



3-D ROW

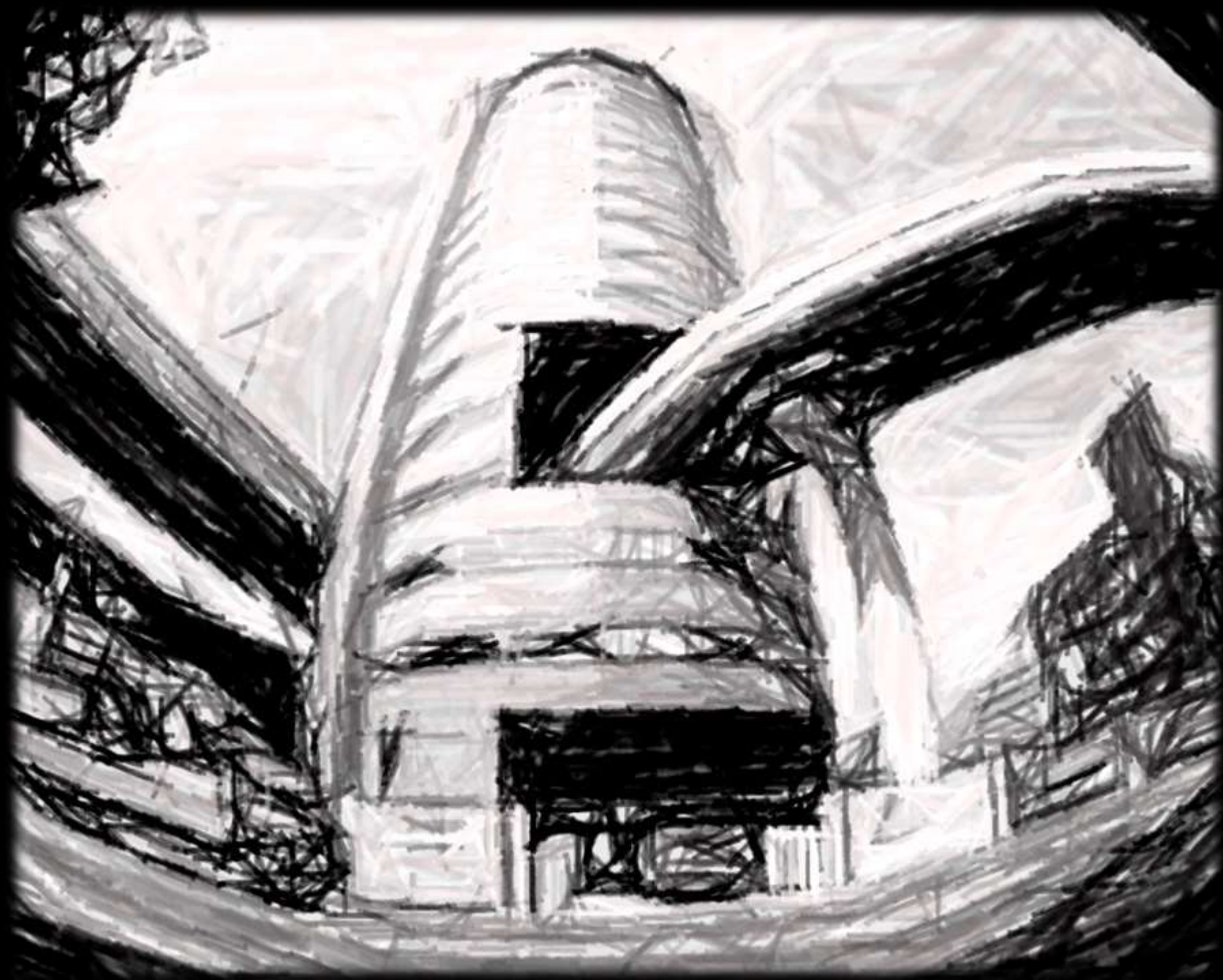
To minimize involuntary resettlement

February, 2017

@Manila



OGURA, Kenji



The background image is a stylized, high-contrast photograph of a city street at night. It features a tall, curved building with many windows, a bridge with a curved arch, and a street with cars. The image has a blue and white color scheme with a high-contrast, almost graphic quality.

Contents

1. Introduction of Hanshin Expwy.
2. Legal Framework of 3-D ROW Development
3. Actual Cases
4. Challenging Issues/Conclusion

Snapshot:

The Kansai Metropolitan Region where HEX constructs and operates the Hanshin expressway

Area: approx. 12,000 km²

Population: 18 million

Density: 1,500 people/ km²

(Source: Census in 2005)

Region GDP: US\$80 billion

(Source: Kansai Economic Federation Report 2011)





Commercial City, OSAKA



Port City, KOBE



Ancient Capital City, KYOTO



Hanshin Expressway

WHO are we?;



Hanshin Expressway Co. Ltd.

