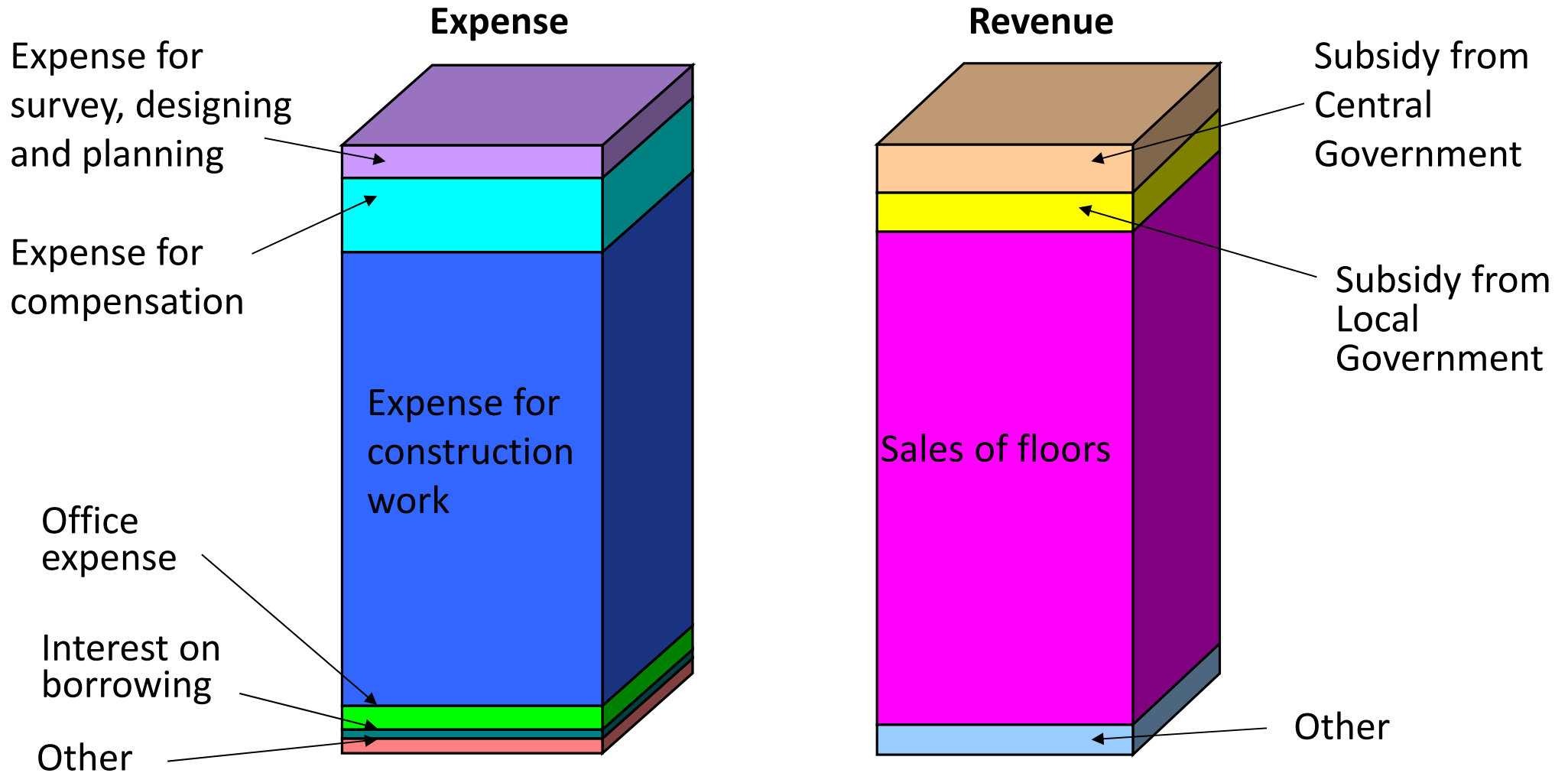
Before



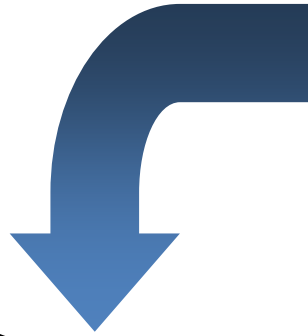
After

(2) Balance of projects

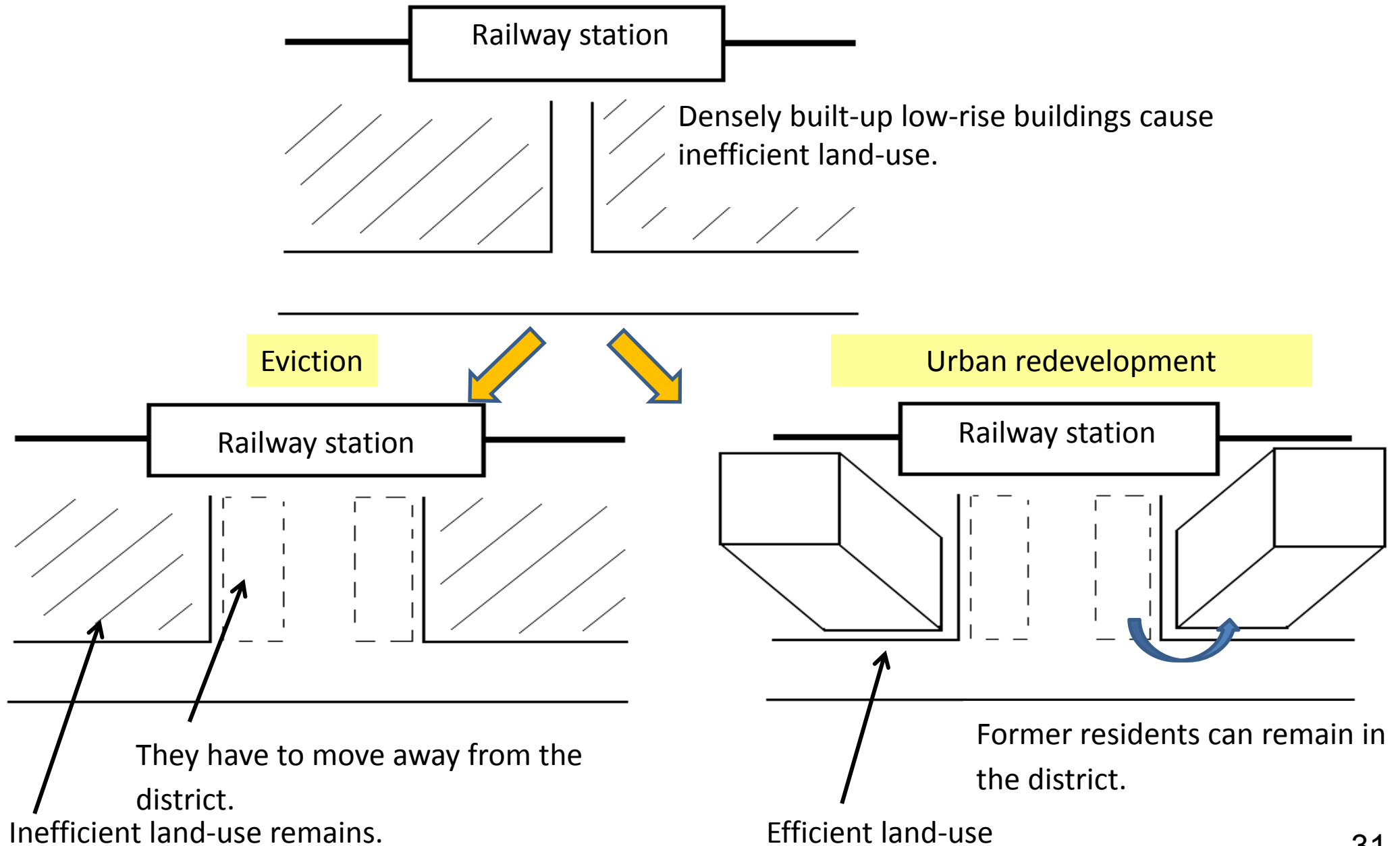
(Average for projects completed between 2001 and 2005)



Urban Redevelopment Project (Akabane, Tokyo)



(Example) Construction of a square in front of a station in Japan



Chapter 17 Building Control based on Zoning - by general zoning -

17-1 Basic Land Use Zone

17-2 Technical Requirements from the viewpoint of City Planning
(Group B) – by general zoning -

17-1 Basic Land Use Zone

From the viewpoint of urban environment and also for the purpose of preventing the proximity of buildings that differ widely in their use,

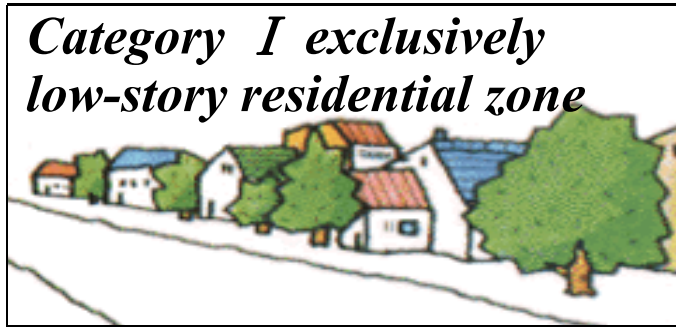
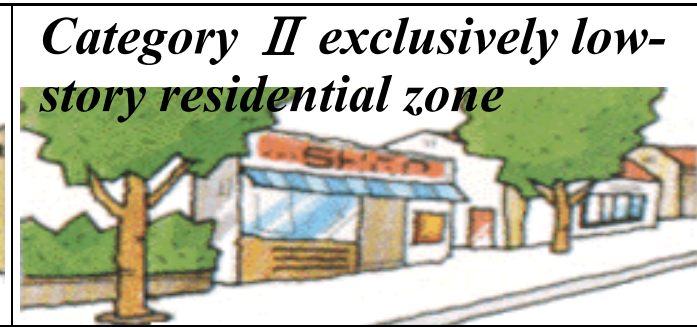
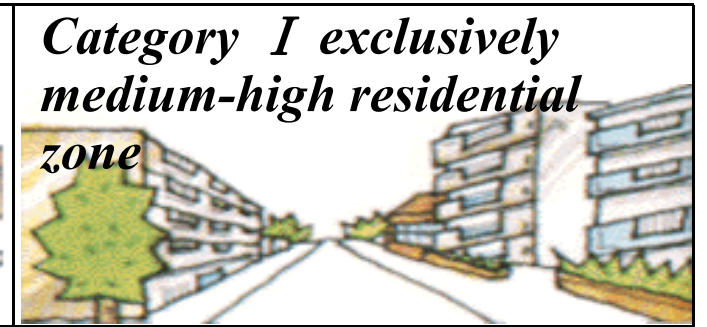
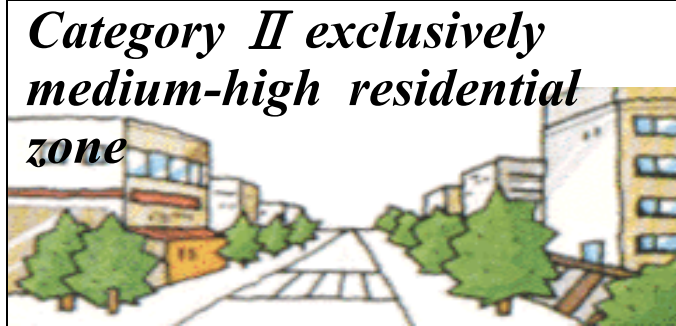
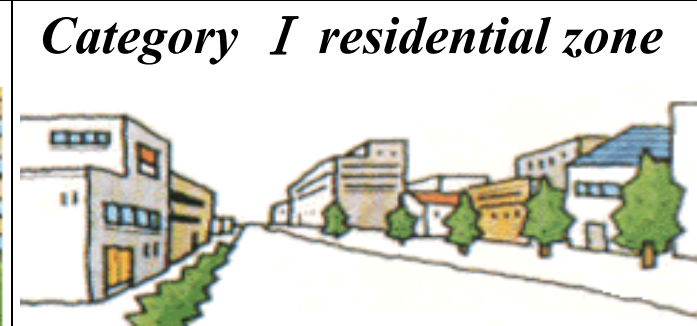
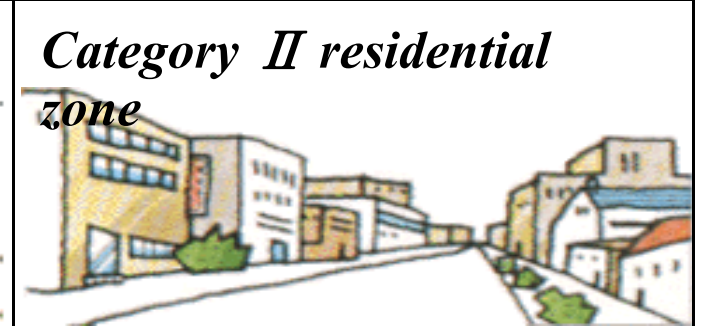
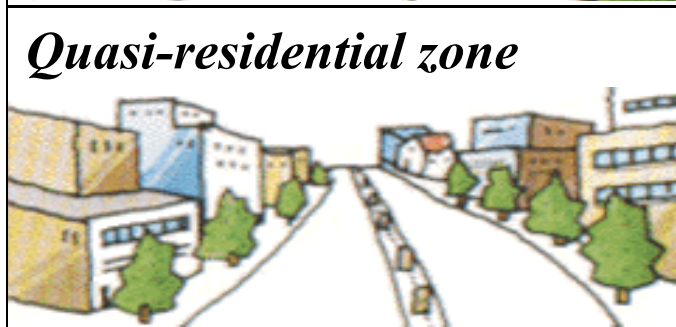
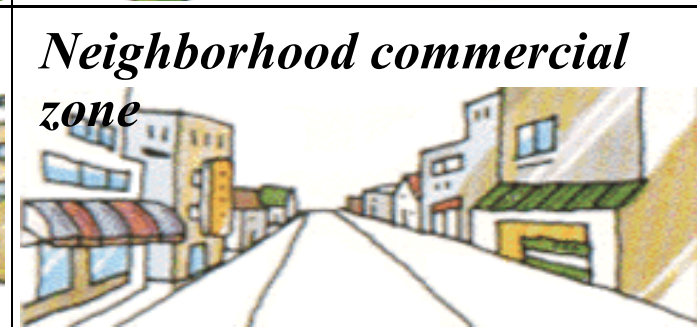
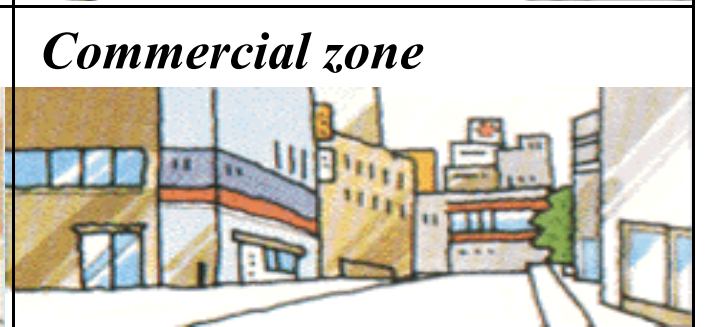

