Comprehensive Assessment Systems of Universal Design Achievements for Offices (CASUDA)

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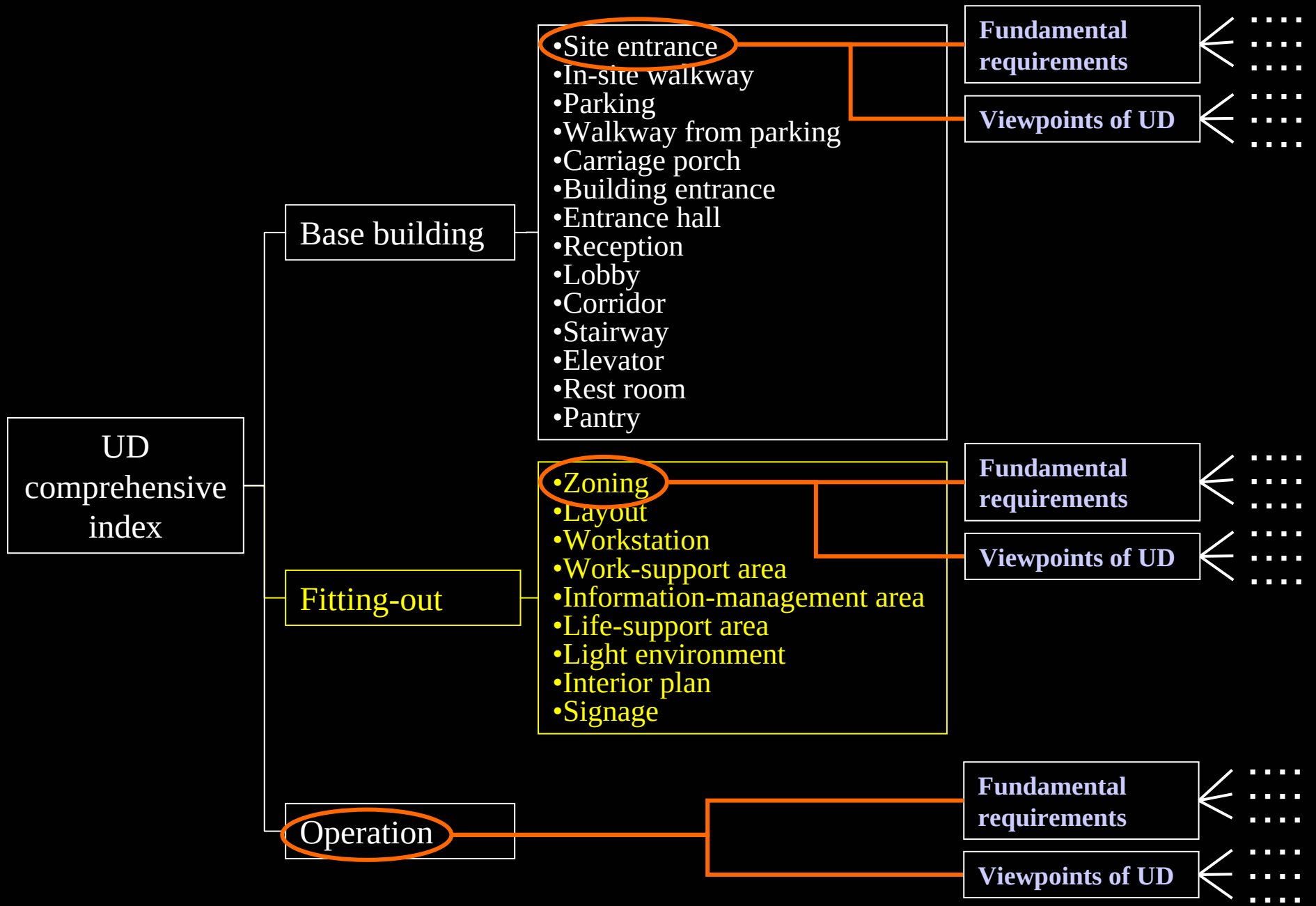
Structure of Evaluated Items



Items Evaluated for “Site Entrance”