HANSHIN EXPRESSWAY — OSAKA — KOBE

Establishment: 1964

Privatization: 2005

Equity Holders:

National Gov.

**Local Gov. of the Kansai Metropolitan Region
(Osaka, Hyogo & Kyoto)**

Capital: 20 billion JPY

Annual Toll Revenue:

170 billion JPY (2013)

LEGEND
— Operating Routes of Hanshin Expressway
- - - Projected Routes of Hanshin Expressway
... Road Projects Under Contemplation of Hanshin Expressway
— Other Trunk Roads

Operation & Maintenance: 259.1 km

Under Construction: 13.9km

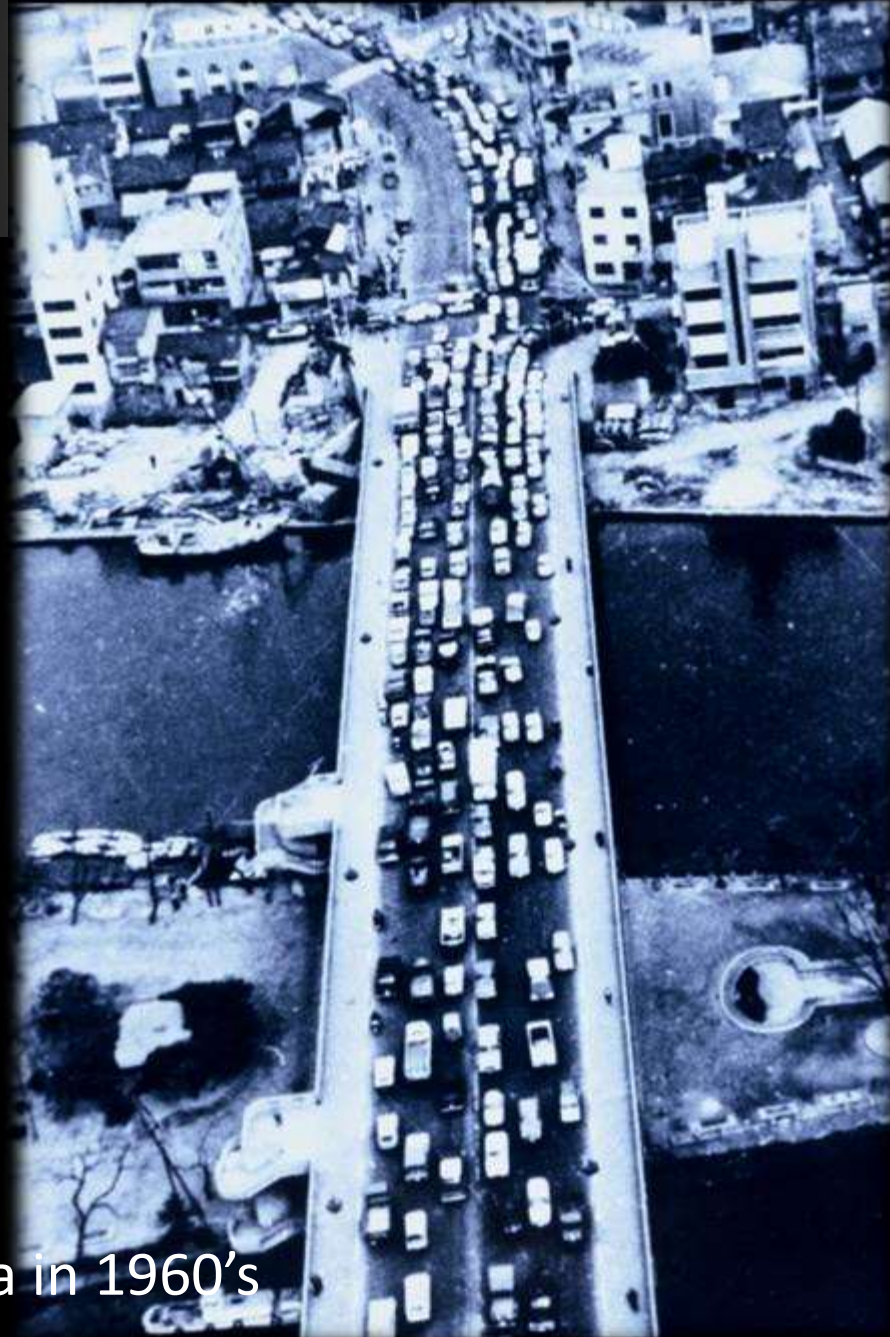
Toll: 500-900JPY (Distance Basis)

Daily Traffic Amount: 700 thou.

