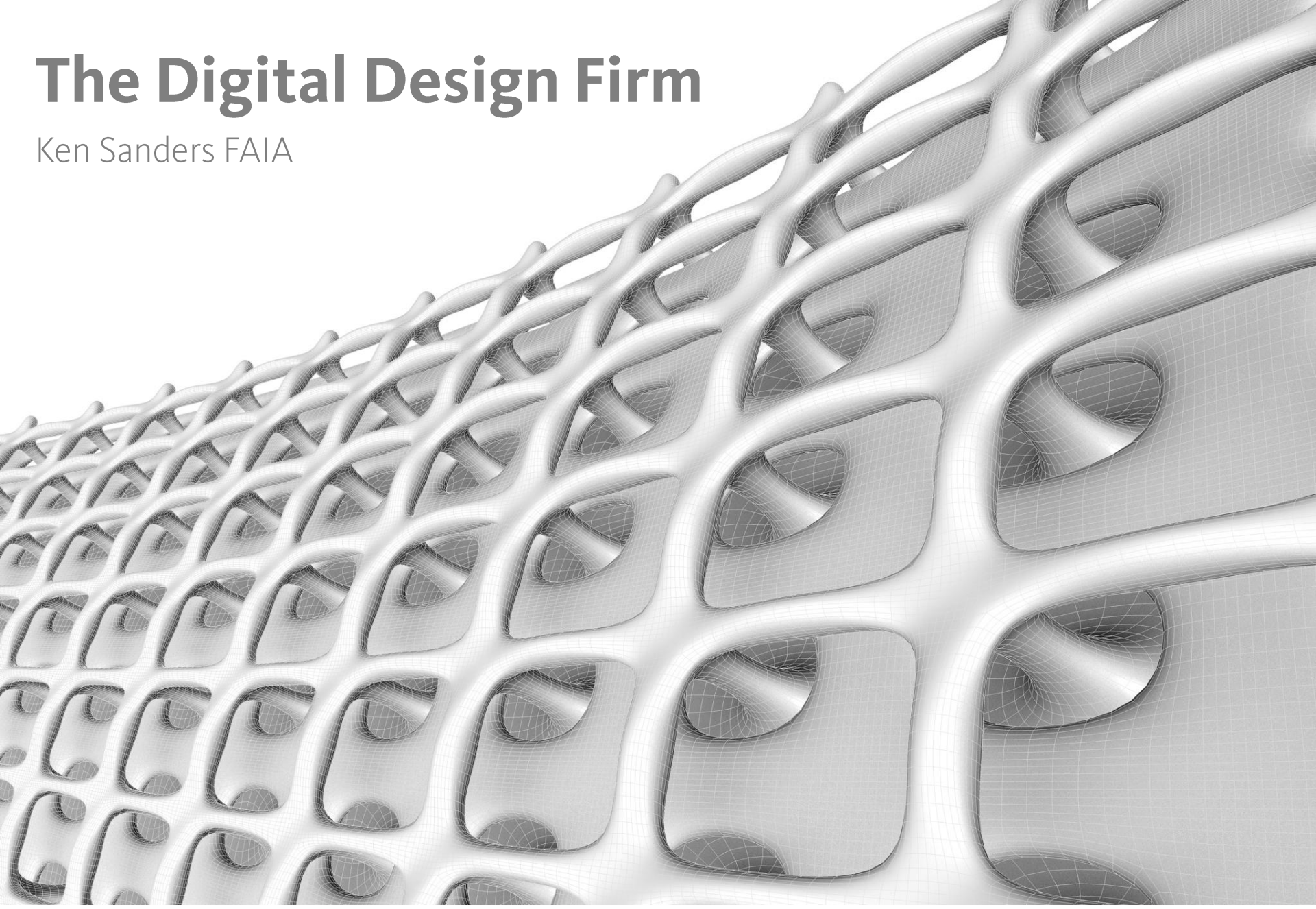
The Digital Design Firm

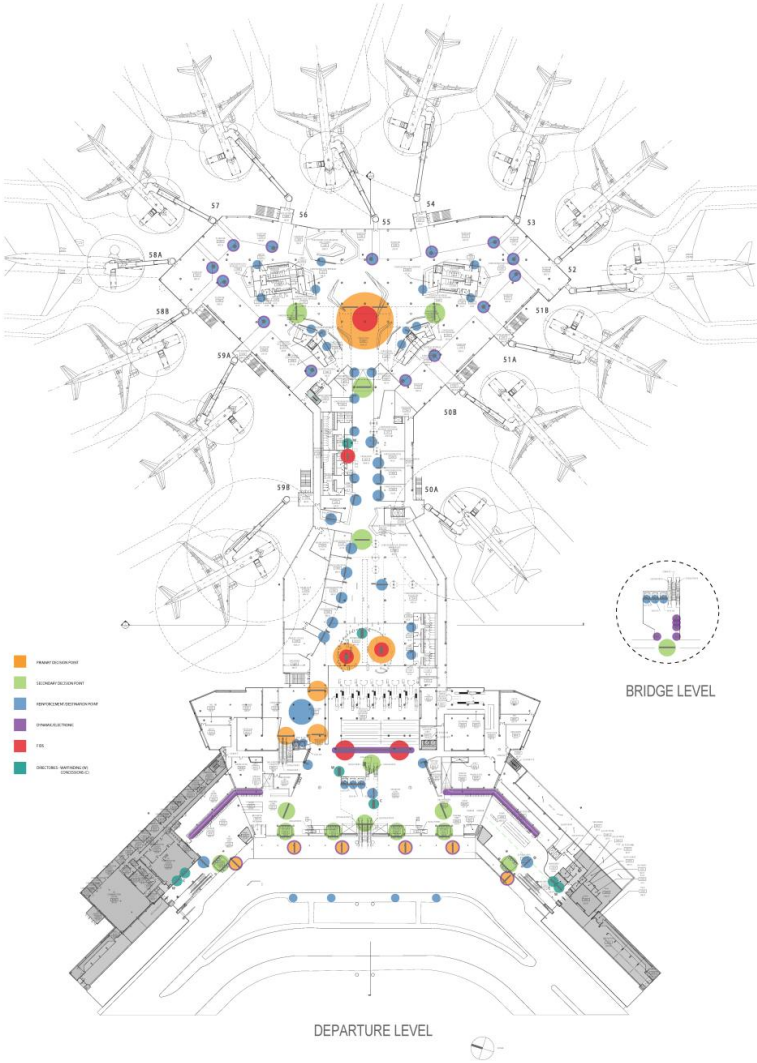
Ken Sanders FAIA



San Francisco International Airport Terminal 2

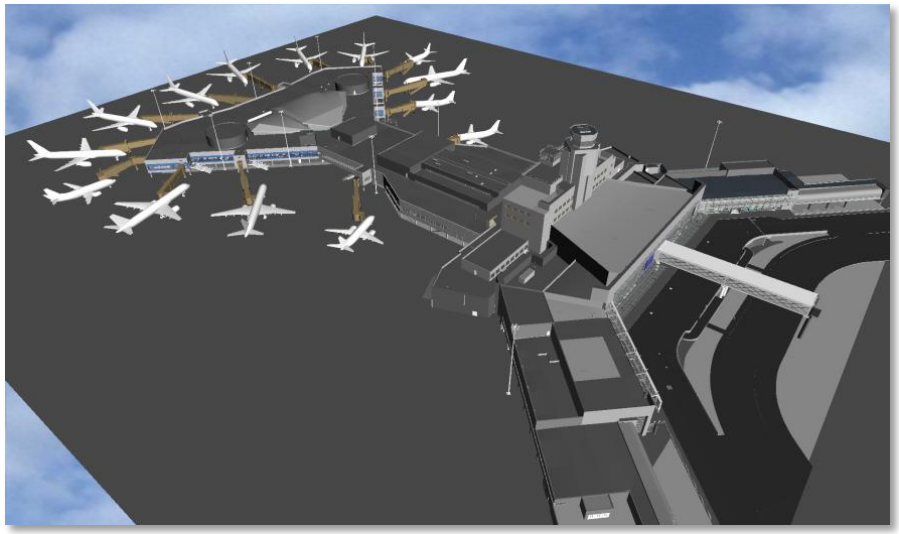
San Francisco, CA

- Integrated Design/Build Delivery
- 100% BIM Construction Documents
- Early Collaboration with Subcontractors
- Multi-Discipline Navisworks Coordination