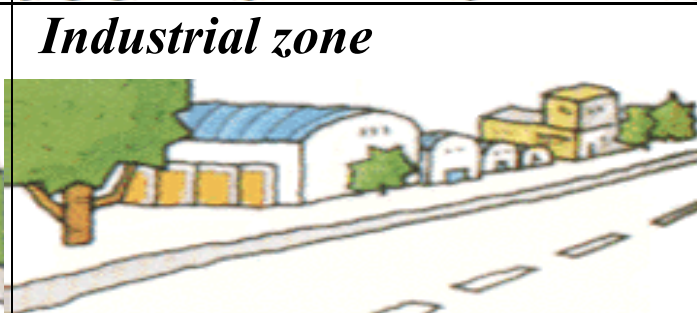

- (a) there are **12 types of basic *Land Use Zones*** to be designated by the municipalities in their respective administrative areas, based on the City Planning Law; and
- (b) the use of buildings is restricted by the BSL depending on the *Land Use Zone*, in which the building site is located.

12 types of basic *Land Use Zones* and their purposes are shown in the next page.

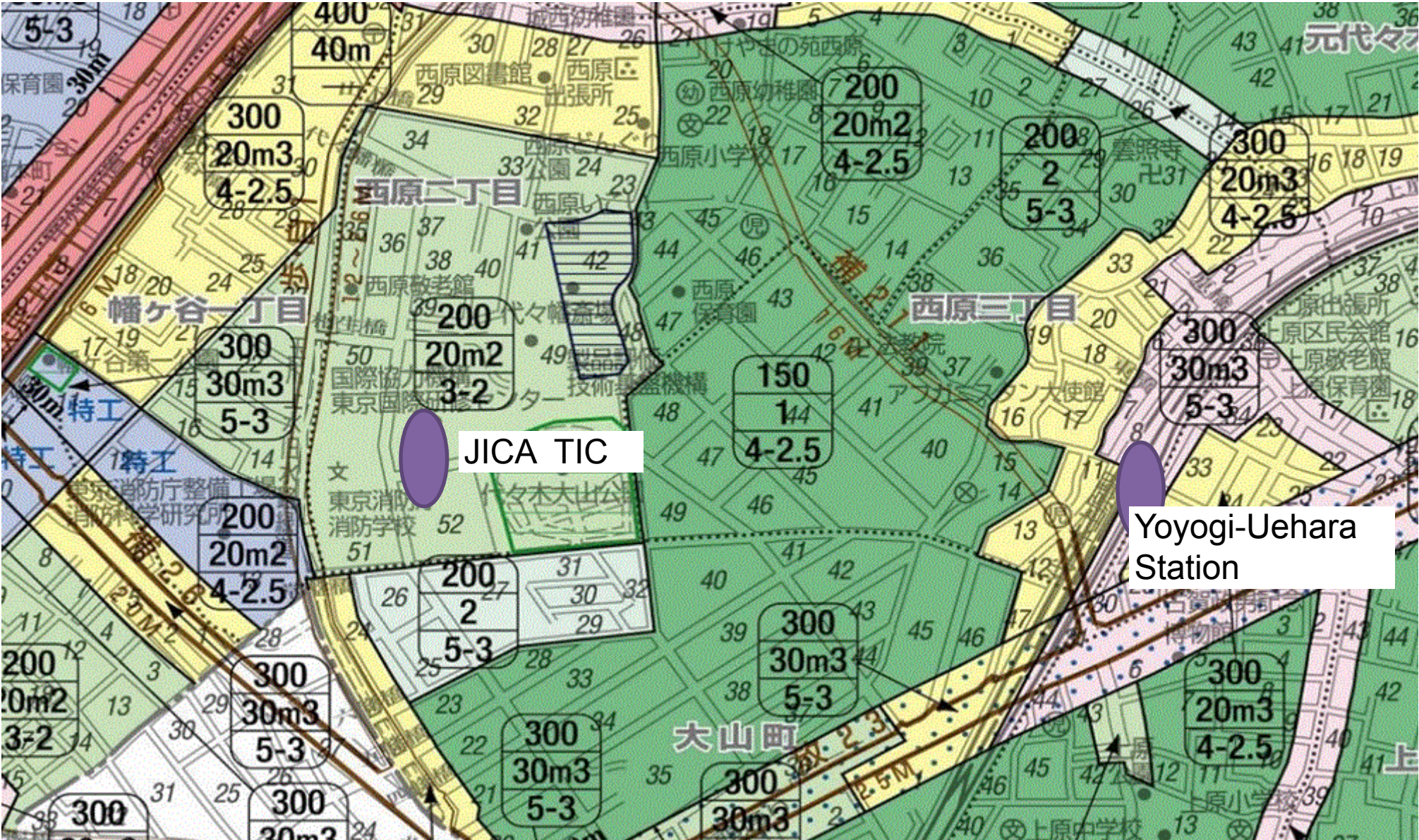
Basic *Land Use Zones* and their purposes

| Zones | Purposes |
|--|---|
| <i>Category I Exclusively Low-rise Residential Zone</i> | to ensure an excellent living environment for low-rise houses. |
| <i>Category II Exclusively Low-rise Residential Zone</i> | to ensure an excellent living environment primarily for low-rise houses |
| <i>Category I Mid/high-rise-oriented Residential Zone</i> | to ensure an excellent living environment for mid/high-rise houses |
| <i>Category II Mid/high-rise-oriented Residential Zone</i> | to ensure an excellent living environment primarily for mid/high-rise houses |
| <i>Category I Residential Zone</i> | to ensure a living environment for houses |
| <i>Category II Residential Zone</i> | to ensure a living environment primarily for houses |
| <i>Quasi-residential Zone</i> | for the promotion of businesses suited to the characteristics of the neighborhood that are adjacent to roads, while at the same time preserving an excellent living environment |
| <i>Neighborhood-Commercial Zone</i> | for the promotion of convenience for conducting commercial and other kinds of business to supply daily necessities to the inhabitants of nearby residential areas. |
| <i>Commercial Zone</i> | primarily for the promotion of convenience for commercial and other kinds of business |
| <i>Quasi-industrial Zone</i> | primarily for the promotion of convenience for industries which are not likely to damage the environment |
| <i>Industrial Zone</i> | primarily for the promotion of convenience for industries |
| <i>Exclusive Industrial Zone</i> | for the promotion of convenience for industries |










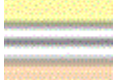


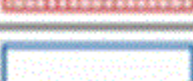


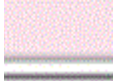




Image of Basic Land Use Zones

| | | |
|---|---|---|
| <p><i>Category I exclusively low-story residential zone</i></p>  | <p><i>Category II exclusively low-story residential zone</i></p>  | <p><i>Category I exclusively medium-high residential zone</i></p>  |
| <p><i>Category II exclusively medium-high residential zone</i></p>  | <p><i>Category I residential zone</i></p>  | <p><i>Category II residential zone</i></p>  |
| <p><i>Quasi-residential zone</i></p>  | <p><i>Neighborhood commercial zone</i></p>  | <p><i>Commercial zone</i></p>  |
| <p><i>Quasi-industrial zone</i></p>  | <p><i>Industrial zone</i></p>  | <p><i>Exclusively industrial zone</i></p>  |

(Example) City Plan Map around JICA TIC
(Tokyo International Center)

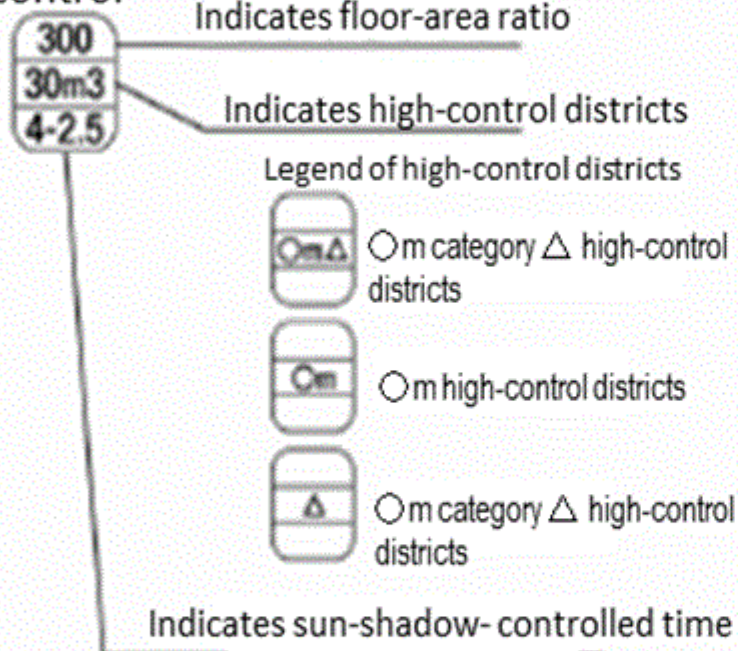


Legend

| <Districts and Zones> | | Special Use Districts | |
|---|-------------------------|---|--|
| Special Districts | Building coverage ratio | | |
|  Category I exclusively low-story residential zone | 60% |  | Special industrial zone |
|  Category II exclusively low-story residential zone | 60% |  | Category I educational zone |
|  Category I exclusively medium-high residential zone | 60% |  | Category II educational zone |
|  Category II exclusively medium-high residential zone | 60% | Others | |
|  Category I residential zone | 60% |  | High-used level district (urban redevelopment plan has been also decided) |
|  Category II residential zone | 60% |  | Special blocks |
|  Quasi-residential zone | 60% |  | Special urban renaissance districts |
|  Neighborhood commercial zone | 80% |  | Category I Scenic districts |
|  Commercial zone | 80% |  | Category II Scenic districts |
|  Quasi-industrial zone | 60% |  | Parking place development zones |
| | |  | Special green space conservation districts (former green space conservation districts) |

*The limit of height in Category I exclusively low-story residential zone is 10m.
 *The limit of height in Category II exclusively low-story residential zone is 12m.

