

The 1st

Architectural Guidance for Type A Pavilions

June 23rd, 2021

Japan Association for the 2025 World Exposition

Opening Remarks

HIROOKA Atsuko
Executive Liaison Director
International Relations Bureau

Agenda

Opening Remarks

- I. Understanding the venue design concept and pavilion planning
- II. Overview of construction timeline from now until the opening of EXPO 2025 for Type A Pavilions
- III. Terms & conditions for pavilion construction
Type A Design Guidelines (Environmental assessment of the Expo)
- IV. How to access and use the Participant Portal
- V. Question and Answer

Closing Remarks

Understanding the venue design concept and pavilion planning

FUJIMOTO Sou

Architect

Expo Site Design Producer





“ Diversity ”

+

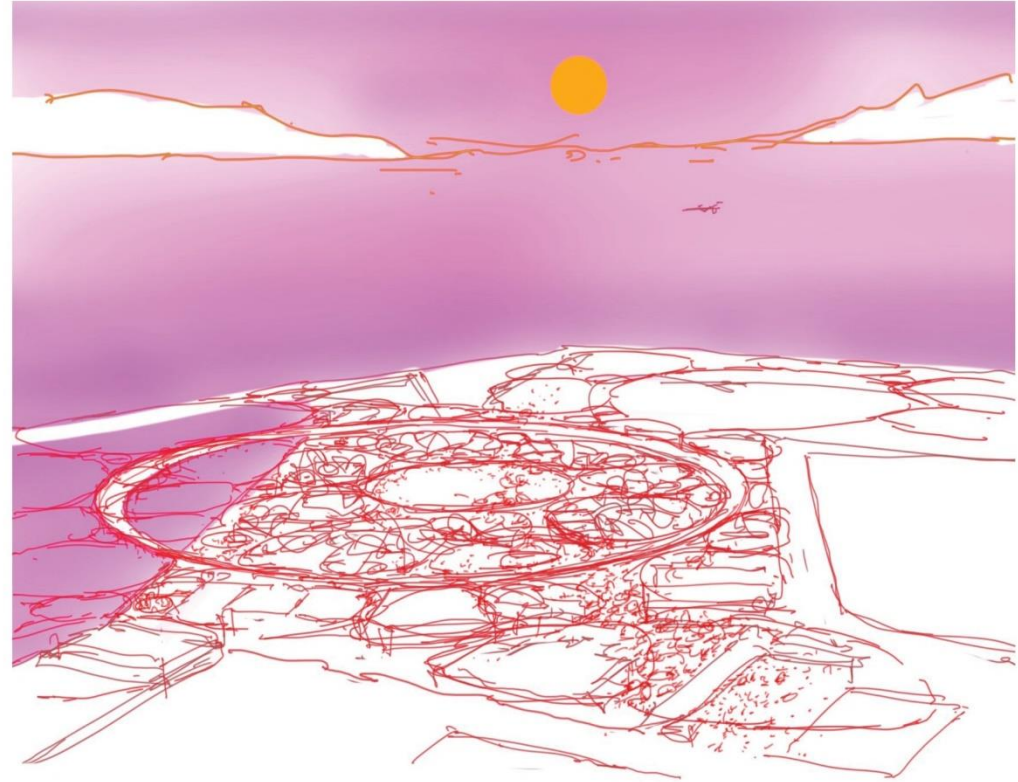
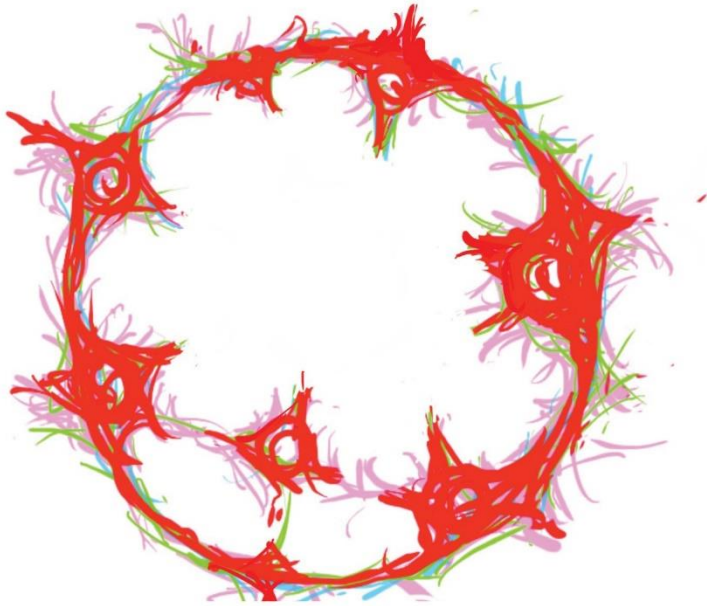
“ Unity ”

