



Clean Technology Tower

Chicago, Illinois

ADRIAN SMITH + GORDON GILL
ARCHITECTURE

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Clean Technology Tower is a high-performance, net-zero-energy mixed-use development designed both for a specific site in Chicago and as a prototype to demonstrate sustainable architecture principles that can be applied around the globe.

SERVICES Architecture

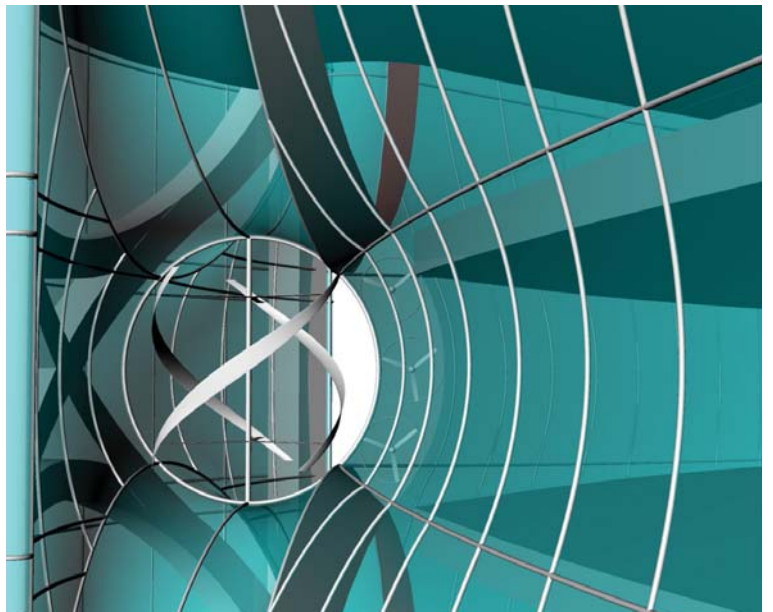
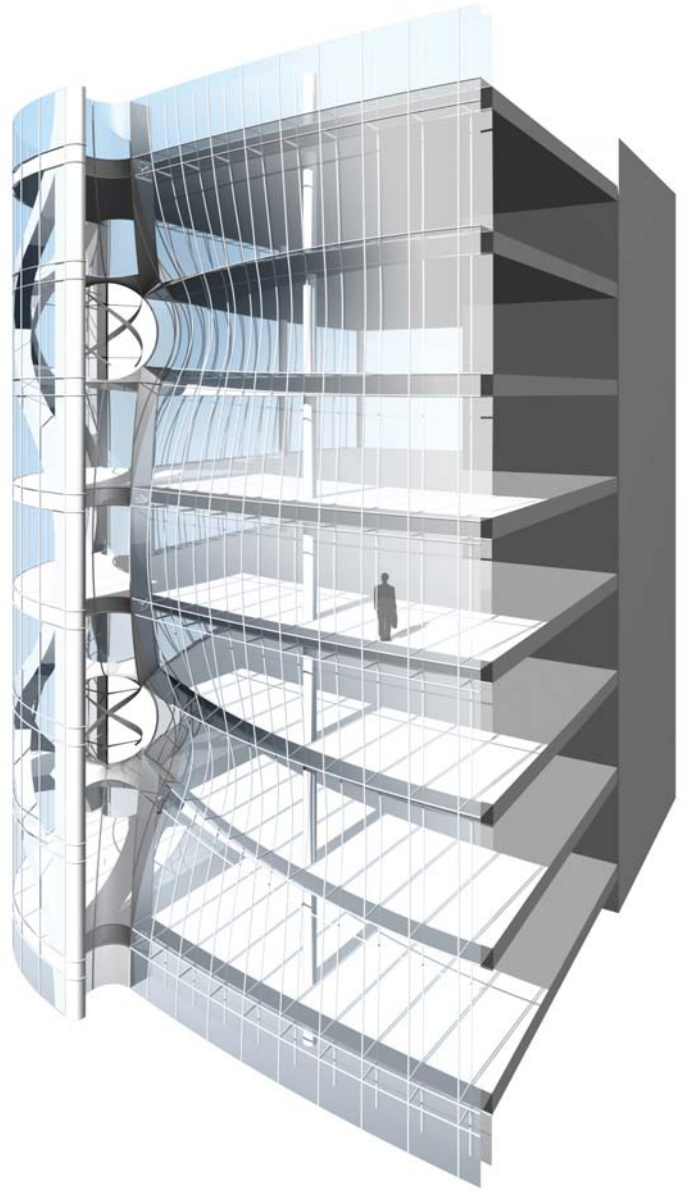
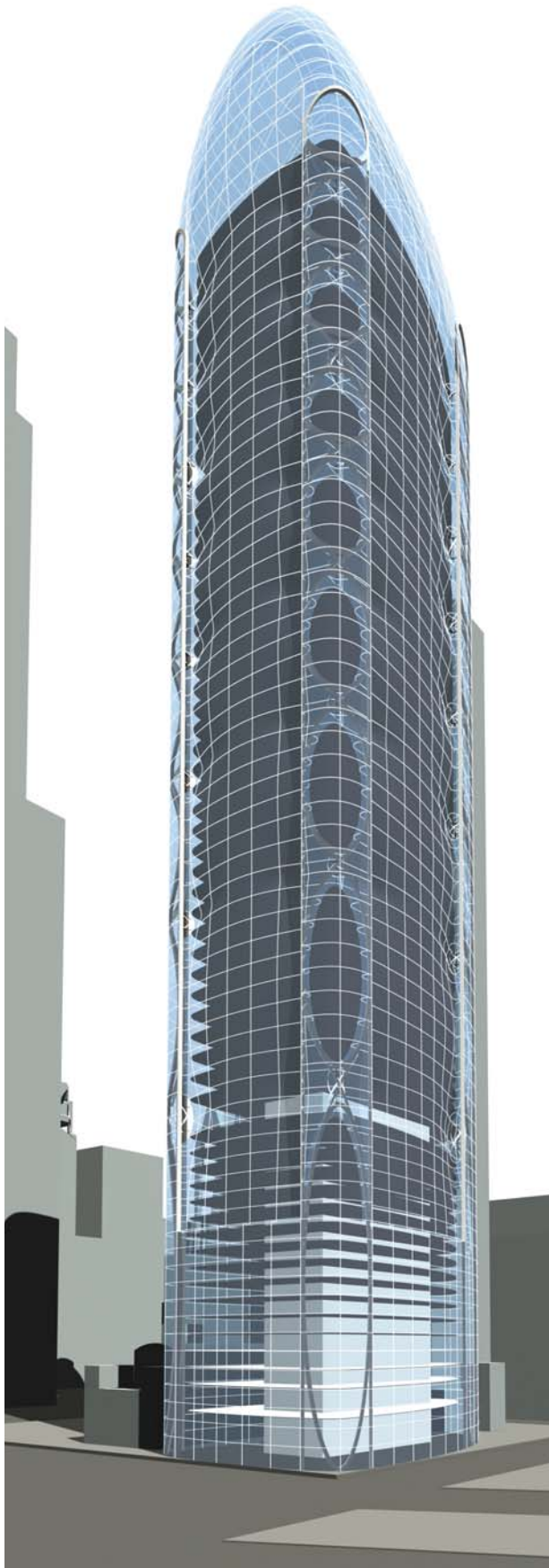
Building on the concept of biomimicry, Clean Technology Tower uses advanced sustainability systems and strategies to foster a symbiotic relationship with its environment. Sited and formed to harness natural forces, the tower refines conventional methods of capturing those forces to increase efficiency.

Wind turbines at the building's corners capture wind at its highest velocity as it accelerates around the tower; the turbines become denser as the tower ascends and wind speeds increase. At the tower's apex, where wind speeds are highest, a domed double roof cavity captures air, creating a large wind farm; negative pressures ventilate the interior. The dome is shaded by photovoltaic cells that capture the southern sun.

While the prototype design is specific to Chicago, its guiding principles and applied technologies are universal. Clean Technology Towers could be built around the world, and each would be distinctly formed in response to its particular site.

The Chicago design features about 1.8 million square feet of office space, 300,000 square feet of hotel space, a spa and street level retail. Office space is located on high floors to maximize views and take advantage of natural daylight. Dedicated elevators provide access for both office and hotel tenants to all of the tower's amenities. The tower's domed top offers unrestricted skyward views, creating a grand atrium space.





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CLEAN TECHNOLOGY TOWER