Motorization entailed heavy traffic jam in 1960's-1980's during the period of rapid economic growth.



CBD in Osaka in 1960's



HEX utilized canals when constructing the loop highway in the CBD of Osaka.




In 1960



Today



Legal
Framework



Actual
Cases

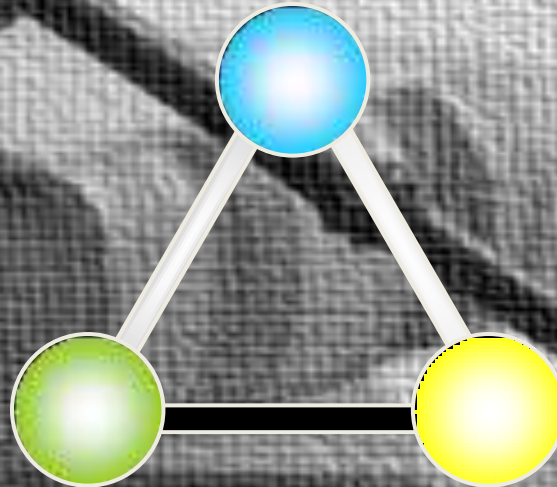


HEX's mission is to **harmonize** urban expressways with **urban development** by promoting effective **ROW** utilization in the **highly dense** CBD of the cities.

Legal Framework of the Three-dimensional ROW Development

Road Act

- Define ROW three-dimensionally.



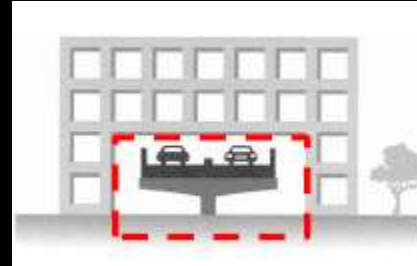
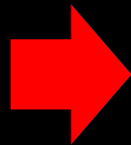
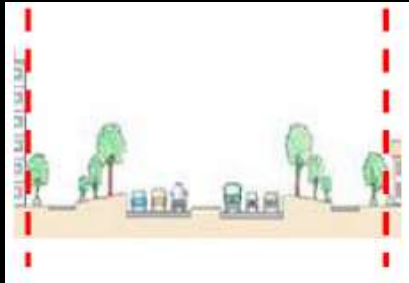
Building Standard Act

- Lift the building regulations within ROW.

Urban Planning Law

- Define a hybrid area and clearances in the district plan.
- Define a vertical range of the road to be developed.

In principle, any development is prohibited above/beneath roads.



(Road Act)

However, Three-Dimensional ROW
(3-D ROW) Development is allowed
promote

urban space reallocation

between PAPs and Gov.