Unity in Diversity

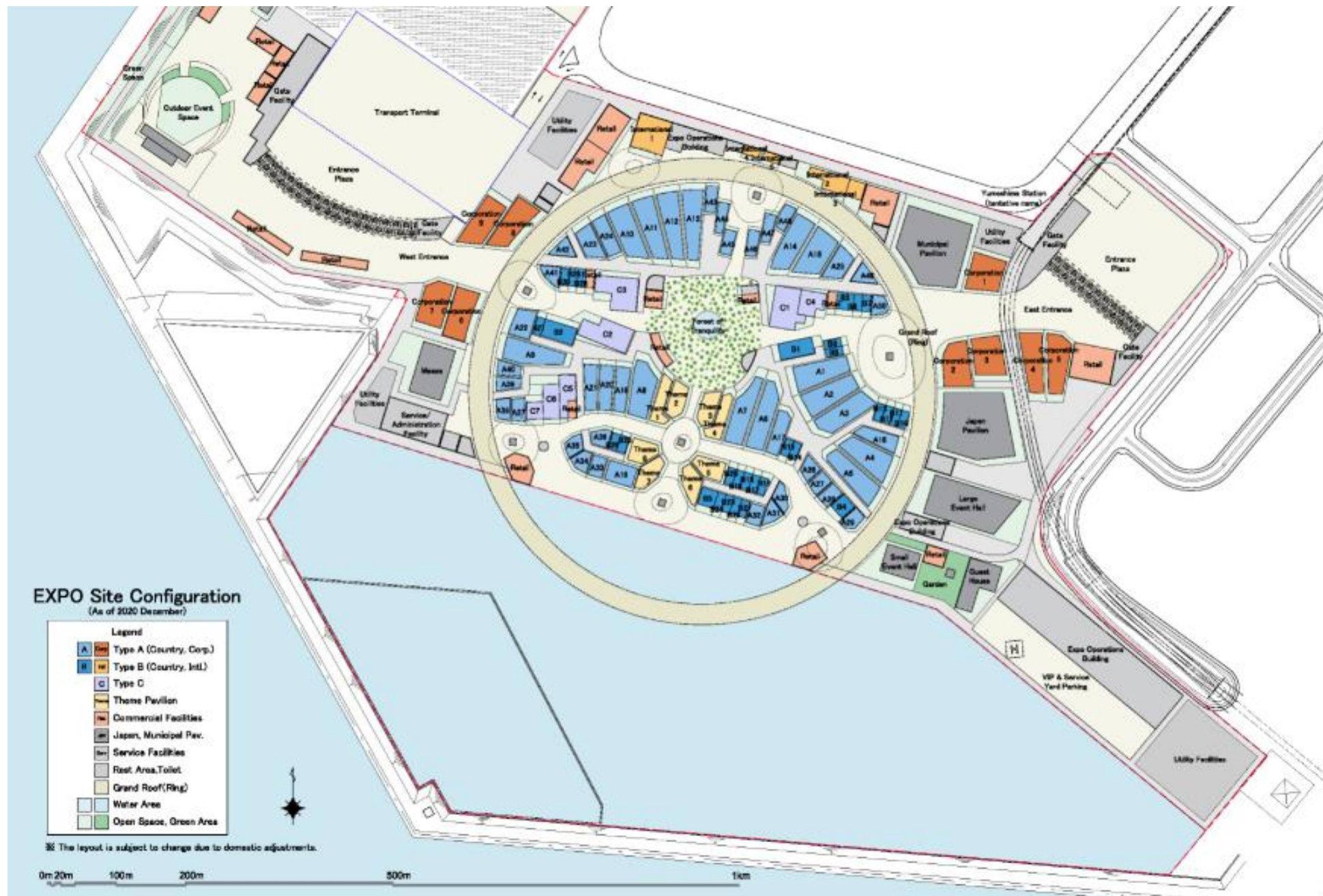
One world shared by innumerable diverse being



Grand Roof (Ring)



Above the main line of flow (Main Street) will be a grand roof (ring).
This grand roof (ring) will not only protect visitors from rain and
sunlight but also navigate them.





One Sky

Everyone around the world is looking up at the same sky.
The one sky connects all parts of the world.