(1) Fundamental requirements

	Score	Level				
		1	2	3	4	5
Width of entrance		All entrances are less than 80 cm.		At least one entrance is equal to or greater than 80 cm and less than 120 cm.		All entrances are greater than 90 cm, and at least one entrance is greater than 120 cm.
Stairway or steps		Stairway or steps exist, and slope or elevated device is not installed.		Stairway or steps do not exist, or slope or elevated device is installed when stairway or steps exist.	(not evaluate)	(not evaluate)
Separation of entrances for people and vehicles		Not separated		Separated	(not evaluate)	(not evaluate)

minimum requirements

general technical or social standards

highest technical or social standards

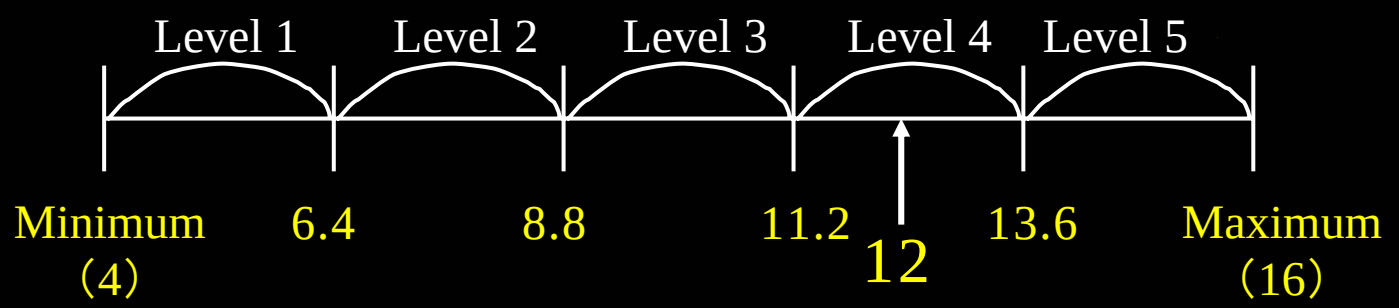
(2) Viewpoints of UD

	Score	Degree of Consideration		
		not al all	to some extent	to a great extent
Ensure smooth continuity from outside site		0	1	2
Establish site entrance in place where it is well recognized from roads and a right direction is taken in returning		0	1	2
Present signs of building name and entrance that are well recognized from far		0	1	2
Presence of visual obstacles of access by cars due to signs and plants		0	1	2
Separately establish entrance and exit for cars		0	1	2
Install auditory or light warning system that informs of car access		0	1	2
Ensure sufficiently wide entrance for cars, pedestrians, and bicycles to access building		0	1	2
Install guiding device		0	1	2

Scoring Method for Fundamental Requirements

- Normalization by range of the total (maximum – minimum)

Site Entrance	Score	Level				
		1	2	3	4	5
Width of entrance	3	All entrances are less than 80 cm.		At least one entrance is equal to or greater than 80 cm and less than 120 cm.		All entrances are greater than 90 cm, and at least one entrance is greater than 120 cm.
Stairway or steps	3	Stairway or steps exist, and slope or elevated device is not installed.		Stairway or steps do not exist, or slope or elevated device is installed when stairway or steps exist .	(not evaluate)	(not evaluate)
Installation of door	5	Difficulty for wheelchair users with passing through		Use at least one automatic or sliding door, or door easy for wheelchair users to pass through among doors installed at entrances, and remain flat before and after the door		Fulfil level 3 for all doors installed at entrance
Separation of entrances for people and vehicles	1	Not separated		Separated	(not evaluate)	(not evaluate)
TOTAL=	12					



