

Standards of Permission for Temporary Buildings at the 2025 World Exposition in Japan (the Expo 2025 Osaka, Kansai, Japan), based on the provisions of Article 85 paragraph 6 and paragraph 7 of the Building Standards Act

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(Purpose)

Article 1. The purpose of these Standards is to specify necessary items for determination by the Designated Administrative Agency that a temporary building is not detrimental from the viewpoints of safety, fire prevention, and sanitation in granting of permission under the provisions of Article 85 paragraph 5 and paragraph 6 of the Building Standards Act (Act No. 201 of 1950) (hereinafter referred to as “Act”), and thereby to carry out proper operation of said Act.

(Definition of Terms)

Article 2. In these Standards, the meanings of the terms listed in the following items shall be as specified in the respective items:

- (1) Open spaces, etc.: Entrances, plazas and passageways of 5 m or more in width having no roofs or sheds thereon, and passageways under the Grand Roof (Ring), which are provided for use by visitors
- (2) Management passageways: Passageways 5 m or more in width which are used for carrying in goods, etc.
- (3) Theaters, etc.: Theaters, movie theaters, entertainment halls, grandstands, public halls, and assembly halls
- (4) Exhibition halls, etc.: Exhibition halls, amusement halls, dining facilities, and stores engaged in sales of goods

(Scope)

Article 3. These Standards shall apply to temporary buildings to be erected on the site of the Expo 2025 Osaka, Kansai, Japan.

(Permission Criteria)

Article 4.

1. Basic Requirements

- (1) Sites of buildings shall abut on open spaces, etc. or management passageways for 2 m or more.
- (2) Sites of buildings for use as theaters, etc. or exhibition halls, etc. shall abut on open spaces, etc. or management passageways on at least two sides of the site concerned, and shall be planned so as to allow for evacuation. For the avoidance of doubt, at least one side thereof shall abut on an open space, etc. for 4 m or more (5 m or more in cases of sites of buildings for use as theaters, etc.).
- (3) The building coverage ratio shall be 7/10 or less and open spaces shall be provided around any such the site.

2. Structural Capacity

With respect to any building listed in any item of Article 20 paragraph 1 of the Act, the standards stipulated in the item concerned shall be applied *mutatis mutandis* to ensure safety. In such case, a building whose safety is confirmed by structural calculation in accordance with the standards set forth in Article 81 paragraph 2 item (1) of the Building Standards Act Enforcement Order (Cabinet Order No. 338 of 1950; hereinafter referred to as “Order”) shall undergo a structural calculation conformity review work by a designated structural calculation conformity review body as prescribed in Article 77-35-5 paragraph 1 of the Act, and shall receive a conformity review notification before a confirmation completion certificate is issued.

3. Interior Restrictions

Restrictions on interiors of buildings for use as theaters, etc. or exhibition halls, etc. and on rooms where naked flame is to be used shall be as stipulated in the following items:

- (1) Buildings for use as theaters, etc. or exhibition halls, etc. (limited to those whose

parts for such use have aggregate floor areas of 100 sq m or more) shall have the interior surfaces (excluding crown moldings, windowsills, etc.; the same shall apply to items (1), (2) and (3) of this paragraph) of the walls and ceilings (or roofs, if there are no ceilings; the same shall apply to items (1), (2) and (3) of this paragraph) of habitable rooms for said use finished as specified in Article 128-5 paragraph 1 item (1) of the Order, and the interior surfaces of the walls and ceilings of principal corridors, stairways and other passageways leading to the ground from the habitable rooms for said use shall be finished as specified in item (2) of the same paragraph.