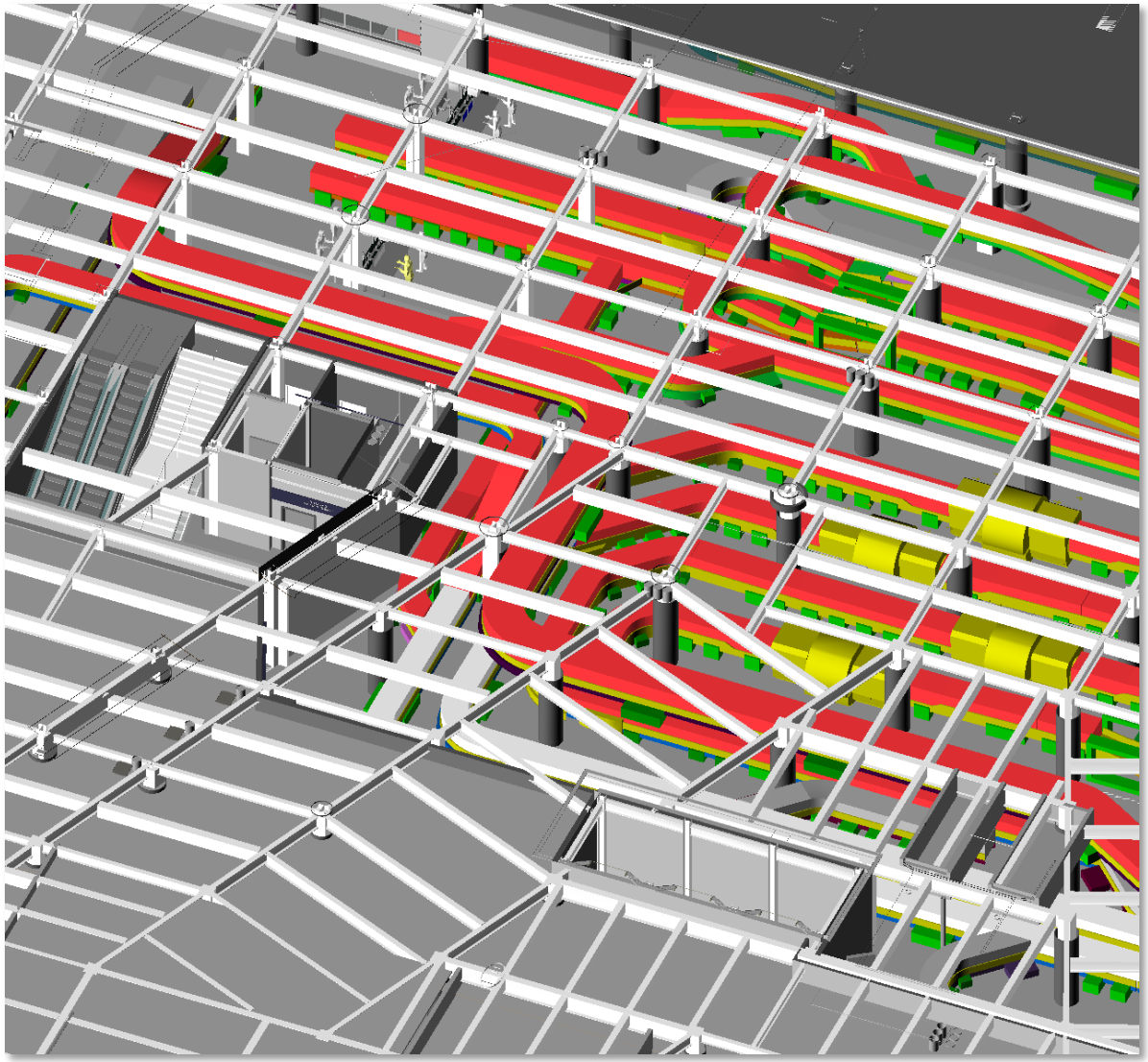
San Francisco International Airport Terminal 2

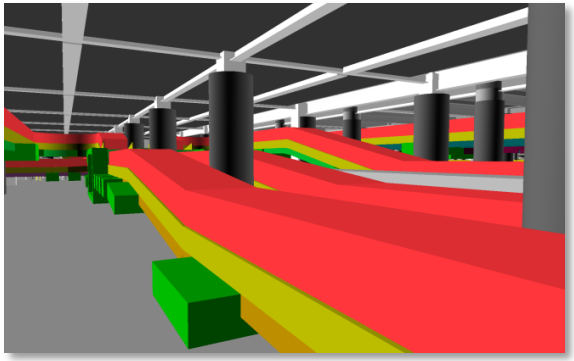
San Francisco, CA

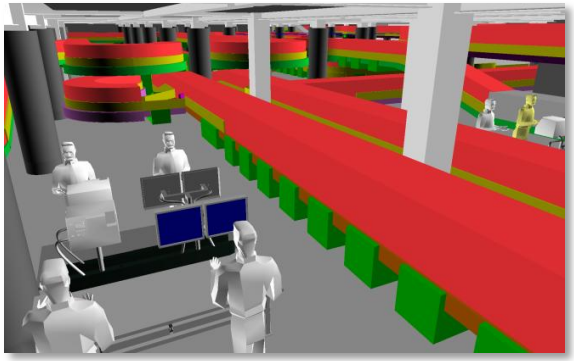


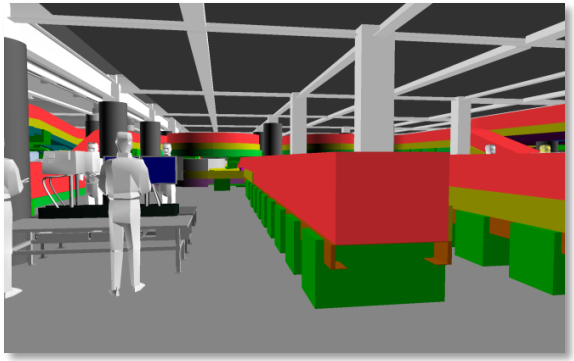
San Francisco International Airport Terminal 2