Sky

Setouchi Sunset

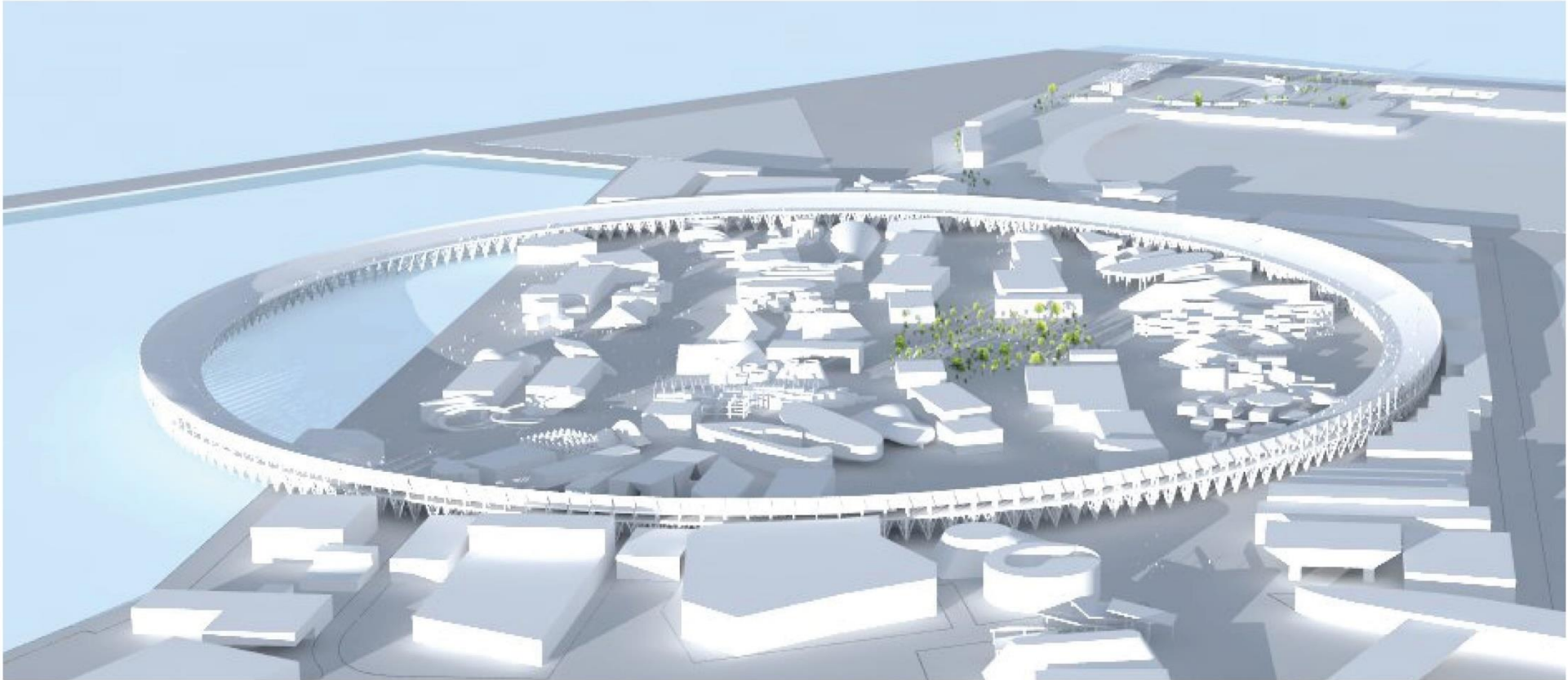
Sea

Grand Roof (Ring)

Enclosed
Part of
the Sea

Expo of the sea, sky and earth

SDGs, Sustainable Expo



Considering the utilization of natural materials such as wood and recycling





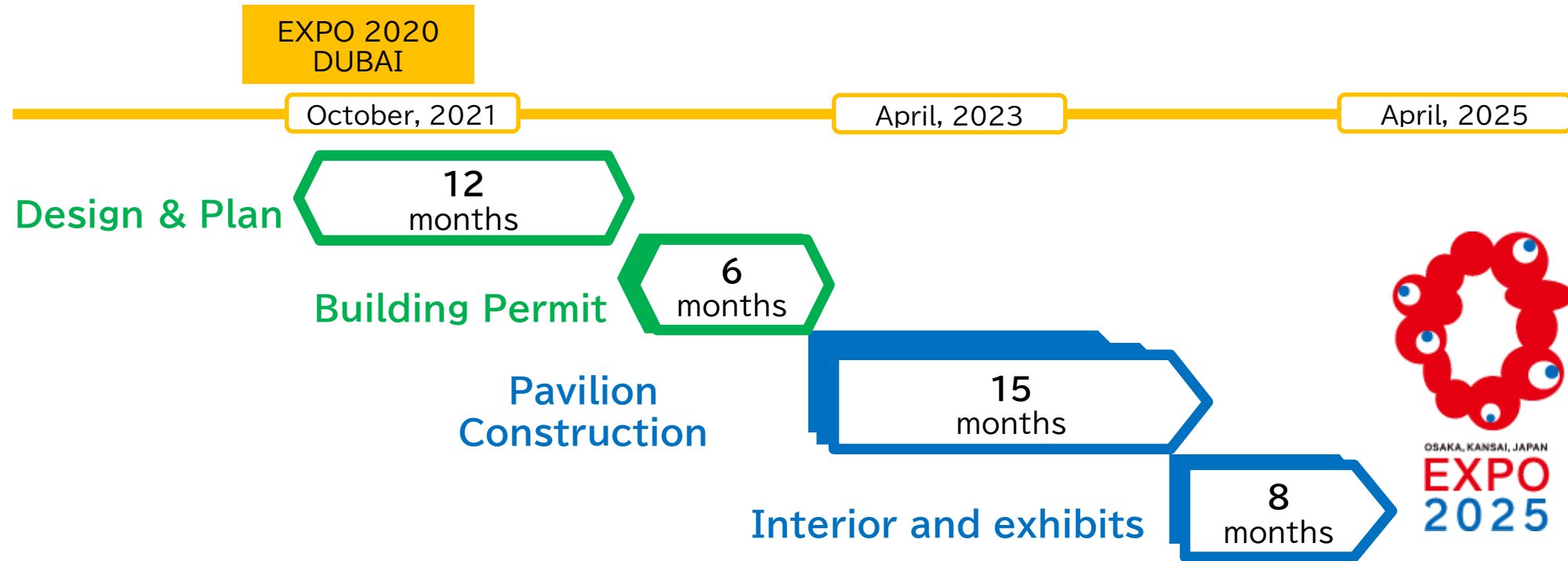
Overview of construction timeline from now until the opening of EXPO 2025 for Type A Pavilions

HIROOKA Atsuko
Executive Liaison Director
International Relations Bureau



Schedule for Type A Pavilions

Standard schedule for application, design plan, layout, construction and exhibition



Standard schedule: approx. 3.5 years

- Safe & efficient building management
- Handle limited plots and overcrowded construction



Terms & conditions for pavilion construction

KISHIMA Katsunori
Deputy Director
Site Development Bureau

Terms & conditions for pavilion construction

- **Japanese national laws regarding construction**

- **Building Standards Act (About Buildings)**

- ⇒ Establishes the minimum necessary standards for building sites, structure, equipment, and use

- **Architect Act (About Architects)**

- ⇒ Establishes the qualifications for designers that design buildings and manage construction
Only architects are allowed to design/manage construction of certain buildings.