- (2) In cases where buildings have habitable rooms for use as theaters, etc. or exhibition halls, etc. on the basement level, the interior surfaces of the walls and ceilings of the said habitable rooms and principal corridors, stairs and other passageways leading to ground level from said habitable rooms shall be finished as described in Article 128-5 paragraph 1 item (2) of the Order.
- (3) In cases where buildings have rooms where naked flame is to be used, the interior surfaces of the walls and ceiling thereof shall be finished as specified in Article 128-5, paragraph 1 item (2) of the Order, and such rooms shall be separated from other parts by floors or walls, or specified opening protective assemblies of quasi fire-resistant construction, as specified in the provisions of Article 112 paragraph 2 and paragraph 19 item (2). For the avoidance of doubt, if the rooms in which naked flame is to be used cannot be separated from other parts, the interior surfaces of the walls and ceiling of the entire part shall be finished as specified in Article 128-5 paragraph 1 item (2) of the Order.
- (4) The provisions of the preceding items shall not apply to parts of buildings that are equipped with sprinkler equipment and/or water or foam fire-extinguishing equipment, and others similar thereto which operate automatically (hereinafter referred to as “sprinkler equipment, etc.”), and smoke exhaust equipment which conforms to the provisions of Article 126-3 of the Order, except for separated parts as specified in the preceding items.
- (5) The provisions of items (1) and (2) (excluding those relating to stairways) shall not apply to those structures which have been confirmed by each method for verification of evacuation safety as providing safe evacuation performance, or to those which have been approved by the Minister of Land, Infrastructure, Transport and Tourism.

4. Seating Capacities of Auditoria in Theaters, etc.

The seating capacities of auditoria in theaters, etc. shall be the values obtained by calculation as specified in each item below (with fractions after the decimal point rounded down) depending on the design of the auditorium concerned:

- (1) For individually separated chair seats, the number of such seats;
- (2) For seating spaces with bench-style seats, the value obtained by dividing the total length of the benches (in units of cm) by 40;
- (3) For chair seats under an unspecifiable layout; the value obtained by dividing the area of the seating space (in units of sq m) by 0.45;
- (4) For standing-only rooms, the value obtained by dividing the area of each such room (in units of sq m) by 0.2.

5. Structures of Theaters, etc.

The structures of theaters, etc. shall be as specified in each of the following items:

- (1) The principal exits to the outside of buildings for use as theaters, etc. on evacuation floors to be used by audience members shall face open spaces, etc. or passageways having a width of 5 m or more and leading to open spaces, etc., and exits other than the principal exits shall face passageways having a width of not less than 1.5 m and leading to open spaces, etc. or management passageways.
- (2) In cases where chair seats are installed in seating spaces, such seats shall, in principle, be fixed to the floor, and the anteroposterior space between seats (refers to the distance between the rear end of a front seat and the front end of the seat behind it; the same shall apply hereinafter) shall be not less than 35 cm on a horizontal projection basis.
- (3) In the case where a seating space is provided on stepped floors with a 50 cm or more level difference between steps, a handrail of 75 cm or more in height shall be installed in front of such seating space; provided, however, that this shall not apply if there is no objection from the viewpoint of safety by means such as installing a broad-width parapet wall in front of the seating space.
- (4) Aisles, cross-aisles, etc. in indoor auditoria
 - a. Location of aisles/cross-aisles

- (a) In cases where chair seats are installed in the seating space, aisles/cross-aisles shall be located as specified below:
- i. An aisle shall be provided for every standard number of seats per row (eight (8) seats plus one (1) seat per every centimeter of the anteroposterior distance in excess of 35 cm) on both sides of a row of seats; provided, however, that an aisle on one side only may suffice in any of the following cases:
 - (i) Where a row of seats comprises four (4) seats or fewer;
 - (ii) Where a row of seats comprises more than four (4) seats and the total number of seats in the row is not more than four (4) plus one (1) seat per every 2 cm of the anteroposterior distance in excess of 35 cm.
 - ii. Aisles with seating spaces on both sides shall connect at both the front end and the rear end to either cross-aisles or entrances/exits of the auditorium, and shall also connect to one (1) cross-aisle per every 20 seats or fewer in a column of seats; provided, however, that this shall not apply in any of the following cases:
 - (i) Where such an aisle connects to either an entrance/exit of the auditorium or a cross-aisle and is 10 m or less in length;
 - (ii) Where aisles are installed on both sides of the auditorium interior, and at least one (1) entrance/exit is installed along each aisle per the number of seats indicated the right-hand column of the table below, according to the number of seats in a row, as indicated in the left-hand section of the table.