San Francisco, CA



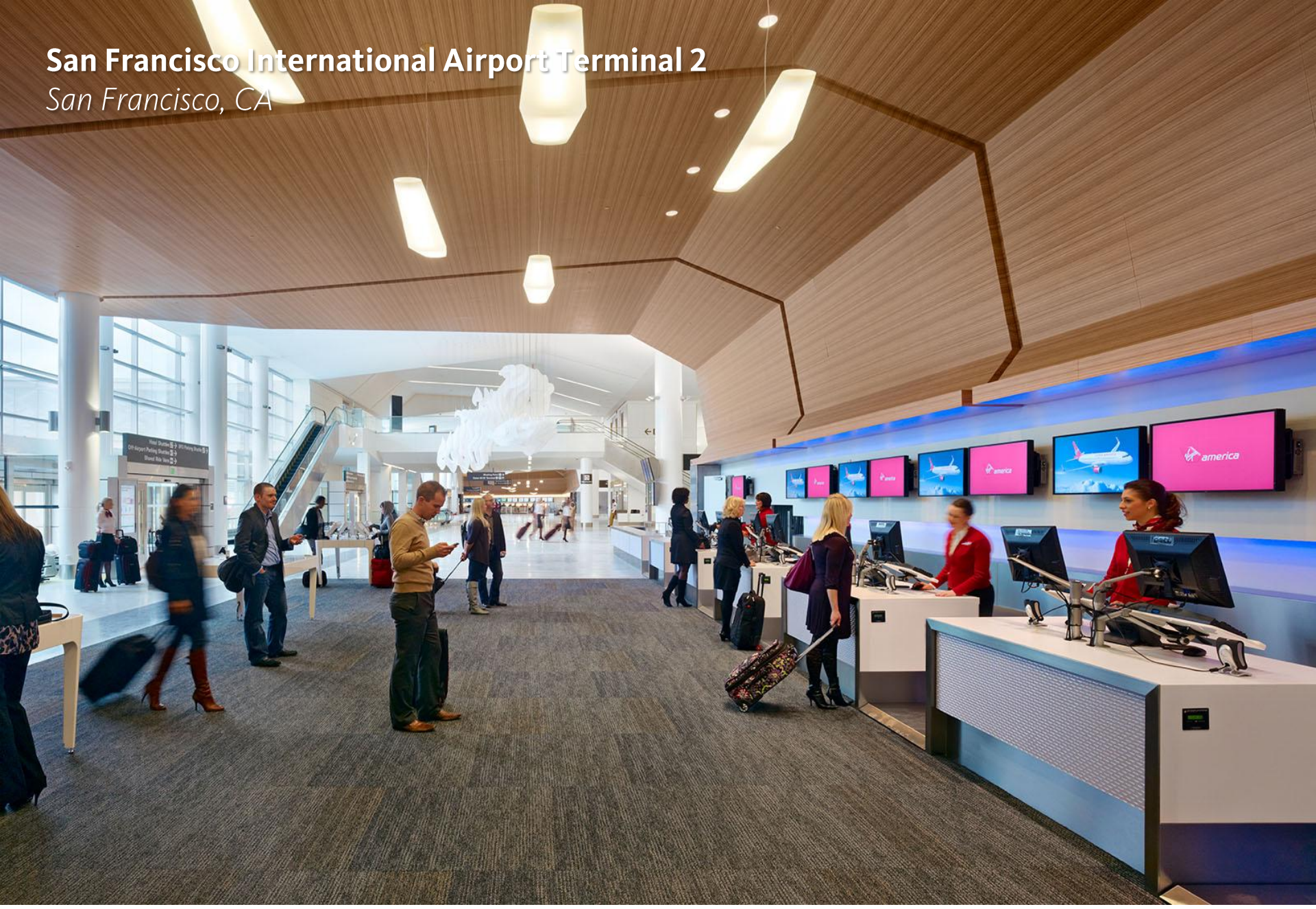






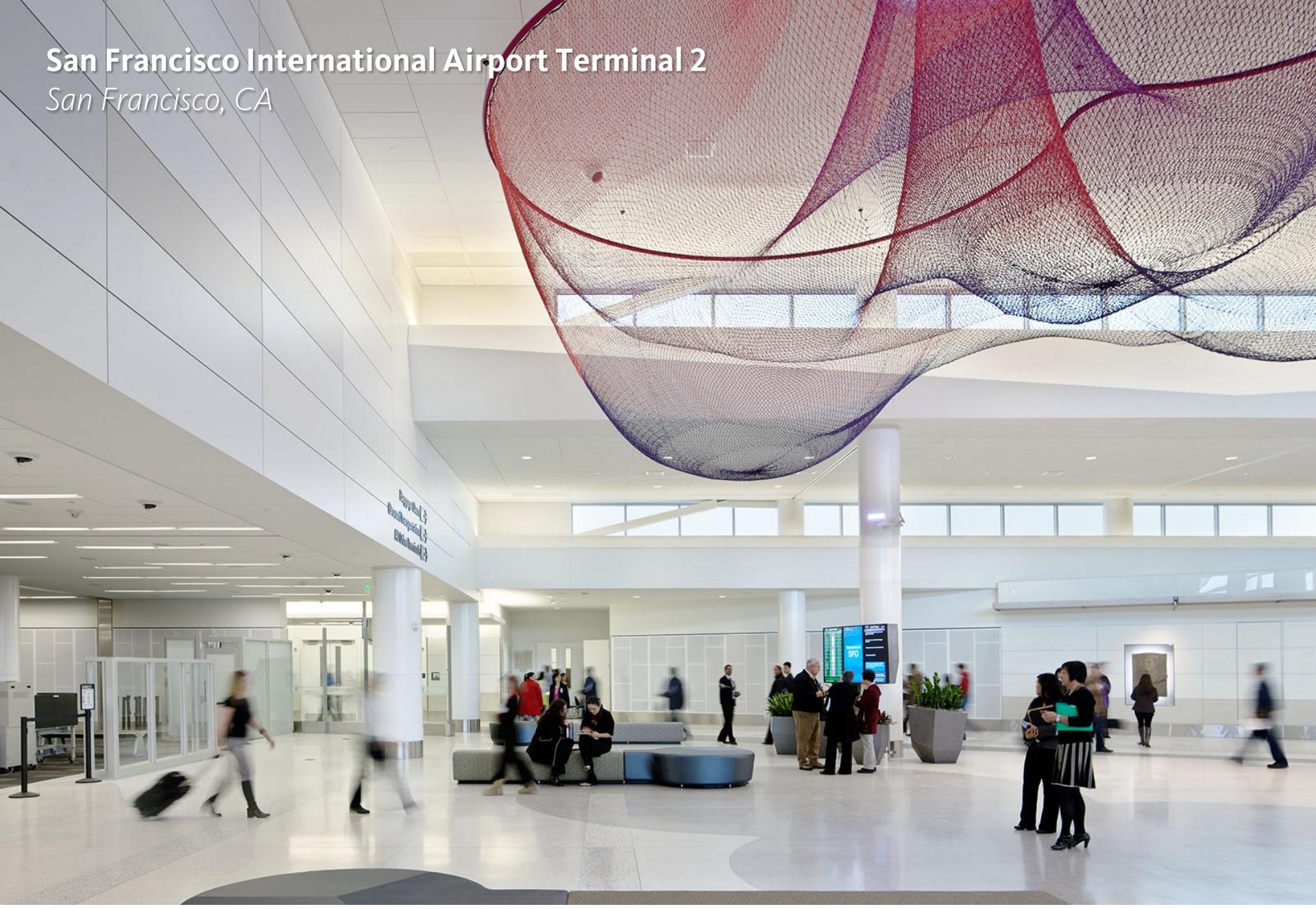
San Francisco International Airport Terminal 2

San Francisco, CA



San Francisco International Airport Terminal 2

San Francisco, CA



San Francisco International Airport Terminal 2

San Francisco, CA

San Francisco International Airport Terminal 2

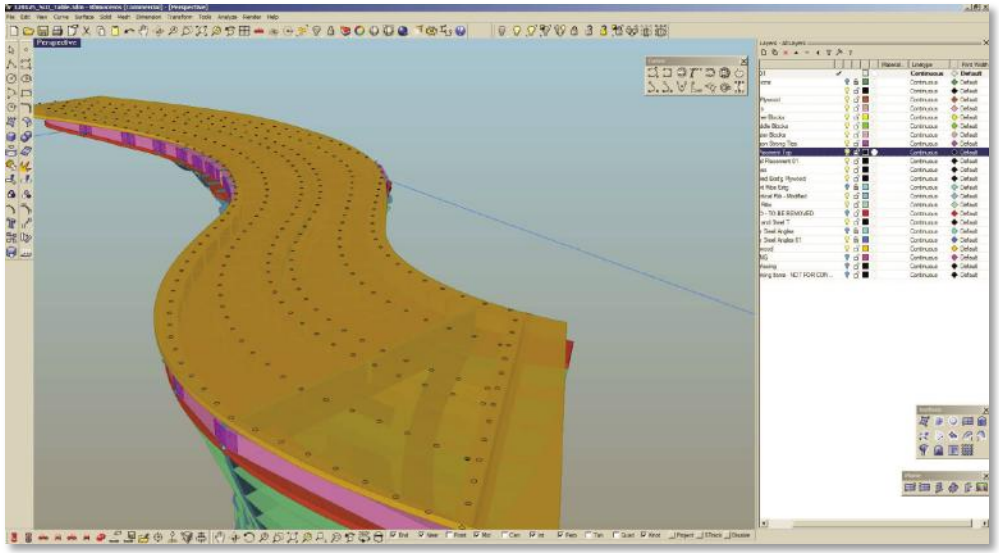
San Francisco, CA

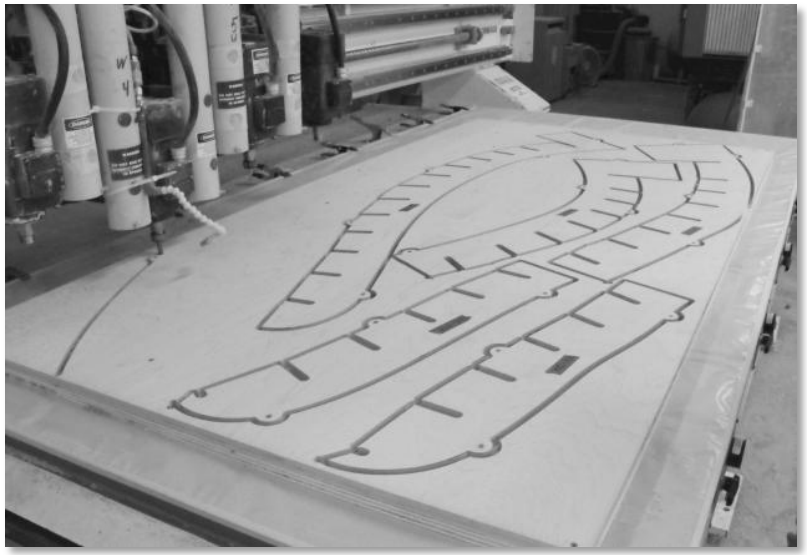
Gensler Office

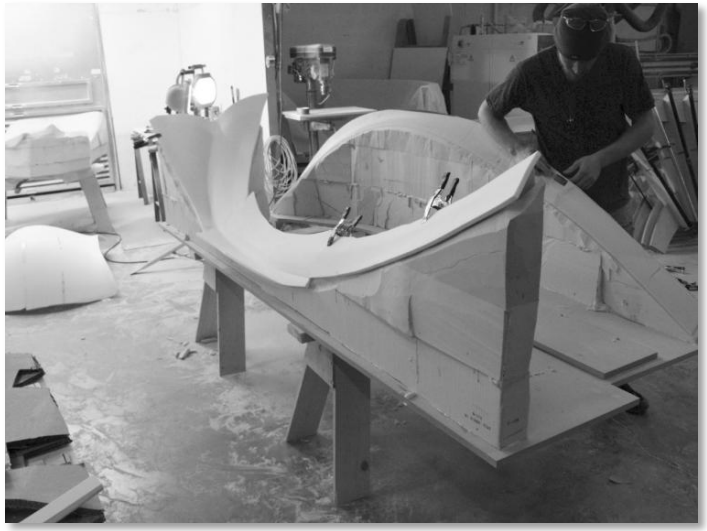
Los Angeles, CA

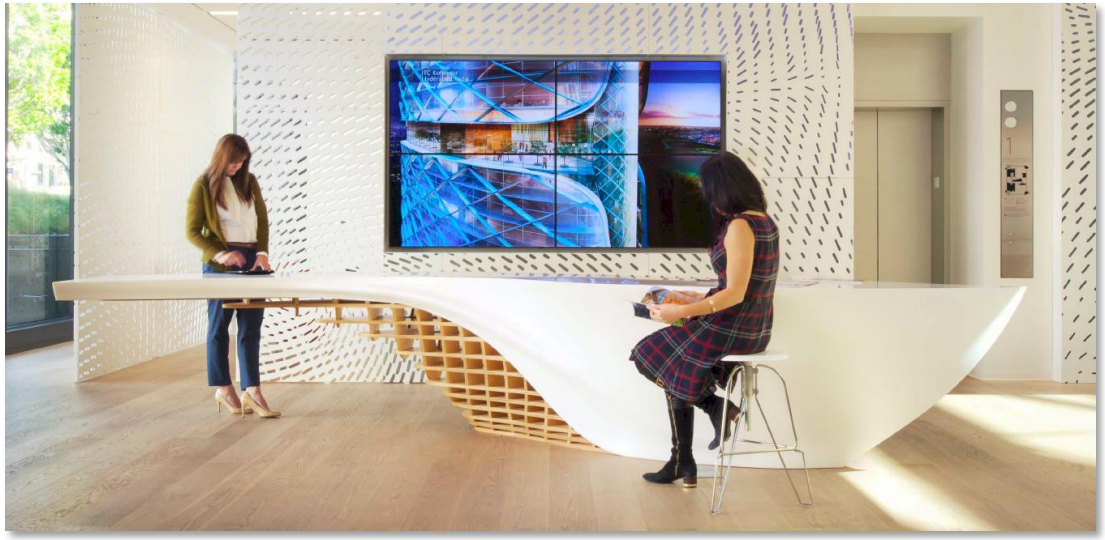
Gensler Office

Los Angeles, CA









PNC Headquarters

Pittsburgh, PA

GPU TECHNOLOGY CONFERENCE

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Shanghai Tower

Shanghai, China

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Shanghai Tower
Shanghai, China

Height of spire is **632 M** (2074') with **124 floors** (2.5x height of the Transamerica Pyramid). Observation decks are at 118, 119, 120 and outdoor observation at 121.