Floor-area ratio, high-control districts and sun shadow control



<City Planning Facilities>

City Planning Road



Completed parts



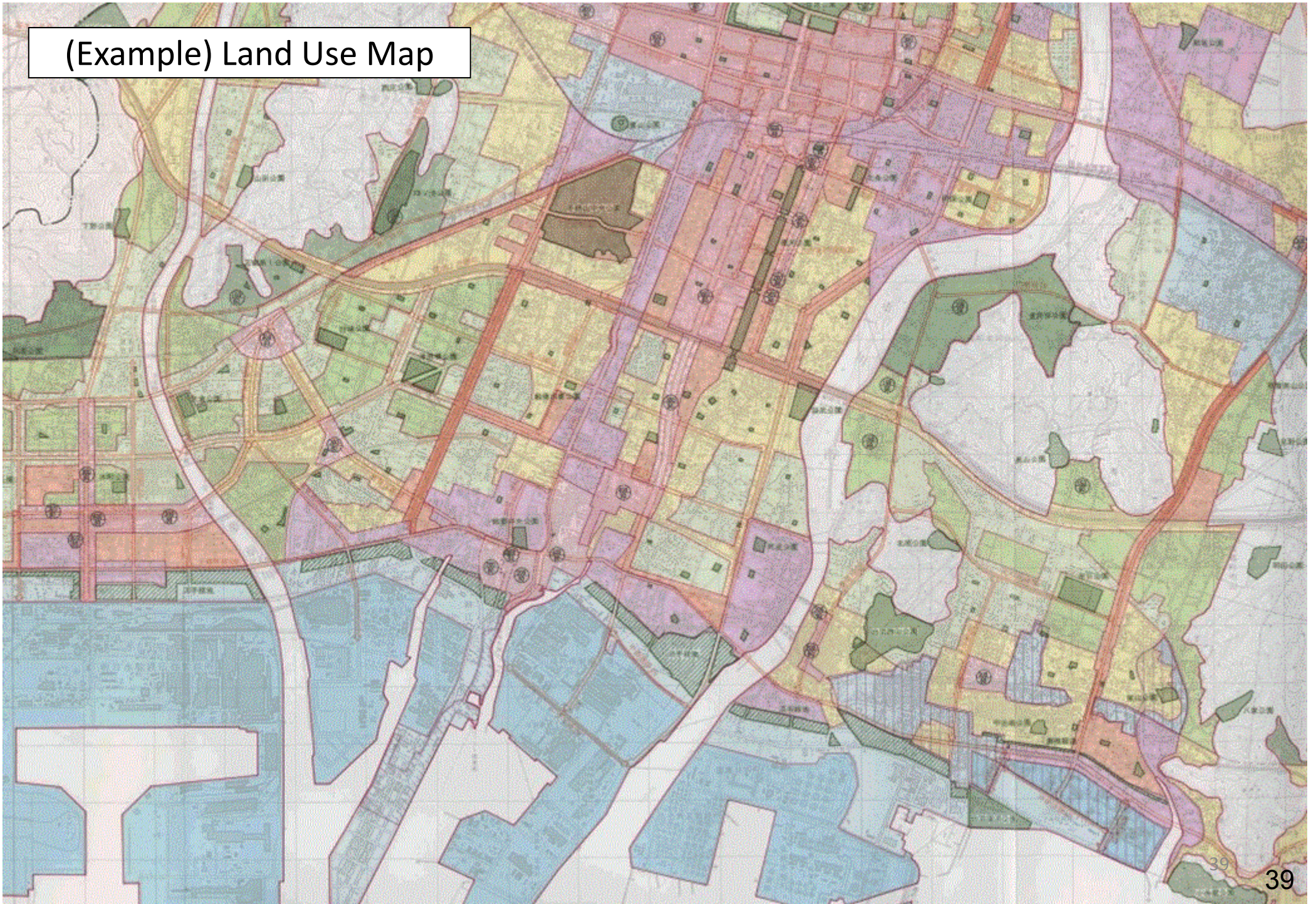
Parts for which projects have been decided



Parts for which plans have been decided



(Example) Land Use Map



17-2 Technical Requirements from the viewpoint of City Planning (Group B) – by general zoning -

Requirements on Building Use responding to Basic *Land Use Zones* (Outline)

| <div>Examples of buildings</div> <div>Land Use Zone</div> | 1 Low.Res. Z. | 2 Low.Res. Z. | 1 Med.Res. Z. | 2 Med.Res. Z. | 1Res. Z. | 2Res. Z. | QuasiRes. Z. | Neigh.Com. Z. | Com. Z. | QuasiInd. Z. | Ind. Z. | Ex.Ind. Z. |
|--|---------------|---------------|---------------|---------------|----------|----------|--------------|---------------|---------|--------------|---------|------------|
| Houses | | | | | | | | | | | | × |
| Schools | | | | | | | | | | | × | × |
| Shrine, Church, Clinic | | | | | | | | | | | | |
| Hospital, University | × | × | | | | | | | | | × | × |
| Store (150m ² or less) | × | | | | | | | | | | | △ |
| Store (500m ² or less) | × | × | | | | | | | | | | △ |
| Office, Store (more than 500m ²), etc. | × | × | × | △ | △ | | | | | | | |
| Hotel | × | × | × | × | △ | | | | | | × | × |
| Karaoke box | × | × | × | × | × | | | | | | | |
| Independent garage | × | × | | | | | | | | | | |
| Warehouse for storage business | × | × | × | × | × | × | | | | | | |
| Theater | × | × | × | × | × | × | △ | △ | | | × | × |
| Auto repair shop | × | × | × | × | × | × | △ | △ | | | | |
| Factory with some possibility of danger or environmental degradation | × | × | × | × | × | × | × | × | × | | | |
| Factory with strong possibility of danger or environmental degradation | × | × | × | × | × | × | × | × | × | × | | |



Can be built



Usually cannot be built



Can be built under some conditions

<Exception>

In cases where the Jurisdiction has granted special permission after concluding:

- that there is no likely disadvantage to the favorable environment in the respective Land Use Zone, or
 - that it is permissible in light of the public interest,
- the building construction may be allowed, in spite of the provisions above.

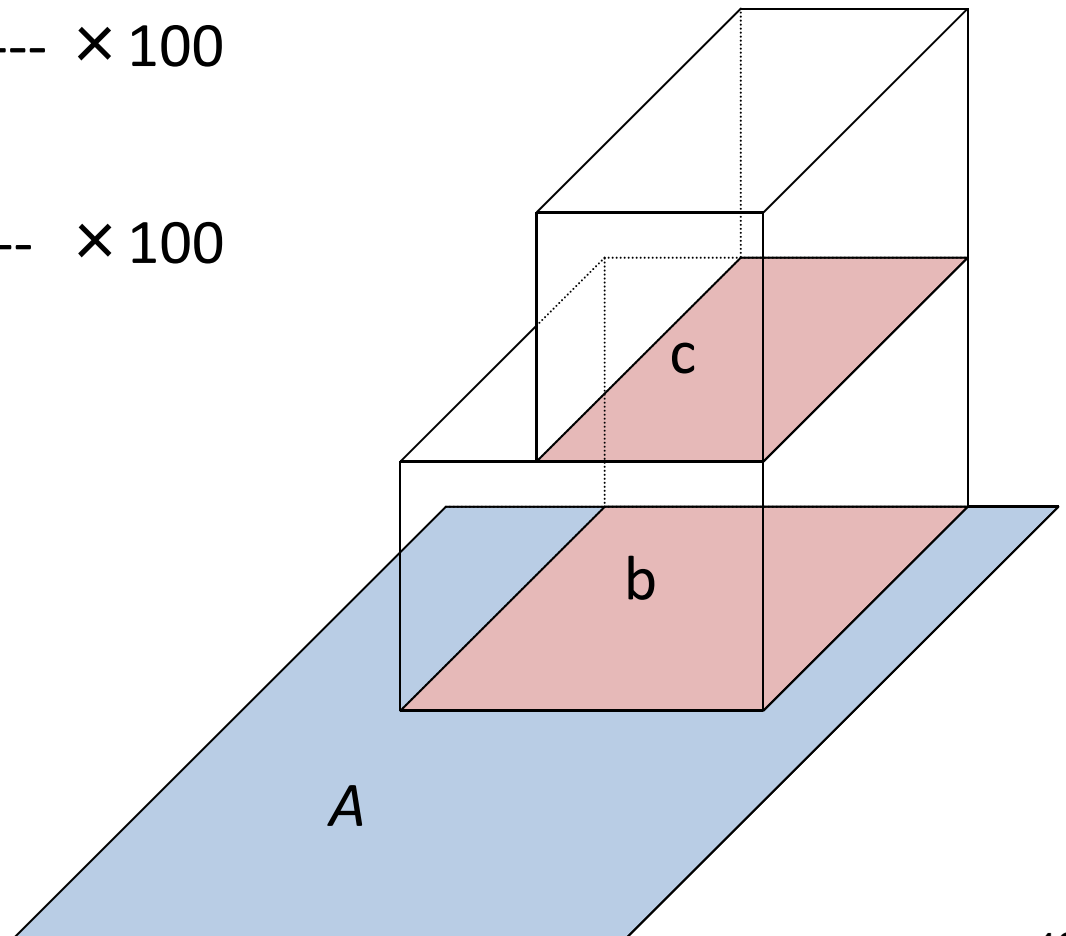
When the Jurisdiction intends to special permission, it shall hold a public hearing in advance, requesting the presence of persons having interests in such permission, and further, obtain the consent of the Building Review Council.

FAR (Floor Area Ratio) and BCR (Building Coverage Ratio)

FAR (Floor Area Ratio) and **BCR** (Building Coverage Ratio) of each building are calculated by the formulas below:

$$\text{FAR (\%)} = \frac{\text{total floor area ((b)+(c))}}{\text{site area (A)}} \times 100$$

$$\text{BCR (\%)} = \frac{\text{building area (b)}}{\text{site area (A)}} \times 100$$



FAR and **BCR** of each building must be less than allowable values of **FAR** and **BCR**, which are determined for each area in the city plan, by choosing one of the available values as shown in the table below, which are stipulated in BSL.

| Land Use Zones | | Allowable FAR (%) | Allowable BCR (%) |
|--|--|-----------------------------|---|
| 1 | Category I / Category II exclusively low-story residential zone | 50,60,80,100,150,200 | 30,40,50,60 |
| 2 | | | |
| 3 | Category I / Category II exclusively medium-high residential zone | 100,150,200,300,400,500 | |
| 4 | | | |
| 5 | Category I / Category II residential zone Quasi-residential zone | | 50,60,80 |
| 6 | | | |
| 7 | | | |
| 8 | Neighborhood commercial zone | | 60,80 |
| 9 | Commercial zone | 200,300,400···1300 | 80 |
| 10 | Quasi-industrial zone | 100,150,200,300,400,500 | 50,60,80 |
| 11 | Industrial zone | 100,150,200,300,400 | 50,60 |
| 12 | Exclusively industrial zone | | 30,40,50,60 |
| Areas where LandUse Zones are not designated | | 50, 80, 100,200,300,400 | 30,40,50,60, 70, 80, 100, 150, 200, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 10000, 15000, 20000, 30000, 40000, 50000, 60000, 70000, 80000, 100000, 150000, 200000, 300000, 400000, 500000, 600000, 700000, 800000, 1000000, 1500000, 2000000, 3000000, 4000000, 5000000, 6000000, 7000000, 8000000, 10000000, 15000000, 20000000, 30000000, 40000000, 50000000, 60000000, 70000000, 80000000, 100000000, 150000000, 200000000, 300000000, 400000000, 500000000, 600000000, 700000000, 800000000, 1000000000, 1500000000, 2000000000, 3000000000, 4000000000, 5000000000, 6000000000, 7000000000, 8000000000, 10000000000, 15000000000, 20000000000, 30000000000, 40000000000, 50000000000, 60000000000, 70000000000, 80000000000, 100000000000, 150000000000, 200000000000, 300000000000, 400000000000, 500000000000, 600000000000, 700000000000, 800000000000, 1000000000000, 1500000000000, 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Remark (1) for FAR

In case where **the width of the front road of the building site is less than 12m**, **FAR** of the building must be less than the allowable value of **FAR** as shown in the table below, in principle.

| | Allowable values of FAR (%) |
|-------------------|------------------------------------|
| Residential Zones | $W \times 4/10 \times 100$ |
| Other Zones | $W \times 6/10 \times 100$ |

“W” means the width of the front road of the building site in meters.

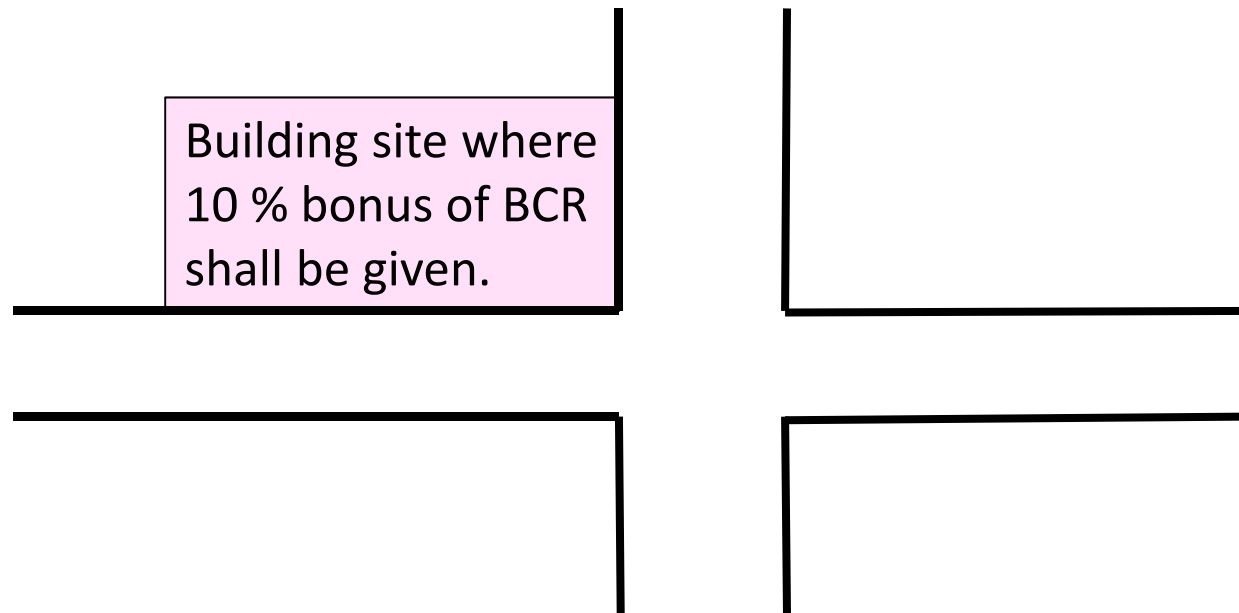
Remark (2) for FAR

The total floor area for the calculation of FAR does not count the floor area of parts of buildings for use as **automobile garages (including bicycles parking lot)** with maximum of one fifth of the total area of the building.

| | Physical total floor area | Total floor area for FAR |
|--------|---|--------------------------|
| Case 1 | Automobile garage of 100 m ² + Other area of 900 m ² | 900 m ² |
| Case 2 | Automobile garage of 300 m ² + Other area of 700 m ² (Automobile garage of 200 m ² may not be counted for FAR.) | 800 m ² |

Remark for BCA

- (1) As for buildings coming under either item (a) or (b) below, 10 % shall be added to the allowable value of BCR. As for buildings coming under items (a) and (b), 20 % shall be added to the allowable value of BCR.
- (a) Fire-resistive buildings in Fire Protection Zone
 - (b) Buildings on sites at the corner of two roads
- (2) In case where the site is located in the area, of which allowable value of BCR is 80 %, and is covered by Fire Protection Zone, BCR of Fire-resistive buildings may be 100 %.