➡ Evaluate what percent of possible considerations was conducted

Scoring Method for Viewpoints of UD

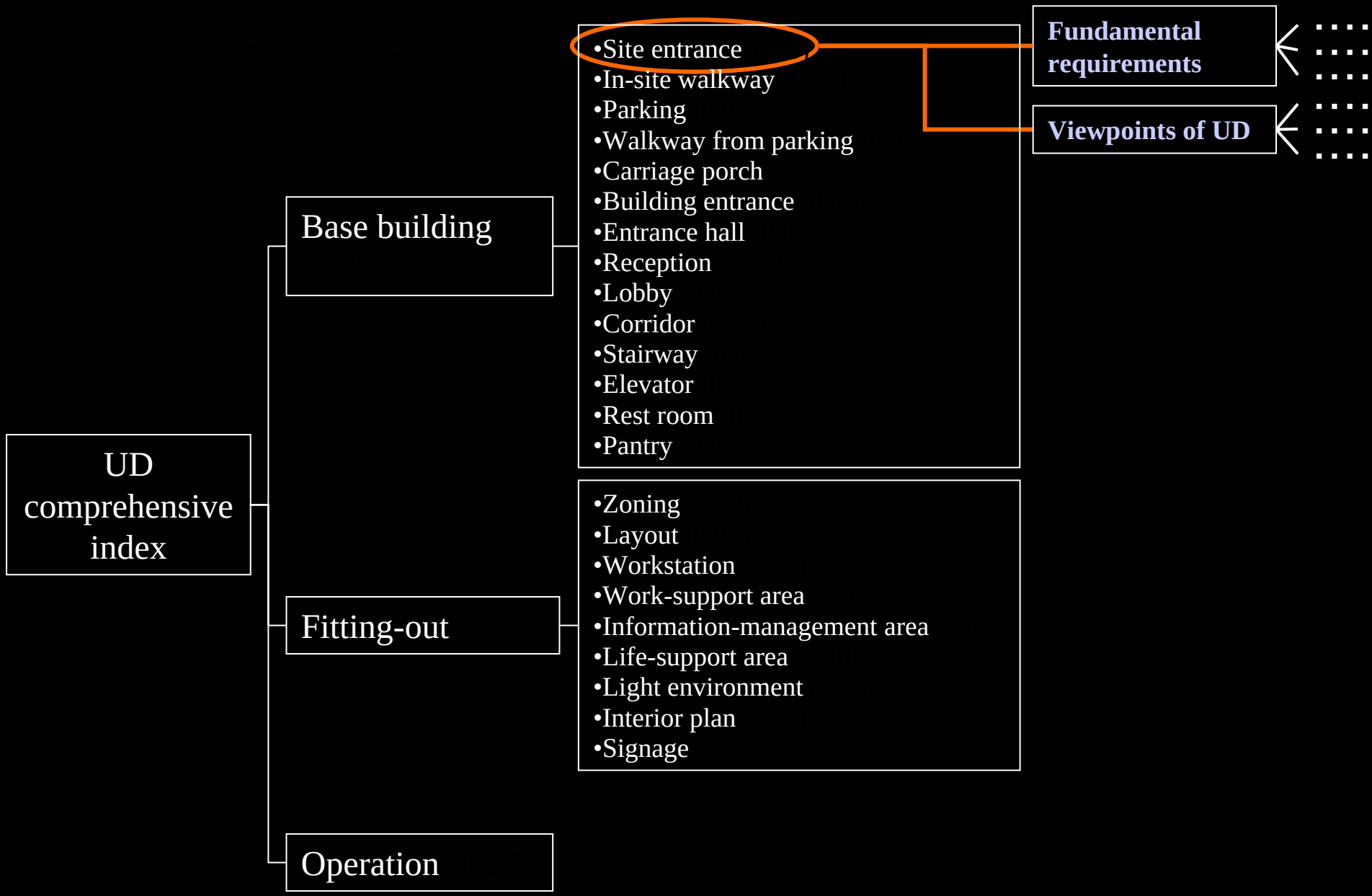
Use of Score Ratio (SR)

Site Entrance	Score	Degree of Consideration		
		not al all	to some extent	to a great extent
Ensure smooth continuity from outside site	1	0	1	2
Establish site entrance in place where it is well recognized from roads and a right direction is taken in returning	2	0	1	2
Present signs of building name and entrance that are well recognized from far	0	0	1	2
Presence of visual obstacles of access by cars due to signs and plants	1	0	1	2
Separately establish entrance and exit for cars	0	0	1	2
Install auditory or light warning system that informs of car access	1	0	1	2
Ensure sufficiently wide entrance for cars, pedestrians, and bicycles to access building	2	0	1	2
Install guiding device	2	0	1	2
Total =	9			