Case #1

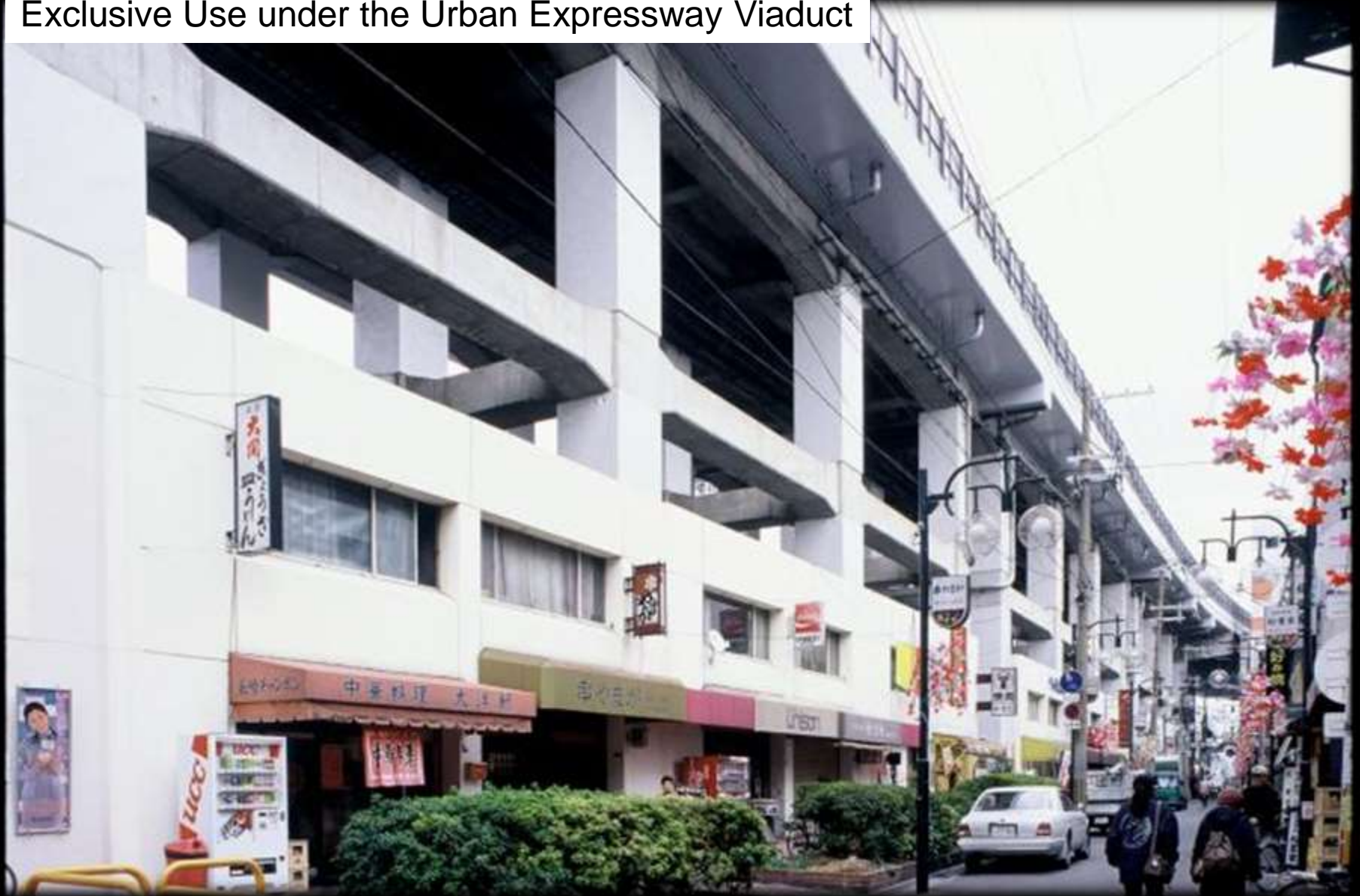
Exclusive use under the Urban Expressway Viaduct



The building structure must be fire-proof.

Case #2

Exclusive Use under the Urban Expressway Viaduct

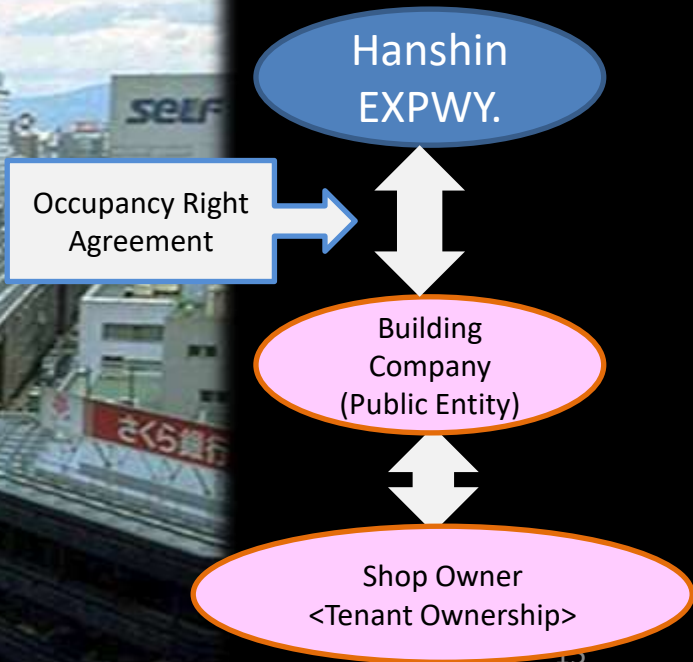


An aerial photograph of a complex multi-level highway interchange in an urban setting. The highway has multiple lanes with white dashed lane markings. To the right of the highway, there are several buildings, including a prominent one with a red sign that reads 'さくら銀行' (Sakura Bank). In the background, a dense city skyline is visible under a cloudy sky. A semi-transparent white text box is overlaid on the upper portion of the image.