- **Construction Business Act**

- ⇒ Established to ensure proper construction work, protection of the ordering party, etc.
Contract with a construction company licensed under the Construction Business Act

- **Other related regulations**

- ⇒ City Planning Act, Fire Service Act, Accessibility Improvement Act, various business laws, construction laws, etc.

Terms & conditions for pavilion construction

• Building permit structure (Based on the Building Standards Act)

➤ Confirmation application

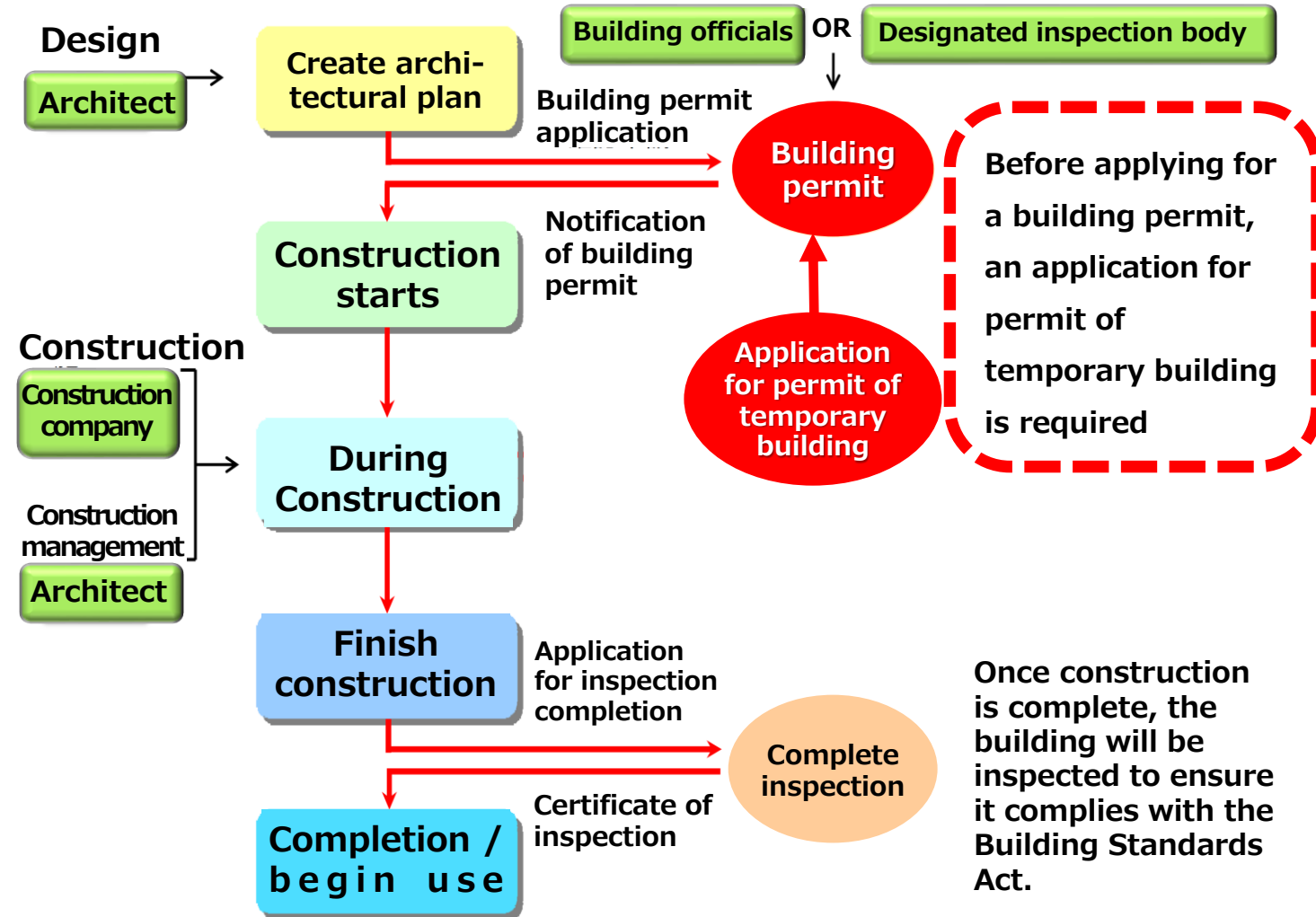
Check if the building plan complies with the law
<Receive a confirmation certificate>

➤ Temporary permit application

Part of the provisions of the Building Standards Act has been relaxed for temporarily installed buildings.