SR = Total / Maximum of total = 9 / 16 = 0.56

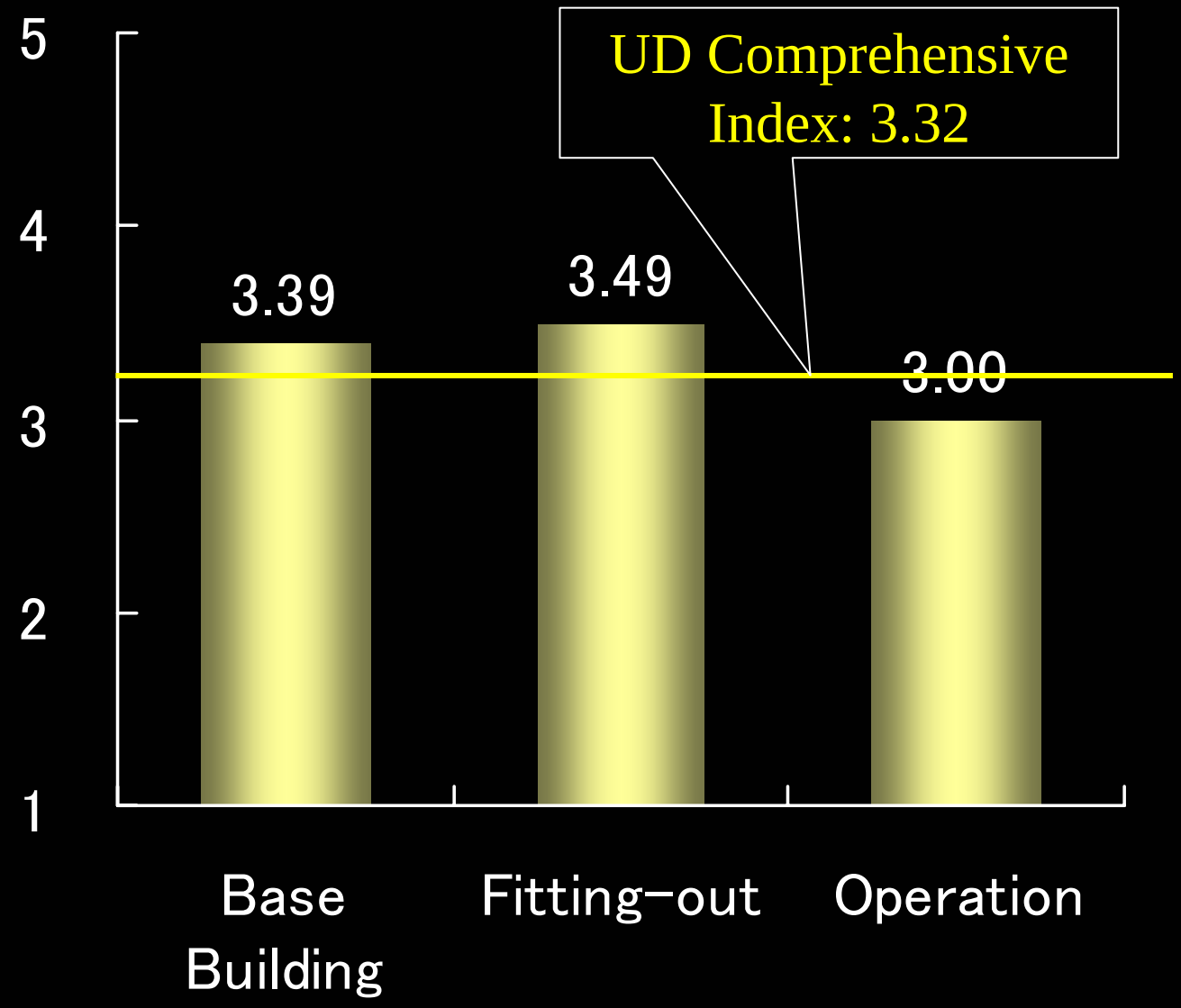
Level 1	Level 2	Level 3	Level 4	Level 5
0 ≤ SR < 0.2	0.2 ≤ SR < 0.4	0.4 ≤ SR < 0.6	0.6 ≤ SR < 0.8	0.8 ≤ SR