Case #3

Multi-level Road Development @Senba Center Building

-Practical Case of the Project Relocation Site-



Case #4

Multi-level Road Development @Umeda Off-ramp

-Practical Case for the Resettlement Solution-



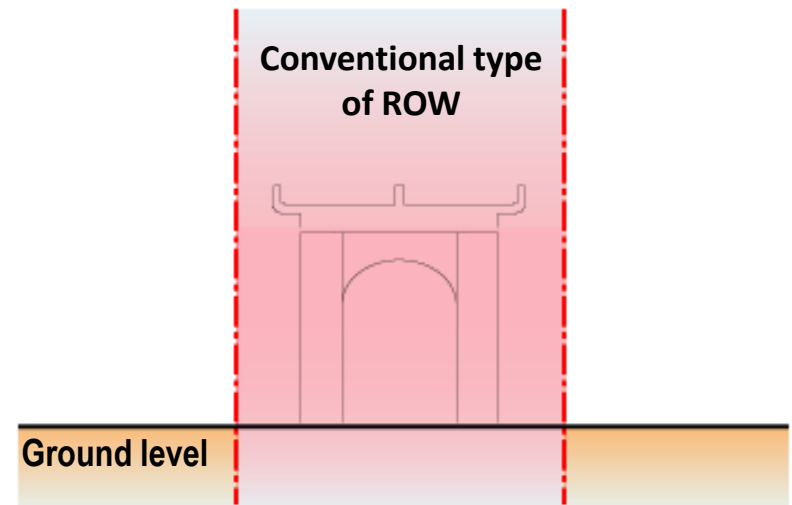
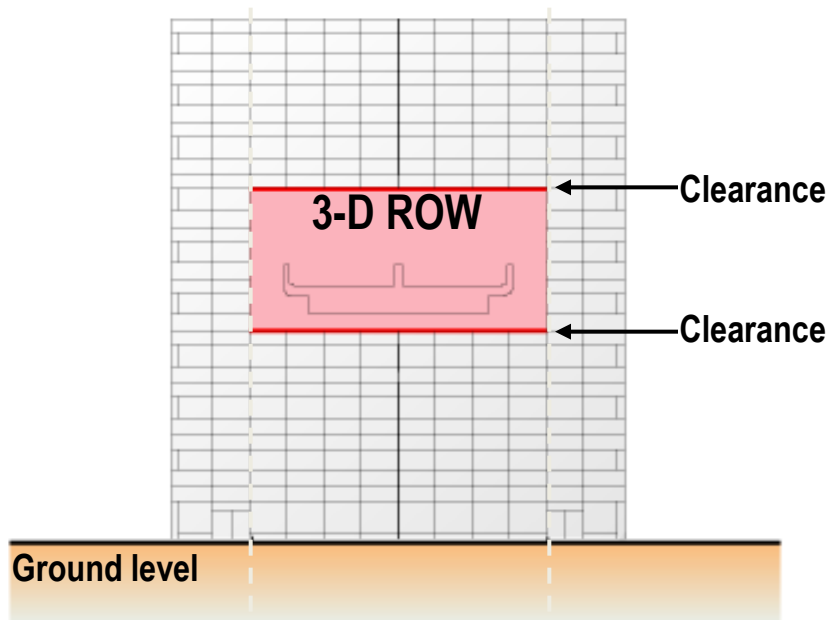
建設品質

佐藤工業

Key point

Define ROW three-dimensionally.
(Define upper and lower limits in space or underground.)

