### Facts

<table>
<thead>
<tr>
<th>Official Name</th>
<th>Goldin Finance 117</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Complex</td>
<td>Tianjin Goldin Metropolitan</td>
</tr>
<tr>
<td>Other Names</td>
<td>Walking Stick</td>
</tr>
<tr>
<td>Structure Type</td>
<td>Building</td>
</tr>
<tr>
<td>Status</td>
<td>Architecturally Topped Out</td>
</tr>
<tr>
<td>Country</td>
<td>China</td>
</tr>
<tr>
<td>City</td>
<td>Tianjin</td>
</tr>
<tr>
<td>Street Address &amp; Map</td>
<td>Haitai South-North Street, Huayuan Industry Park</td>
</tr>
<tr>
<td>Building Function</td>
<td>hotel / office</td>
</tr>
<tr>
<td>Structural Material</td>
<td>composite</td>
</tr>
<tr>
<td></td>
<td>• Core: Reinforced Concrete</td>
</tr>
<tr>
<td></td>
<td>• Columns: Concrete Filled Steel</td>
</tr>
<tr>
<td></td>
<td>• Floor Spanning: Steel</td>
</tr>
<tr>
<td>Energy Label</td>
<td>LEED Platinum</td>
</tr>
<tr>
<td>Proposed</td>
<td>2008</td>
</tr>
<tr>
<td>Construction Start</td>
<td>2009</td>
</tr>
<tr>
<td>Completion</td>
<td>2020</td>
</tr>
<tr>
<td>Height: To Tip</td>
<td>596.6 m / 1,957 ft</td>
</tr>
<tr>
<td>Height: Architectural</td>
<td>596.6 m / 1,957 ft</td>
</tr>
<tr>
<td>Height: Occupied</td>
<td>584.1 m / 1,916 ft</td>
</tr>
<tr>
<td>Height: Observatory</td>
<td>578.7 m / 1,898 ft</td>
</tr>
<tr>
<td>Floors Above Ground</td>
<td>128</td>
</tr>
<tr>
<td>Floors Below Ground</td>
<td>4</td>
</tr>
<tr>
<td># of Elevators</td>
<td>89</td>
</tr>
<tr>
<td>Tower GFA</td>
<td>370,000 m² / 3,982,647 ft²</td>
</tr>
</tbody>
</table>

### Companies Involved

**Owner**
Goldin Properties Holdings Limited

**Architect**
- **Design**
  - P & T Group
- **Architect of Record**
  - East China Architectural Design & Research Institute

**Structural Engineer**
- **Design**
  - Arup

**MEP Engineer**
- **Design**
  - Parsons Brinckerhoff Consultants Private Limited

**Main Contractor**
- China Construction Third Engineering Bureau Co., Ltd.

**Other Consultant**
- **Acoustics**
  - Campbell Shillinglaw Lau Ltd
- **Cost**
  - Davis Langdon & Seah
- **Façade**
  - Arup; Permasteelisa Group
- **Geotechnical**
  - Arup
- **Landscape**
  - Design Land Collaborative
- **LEED**
  - Parsons Brinckerhoff Consultants Private Limited
- **Lighting**
  - Chroma33 Architectural Lighting Design
- **Property Management**
  - CBRE
- **Quantity Surveyor**
  - Langdon & Seah
- **Way Finding**
  - duttonBRAY Design Limited
- **Wind**
  - BMT Fluid Mechanics Ltd.

**Material Supplier**
- **Cladding**
  - Dow Corning Corporation
- **Elevator**
  - Otis Elevator Company; Sematic S.r.l.; Hilti AG
- **Steel**
  - China Construction Steel Structure Corporation
About Goldin Finance 117

Located in the brand new central business district of Tianjin, Goldin Finance 117 will stand as the tallest and most distinguished development in the city. The tower will accommodate a mixture of uses including office space along the bottom floors and a luxury hotel in the upper floors. The surrounding Goldin Metropolitan development will serve to activate this centrally located tower by comprising a large high-end residential area, entertainment venues, two international standard polo fields, training facilities, retail outlets, and green spaces. A 200-meter office tower will be located nearby, satisfying the feng shui requirements set out for the development area.

The design of the tower resembles a bejeweled walking stick, with a long slender form capped by a diamond-shaped atrium. Within this striking feature, hotel guests and tourists can visit a rotating observation deck and a fine dining establishment. The building will also provide Grade A office accommodations and a double-decker lift. Sky lobbies are located at various heights along the tower, providing a variety of vantage points and views of the surrounding districts.

The building is extremely slender, with a height-to-width ratio of 9.5, exceeding the limit of 7.0 imposed by Chinese seismic code. Because of this, a more stringent set of controlling criteria had to be adopted, leading to a challenging set of structural requirements. The most visually apparent structural components of the tower are the megacolumns rising from each of its four corners. These megacolumns extend to the top of the crown, connecting beams, transfer trusses, and mega braces, which are gracefully hidden behind the building's aluminum and silver reflective curtain wall.

CTBUH Initiatives

Top Company Rankings: The World’s 100 Tallest Buildings
13 Oct 2016 – CTBUH Research

The Tallest 20 in 2020: Entering the Era of the Megatall
8 Dec 2011 – CTBUH Research

Research Papers

Developments of Structural Systems Toward Mile-High Towers
1 Sep 2018 – International Journal of High-rise Buildings Volume 7 Number 3

The New Structural Design Process of Supertall Buildings in China
1 Sep 2015 – International Journal of High-Rise Buildings Volume 4 Number 3

The Structural Design of Tianjin Goldin Finance 117 Tower
Dec 2012 – International Journal of High-Rise Buildings Volume 1 Number 4

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