Weights of Evaluated Items

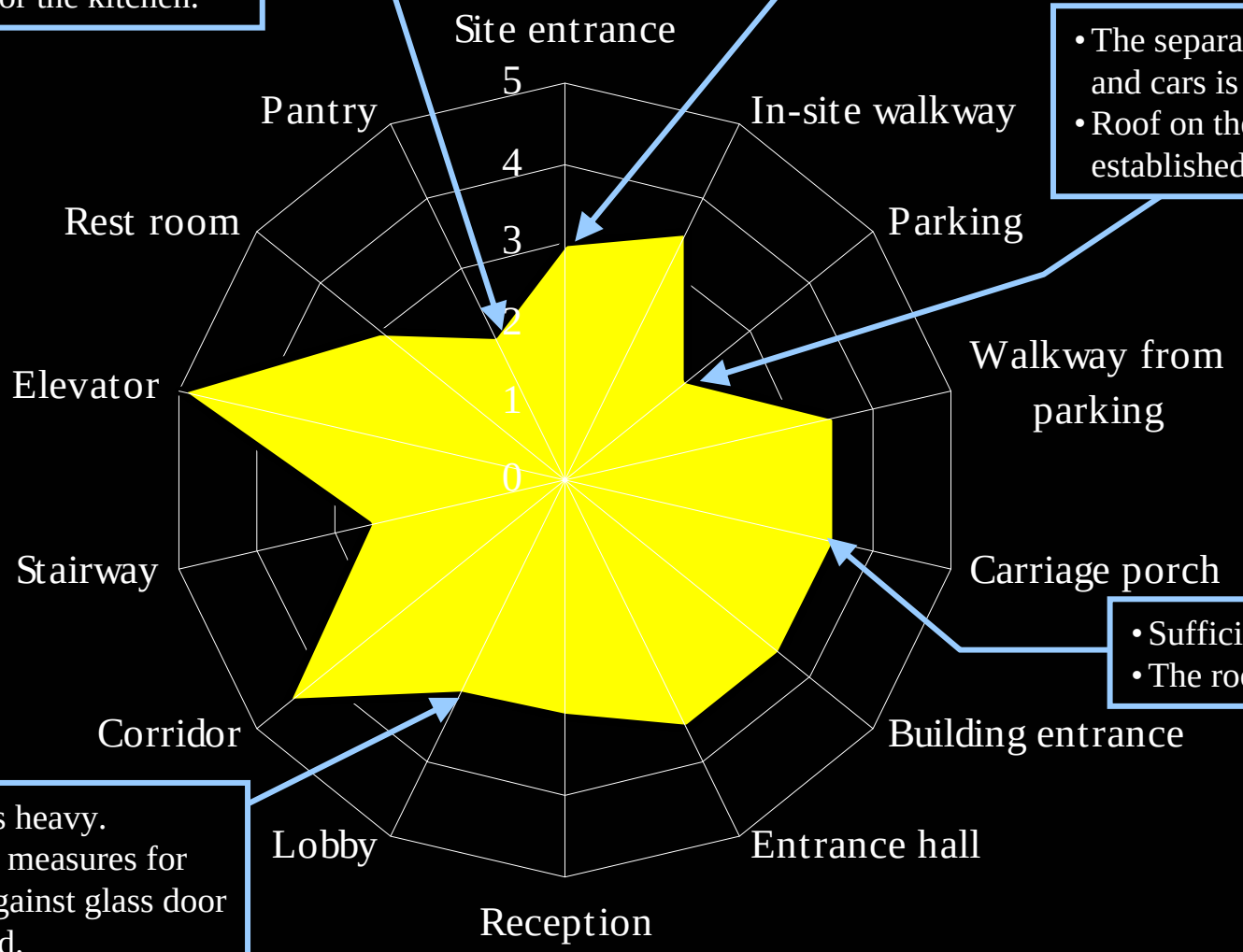


CASE STUDY

Evaluation of Building A



Evaluation of Base Building



- The door is heavy.
- More consideration is required for the kitchen.

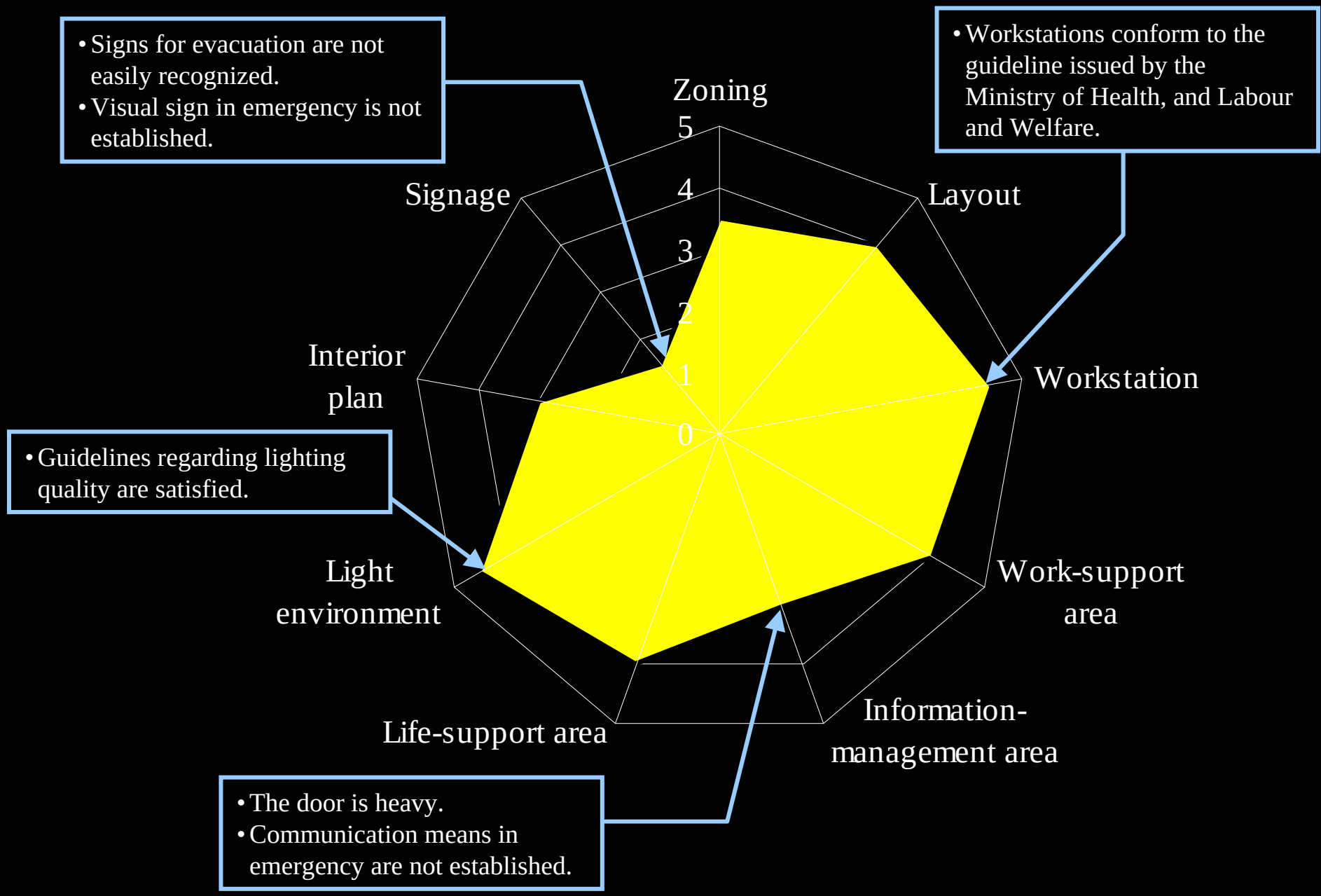
- Width of entrance is ensured.
- The separation of pedestrians and cars is required.