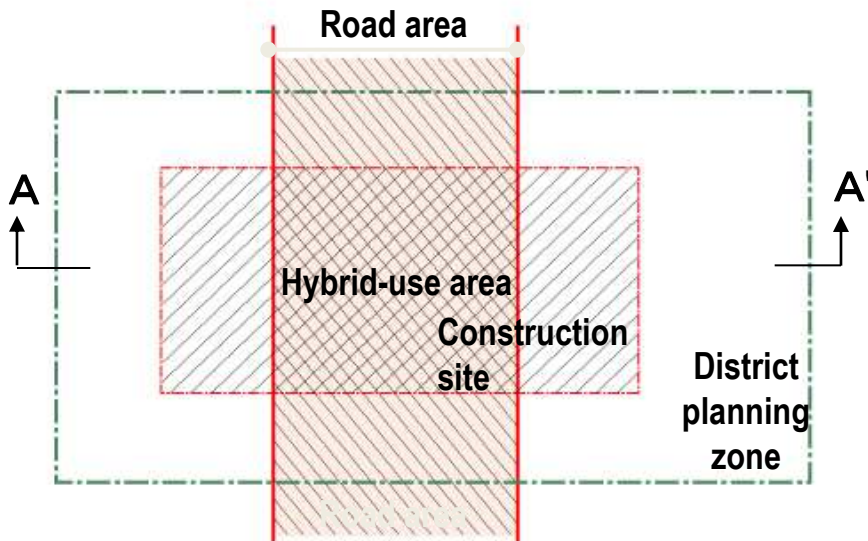
● Three-dimensional road area



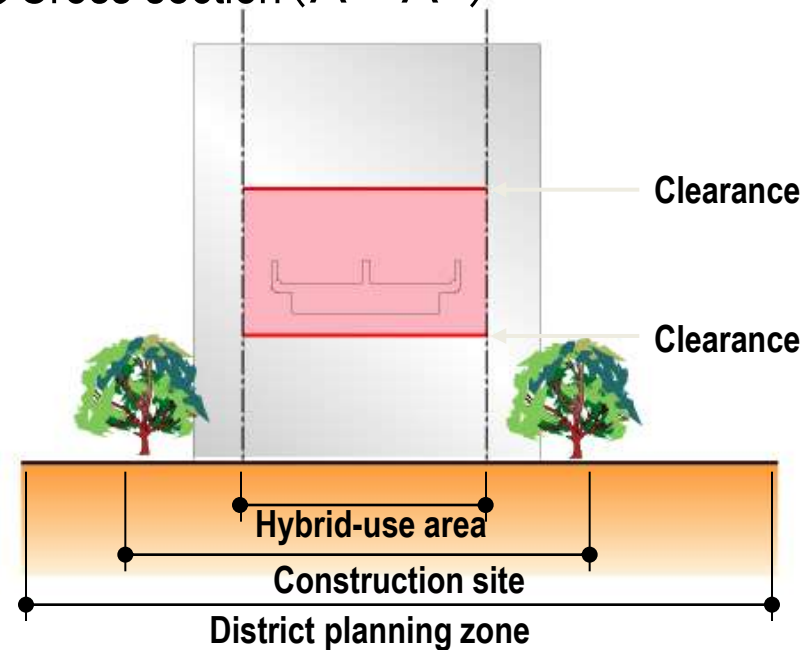
Key point

Define a hybrid-use area and clearances in the district plan.

● Plan



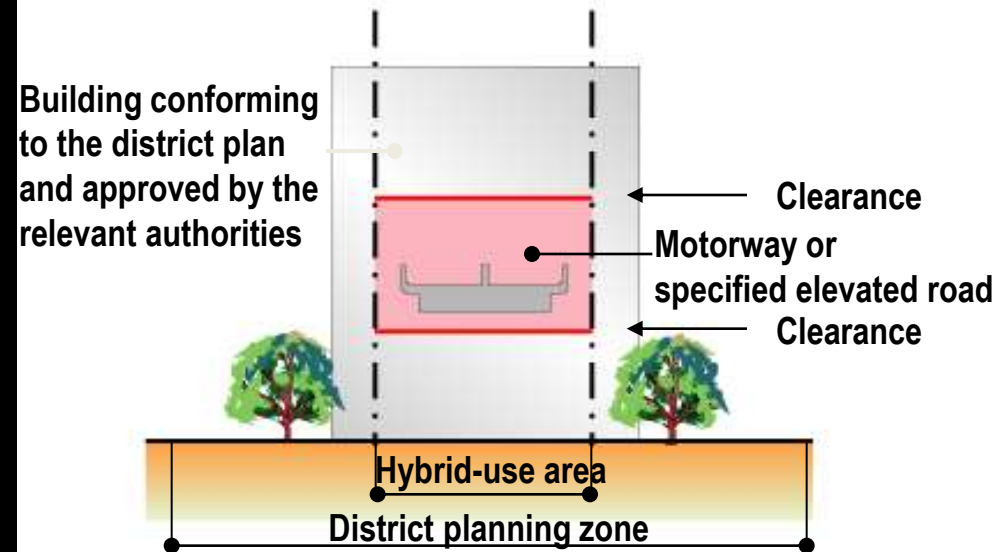
● Cross section (A — A')



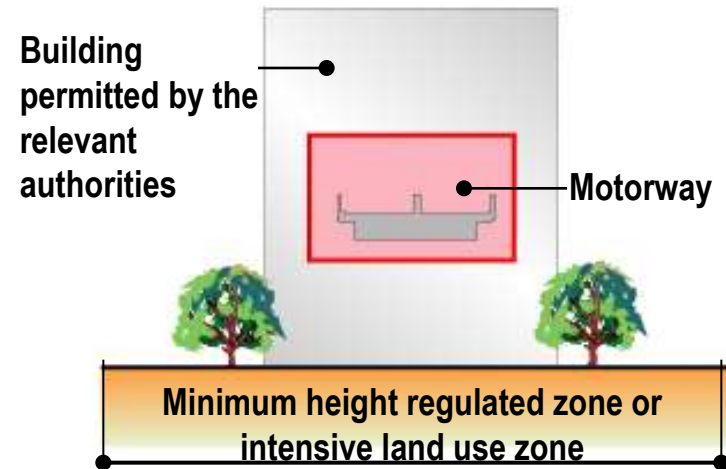
Key point

Lift the building regulations within ROW.