Procedure materials are available in Japanese only

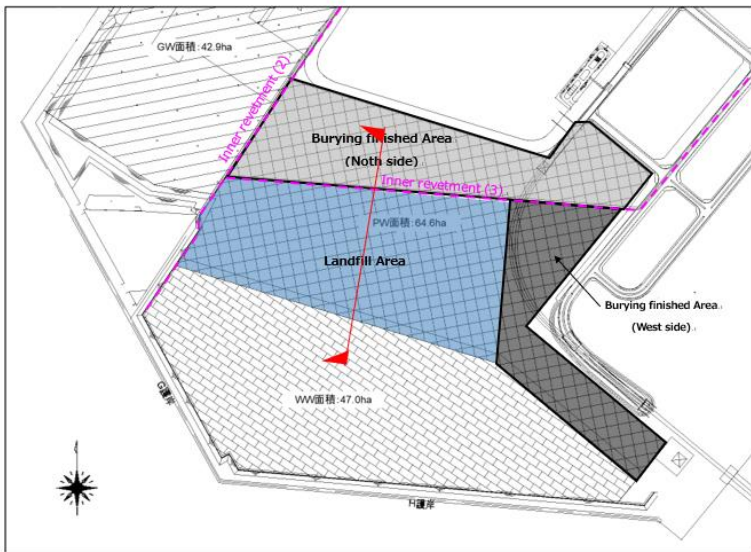
Flow Chart of Construction Procedures



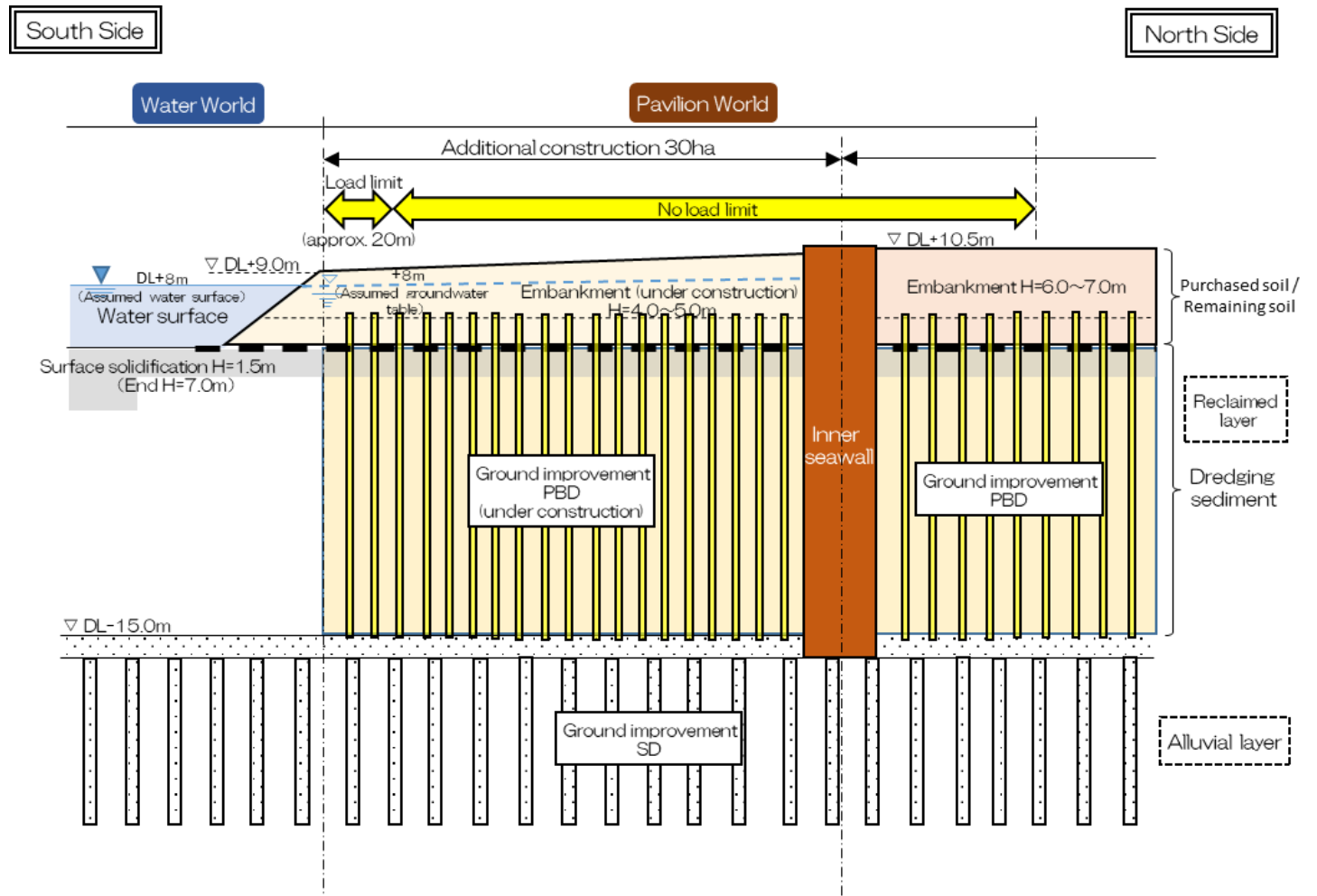
Terms & conditions for pavilion construction

•About Yumeshima's foundation

(Boring data is available on the Osaka Port and Harbor Bureaus, and Organizer websites)



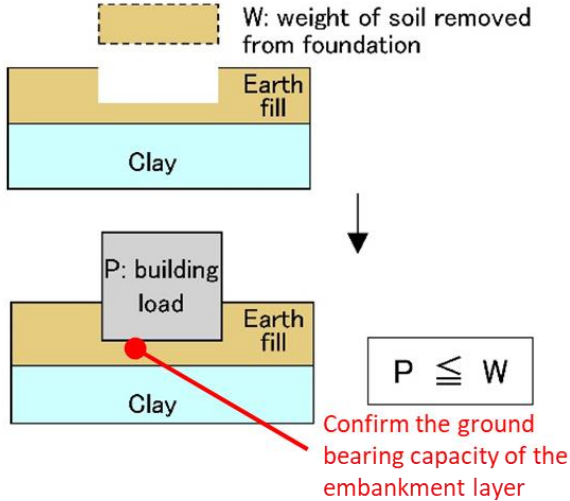
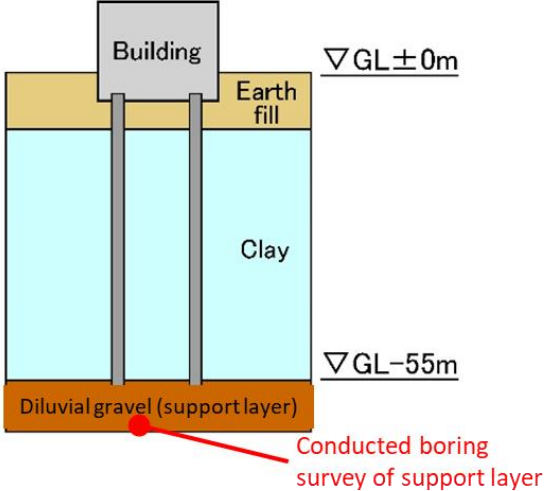
The site is a newly reclaimed area, and consolidation settlement will continue to occur at the reclaimed clay layer during the Expo's construction period (April 2023 - April 2025). It is necessary to consider this when designing your facility.