- The separation of pedestrians and cars is required.
- Roof on the passage is not established.

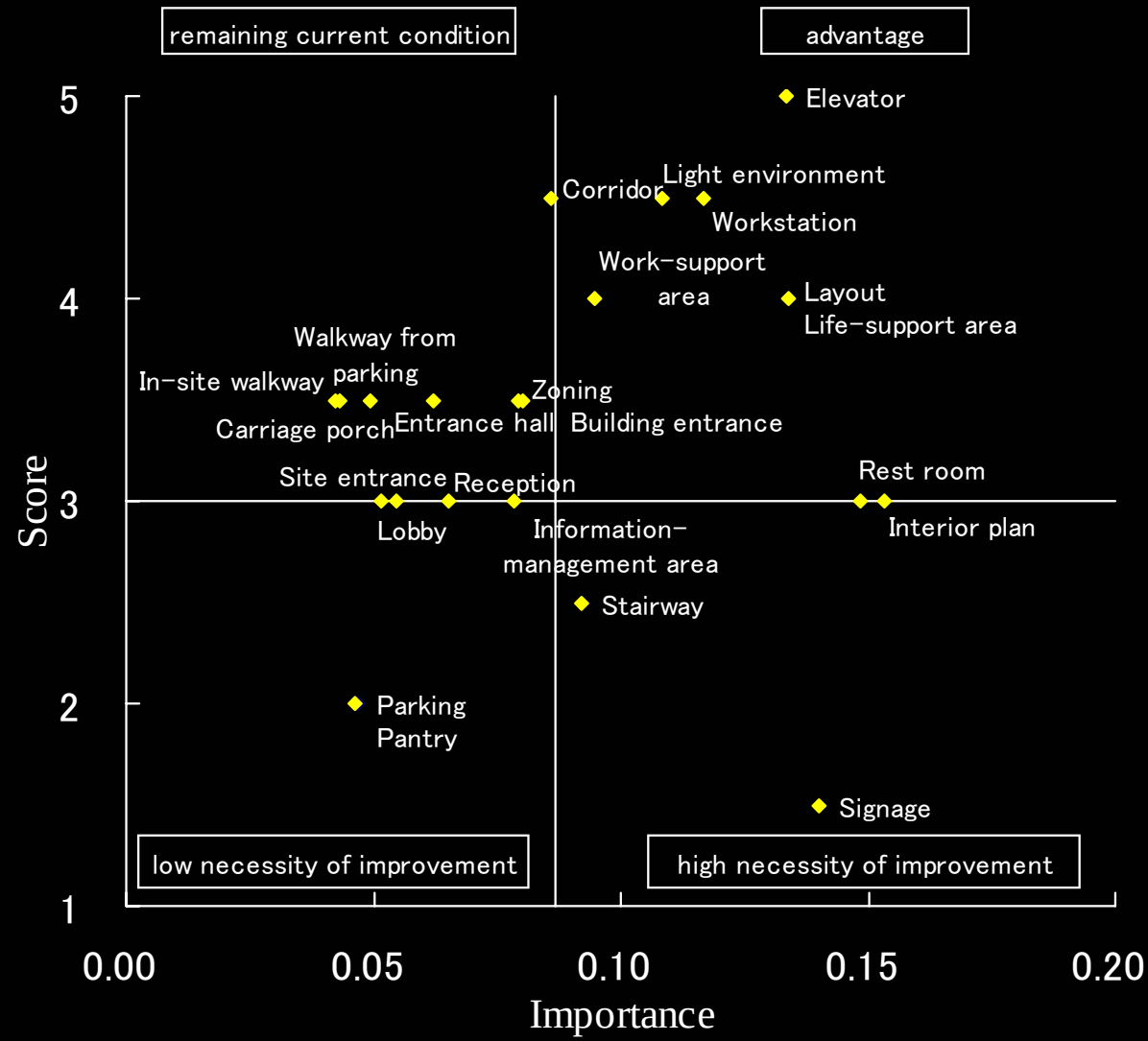
- Sufficient area is ensured.
- The roof is established.