Total gross floor area is 380,000 SM (4.1 million SF) above ground and about 160,000 SM (1.72 million SF) below ground. **Total area of 540,000 SM** (5.8 million SF)

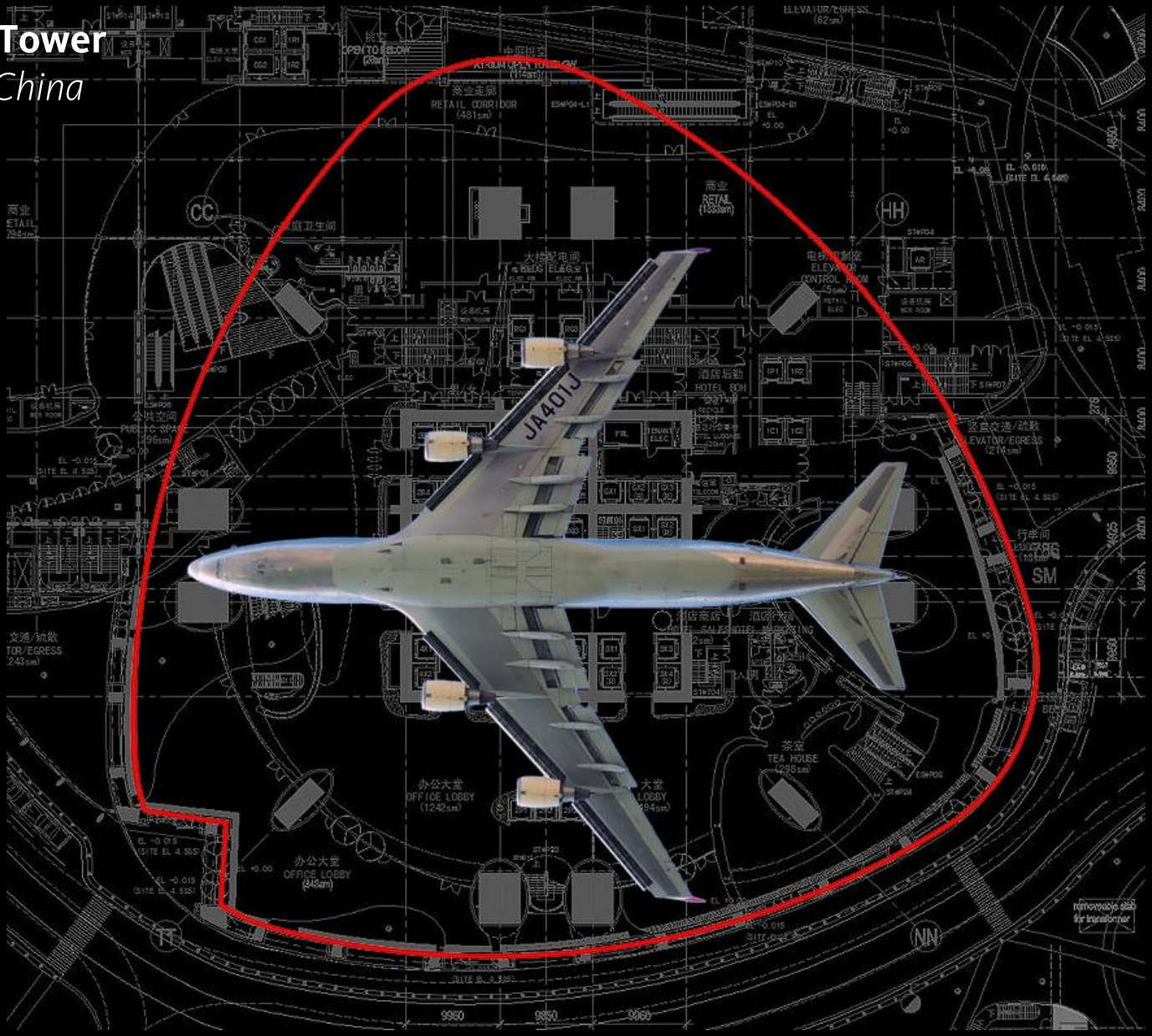
Total occupancy is about **34,000 people**.

The tower's exterior skin rotates **120 degrees** with a total scaling factor of **0.55%.** The aerodynamic geometry results in a **24% reduction of wind loads** on the building.

Foundation system includes over **2,500 friction piles** under the tower and podium footprint that are about 82 M (250') in depth, each 1 M (3') diameter.
Single pour mat foundation is 6m thick (18').

