Yongsan, Seoul
Mixed use tower
“In the park”
Urbanisation
South Korea

Global urbanisation

![Percentage of World Population graph](http://esa.un.org/unup)
Tallest building timeline from 1890 till now.

828m

Burj Dubai, Dubai, 2009
Taipei 101, Taipei, 2004
Petronas, Kuala Lumpur, 1998
Sears Tower, Chicago, 1974
World Trade, New York, 1937
Empire state, New York, 1931
Chrysler, New York, 1930
Manhattan comp, New York, 1930
Woolworth, New York, 1913
Met Life Tower, New York, 1909
Singer, New York, 1908
Park Row, New York, 1899
St. Paul, New York, 1898
Manhattan Life, New York, 1894
Masonic Temple, Chicago, 1892
World building, New York, 1890
High-rise residential, Seoul
Mountains vs buildings
Seoul, height limit?
Masterplan
“The Open Ended City
Connect east with west
Connect station with water
Green space for surrounding area
Existing Green buffer
Existing
High-rise wall
100,000 sqm building?
two square towers
footprint: 1600 sqm (x2)
47 floors
188 m high
slenderness: 1:5
square tower
footprint: 1.600 sqm
94 floors
376 m high
slenderness: 1:10

100.000 sqm???
two slim towers
footprint: 900 sqm (x2)
83 floors
332 m high
slenderness: 1:11
two square tower with 5 floor plint
footprint: 1,600 sqm (x2)
37 floors tower
168 m high (total)
slenderness: 1:4
transverse pyramid
footprint: 5,600 sqm
52 floors tower
208 m high

100,000 sqm???
one tower, half of plot
footprint: 2,800 sqm
52 floors
208 m high
slenderness: 1:5
three slim towers
footprint: 900 sqm (x3)
56 floors
224 m high
slenderness: 1:8

tower with 5 floor plint
footprint: 2,800 sqm
42 floors tower
188 m high (total)
slenderness: 1:4

block
footprint: 5,600 sqm
26 floors
104 m high
slenderness: 1:4

two square tower with 5 floor plint
footprint: 1,600 sqm (x2)
37 floors tower
168 m high (total)
slenderness: 1:4

longitudinal pyramid
footprint: 5,600 sqm
52 floors tower
208 m high

slim tower
footprint: 900 sqm
167 floors
668 m high
slenderness: 1:22
John Hancock Center
office depth (m): 9.7
floor space(m²): 1440
core (m²): 241
office (m²): 1196
space efficiency (%): 83

World Trade Center
office depth (m): 10.7 / 10.1
floor space(m²): 4086
core (m²): 1134
office (m²): 2954
space efficiency (%): 64

Shanghai World Finance Center
office depth (m): 14.5
floor space(m²): 2864
core (m²): 710
office (m²): 2154
space efficiency (%): 75

Taipei 101
office depth (m): 13.9
floor space(m²): 3421
core (m²): 916
office (m²): 2505
space efficiency (%): 73

Jin Mao Tower
office depth (m): 12.9 / 17.7
floor space(m²): 2349
core (m²): 696
office (m²): 2153
space efficiency (%): 76

Core influence
Masterplan Program

<table>
<thead>
<tr>
<th></th>
<th>2030</th>
<th>2050</th>
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</thead>
<tbody>
<tr>
<td>Education</td>
<td>4.6%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Health</td>
<td>63%</td>
<td>33%</td>
</tr>
<tr>
<td>Culture</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Retail</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Office</td>
<td>34.4%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Hotel</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Residential</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

- 492,000 m²
- 384,000 m²
- 480,000 m²
- 132,000 m²
- 2,844,000 m²
- 480,000 m²
- 6,000,000 m²

FAR: 5.1

Site area: 2,418,530 m²
Program: 12,000,000 m²
“By the bay”
Program

FAR: 6.1
site area: 118,500 m²
program: 723,000 m²
Masterplan program detailed

Hotel
4% - 100,000 sqm
- High class housing: 20%
- Middle class housing: 30%
- Social housing: 50%

Residential
50% - 1,250,000 sqm
- 5 star hotel: 30%
- 3 star hotel: 50%
- 1 star hotel hostel: 29%
GFA Residential: 25.000 sqm

- 4% fitness/wellness
- 11% penthouse 280sqm
- 15% junior suites 140sqm
- 20% 3 bedroom 106sqm
- 20% 1 bedroom apartment 69sqm
- 30% 2 bedroom apartment 86sqm
GFA Hotel: 17,000 sqm

- **6%** fitness/wellness
- **3%** back office
- **3%** lobby / reception
- **5%** restaurant / bar
- **6%** conference center/meeting room
- **10%** other rooms
- **9%** suites 49 sqm
- **25%** deluxe rooms 29 sqm
- **33%** standard rooms 20 sqm
Floor plan
hotel

49m²  20m²  20m²  29m²
Floor plan
residential, 1-bedroom
Floor plan residential, 2-bedroom, 3-bedroom
Program building mass
Mass study
Mass study
Water storage
Residential buildings
Office buildings
Retail buildings
In the park
In the park
Floorplan basement
Section residential/hotel
steel column Ø324
filled with steel
reinforcement concrete

single glazing

aluminium facade element

double glazing