FAR : 300%
41 floors
Total floor area : 43,400m²

Image of FAR
(Floor Area Ratio)



FAR : 200%
14 floors
Total floor area : 398,000m²

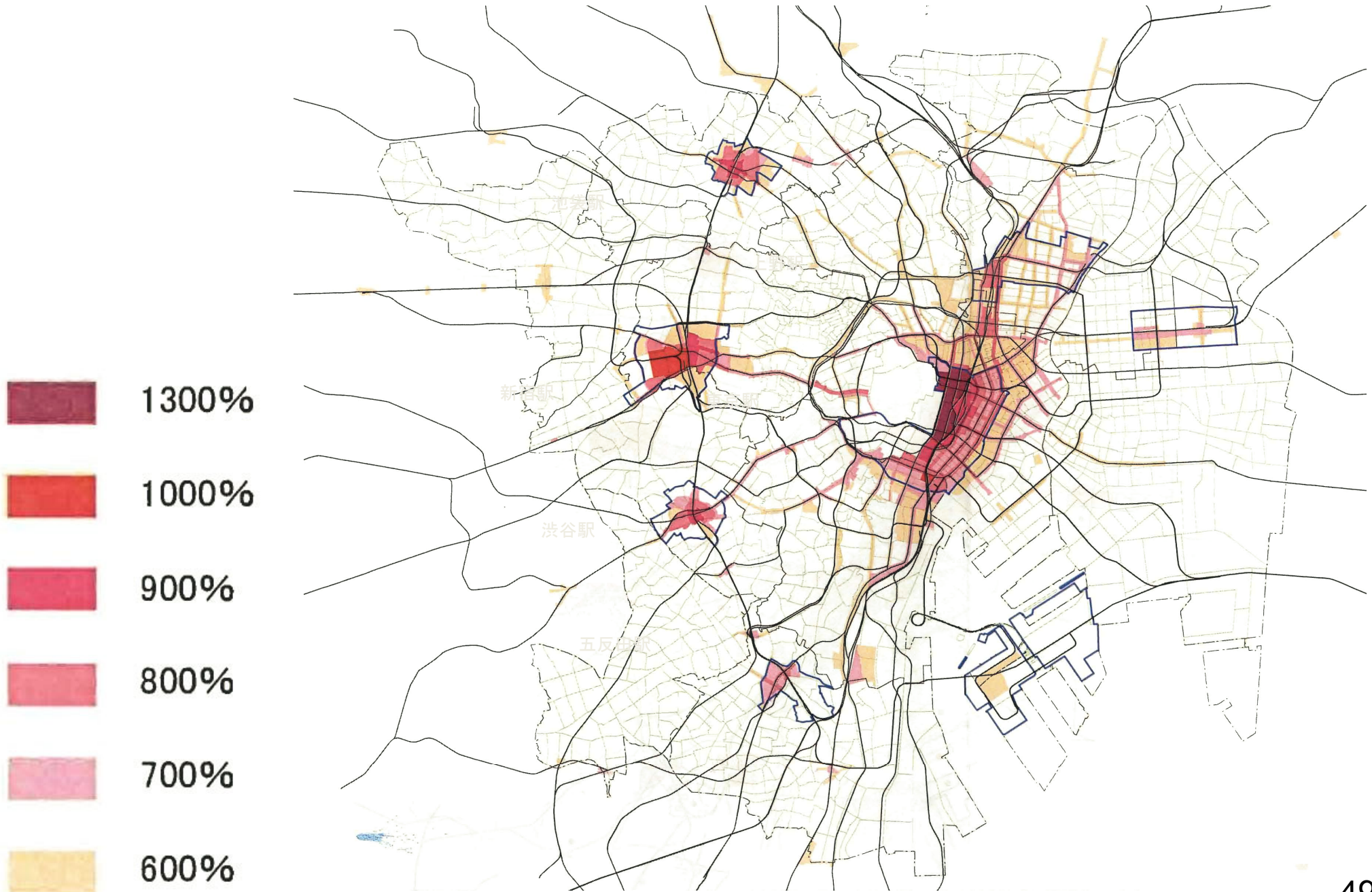
Image of FAR (Floor Area Ratio)

FAR : 600%
31 floors



FAR : 1,070%
~55 floors
Total floor area : 2,100,000m²

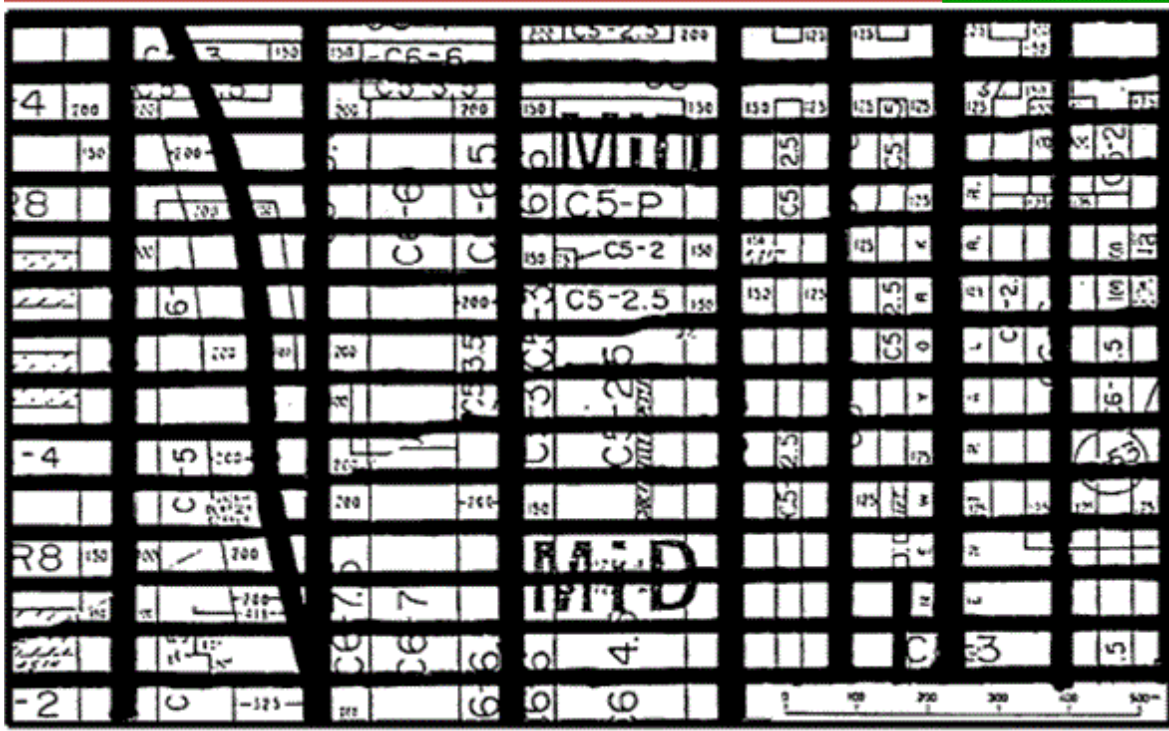
High FAR Districts around Tokyo



Comparison of road density

Tokyo

Road-area ratio : 23%



NewYork

Road-area ratio : 38%

Building site and roads

(1) Road Access Obligation

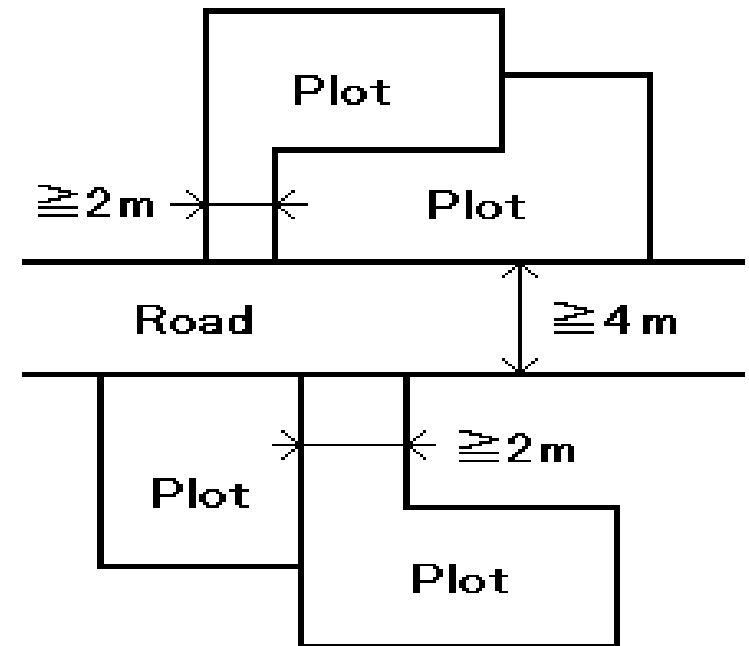
The boundary of any building site must, in principle, abut a road for a distance of at least 2 m.

(See “roads defined in Zoning Codes” of (3).)

<Exception>

- (i) Roads exclusively used for automobile traffic, and
 - (ii) The roads having no access of automobiles to the roadside, such as elevated roads,
- are not included in the roads to fulfill this obligation.

Road Access Obligation



(2) Restrictions on In-road Buildings

No building or retaining wall may, in principle, be constructed on a road, or in such a way as to protrude onto a road. (See “roads defined in Zoning Codes” of (3).)

<Exception>

Buildings, which are necessary for the public interest, such as public lavatories and police boxes, are allowed to be constructed on the roads if they are permitted by the *Jurisdictions*. 51

(3) “Roads defined in Zoning Codes”

“Roads defined in *Zoning Codes*” mean specific “public ways” shown in the table below.

| Time Width | Time of construction of the “public way” | |
|--------------------------|--|--|
| | Construction before <i>the area designation</i> (*1). | Construction after <i>the area designation</i> (*1) |
| 4 m or more (*2) | - All “public ways”, including privately-operated ones | - All publicly-operated “public ways”, such as those based on the Road Law, - Some privately-operated “public ways”. which were constructed in compliance with required standards, and certified through the related laws, such as City Planning Law and BSL. |
| Less than 4 m (*2) | - Some “public ways”, which are designated by the <i>Jurisdiction</i> (*3) (Next page) | - None (No “public ways” are adopted as “Roads defined in Zoning Codes”.) |

(*1) “**The area designation**” means the designation of the area as *City Planning Areas* or *Quasi-city Planning Area*. *Zoning Codes* are applied to the area after *the designation*.

(*2) 6 m instead of 4m, in areas where the *jurisdiction* (*3) designated as such.

(*3) *Jurisdictions* mean local governments in charge of building control.

Narrow “public ways” designated by *Jurisdictions* as “roads defined in Zoning Codes”

Definition

A “public ways”:

- (a) next to which buildings actually stood at the time of *the area designation*;
- (b) of which width was less than 4 m at that time; and
- (c) which is designated by a *Jurisdiction*,
is regarded as a “road defined in Zoning Codes”.

Boundaries in ordinary cases

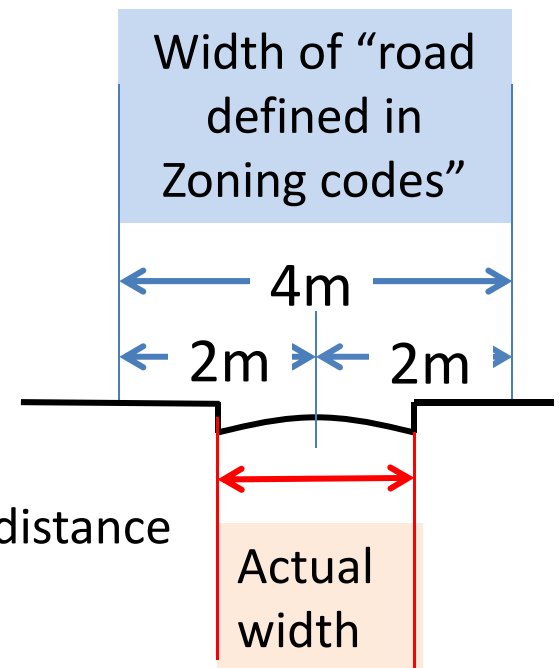
Lines 2 m in horizontal distance from the center line are regarded as the boundary lines of the “road defined in Zoning Codes”. (See the right figure)

No buildings may not be built in the total width of 4 m.