Terms & conditions for pavilion construction

• Preventive Measure against the Settlement of Buildings

(For Your Reference)

Basic Format	Floating Foundation (Direct Foundation)	Pile Foundation
Diagram	 W: weight of soil removed from foundation Earth fill Clay P: building load Earth fill Clay $P \leq W$ Confirm the ground bearing capacity of the embankment layer	 Building Earth fill Clay Diluvial gravel (support layer) ∇GL±0m ∇GL-55m Conducted boring survey of support layer
Overview	By setting “the weight of the building (P) ≤ the weight of the soil removed from the foundation (W),” the occurrence of consolidation settlement and uneven settlement due to building construction can be prevented.	By using a pile foundation for the support layer existing near GL-55m, the occurrence of consolidation settlement and uneven settlement will be prevented. * Pile removed after the end of the Expo
Target Facility	Average building weight of about 4tf / m ² * (Equivalent to an S-structured one-story building with two floors) *When designed with a foundation excavation depth of 2.5 m	Buildings with an average weight of over 4tf / m ² (Equivalent to 3 stories or more of S structure)

Type A Design Guidelines

KISHIMA Katsunori
Deputy Director
Site Development Bureau

KIDA Masaya
Deputy Director
Site Development Bureau

About the Type A Design Guidelines

Purpose of the guidelines

- Setting out a clear design policy.
- Ensuring the consistency of pavilions and functionality of the venue as a whole.
- Consideration for pavilion sustainability.

- **Building coverage ratio/setbacks**

The building coverage ratio must be within 70%.
Setback rules are described in the guidelines.

- **Participating in the Communication and Coordination Council**

Construction work may be congested as there is limited space on the venue.
Participants must participate in the council in order to carry out safe and efficient construction management.

Applying the Built Environment Comprehensive Assessment System

- Environmental consideration in the pavilion is required to achieve the SDGs.
- From the design stage, it is important to evaluate the entire life cycle of global warming, energy consumption, 3Rs (Reduce, Reuse, Recycle), etc.

<Applying the Built Environment Comprehensive Assessment System>

- EXPO2025 will use "CASBEE for Temporary Construction," which can evaluate buildings for short-term use at the design stage.

Download for free from the IBEC website (Japanese only)
<http://www.ibec.or.jp/CASBEE/TC/TC.htm#download>

- Participants should obtain A rank or higher (A rank or S rank) in the overall evaluation rank.

<CASBEE Rank>

Ranks	Valuation	Indication
S	Excellent	★★★★★
A	Very Good	★★★★
B ⁺	Good	★★★
B ⁻	Fairy Poor	★★
C	Poor	★

Rank required
by Expo 2025

Overview of CASBEE

- Developed in 2001 in Japan (led by the Ministry of Land, Infrastructure, Transport and Tourism). Most popular in Japan, as many local governments require notification
- A system that comprehensively evaluates the environmental performance of a building, including the reduction of the environmental load (Load Reduction) and the improvement of the environmental quality of the building itself (Quality).

<CASBEE Assessment Items>

<Environmental **quality** of buildings>

Q1 Indoor Environment
1. Sound Environment
2. Thermal Comfort
3. Lighting & Illumination
4. Air Quality
Q2 Quality of Service
1. Service Ability
2. Durability & Reliability
3. Flexibility & Adaptability
Q3 Outdoor Environment (On-site)
1. Preservation & Creation of Biotope
2. Townscape & Landscape
3. Local Characteristics & Outdoor Amenity

<Reduction of environmental **load** of buildings>

LR1 Energy
1. Control of Heat Load on the Outer Surface of Buildings
2. Natural Energy Utilization
3. Efficiency in Building Service System
4. Efficient Operation
LR2 Resources & Materials
1. Water Resources
2. Reducing Use of Non-renewable Resources
3. Avoiding the Use of Materials with Pollutant Content
LR3 Off-site Environment
1. Consideration of Global Warming
2. Consideration of Local Environment
3. Consideration of Surrounding Environment

Overview: CASBEE for Temporary Construction

- Developed to evaluate buildings for short-term use at the 2005 World Exposition, Aichi, Japan.
- Based on CASBEE® for Buildings (New Construction), with some changes such as the addition/deletion of assessment items and change in the coefficient of weight.
- Emphasis is placed on recycling performance and waste control measures.
- ◆ Evaluations can be done on your own; a third-party's certification is not necessary.