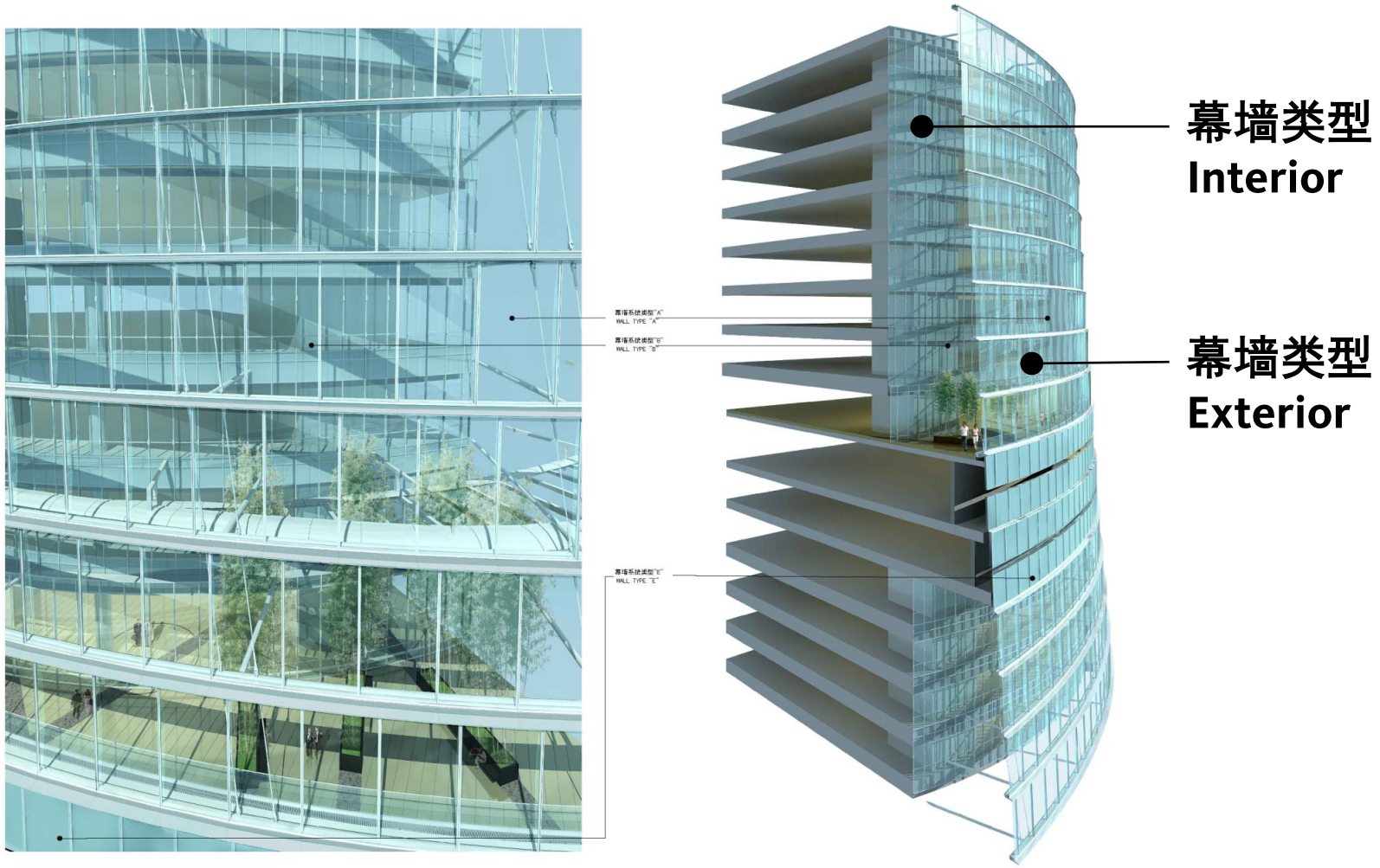
Shanghai Tower

Shanghai, China



Shanghai Tower

Shanghai, China



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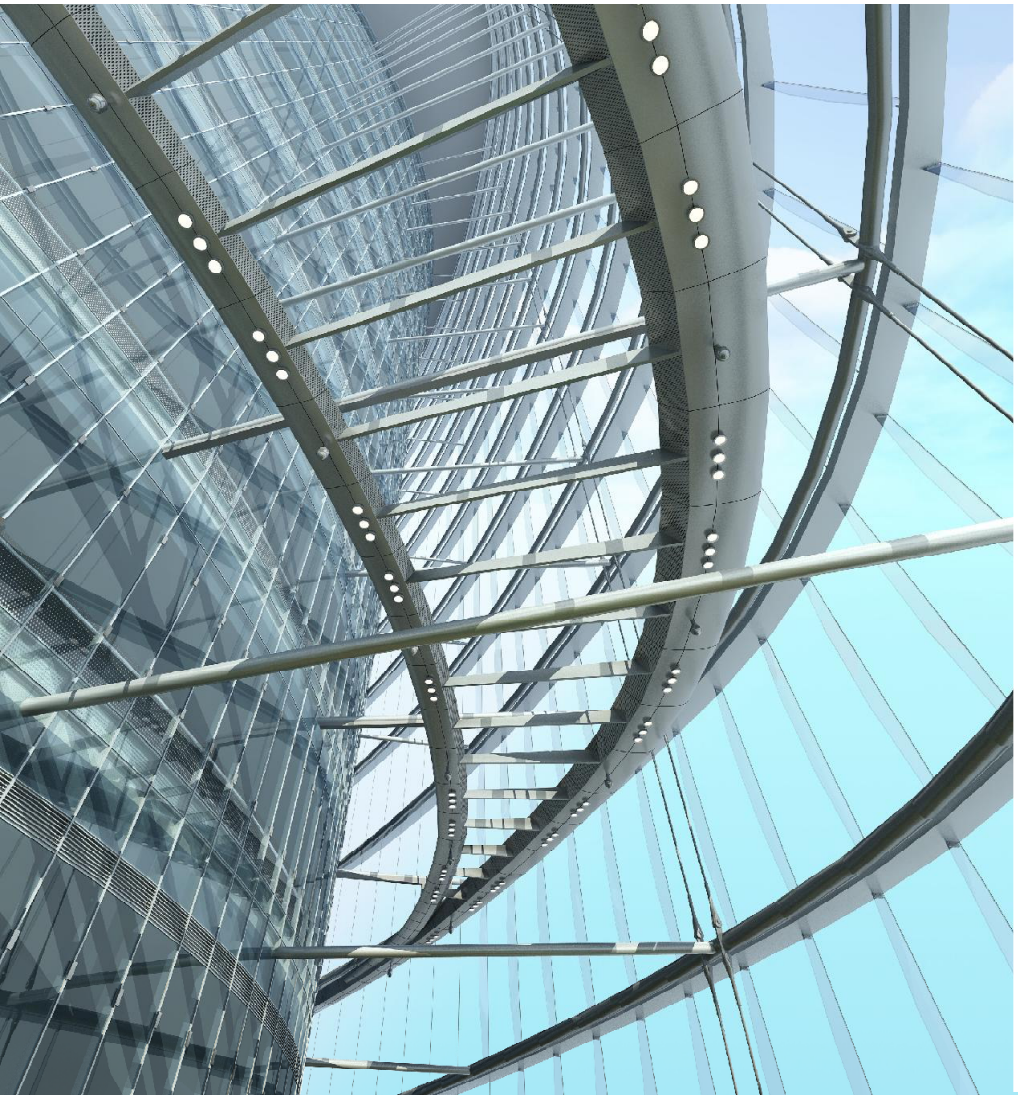
Shanghai Tower

Shanghai, China



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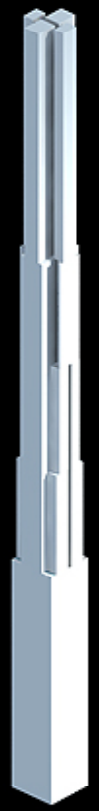
Shanghai Tower

Shanghai, China



CORE

SUPER COLUMN
OUTRIGGER
BELT TRUSS
RADIAL TRUSS

COMPOSITE
FLOOR

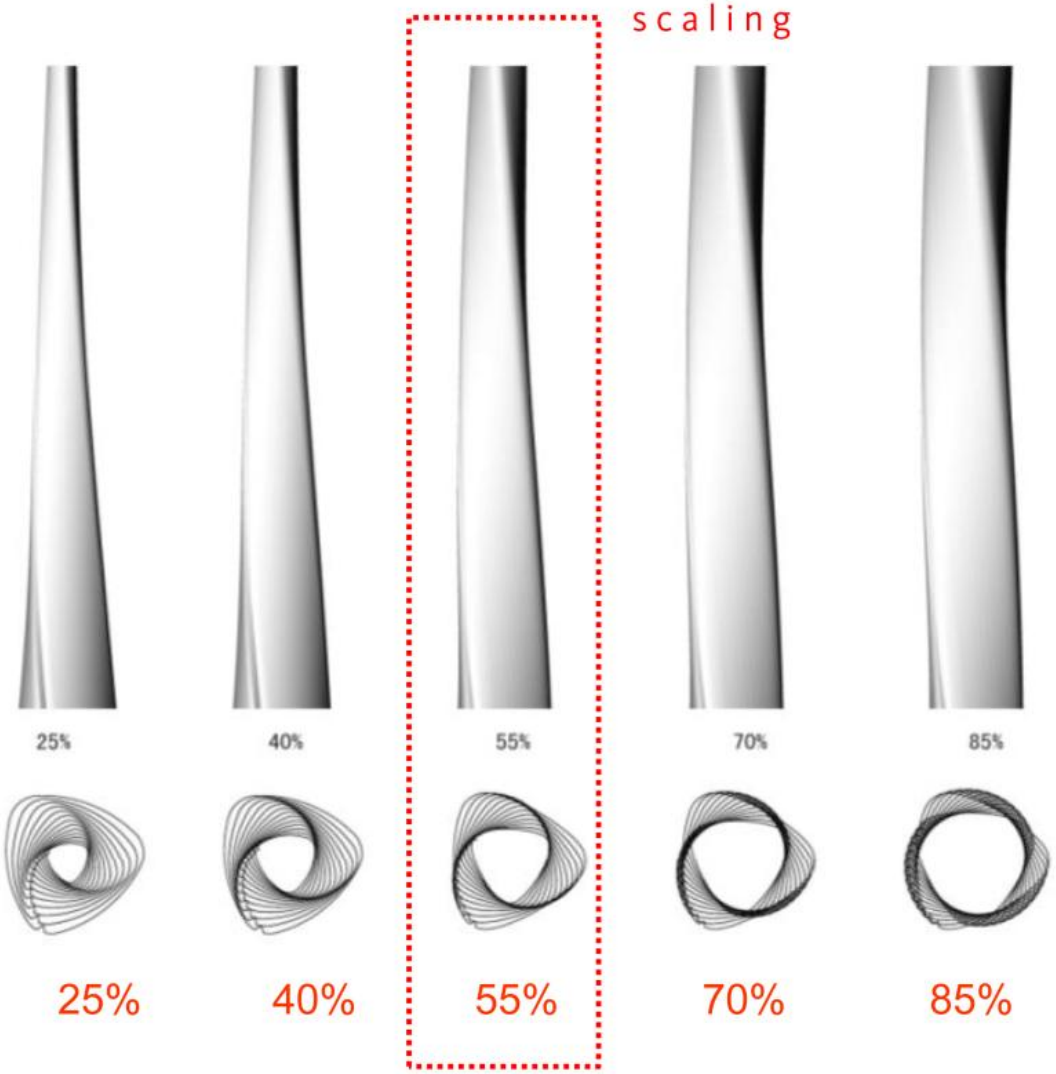
INTERIOR
CURTAIN WALL

CURTAIN WALL
SUPPORT
SYSTEM (CWSS)

