

## Wuhan Greenland Center

This project was **redesigned** and replaced by **Wuhan Greenland Center (Redesign)**



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Height: To Tip  
636 m / 2,087 ft

Height:  
Architectural  
636 m / 2,087 ft  
Height: Occupied  
610 m / 2,001 ft

Height: Observatory  
610 m / 2,001 ft

Floors Above Ground  
126

Floors Below Ground  
6

# of Elevators  
84

Top Elevator Speed  
12.5 m/s

Tower GFA  
303,275 m<sup>2</sup> / 3,264,425 ft<sup>2</sup>

Development GFA  
570,000 m<sup>2</sup> / 6,135,429 ft<sup>2</sup>

# of Apartments  
186

# of Hotel Rooms  
292

# of Parking Spaces  
1,051

### Facts

Official Name	Wuhan Greenland Center
Name of Complex	Wuhan Greenland Center
Other Names	Greenland Center WGC
Structure Type	Building
Status	NC
Country	China
City	Wuhan
Street Address & Map	Lingjiang Avenue
Building Function	hotel / residential / office
Structural Material	composite <ul style="list-style-type: none"> <li>Core: Reinforced Concrete</li> <li>Columns: Concrete Encased Steel</li> <li>Floor Spanning: Steel</li> </ul>
Proposed	2010
Construction Start	2012

### Companies Involved

Owner	Wuhan Greenland Bin Jiang Property Co. Ltd.
Developer	Greenland Group
Architect	<ul style="list-style-type: none"> <li>Design: Adrian Smith + Gordon Gill Architecture</li> <li>Architect of Record: East China Architectural Design &amp; Research Institute</li> </ul>
Structural Engineer	<ul style="list-style-type: none"> <li>Design: Thornton Tomasetti</li> </ul>
MEP Engineer	<ul style="list-style-type: none"> <li>Design: PositivEnergy Practice</li> <li>Peer Review: Parsons Brinckerhoff Consultants Private Limited</li> </ul>
Main Contractor	China Construction Third Engineering Bureau Co., Ltd.
Other Consultant	<ul style="list-style-type: none"> <li>Civil: Prism Engineering, Inc.</li> <li>Façade Maintenance: Lerch Bates</li> <li>Fire: Rolf Jensen &amp; Associates</li> <li>Interiors: Cheng Chung Design (HK) Ltd.</li> <li>Landscape: SWA Group</li> <li>Lighting: Fisher Marantz Stone</li> <li>Parking: Prism Engineering, Inc.</li> <li>Traffic: Prism Engineering, Inc.</li> <li>Vertical Transportation: Fortune Consultants, Ltd.</li> <li>Wind: RWDI</li> </ul>
Material Supplier	<ul style="list-style-type: none"> <li>Cladding: Jangho Group Co., Ltd.</li> <li>Elevator: Schindler; KONE</li> <li>Steel: China Construction Steel Structure Corporation</li> </ul>

### About Wuhan Greenland Center

Rising from its site on the Yangtze River waterfront, the Wuhan Greenland Center symbolizes the growing vitality of Wuhan, the most populous city in central China and a major player in the country's economy due to its status as a multi-modal transportation hub.

Like many towers that seek to transcend the 600-meter threshold, wind and seismic considerations were paramount in the design process. To address these issues, the tower uses a triangular floor plan that gently narrows along its height to provide extra stability that protects against intense winds and seismic events. Three large sloping steel-reinforced concrete (SRC) columns rise and join at the top of the building to form the 61-meter crown structure that rests above a glass dome. By omitting portions of floors and perimeter framing at different elevations, "slots" are created in the building envelope to provide a distinctive architectural personality while reducing wind loads on the structure. In this respect, the locations and geometry of structural components have been carefully optimized to not only provide strength and stiffness, but integrate seamlessly with the form of the building.

Wuhan Greenland Center provides spaces for three distinctive functions: office, apartment, and hotel. While some mixed-use towers separate users by levels, the triangular floor plan of this building allows for the tenants or visitors to have separate entrances at the ground level. Though not each of its three functions take up equal space, office workers, residents, and hotel guests will each have a unique experience upon entering the building. The dome at the top of the tower will be completely clad in glass to create a well-illuminated space that highlights the towers structural components and dramatic appeal.

## Wuhan Greenland Center

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### CTBUH Initiatives

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#### Fourth Building Tall Lecture Series: Greening Tall

1 Feb 2018 – Event Report

#### Vertical Transportation: Ascent & Acceleration

12 Sep 2017 – CTBUH Research

#### Top Company Rankings: The World's 100 Tallest Buildings

13 Oct 2016 – CTBUH Research

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### Videos

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#### Building Tall Skyscraper Lecture Series: Naturalizing the Vertical Realm

28 Mar 2018 – Sara Beardsley, Adrian Smith + Gordon Gill Architecture; Luke Leung, Skidmore, Owings & Merrill; Molly Meyer, Omni Ecosystems; Yibo Xu, Stefano Boeri Architetti China

#### Building Tall Skyscraper Lecture Series: How High Can We Go?

16 Mar 2017 – Antony Wood, CTBUH; Richard Tomasetti, Thornton Tomasetti; Ian Smith, thyssenkrupp, Gordan Gill, Adrain Smill + Gordon Gill Architecture

#### Mega Size Mixed-Use Projects: Redefining Vertical Urbanism

17 Oct 2016 – Dennis Poon, Thornton Tomasetti

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### Research Papers

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#### Closing the Gap between Fantasy and Reality: Pushing Current Technologies Into the Future

Sep 2014 – CTBUH Journal, 2014 Issue III

#### Development of Innovative Structures for Supertall and Unique Towers

Sep 2012 – CTBUH 2012 9th World Congress, Shanghai

#### Wuhan Greenland Center Main Tower: Seamlessly Integrating Structure and Architecture

Sep 2012 – CTBUH 2012 9th World Congress, Shanghai

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