Shanghai Tower

Official Name: Shanghai Tower
Other Names: Shanghai Center
Structure Type: Building
Status: Completed
Country: China
City: Shanghai
Street Address & Map: Lujiazui Financial Center, Pudong New Area
Postal Code: 200120
Building Function: hotel / office
Structural Material: composite
  - Core: Reinforced Concrete
  - Columns: Concrete Encased Steel
  - Floor Spanning: Steel
Energy Label: LEED Platinum BD+C: Core and Shell
Proposed: 2008
Construction Start: 2009
Completion: 2015
Official Website: Shanghai Tower

Rankings:
- Global Ranking: #2 Tallest in the World
- Regional Ranking: #1 Tallest in Asia
- National Ranking: #1 Tallest in China
- City Ranking: #1 Tallest in Shanghai

Companies Involved
Owner/Developer: Shanghai Tower Construction & Development
Architect:
- Design: Gensler
- Architect of Record: Tongji Architectural Design (Group) Co., Ltd.
- Peer Review: East China Architectural Design & Research Institute
Structural Engineer:
- Design: Thornton Tomasetti
- Engineer of Record: Tongji Architectural Design (Group) Co., Ltd.
- Peer Review: China Academy of Building Research
MEP Engineer:
- Design: Cosentini Associates; Aurecon
- Engineer of Record: Tongji Architectural Design (Group) Co., Ltd.
- Peer Review: WSP | Parsons Brinckerhoff
Project Manager: Shanghai Jianke Engineering Consulting Co., Ltd.
Main Contractor: Shanghai Construction Group
Other Consultant:
- Cost: Shanghai Shenyuan Property Consultants; Rider Levett Bucknall
- Damping: RWDI
- Energy Concept: CEEA-Advisors; KoopX; Vidaris, Inc.
- Façade: EFC Engineering Consulting Company, Ltd.; Aurecon
- Fire: Rolf Jensen & Associates
- Geotechnical: STS Consultants, Ltd.
- Landscape: SWA Group
- LEED: WSP | Parsons Brinckerhoff
- Life Safety: Arup

Height: To Tip
632 m / 2,073 ft
Height: Architectural
632 m / 2,073 ft
Height: Occupied
583.4 m / 1,914 ft
Height: Observatory
562.1 m / 1,844 ft
Floors Above Ground
128
Floors Below Ground
5
# of Elevators
106
Top Elevator Speed
20.5 m/s
Tower GFA
420,000 m² / 4,520,842 ft²
Development GFA
521,000 m² / 5,607,997 ft²
# of Hotel Rooms
258
# of Parking Spaces
1,794
About Shanghai Tower

As the third tower in the trio of signature skyscrapers at the heart of Shanghai's new Lujiazui Finance and Trade Zone, Shanghai Tower embodies a new prototype for tall buildings. Placed in close proximity to Jin Mao Tower and Shanghai World Financial Center, the new tower rises high above the skyline, its curved façade and spiraling form symbolizing the dynamic emergence of modern China. But its twisting form goes beyond just creating a unique appearance; wind tunnel tests confirm a 24 percent savings in structural wind loading when compared to a rectangular building of the same height.

More than a landmark, the mixed-use tower offers a sustainable way of living in a vertical city, with a unique mix of restaurants, shops, offices, and hotels spaced throughout the building. The tower's program is organized into nine vertical zones. Each of these vertical neighborhoods rise from a sky lobby, a light-filled garden atrium that creates a sense of community and supports daily life with a varied program catering to tenants and visitors. The sky lobbies function much like traditional town plazas and squares, bringing people together throughout the day. These civic spaces recall the city's historic open courtyards, which merge interiors with exteriors in a landscaped setting.

Shanghai Tower is one of the most sustainably advanced tall buildings in the world. A central aspect of its design is the transparent second skin that wraps around the entire building. The ventilated atriums it encloses conserve energy by modulating the temperature within the void. The space acts as a buffer between the inside and outside, warming up the cool outside air in the winter and dissipating heat from the interior in the summer. The tower also notably employs a tri-cogeneration system, a grey water/rainwater system, and several renewable energy sources.

Shanghai Tower

CTBUH Initiatives

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25 Nov 2018 – Event Report

CTBUH Study Examines Tallest Buildings with Dampers
22 Aug 2018 – CTBUH Research

Vertical Transportation: Ascent & Acceleration
12 Sep 2017 – CTBUH Research

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Research Papers

The Global Tall Building Picture: Impact of 2018
Jan 2019 – CTBUH Journal 2019 Issue I

World’s Tallest Buildings with Dampers
Jul 2018 – CTBUH Journal, 2018 Issue III

The Global Tall Building Picture: Impact of 2017
Feb 2018 – CTBUH Journal, 2018 Issue I

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Videos

A Vernacular Megatall: Shanghai Tower
3 Nov 2016 – Jianping Gu, Shanghai Tower C&D; Grant Uhlir, Gensler

Interview: Shanghai Tower
3 Nov 2016 – Jianping Gu, Shanghai Tower C&D; Grant Uhlir, Gensler

CTBUH Video Interview – Andrew Nicholson
18 Oct 2016 – Andrew Nicholson, CBRE

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CTBUH Awards 2016

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