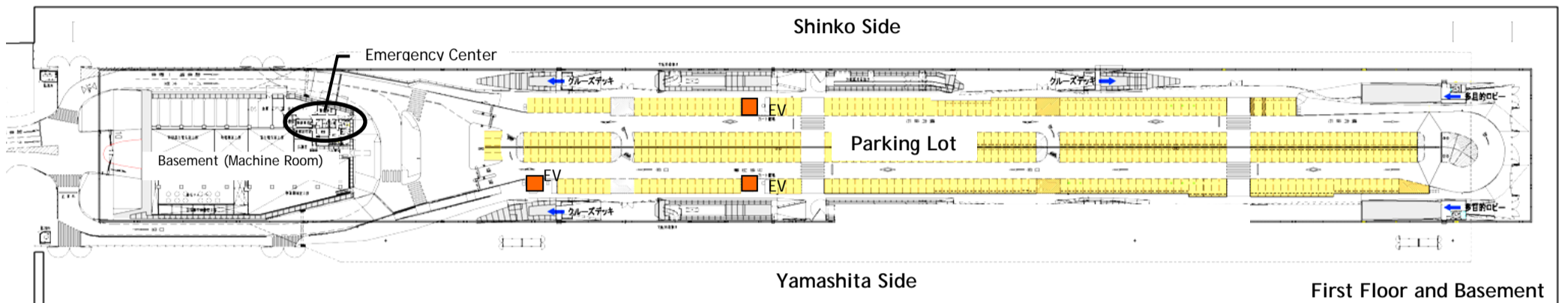
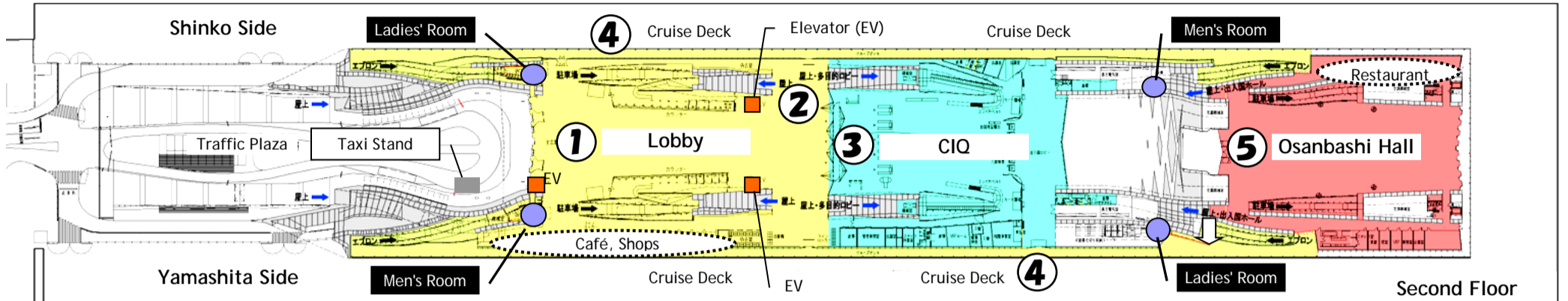
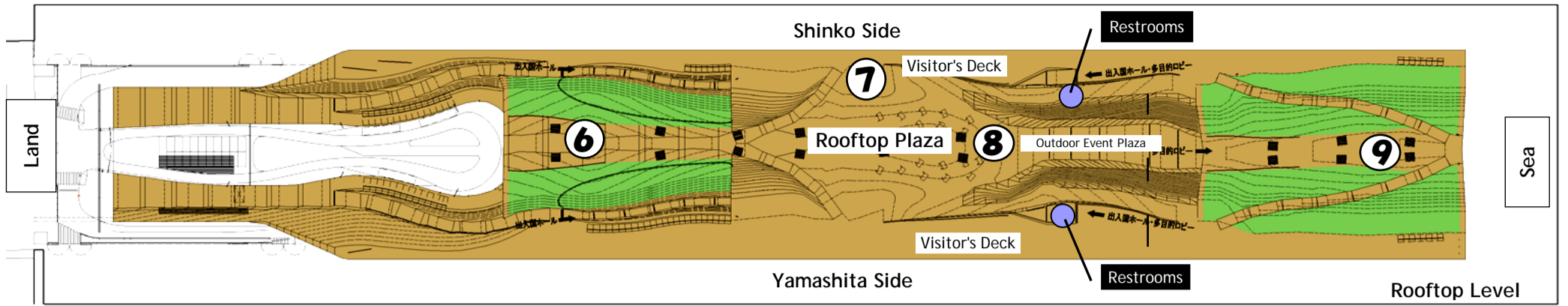