Boundaries in special cases

If a cliff, stream, railway site or the like exists within 2 m in horizontal distance from the center line,

- (a) the boundary line of the side abutting on the cliff, etc.; and
 - (b) a line on the opposite side, which is 4 m in horizontal distance from the boundary line of (a),
- are regarded as the boundary lines of the “road defined in Zoning Codes”, notwithstanding the preceding paragraph. (Next page)



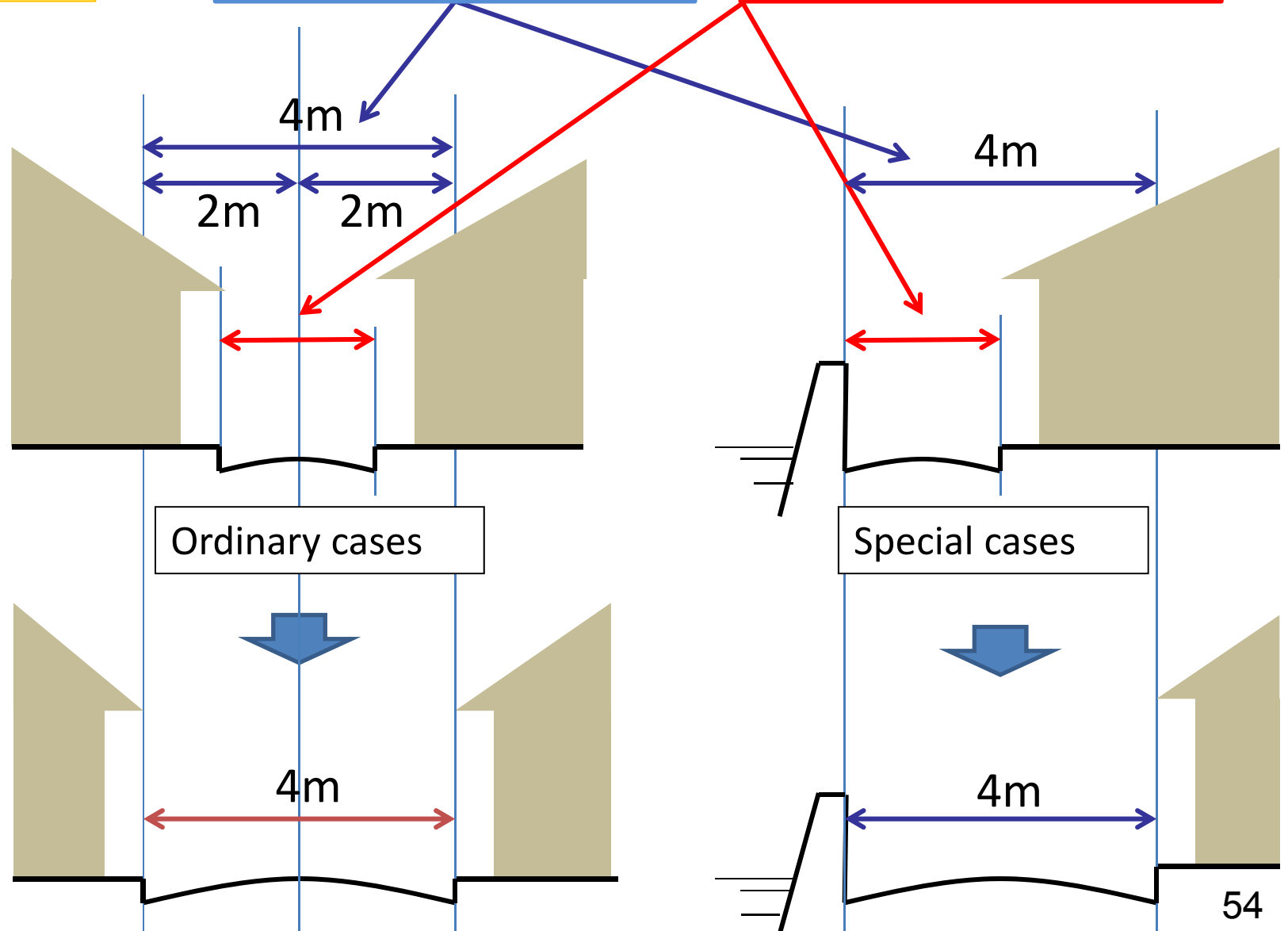
Widening of narrow “public ways” designated by *Jurisdictions*

No building may not be built in the width of 4 m.

4 m width of “road defined in Zoning Codes”

Actual width at the time of *the area designation*

Condition at the time of *the area designation*



(1) Building height restrictions in *Category I/Category II Exclusively Low-rise Residential Zones*

Category I and Category II Exclusively Low-rise Residential Zones are specified so that an excellent living environment for low-rise residences is maintained. In these regions, it is prohibited, in principle, to build a building whose height exceeds **10 m or 12 m**, whichever is specified under city planning.

(2) Slant Plane Restrictions (allowable building height in proportion to the distance from the boundary)

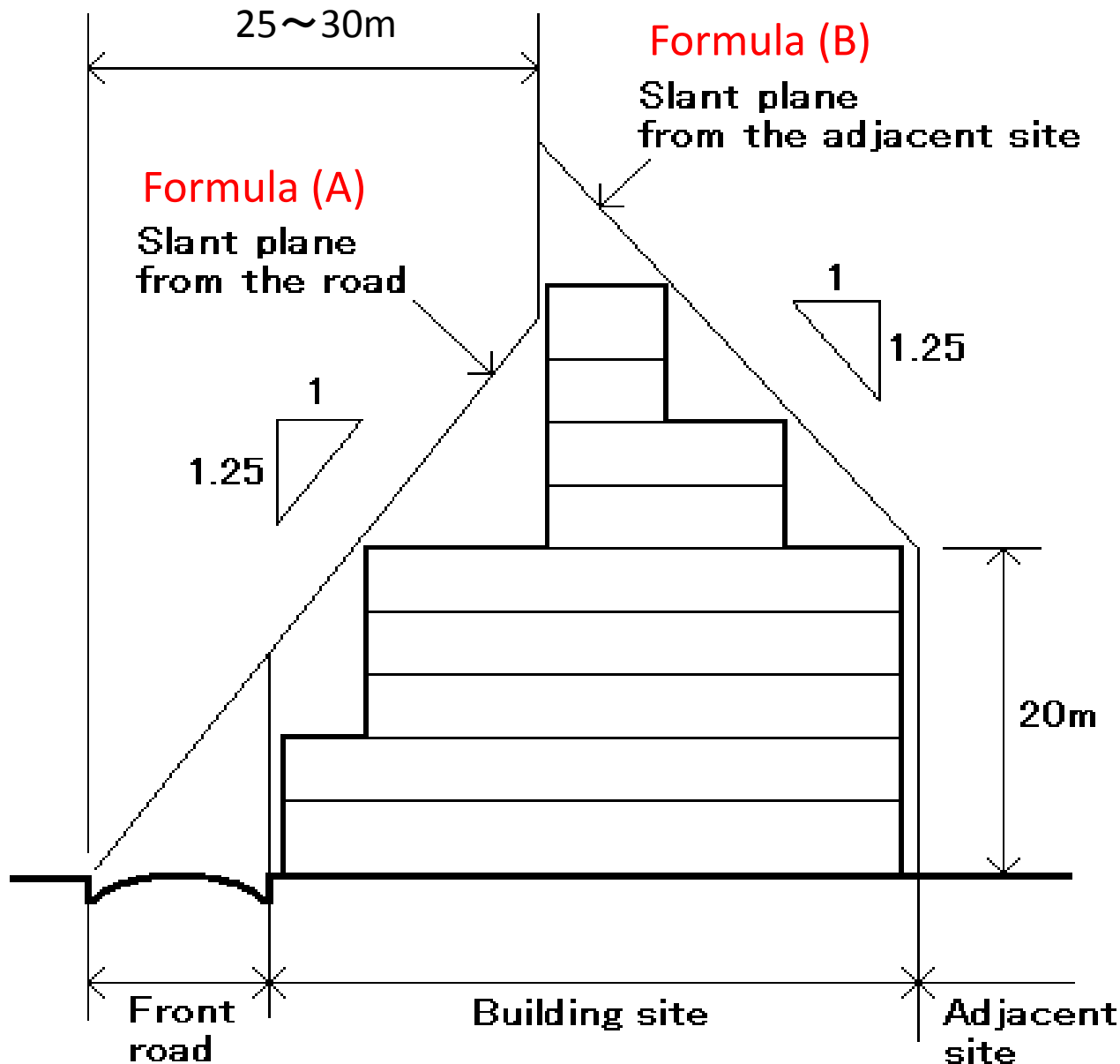
These restrictions are designated to limit the height of buildings according to:

- (a) the distance from each part of the building to the opposite side of the road that it faces (**the slant planes from the roads**); and
- (b) the distance from each part of the building to the adjacent site boundaries (the **slant planes from adjacent sites**); and
- (c) the distance from each part of the building to the north boundary of the site (the **slant planes from the north-facing adjacent sites**).

This is to ensure that there is enough unobstructed space for light and ventilation between buildings and on streets. The degree of application of these slant plane restrictions differs according to each land-use zone. (see the next page)

Image of Slant Plane Restrictions

(In the case of residential land use area)



Formula (A) for “slant plane from the front road”,

Formula (B) for “slant plane from the adjacent site”, and

Formula (C) for “slant plane from the north-facing adjacent sites: depend on the *Land Use Zones*, in which the site is located, as shown in the table of the next page.

Formula (A) is applied within certain distance from the opposite side of the front road as shown in the left figure.

Formula (C) is applied within certain *Land Use Zones*.

Formula of Slant plain, depending on the *Land Use Zone* (unit: meter)

| Basic <i>Land Use Zones</i> | | Formula (A) | Formula (B) | Formula (C) |
|--|---|-----------------------|---------------------------------|-------------------|
| 1 | Category I / Category II exclusively low-story residential zone | 1.25 X | 20 + 1.25 Y | 5 + 1.25 Z |
| 2 | | | | |
| 3 | Category I / Category II exclusively medium-high residential zone | | | 10 + 1.25 Z |
| 4 | | | | |
| 5 | Category I / Category II residential zone Quasi-residential zone | | | No restriction |
| 6 | | | | |
| 7 | | | | |
| 8 | Neighborhood commercial zone Commercial zone | 1.5 X | 31 + 2.5 Y | No restriction |
| 9 | | | | |
| 10 | Quasi-industrial zone Industrial zone Exclusively industrial zone | | | |
| 11 | | | | |
| 12 | | | | |
| Areas where <i>Land Use Zones</i> are not designated | | 1.25 X or 1.5 X | 20 + 1.25 Y or 31 + 2.5 Y | No restriction |

<Note> X is distance from the opposite side of the front road.

Y is distance from the boundary of the adjacent site.

Z is distance from the north boundary of the site or the opposite side of the north front road.

(3) Shadow Restriction

Shadow restriction aims, in principle, to limit the height of buildings so as to ensure sufficient sunlight in residential zones. The local governments may designate areas (*1) where this restriction applies, and *allowable hours of shadows* (*2) for each designated areas.

(*1) The following land-use zones can be designated:

- *Category I and II Exclusively Low-rise Residential Zones;*
- *Category I and II Mid/high-rise-oriented Residential Zones;*
- *Category I and II Residential Zones;*
- *Quasi-residential Zones;*
- *Neighborhood-Commercial Zones;*
- *Quasi-industrial Zones;*
- Areas where no *Land Use Zones* are designated.

(*2) *Allowable hours of shadows* means a period of hours per day in which buildings may cast shadows outside of their respective sites.

Building Lot Size

In an effort to discourage the development of small-scale projects that involve the subdivision of an existing single lot, the respective city planning may stipulate the minimum **allowable building site size** up to 200 m², in order to ensure an excellent living environment.

Wall Alignment

Jurisdictions may designate minimum distance (1.5m or 2m) from the site boundary in *Category I and II Exclusively Low-rise Residential Zones*,

In this case,

- **Walls and columns** of buildings, and
 - **gates or fences exceeding 2 m in height**
- must keep minimum distance from the site boundary.

Chapter 18 Building Control based on Zoning - by specific zoning -

18-1 Special Zone, Special District, etc.

18-2 District Plan

18-1 Special Zone, Special District, etc.