● District plan example (Article 44-1-3)



● Minimum height regulated zone or intensive land use zone example (Article 44-1-4)



Note: The building must be fire-proof in its primary frame and must be approved or permitted by the relevant authorities.



Case #5

Minatomachi River Place

Minatomachi On/off Ramp (north) (Sakai Route #15)

Location: Naniwa-ku, Osaka City

Opened for service: April, 2002

Features: Integrated road and building, height regulated zone



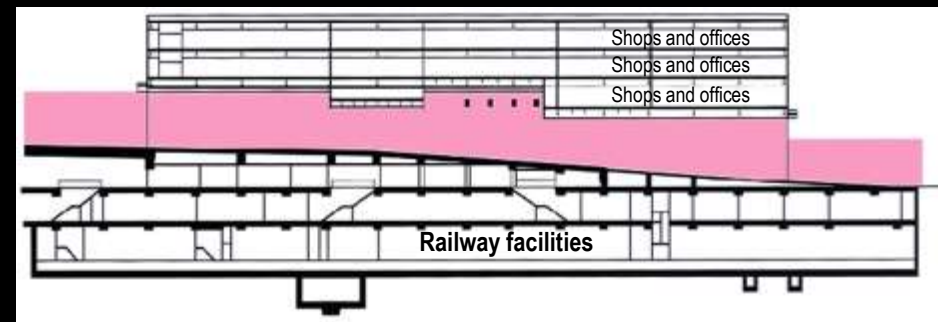
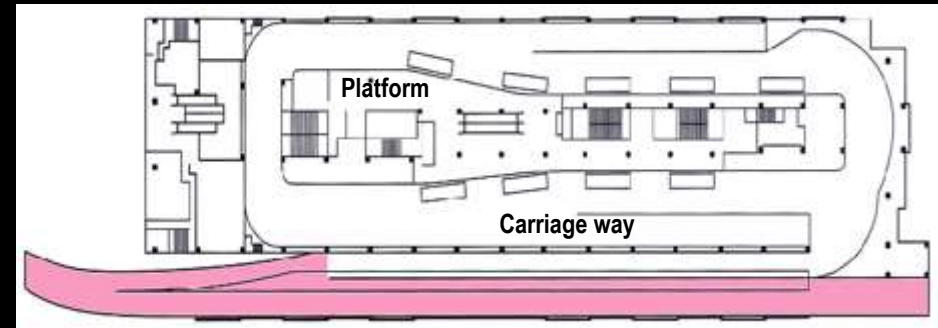
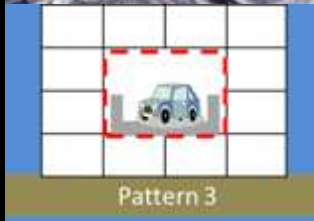
Minatomachi Off Ramp (south)

Location: Naniwa-ku, Osaka City

(Sakai Route #15)

Opened for service: March, 1996

Features: Integrated road and building, redevelopment district plan
(integrated into district plans by modification to the law)