Guide to the Yokohama International Passenger Terminal



Overview

- (1) Location: 1-1 Kaigandori, Naka-ku, Yokohama
- (2) Area: 34293m²
- (3) Structure: Steel-frame construction, two stories above ground and one below; 430m L x 70m W x 15m H (highest point)
- (4) Total Floor Space: Approx. 44,000m² (Basement: approx. 2,000m², 1st Floor: approx. 20,000m², 2nd Floor: approx. 22,000m²)
- (5) Facilities:
 - Basement - Machine room
 - First Floor - Parking, emergency center, etc.
 - Second Floor - Lobby, CIQ (Customs, Immigration, Quarantine), Cruise Decks, Osanbashi Hall, restaurant, etc.
 - Roof Level - Rooftop Plaza, Visitor's Deck, Outdoor Event Plaza



Features

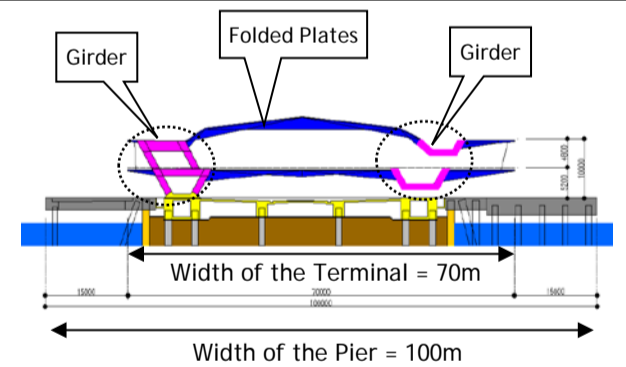
Design

The design by architects Alejandro Zaera-Polo and Farshid Moussavi was the Grand Prize winner in the International Design Competition held in 1994-1995. Unlike other buildings, the interior is a spacious area without columns or beams.

Structure



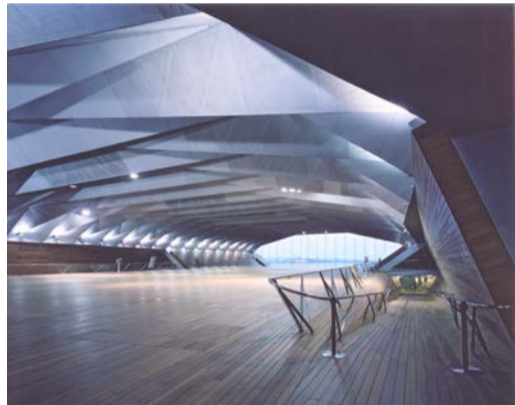




As the section graph on the right shows, the steel structure above ground consists of two parts, main beams (girders) on the two sides and the combination of triangular pyramids (folded plates), which also support the floor and the roof, bridging over the girders. The girders act as pedestrian slopes connecting different floors as well.

Except flat floors, the building has a complicated design with curved surfaces and lines. As a result, all the pieces of steel were different. The manufacturing at the factory and the construction on site of the steel structure were difficult and required advanced construction techniques.



Location	Explanation	Photos, Etc.
①	<p>Lobby</p> <p>The 4,400m² lobby houses check-in counters, information, a cafe and shops. The check-in counters on the two sides are 35m long, handling boarding procedures and luggage delivery services. There are belt conveyers behind the counters to send passengers' baggage down to the delivery trucks on the first floor. The slightly tilted rectangular steel tubes on the two sides are called "girders." They are the main supporting structures of this building. Inside these tubes are the slopes connecting to other floors. Triangular pyramids made of folded steel plates are placed over the girders. The plates act as the support for the ceiling and the floor. Lightings come from the indirect light of the mercury lamps on the girders reflected from the roof. Most of the air conditioning in the terminal come from the floor, not the ceiling.</p>	
②	<p>Slopes & Elevators</p> <p>There are no stairs inside the terminal building (except at the Outdoor Event Plaza). This is a barrier-free environment where visitors move between levels either by slopes or by elevators (between First and Second Floors). Slopes are built along the girders which act both as a structure frame and a passageway. They take the shape of three-dimensional curves. Forming the curves of the slopes and the handles was a challenging task during the construction.</p> <p>There are three elevators inside the Lobby and two in Osanbashi Hall. Elevators in the Lobby are in glass boxes; and there are no elevator shafts. These elevators are hydraulically-operated, moved by the expansion and contraction of the supporting shaft at the bottom. (The movement can be observed clearly from the parking lot on the First Floor.) Also, a special film is pasted to the glass from the middle down. When looking through the glass from an angle, the film makes the glass look frosted.</p>	