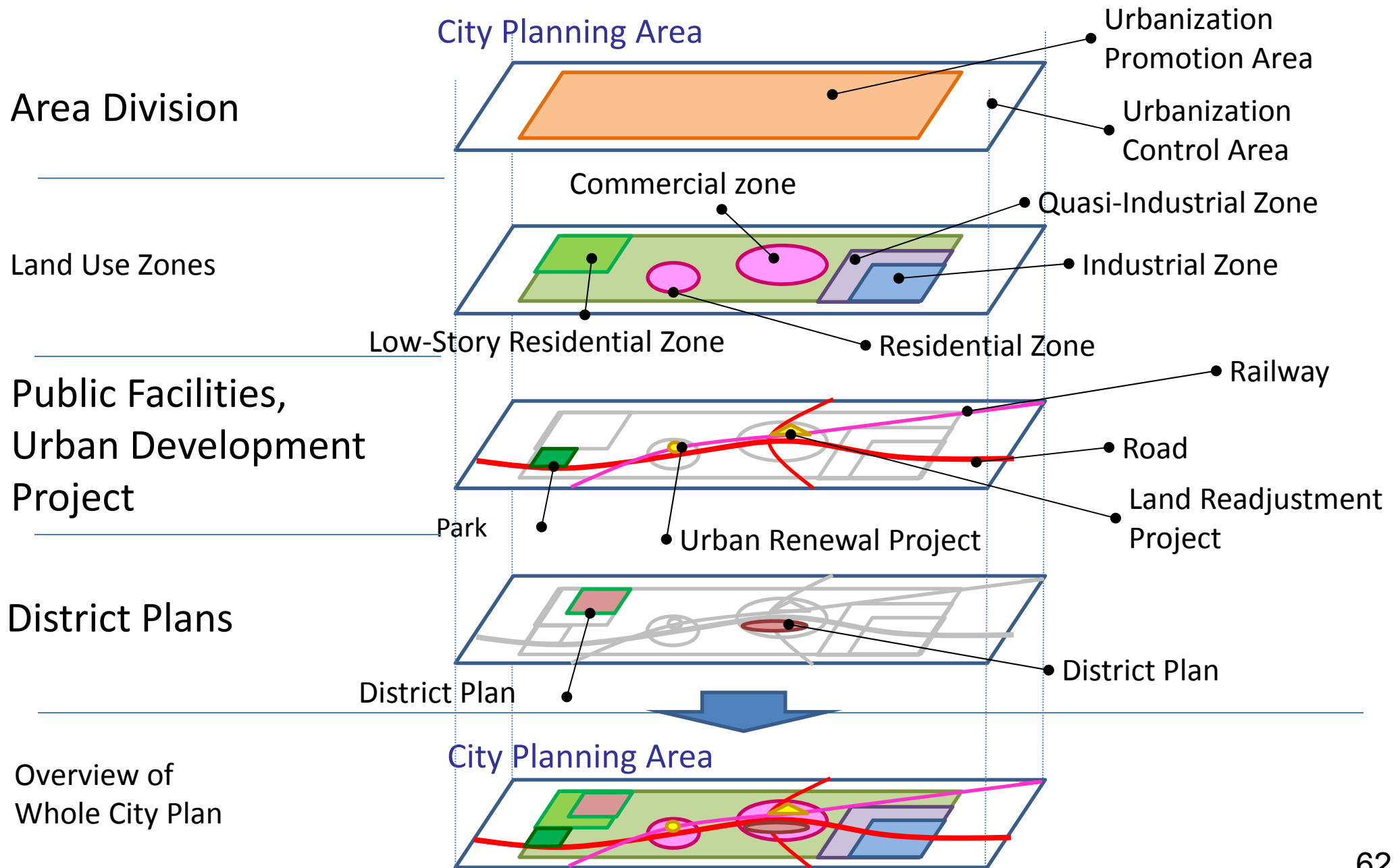
General regulations, such as FAR, BCR and building height are set depending on the basic *Land Use Zone*.

There are various special methods below in order:

- to correspond special needs of the area, and
- to promote “good project implementations”.

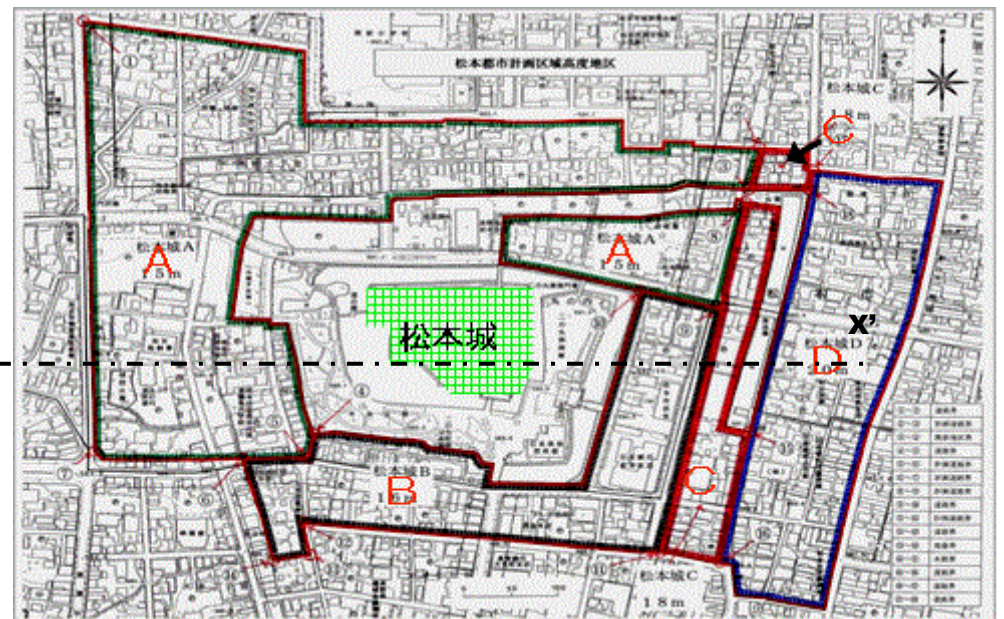
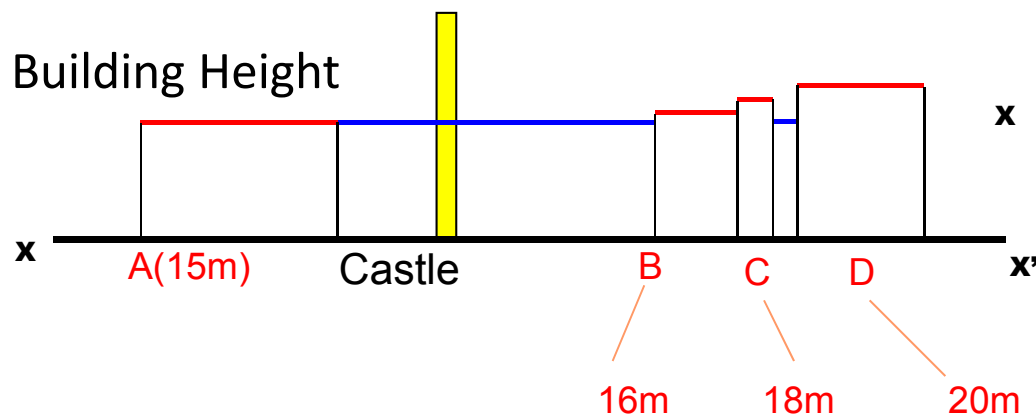
- ◆ *Special Land Use District*
- ◆ *Special Land Use Restriction Zone*
- ◆ *Height Control District*
- ◆ *Specified Block System*
- ◆ *Special District for Urban Renaissance*
- ◆ *Efficient Land Utilization District*
- ◆ *Historic Townscape Preservation District*
- ◆ *Greenery Preservation District* etc.

Concept of Land Use Planning System



Height Control District (Matsumoto, Nagano)

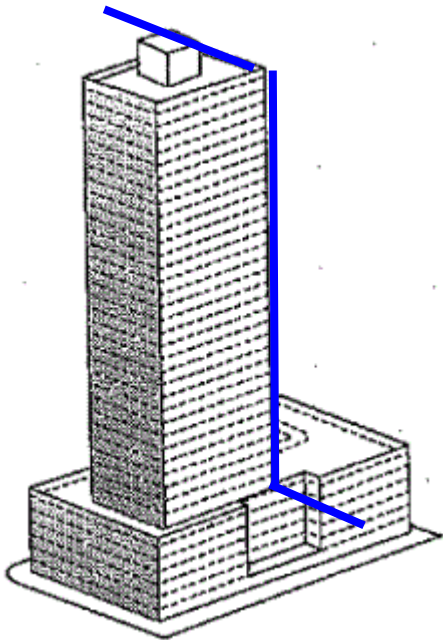
Height Control District is designated around Matsumoto Castle in order to control height of buildings.



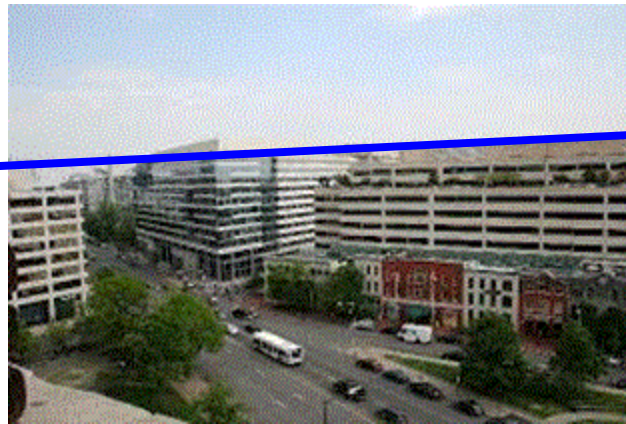
(Reference) Building height control in countries

Marginal line (shown in blue line) of building height is set in various ways, such as below.

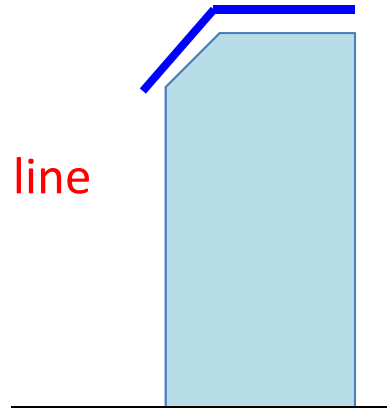
Tower on the base
(New York from 1999)



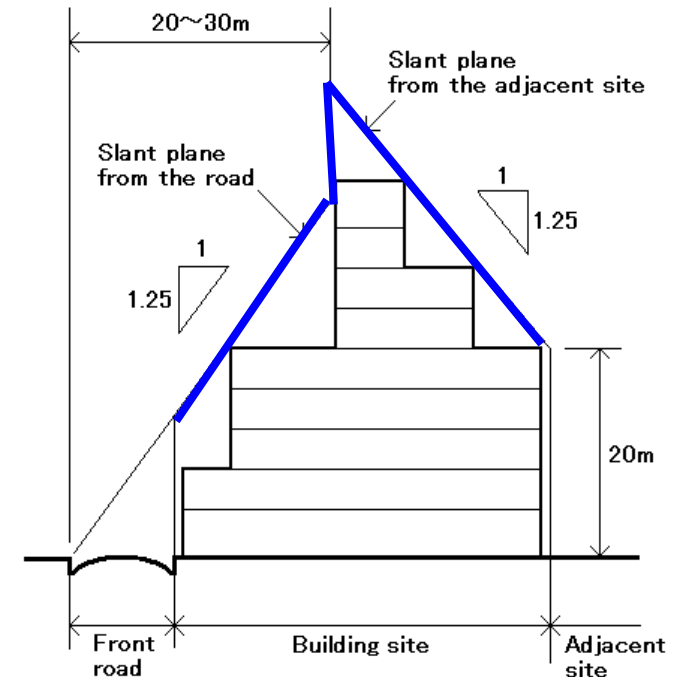
Flat marginal line
(Washington DC, USA)



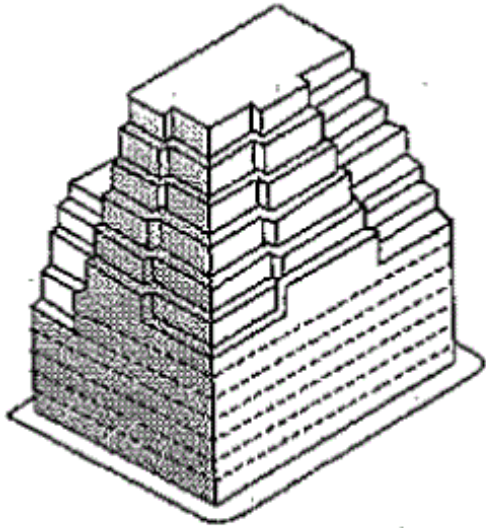
**Cornice line
+ slant line + flat line**
(Paris)



Slant marginal line
(General regulation, Japan)

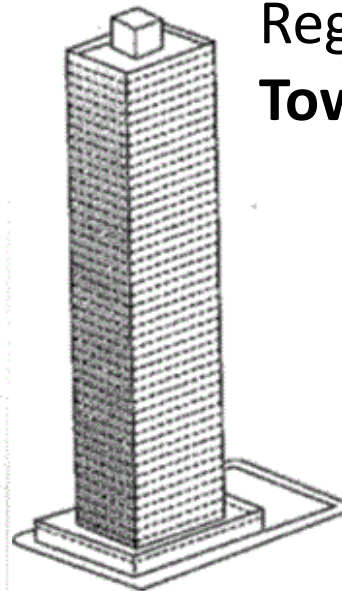


Transition of Building Height Regulation in New York

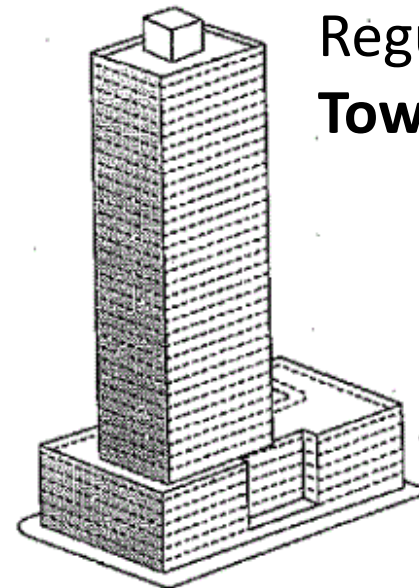


Regulation 1916
Wedding cake

Manhattan in 1932



Regulation 1961
Tower in the park



Regulation 1999
Tower on the base

Incentive Systems for Good Project Implementation (FAR bonus)