EXTERIOR
CURTAIN WALL

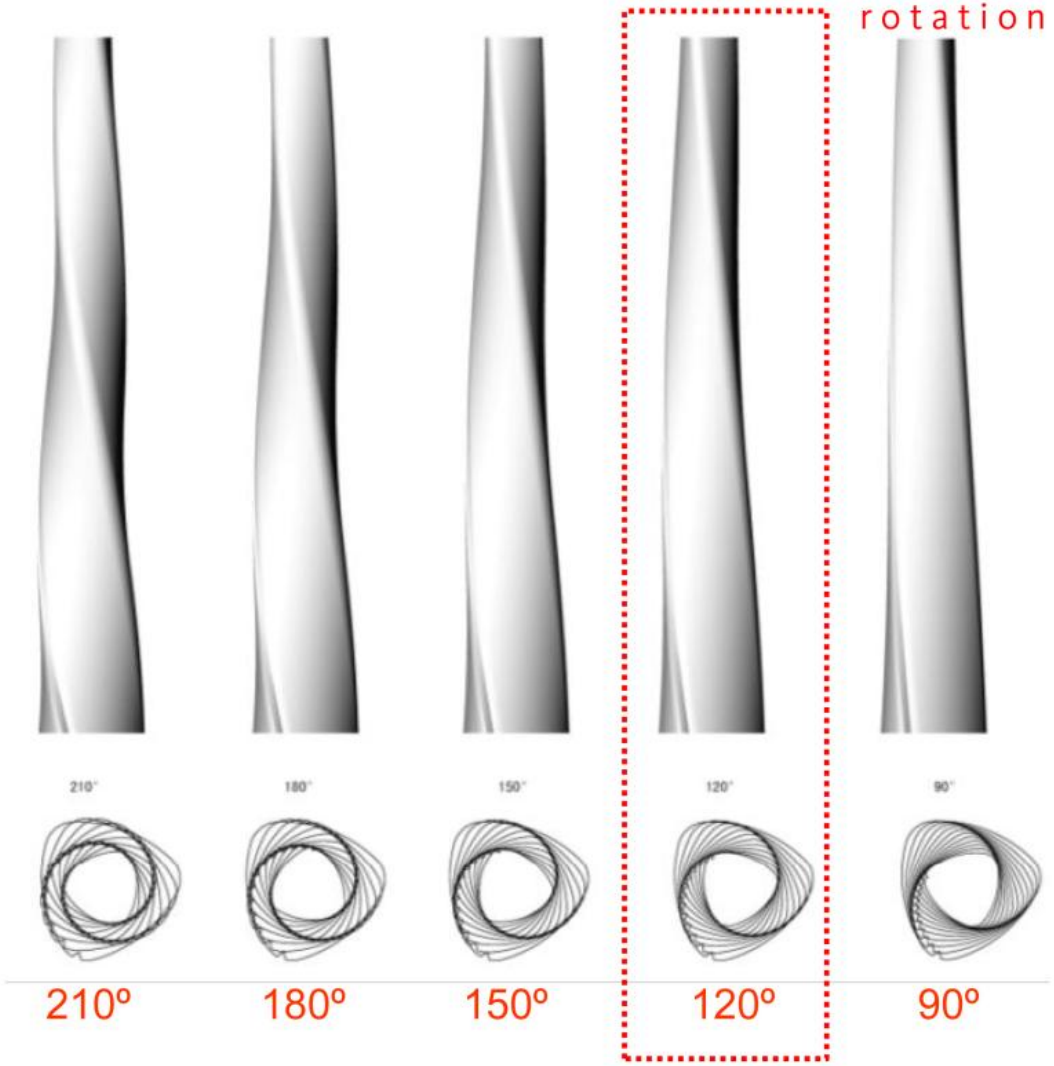
Shanghai Tower

Shanghai, China



Shanghai Tower

Shanghai, China



Shanghai Tower
Shanghai, China

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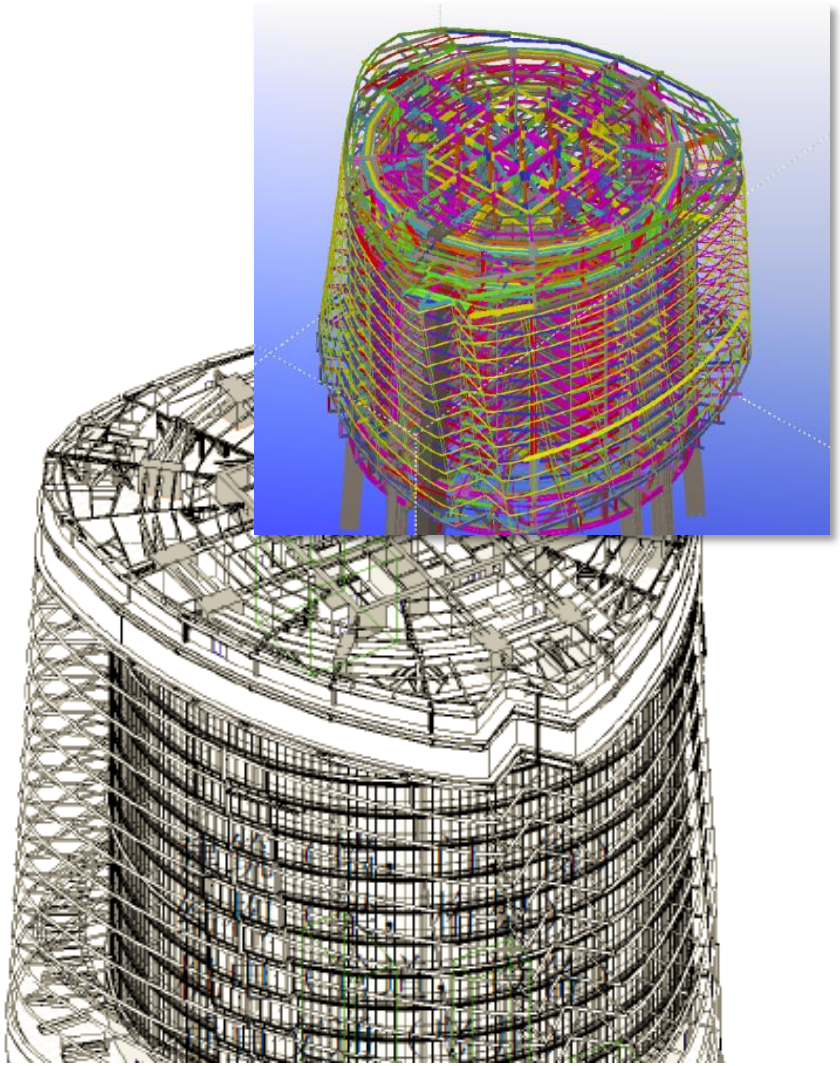
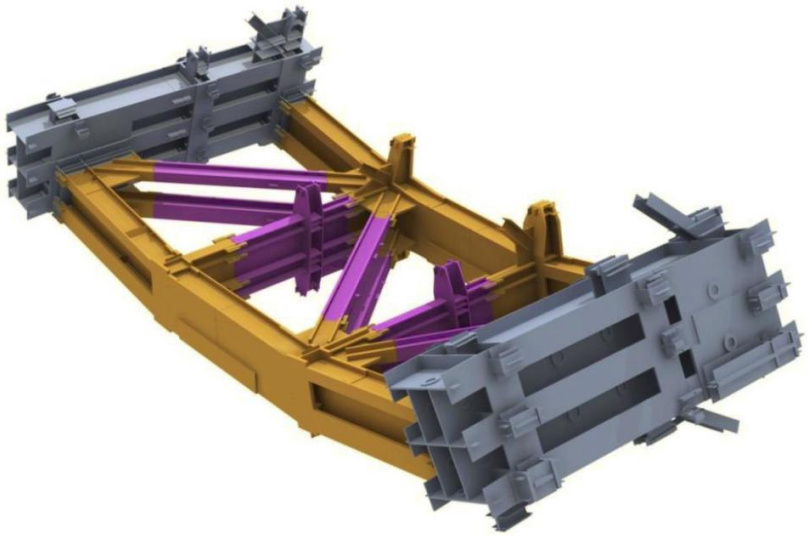
Shanghai Tower

Shanghai, China





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Shanghai Tower

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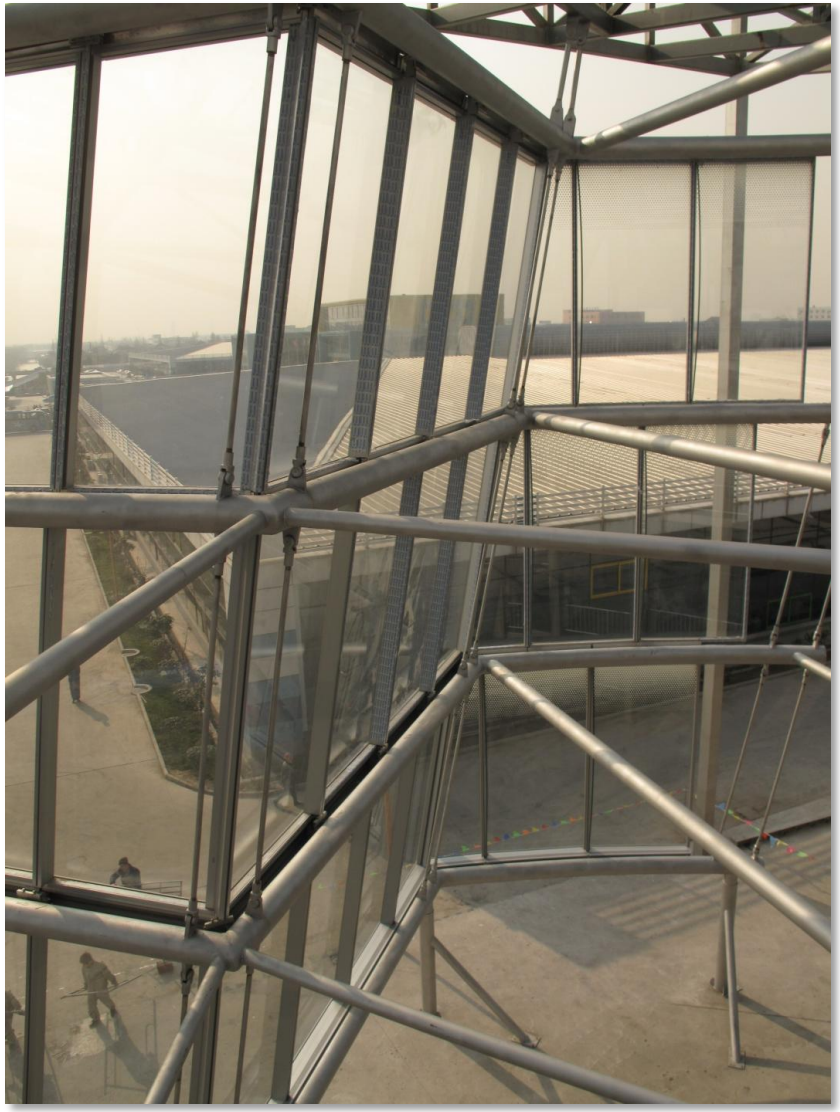