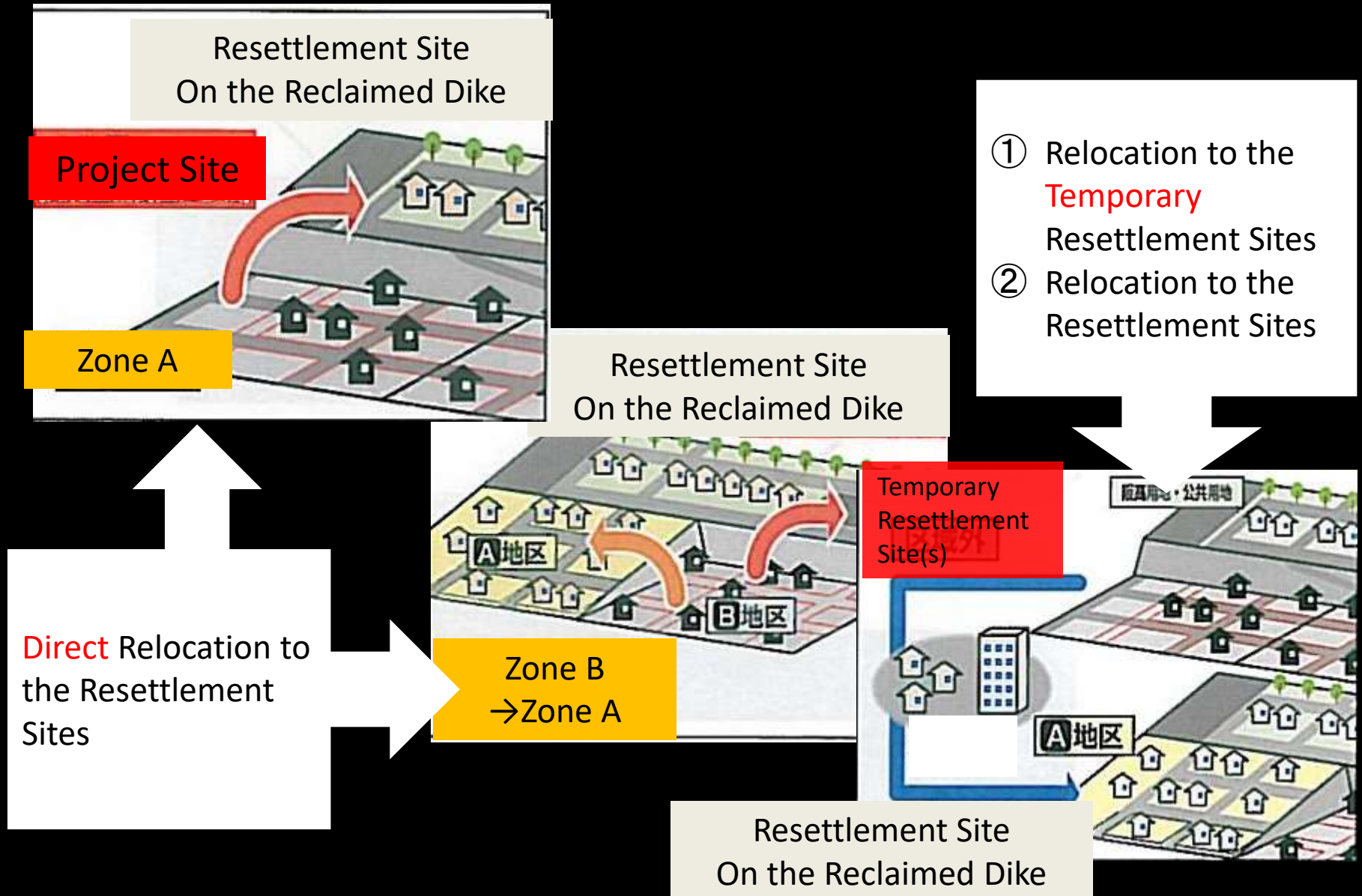


Case #6

Yamatogawa Riverside Redevelopment Project



Land Readjustment of the Yamatogawa Riverside Redevelopment Project



Challenging Issues

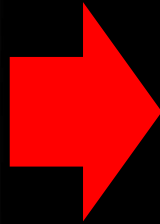
- Difficulty in Consensus Building due to the Complexity of the Project Scheme
- Longer Project Periods to convert a PAPs land title to other sorts of right (e.g., tenure) with just and fair compensation
- Encroachment and Regulations into/for the Private Property Area after completion of the project for the maintenance reason

Conclusion

3-D ROW Development enables hybrid development by reallocating urban space

between the local community and government

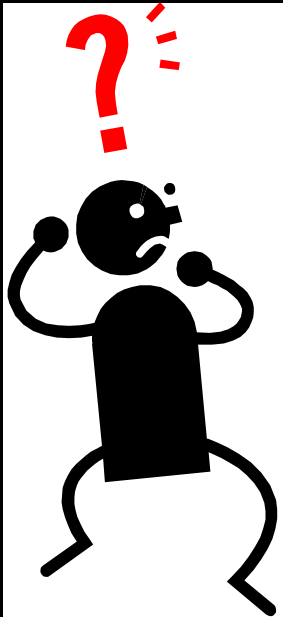
- To promote urban infrastructure development
- To restore livelihood of PAPs within the project site.



Development/amendment of the legal framework (e.g., Land Law) should be prioritized for the 3-D development.

Thank you!

ありがとうございました。



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