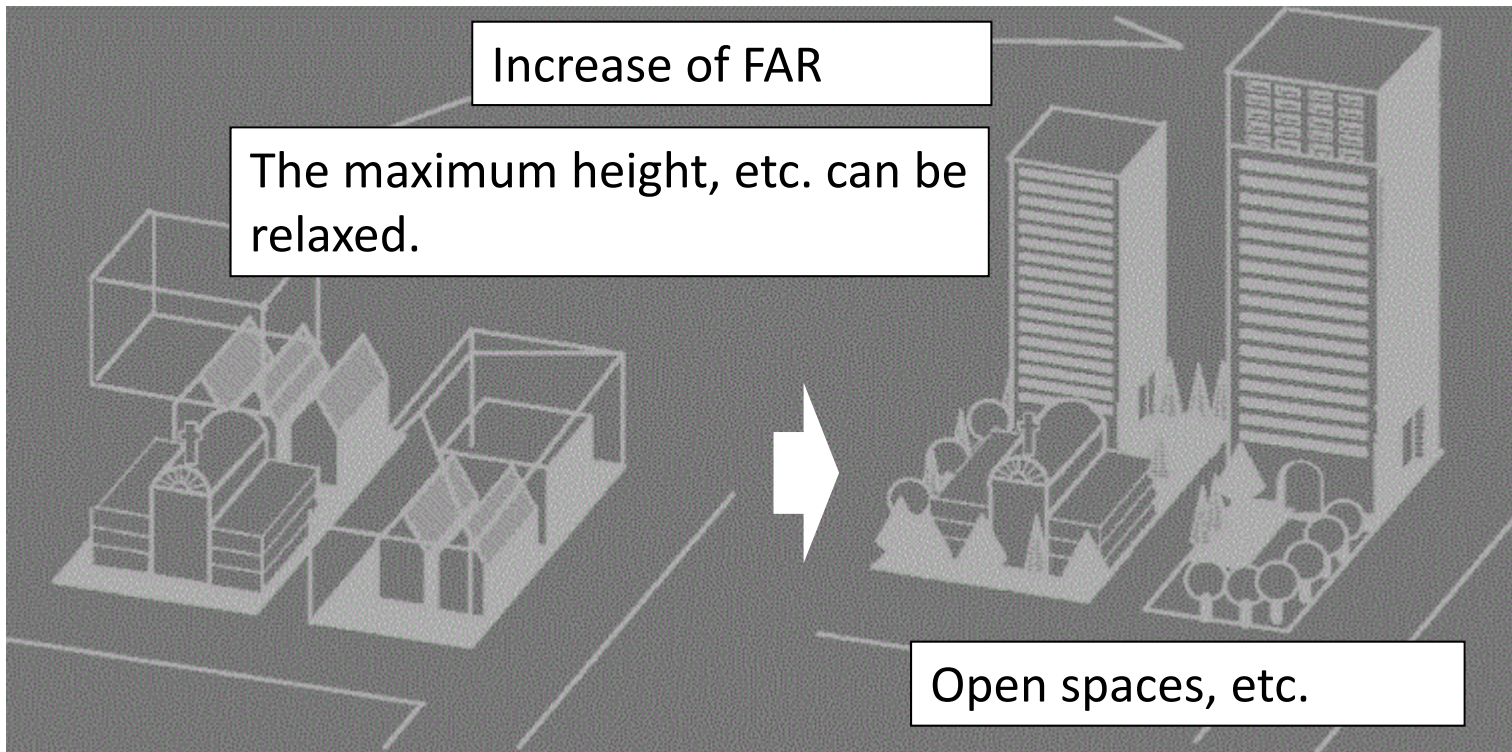
To prevent overcrowding and encourage efficient land use, a special bonus to FAR is awarded for “good project implementations”, which include the development of public infrastructure, open spaces and housing in downtown as part of their projects.

List of Incentive systems

- *Specified Block System*
- *Special District Plan for Redevelopment*
- *Efficient Land Utilization Zone*
- *Permission System for Comprehensive Building Design*

Specified Block System

- Typically applied to a large-scale development in a block with sufficient infrastructure.
- In a designated Specified Block area with a certain level of open space, the maximum FAR, the maximum height, and the set back regulations can be relaxed.
- The FAR bonus will be given according to the amount of the open space, etc. allocated within the block.



Marunouchi Building



Tokyo Metropolitan
Government Office Building

Specified Block System

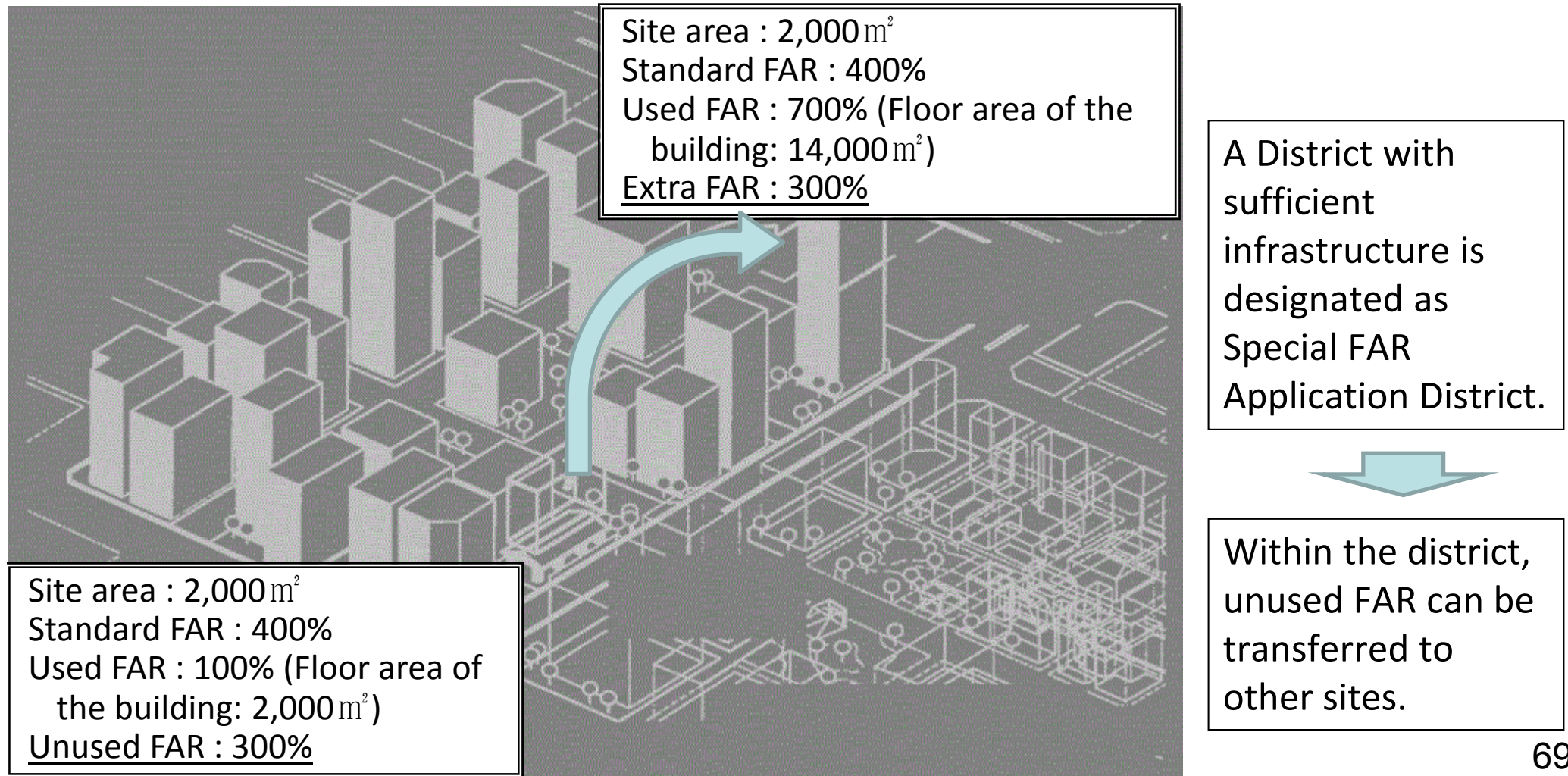
The Industry Club of Japan / The Mitsubishi Trust and Banking Corp

30 floors (height:141.1m)
Total floor area : 109,830 m²
FAR : 1000% to 1235%

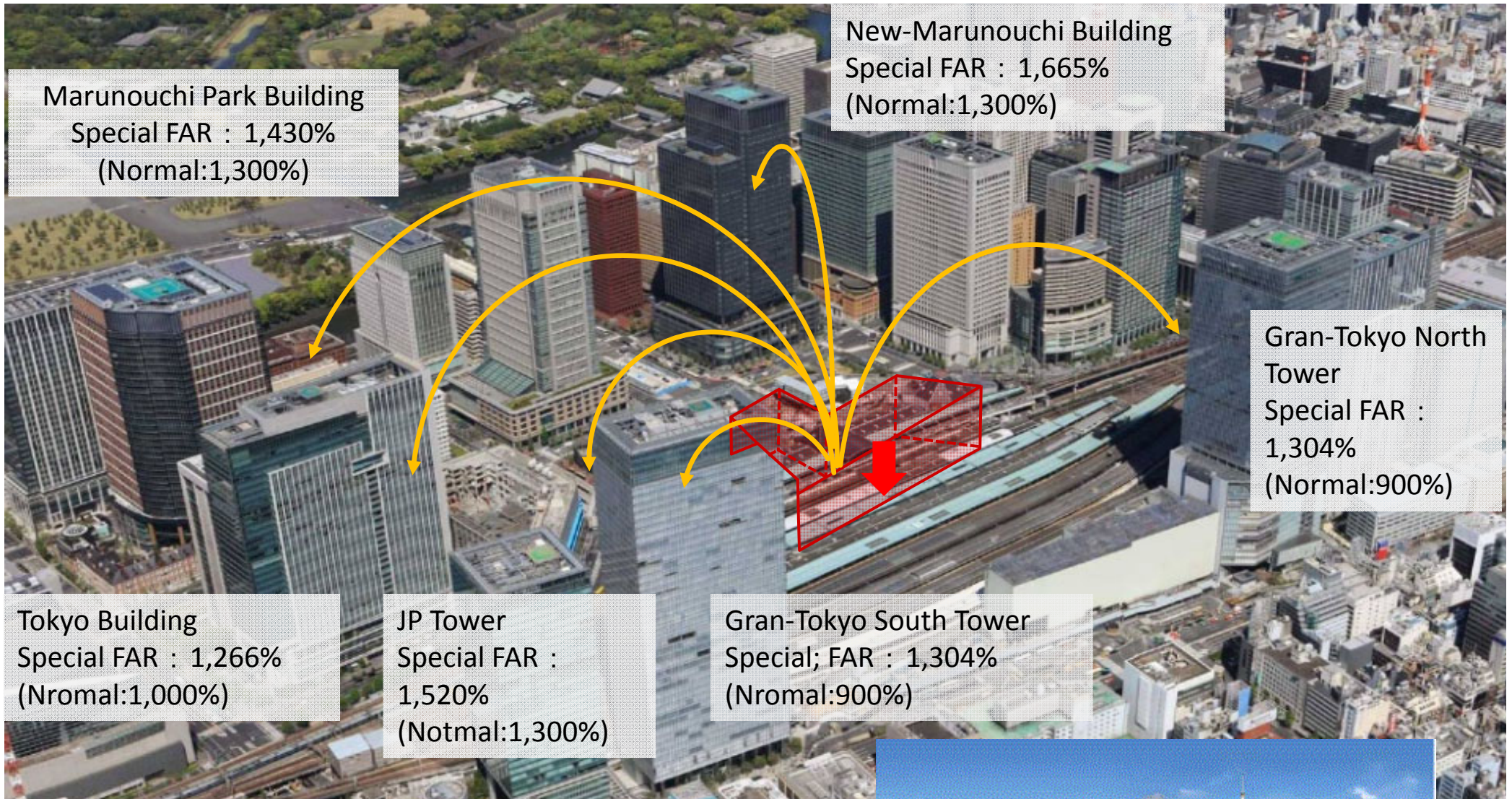


Special FAR Application District

- Allows unused FAR on low FAR building sites to be transferred to other building sites based on agreements among relevant rights holders.
- Typically applied in central districts where traditional landmark buildings should be preserved as well as high-density utilization should be pursued.



Special FAR Application District (Tokyo Station)



18-2 District Plan

<Purpose>

The *District Plan* is a planning mechanism which aims to enhance area characteristics, according to local circumstances such as architectural design, location of open spaces at a district level.

The Plan also shows individual features that reflect the views of the local community.

<Two parts of *District Plan*>

- Policy Directions (i.e. future vision of the district)
- District Improvement Plan (i.e. layout of local roads, regulations relating to site, use, building, etc.)

<Examples of regulations under *District Plan*>

Location of public facilities [local roads, small park, open spaces, footpaths, etc.]

Building control and regulations [land-use, FAR, BCR, scale of building lot, set back of building from the boundaries, design, hedge, etc.]

Preservation of green areas

Construction of low buildings is not permitted here.

Height of buildings is to be regulated.

Oak trees are to be protected.

The location and width of roads are decided through discussions.

This is a residential district, so a factory should not be located here.

Construction of high buildings is not permitted.