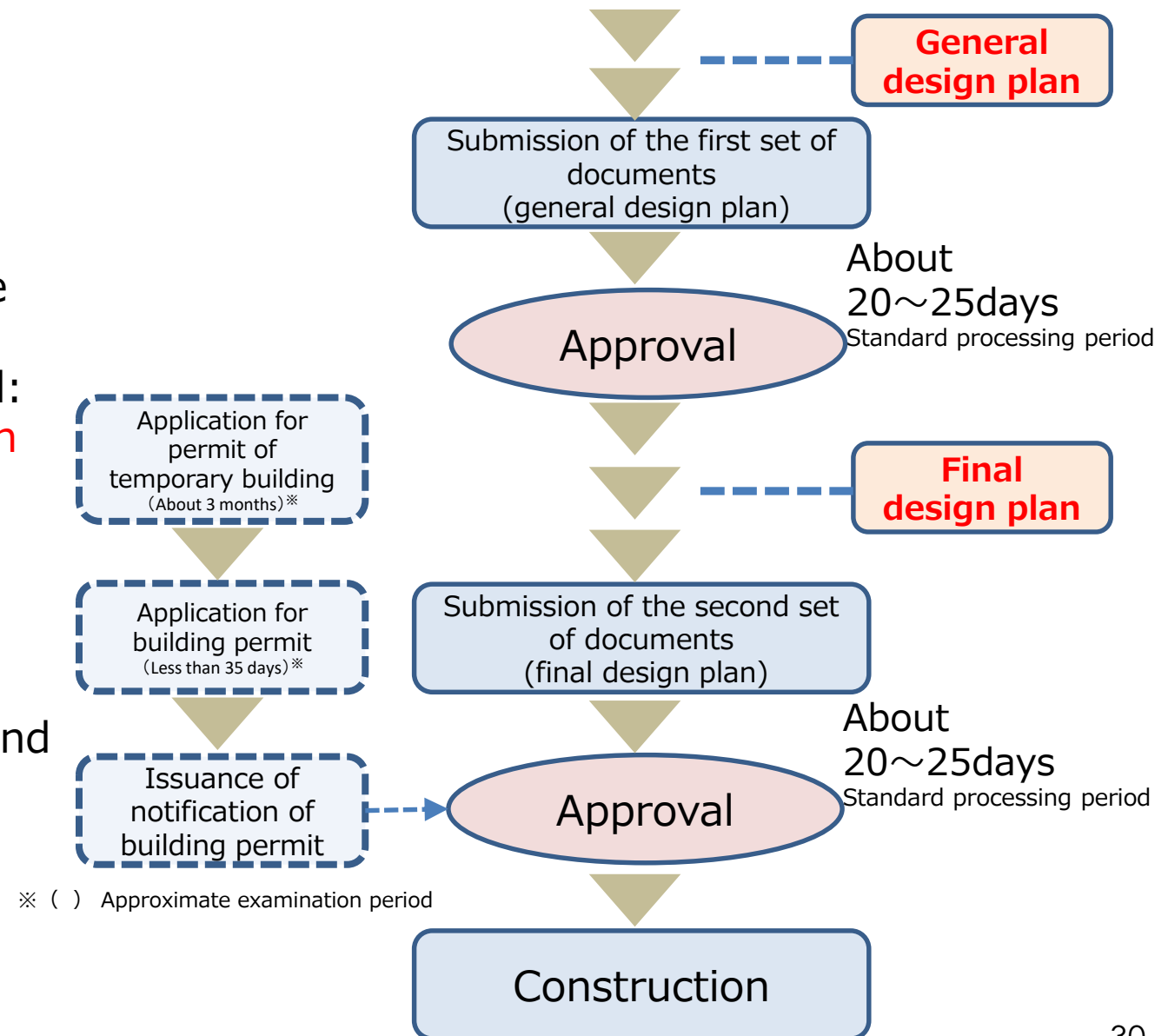
About the Type A Design Guidelines

•Design procedures (based on the guidelines)

- First set of documents to be submitted:
Application for approval of **general design plan**
After approval, proceed to the next phase
- Second set of documents to be submitted:
Application for approval of the **final design plan**
After approval, construction may begin
<Must receive a notification of building permit>

*Drawing data must be submitted as CAD and BIM data

***All Documents must be in Japanese**



Role of the Participant Portal

KIKUCHI Junichi

Liaison Director

International Relations Bureau

Registering the Participant Portal

Opening of Participant Portal and request of registration

1. Participant Portal and its purpose

The Japan Association for the 2025 World Exposition (Organizer) has developed a Participant Portal that centralizes online procedures in order to facilitate the exhibition procedures of official participants. The portal is already available from April 2, 2021.

Official participants can browse and download the posted rules, guidelines, etc. on the Participant Portal, and submit various application forms to the Organizer by the Participant Portal.

In addition, official participants can directly contact the Organizer with questions about rules and inquiries regarding application procedures through the Participant Portal.

2. Registration to the Participant Portal

The Participant Portal can only be accessed by users who are considered official participants. User registration is required to start using it. In 2021, up to 3 users in each country (or international organization) can be registered as users. It is assumed that the person in charge of the Expo will be registered to perform the exhibition procedure by looking at various rules.

The following URL and QR code for registration are attached to the back cover of the Expo 2025 Overview, which was distributed as an attachment to the invitation letter for participation.