Number of seats in a row	Number of seats in a column
8 or fewer	15
9 or more and 12 or fewer	10
13 or more and 20 or fewer	6
21 or more and 31 or fewer	4
32 or more	3

- (b) Each cross-aisle shall connect at each end to an entrance/exit of the auditorium; provided, however, that this shall not apply if the length thereof is 10 m or less or if there is no objection from the viewpoint of safety.
 - (c) In cases where two or more entrances/exits are provided in an auditorium, the length of any section which is common to all ordinary walking passages leading from each seat to each entrance/exit shall not exceed 5 m.
- b. Width of aisles, cross-aisles, etc.
 - (a) The width of aisles with chair seats arranged on both sides shall be 80 cm (or 60 cm in the case of those with chair seats on only one side) or more, and shall have a width that ensures 0.6 cm or more per person expected to pass through any such aisle.
 - (b) Cross-aisles shall be 1 m or more wide, and have a width that ensures 0.6 cm or more per person expected to pass through any such cross-aisle.
 - (c) The width of rows between chair seats, and the width of aisles and cross-aisles shall not, in principle, be tapered in the direction of evacuation.
- (5) Restrictions on slope-ways, etc.
 - a. In cases where passageways are slope-ways, the slope shall be 1/10 (or 1/8 with handrails installed) or less.
 - b. Aisles
 - (a) In cases where aisles are stepped, the rise shall be 18 cm or less and the tread 26 cm or more.
 - (b) In the case where the level difference of a stepped aisle exceeds 3 m, the aisle shall connect to any of a cross-aisle, a corridor, or a stairway per every 3 m or less in height; provided, however, that this shall not apply to a stepped aisle with a gradient not exceeding 1/5.
 - c. Cross-aisles shall not be stepped.

- (6) The number of entrances/exits to be used to exit directly from auditoria shall be not less than the relevant number indicated in the table below:

Seating capacity of auditorium	Number of entrances/exits
Fewer than 300	2
300 or more and fewer than 600	3
600 or more and fewer than 1,000	4
1,000 or more	5

- (7) Entrances/exits shall be located so as to be easily recognizable from the inside of the auditoria and shall be sufficiently separated from each other so that no multiple number of entrances/exits become unusable simultaneously due to smoke, heat, etc. caused by a fire.
- (8) Entrances/exits shall be 1 m or more wide, and have a width that ensures 0.8 cm or more per person expected to pass through any such entrance/exit. Doors for entrances/exits shall be installed so as to open outward and provided in a manner so as not to obstruct evacuation.
- (9) The dead-end of any corridor for use by audience members shall be 10 m or less long. Any such corridor shall be 1.2 m or more wide, and shall have a width that ensures 0.8 cm per person expected to pass through such corridor. In addition, the width thereof shall not, in principle, be tapered in the direction of evacuation.
- (10) In cases where corridors for use by audience members are slope-ways, the slope shall be 1/12 or less (or 1/8 where the level difference is 16 cm or less). In cases where corridors are stepped, the rise shall be 18 cm or less and the tread 26 cm or more.
- (11) The number of entrances/exits of theaters, etc. or of parts for use as theaters, etc. shall be two or more. Such entrances/exits shall be sufficiently distant from each other and shall be located so as to ensure smooth evacuation from the auditorium concerned.
- (12) Entrances/exits of theaters, etc. or of parts for use as theaters, etc. shall be 1 m or more wide and shall have a width that ensures 0.8 cm per person expected to pass through any such entrance/exit. Doors for entrances/exits shall be installed so as to open outward and provided in a manner so as not to obstruct evacuation.