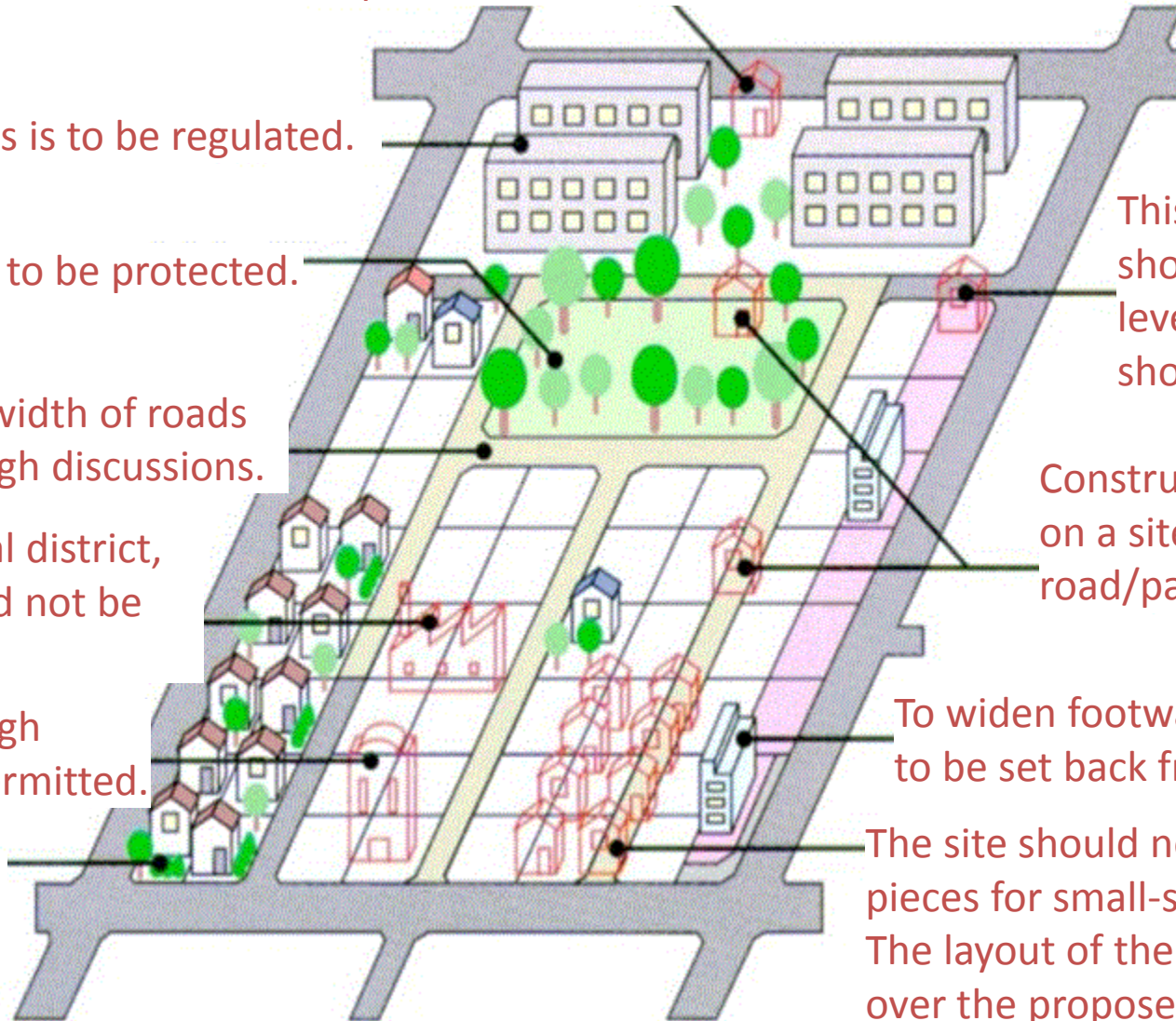
A hedge should be created here.

This is designated as a shopping mall, so a ground level is to be created as a shop.

Construction of new buildings on a site proposed for a road/park is to be avoided.

To widen footway, the building needs to be set back from the road.

The site should not be divided into pieces for small-scale developments. The layout of the buildings should not be over the proposed road.



Determination Process of District Plan

In order to meet the needs for resident participation, opinions of local citizens shall be reflected in determination of *District Plan*.

- The *District Plan* is formed in consultation with landowners according to ordinances by the municipality.
- Local citizens may request their municipalities to draft *District Plans* on the basis of municipal ordinances.

(Example) District Plan in Wakabayashi, Setagaya, Tokyo



Regulation under *District Plan*

Building Use :

Large-size shops and adult-entertainment business are prohibited.

For Fire Protection :

Fire Endurance Buildings only

Max Height:

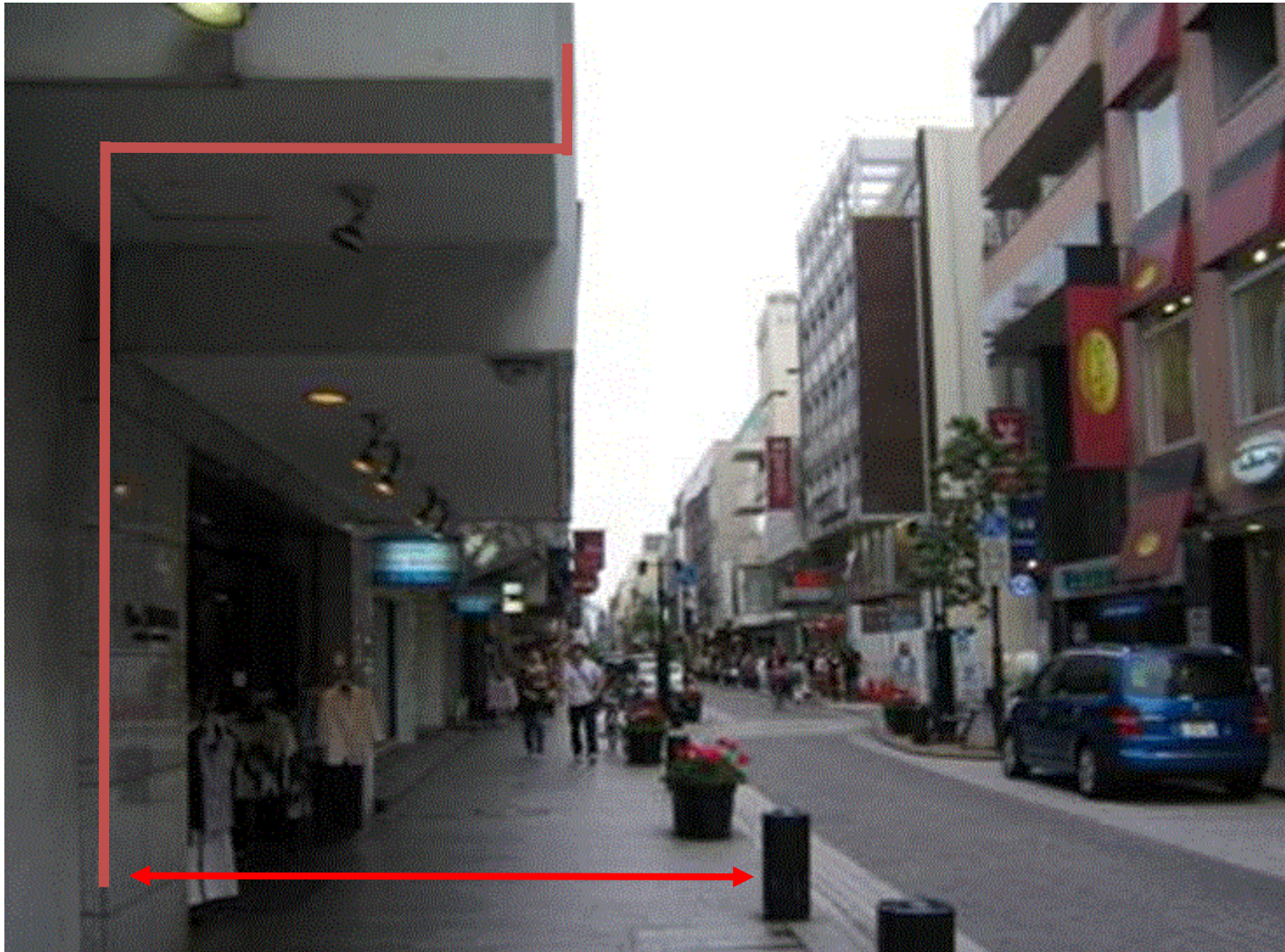
10m(blue zone)、25m(edge)

Minimum plot area : 100m²

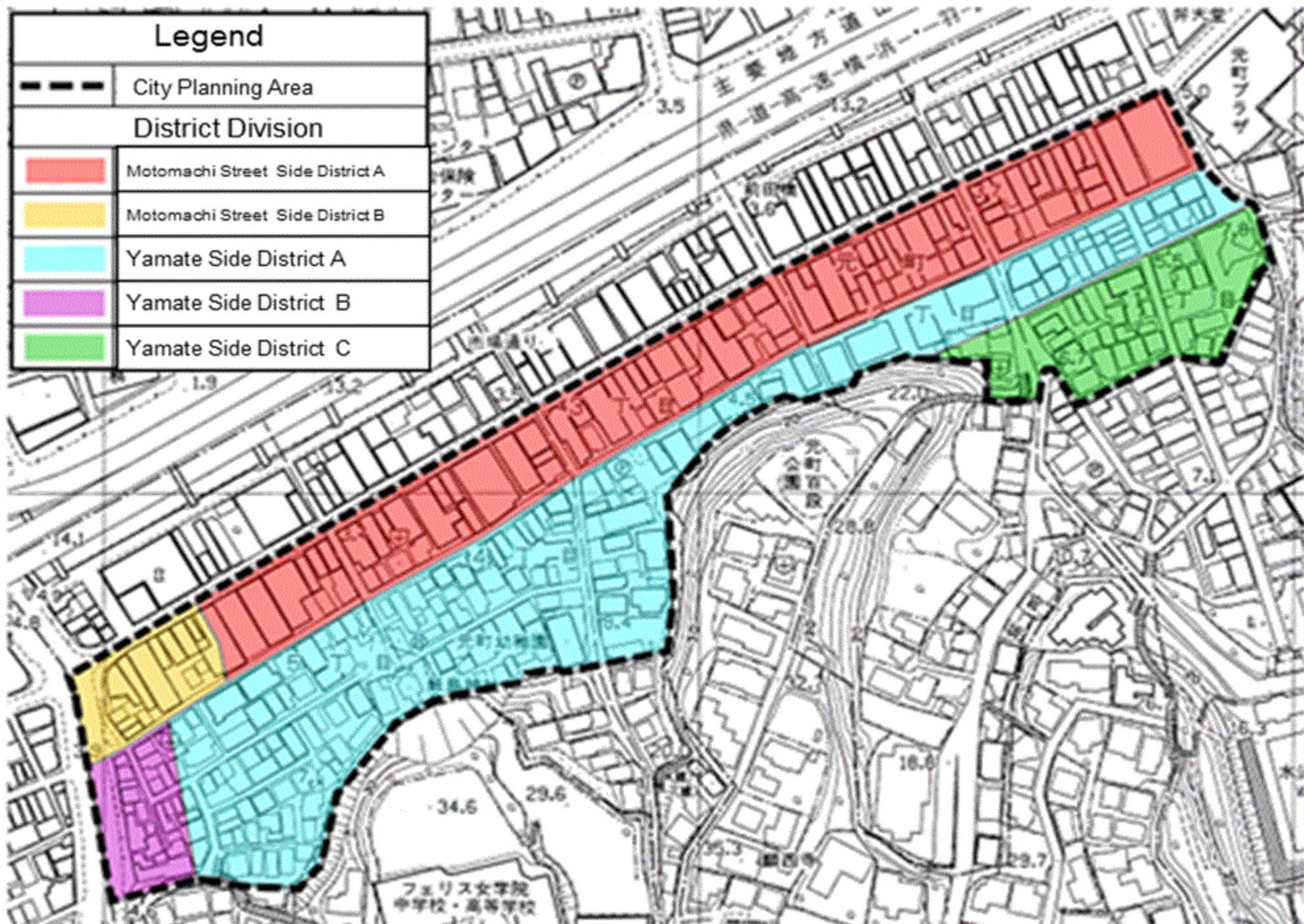
etc...

(Example) District Plan in Motomachi, Yokohama

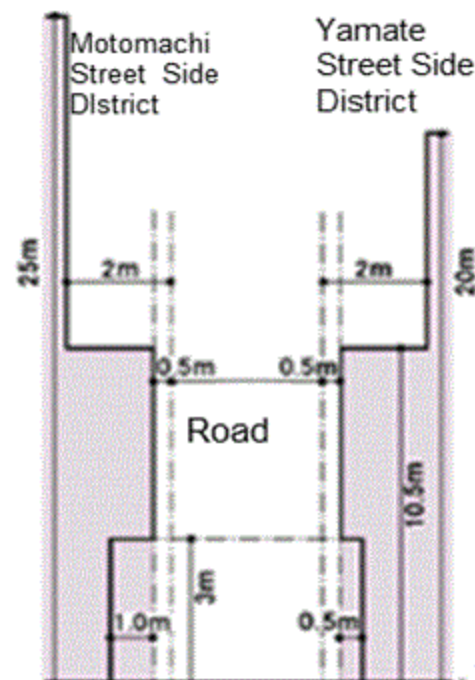
Regularian on Wall Position



Securement of through open space for pedestrians



Height of Buildings and Wall Position (cross-section drawing)



| Legend | |
|---|------------------------------|
| — | City Planning Area |
| - - - | Restriction on Wall Position |