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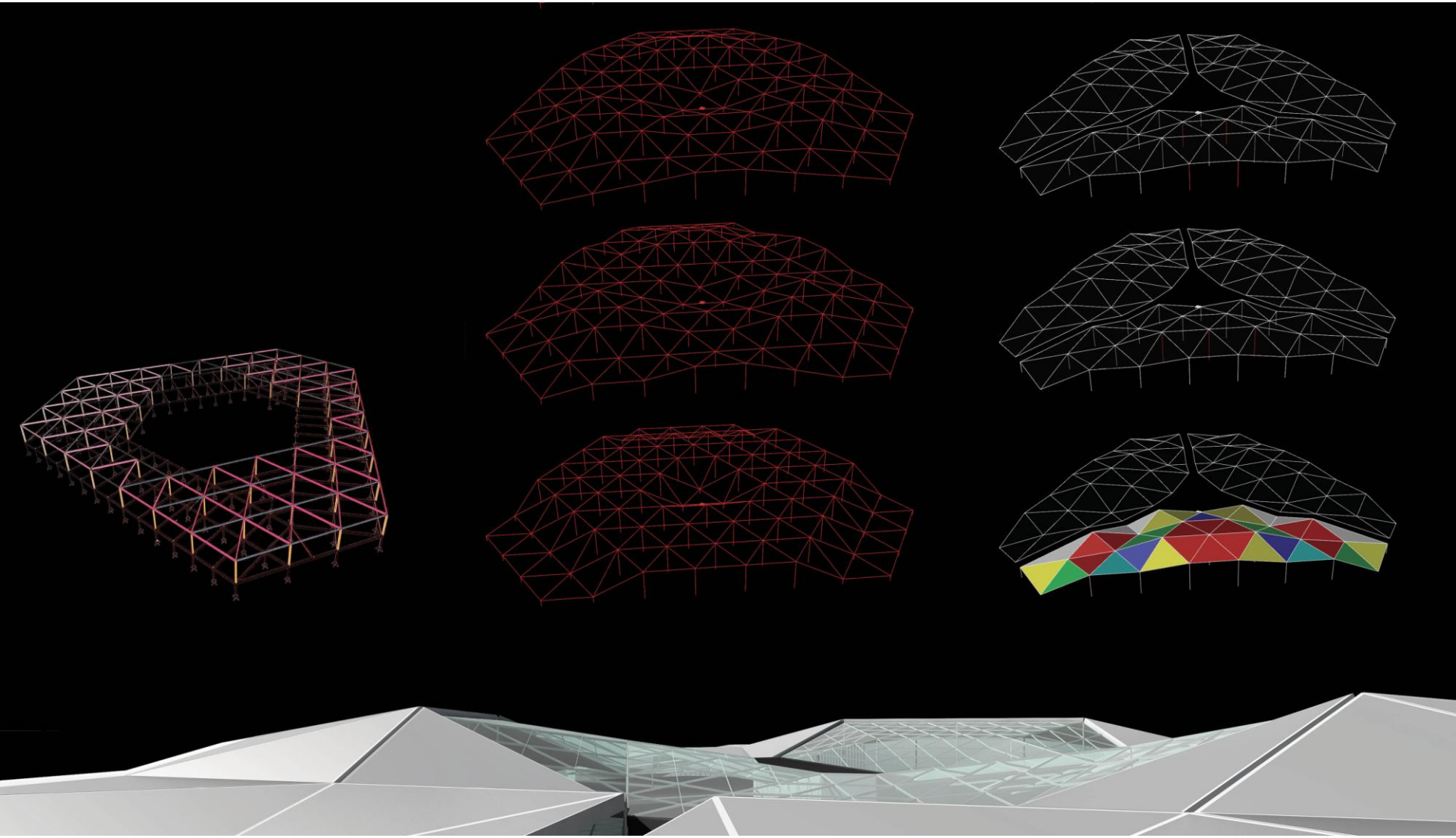
Shanghai Tower
Shanghai, China

NVIDIA Headquarters
Santa Clara, CA

NVIDIA Headquarters

Santa Clara, CA



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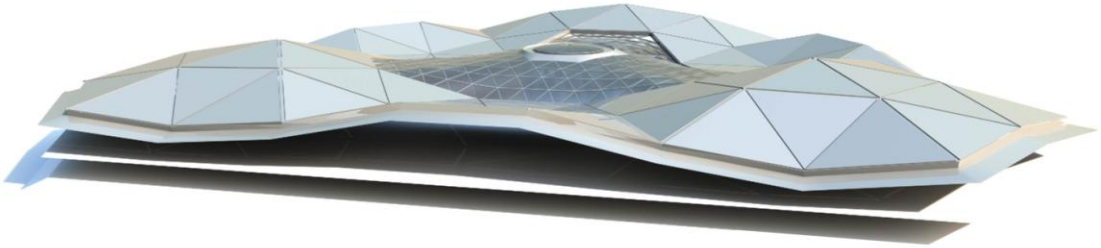
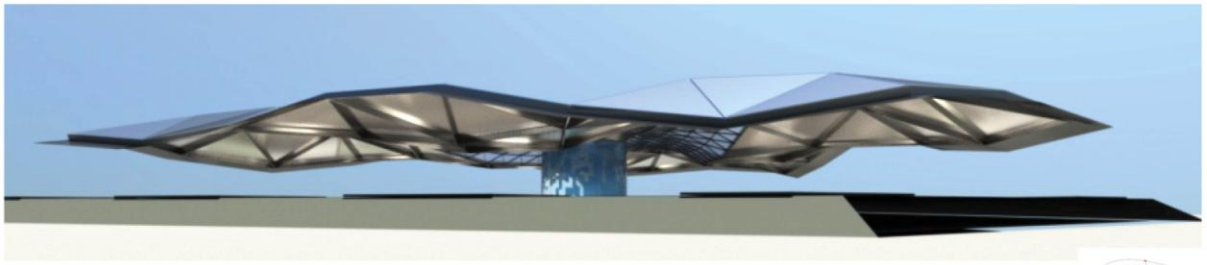
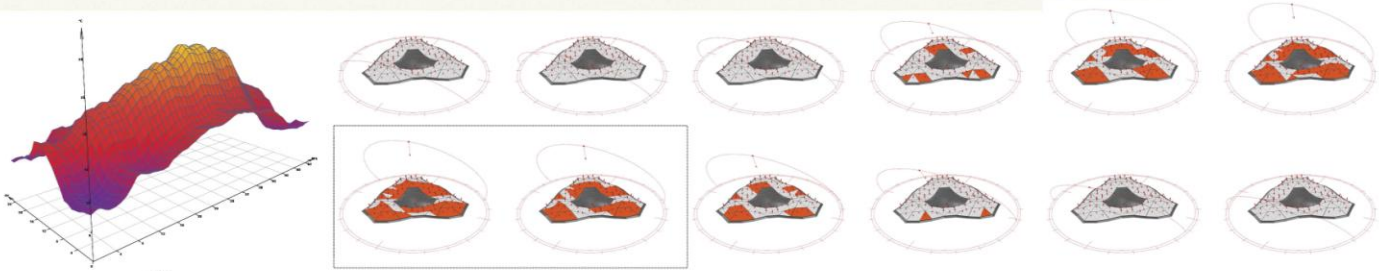
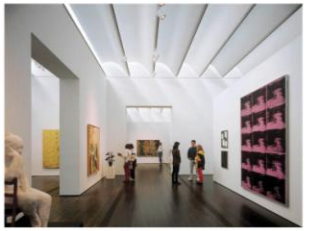
NVIDIA Headquarters