- (13) Stairways to be used by audience members shall be located so as to be recognizable directly from entrances/exits of auditoria and from corridors for use by audience members, etc. so that smooth evacuation from auditoria is ensured; provided, however, that this shall not apply in cases where guide lights indicating the locations of stairways are installed at conspicuous points in corridors, etc.
- (14) Stairways to be used by audience members shall have a width that ensures 1 cm or more per person expected to pass through any such stairway, and entrances/exits to/from such stairways shall have a width to ensure at least 0.8 cm per person expected to pass through such stairways. Doors for entrances/exits shall be designed to open in the direction for evacuation.
- (15) Stairways in parts for use as theaters, etc. shall not be used as stairways for other uses (including those in parts for use as other theaters, etc.) on the same floor; provided, however, that this shall not apply if they come under both of the following cases:
- a. In cases where routes to any such stairway do not pass through any parts for other uses (excluding lobbies, corridors, etc. for common use);
 - b. In cases where the width of any such stairway exceeds the aggregate of widths of stairways necessary for each use of any such stairway.
- (16) The width of exits on the evacuation floors of stairways shall be at least 8/10 of the width of the stairway concerned, and doors shall be designed to open in the direction for evacuation.
- (17) In cases where stairways of parts for use as theaters, etc. face the interior of the building at its evacuation floor(s), the routes from the exits of such stairways to the outside of buildings shall not go through any parts for other uses (excluding lobbies, corridors, etc. for common use).

6. Structures of Exhibition Halls, etc.

The structures of exhibition halls, etc. shall be as specified in the following items:

- (1) Buildings where the floors other than evacuation floors are used as exhibition halls, etc. shall have two (2) or more stairways leading directly to evacuation floors or the ground level from the floors for said uses; provided, however, that this shall not apply to buildings with a total floor area of 100 sq m or less on floors used for such purposes, or where the main structural elements of the parts used for such purposes

are of quasi-fireproof construction or are made of non-combustible materials.

- (2) Exits to the outside on evacuation floors shall be as specified below:
- a. Two (2) or more exits to the outside shall be properly provided so that there are no objections from the viewpoint of evacuation.
 - b. The width of principal exits to the outside shall be 1.5 m or more, and those of other exits 90 cm or more.
 - c. Doors for exits shall not be installed so as to open inward and shall be designed so that there is no objection from viewpoint of evacuation.
 - d. Exits to the outside other than such exits as are prescribed in Article 125 paragraph 1 of the Order shall face passageways that are not less than 90 cm in width (or 1.5 m where such passageways are common to two (2) or more exits to the outside) leading to open spaces, etc. or to management passageways.

7. Building Equipment

Lavatories shall have flush toilets, and the sewage of lavatories shall be drained into a sewer or treated by a wastewater purifier under the provisions of Article 31 paragraph 2 of the Act, and effective openings or ventilation equipment shall be provided in lavatories for air circulation.

(Permissions not Covered by Standards of Permissions as Specified in Article 4)

Article 5. Permissions granted under the provisions of Article 4 shall not preclude any permission for which it is concluded that there is no objection from the viewpoints of safety, fire prevention, and sanitation.

(Addition of Requirements)

Article 6. Any requirements deemed to be necessary for safety, fire prevention, and/or sanitation may be prescribed in addition to permissions granted under the provisions of these Standards.

(Application Procedure)

Article 7. The application procedure for permissions under these Standards shall be as specified in “Guidelines on Application Procedures for Permissions for the 2025 World Exposition in Japan under the provisions of Article 85 paragraph 5 and paragraph 6 of the Building Standards Act.”

Supplementary Provisions

These Standards shall come into force on December 1, 2021.

Supplementary Provisions

These Standards shall be come into force on September 2, 2022.

*English version prepared by BLC Corporation, Osaka, Japan.

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