URL : <https://www.expo2025.or.jp/participantportal/>

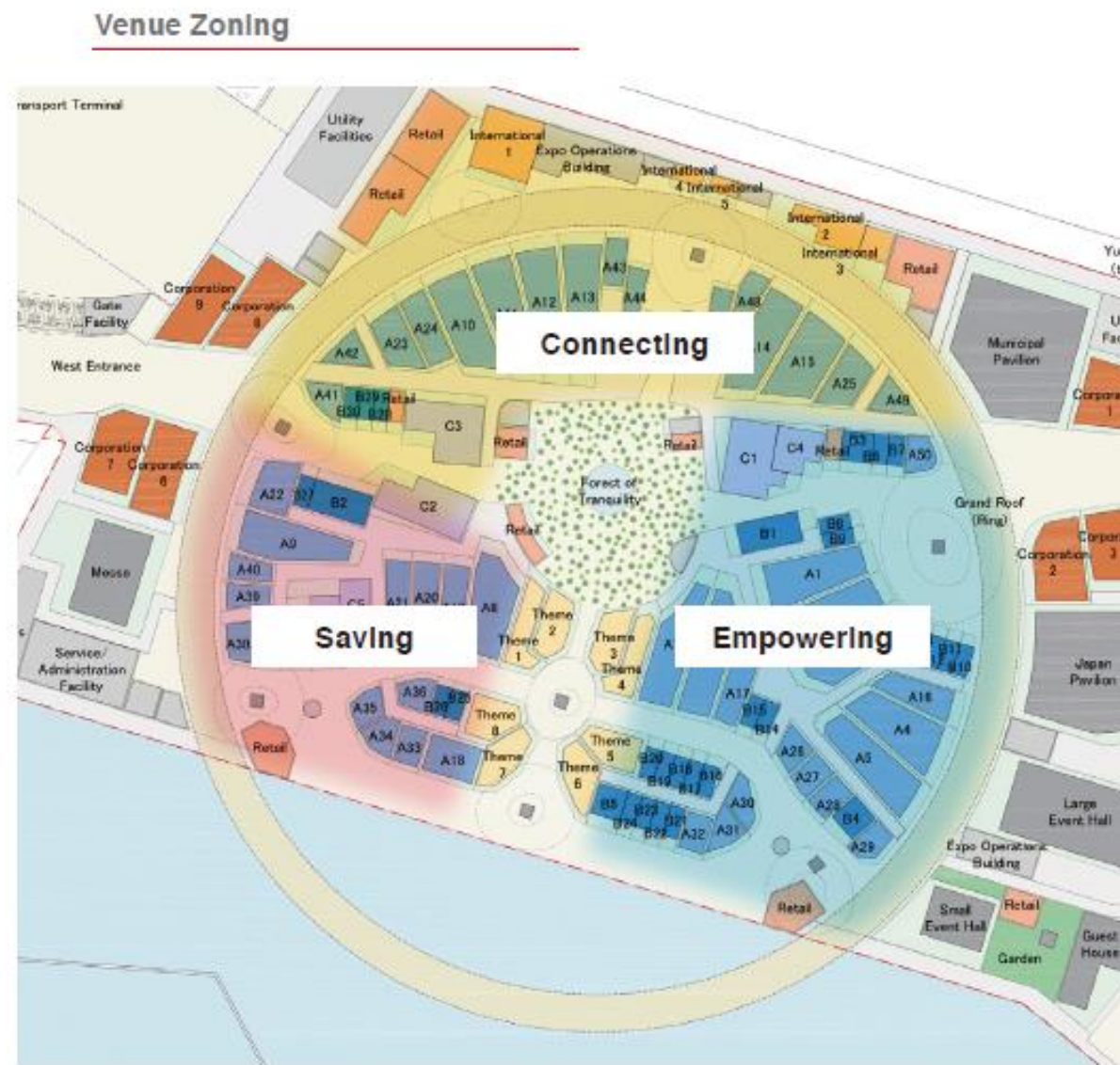
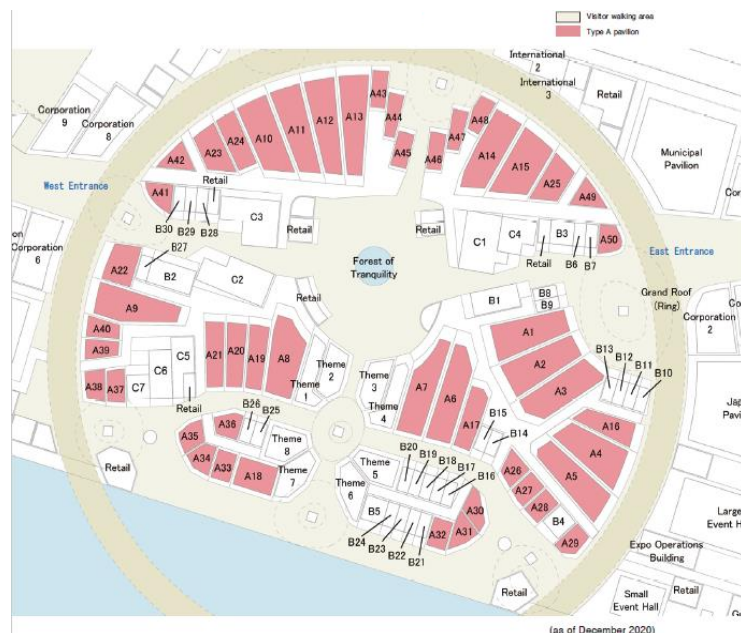


3. Important documents posted and to be posted on the Participant Portal

In addition to the General Rules, and Special Rules No. 1 and No. 2 which have been presented with the final Registration Dossier, the "Theme Guide" for submitting the "Theme Statement," and the "Participant Handbook" for submitting the "Application for the Allocation of Exhibition Space," have been posted at the inauguration of the Participant Portal.

The schedule for issuing other rules will be described in the "Participant Handbook."

Zoning by Sub-Theme



*the layout is subject to change.

(as of December 2020)

Question & Answer

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Liaison Director

International Relations Bureau

Closing Remarks

ICHINOKI Manatsu
Vice Secretary General



Bureau
International
des Expositions



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