- The door is heavy.
- Prevention measures for collision against glass door are required.

Evaluation of Fitting-out

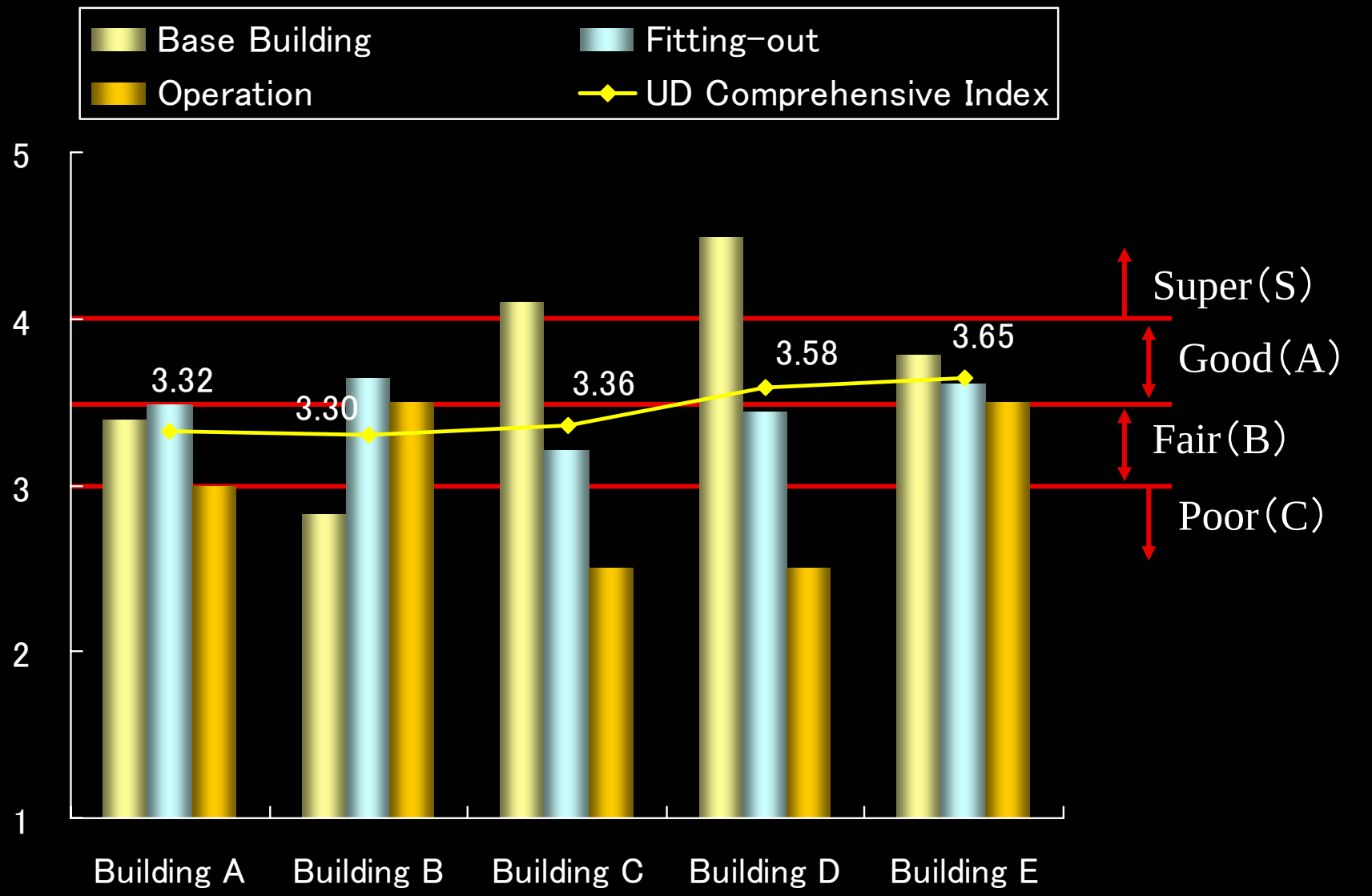


Which part should be renovated first?



Ordering of UD renovation is possible.