Guide to the Yokohama International Passenger Terminal

Location	Explanation	Photos, Etc.
③	<p>CIQ Facilities (CIQ Plaza)</p> <p>CIQ is the abbreviation for Customs, Immigration and Quarantine. Thus, as the name implies, this is where passengers arriving on foreign cruise ships go through customs, immigration and quarantine procedures. The total area is approximately 3,000m². Belt conveyers have been furnished on both sides of the plaza. Passengers' baggage are unloaded onto the apron on the first floor, then sent up to CIQ for inspection via the conveyers.</p> <p>All equipments in the CIQ Plaza, such as inspection desks, stations and partitions, are mobile with casters. When not in use as an inspection area, all equipments can be stored to turn this into one large event hall.</p>	
④	<p>Cruise Deck</p> <p>The walkways on the two sides of the building (outside the glass walls) are the "Cruise Decks." These are used by the cruise passenger. By connecting the "boarding bridge" between the ship and the deck, passengers could embark/disembark directly from the second floor. When setting the boarding bridges, parts of the iron fences are folded down. In order to facilitate smooth positioning of the bridges, fences can be folded inward at any part of the deck.</p> <p>Glass Curtain Walls</p> <p>The glass curtain walls separating the cruise decks and the interior of the terminal are made of 19mm-thick tempered glass. The glass walls are firmly set at the bottom, but, to avoid collusion between them and the steel frame in an earthquake, not at the top. The glass curtain walls tilt slightly outward. The tilting is 9 degrees on Yamashita Side and 1 degree on Shinko Side.</p>	
⑤	<p>Osanbashi Hall</p> <p>Located at the very edge of the second floor is the multi-purpose Osanbashi Hall. Through the large glass wall at the end, visitors can see the vessels coming and leaving the port, as well as enjoy a view of the bay. The ceiling here is 6m to 8m high. This hall has an area of 2,000m², a generous size for various events, such as speeches, exhibits, parties and wedding ceremonies. Also, there is a restaurant on the Shinko Side of the hall (Red Brick Warehouses direction).</p>	
⑥ ⑦ ⑧ ⑨	<p>Rooftop Plaza</p> <p>The rooftop level is a 24-hour-open plaza, furnished with wooden decks and natural grass carpets. The height of the structure has been limited to as low as possible (15m at the highest point), so that ships will stand out against this low building. Not only can people view the calling ships from the surrounding areas, but passengers on-board can also have an unobstructed view of the port and the city.</p> <p>Also, this plaza is one of the best places to enjoy the view of the Yokohama waterfront. On a clear day, it is even possible to see Mt. Fuji afar. At night, there are no better spots to enjoy the night view of the Red Brick Warehouses, the highrises in Minato Mirai 21, Marine Tower, Hikawa-maru and the Bay Bridge.</p> <p>Visitor's Decks</p> <p>On the two sides of the rooftop are the Visitor's Decks, where family, friends and citizens come to welcome cruise ships or see the passengers off.</p> <p>The terminal (Shinko Side and Yamashita Side) can accommodate two 70,000-ton cruise vessels, such as Queen Elizabeth II, or four 30,000-ton class, such as Asuka and Pacific Venus, at the same time.</p> <p>Outdoor Plaza</p> <p>Using the space near the entrance to Osanbashi hall as the stage and the surrounding steps as seats, this area can be as an event site for mini-concerts, dance performance, etc.</p> <p>Sunshades & Buffer Stop</p> <p>The wooden boards standing vertically on the rooftop are sunshades to ease the heat on summer days. On the ground, there are small, cylindrical buffer stops. They mark the floor area with heightened strength on which emergency vehicles can drive directly. There are also lightings on the rooftop. They are, however, not vertically or horizontally parallel to the building, nor are they symmetrical on the two sides. They reflect the architects' preference for asymmetry.</p>	   
O t h e r s	<p>About the Construction Materials...</p> <p>One of the special features of the terminal building is that the structure frame is in plain view. The steel are fire resistant steel, which is shown in its original form without additional fireproofing coating. The exterior of the steel has been painted using the "room temperature metal spray method."</p> <p>Other construction materials include wood for the flooring (<i>ipe</i>) and curtain glass walls. This building has been constructed using mainly of "steel," "wood" and "glass."</p> <p>About <i>ipe</i> ...</p> <p>The flooring on the rooftop and the Second Floor are made of <i>ipe</i>, a Brazilian wood grown in the Amazons. <i>ipe</i> has the best quality of endurance, insect-resistance and strength among all wooden materials. And with a specific gravity of 1.1, it is heavy and sinks in water.</p> <p>(Thickness of the wooden panels: Interior = 20mm; Exterior - General Areas = 30mm; Exterior - Vehicle Passage = 45 mm)</p>	