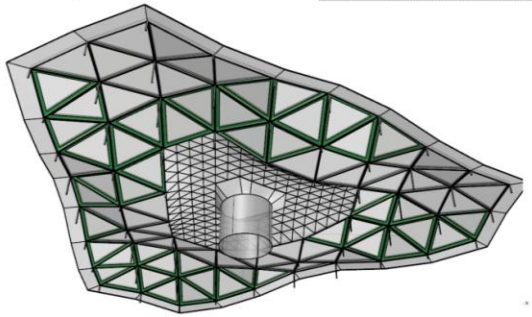
Santa Clara, CA

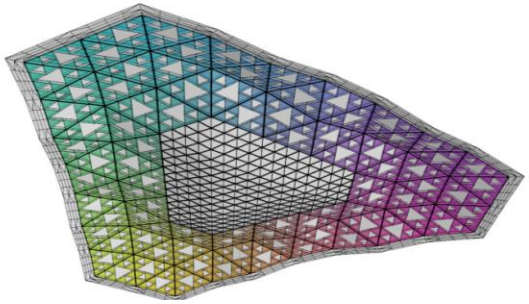


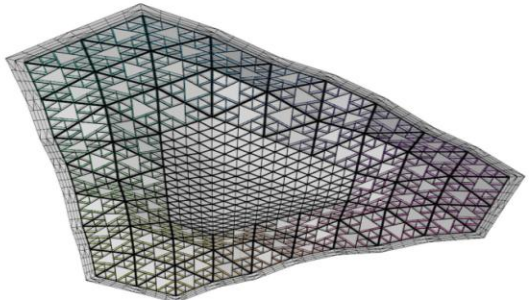












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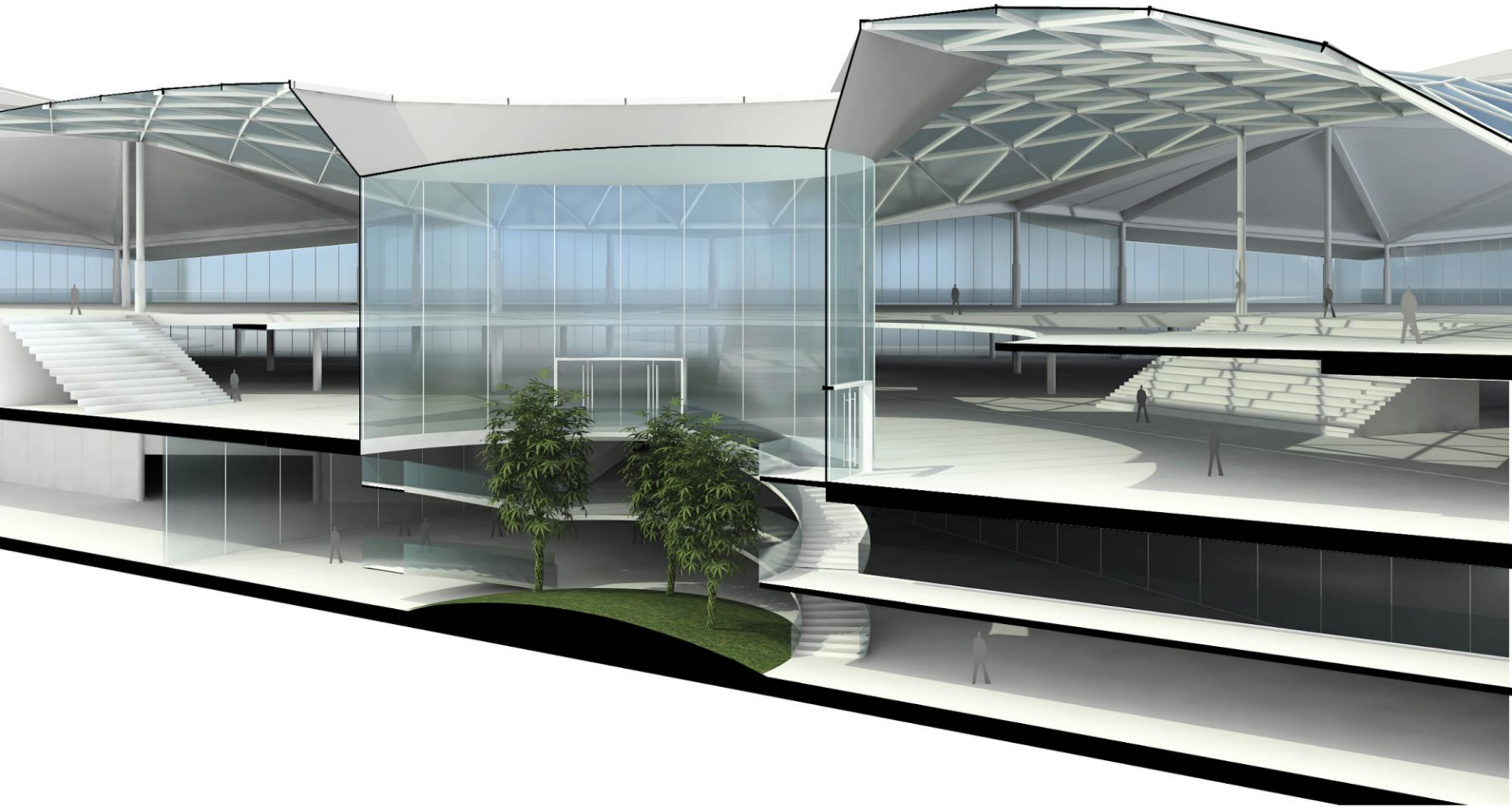

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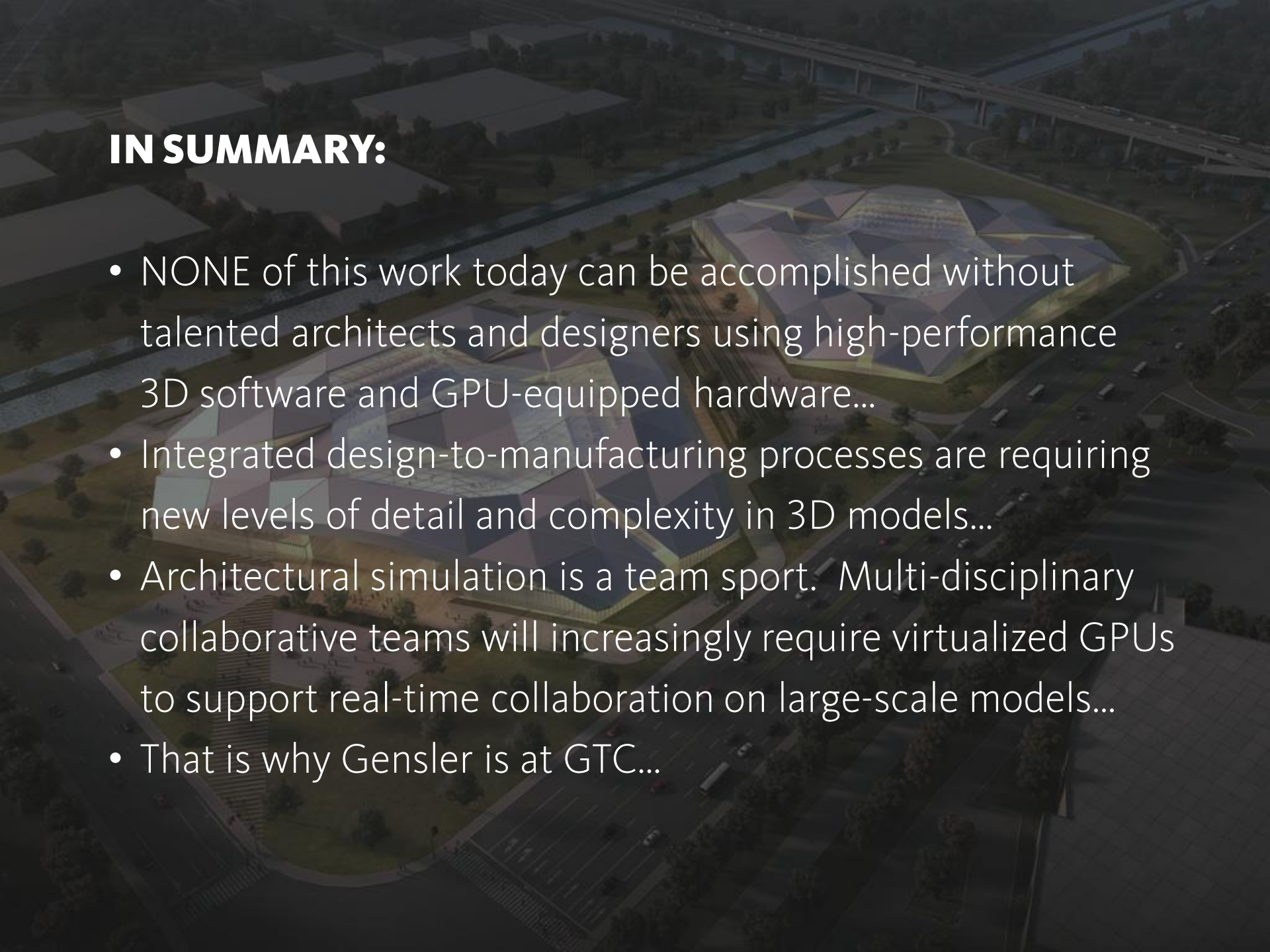
Gensler

NVIDIA Headquarters
Santa Clara, CA

A NEW NVIDIA ENVIRONMENT
THAT **CONNECTS PEOPLE**
THAT LEADS TO **INTERACTION**
THAT LEADS TO **COLLABORATION**
THAT LEADS ULTIMATELY TO **INNOVATION**

NVIDIA Headquarters
Santa Clara, CA

"The new NVIDIA building will capture the ambition and imagination of our people. It will stand at the intersection of science and art, just as our work in visual computing does. It will be the symbol, the physical manifestation, of our vision for the company."
Jen-Hsun Huang
Co-founder, President and CEO, Nvidia Corporation



IN SUMMARY:

- NONE of this work today can be accomplished without talented architects and designers using high-performance 3D software and GPU-equipped hardware…
- Integrated design-to-manufacturing processes are requiring new levels of detail and complexity in 3D models…
- Architectural simulation is a team sport. Multi-disciplinary collaborative teams will increasingly require virtualized GPUs to support real-time collaboration on large-scale models…
- That is why Gensler is at GTC…