UD Rating by UD Comprehensive Index



Possibility of diffusing UD through market by means of UD rating

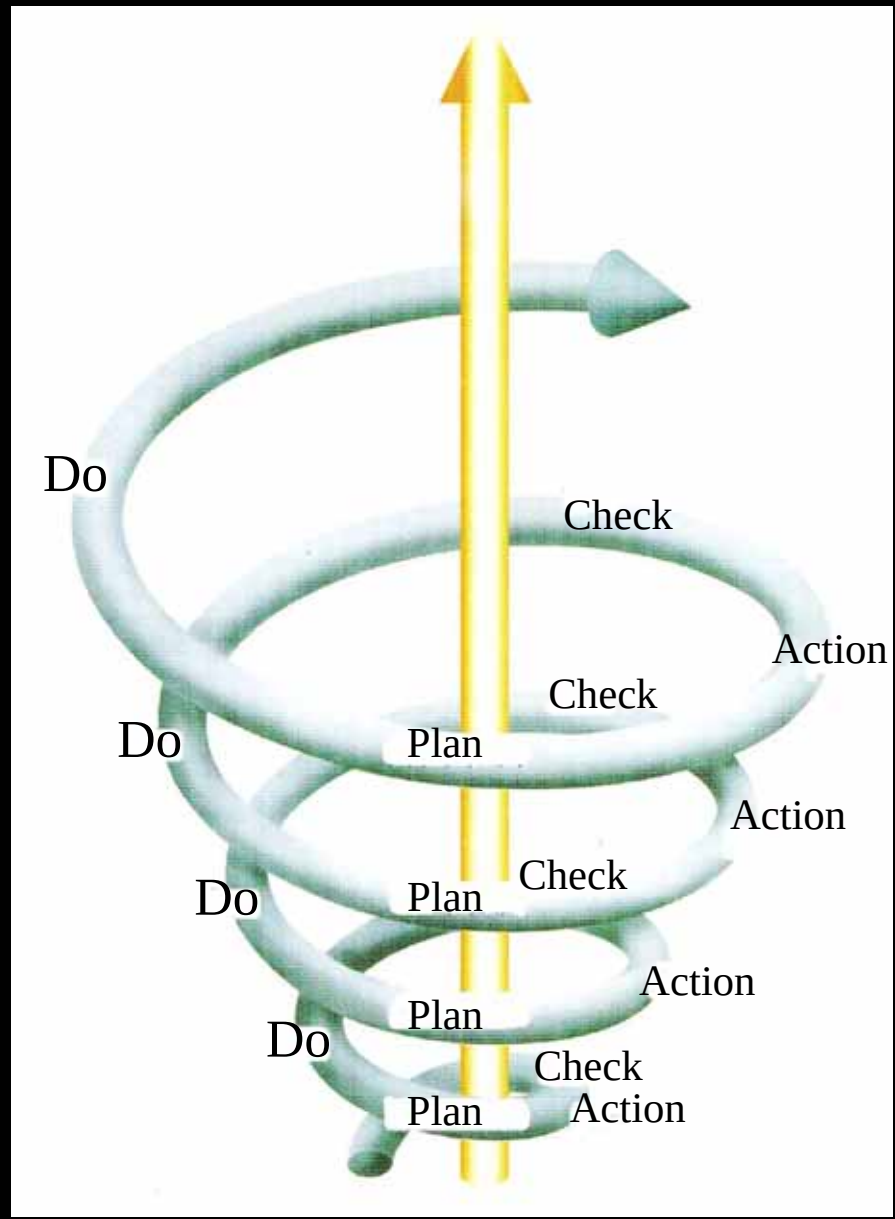
END

UNIVERSAL DESIGN

CODESIGN

Background

- Necessity of comprehensive assessment systems of UD achievements for continual improvement
- Use of UD guideline compiled by JFMA



Referred Laws and Standards

- Building Standards Law
- Accessible and Usable Building Law
- UD Guideline of Tokyo Metropolitan Government
- Guideline for Occupational Health Management in VDT Work (Ministry of Health, and Labour and Welfare)
- Prevention Measures against Passive Smoking (Ministry of Health, and Labour and Welfare)
- Guideline for Prevention Measures against Smoking in Working Environments (Ministry of Health, and Labour and Welfare)
- Guideline for Instruction regarding Color Vision Problems (Ministry of Education, Culture, Sports, Science, and Technology)
- CASBEE (Comprehensive Assessment System for Building Environmental Efficiency)

UD Guideline

- **Describes base building, fitting-out, and operation**

- **Composed of two perspectives:**

  (1) Fundamental requirements

  - Conditions that must be fulfilled regardless of costs, such as legal compliance and employees' safety

  (2) Viewpoints of UD

  - More desirable conditions for making workers safer, more satisfied, and more productive
  - Extracted from the seven principles of UD

Scaling Method for Two Perspectives

1. Fundamental requirements

- Level 1 fulfills such minimum requirements as the Building Standards Law
- Level 3 is suitable for general technical or social standards
- Level 5 is intended for the highest technical or social standards

2. Viewpoints of UD

- Point 0: not considering UD at all
- Point 1: considering UD to some extent
- Point 2: considering UD to a great extent

Comparison of UD Achievements for Base Building