

An architectural rendering of a modern, multi-story glass skyscraper. The building features a prominent skybridge on an upper level, which is lush with greenery and has several people walking on it. The ground floor is a retail space with large glass windows and storefronts. People are shown walking on a paved sidewalk in front of the building, and there are landscaped areas with trees and plants. The overall scene is bright and modern.

Great City Master Plan

Chengdu, China

ADRIAN SMITH + GORDON GILL
ARCHITECTURE

Great City Master Plan Chengdu, China

Adrian Smith + Gordon Gill Architecture's master plan for Chengdu Tianfu District Great City is the vision for a self-sustaining, environmentally sensitive 1.3-square-kilometer satellite city outside Chengdu, China.

SERVICES
Architecture
Master Planning

One of the first projects of its kind to be proposed or completed in China, Great City—developed by Beijing Vantone Real Estate Co., Ltd.—is envisioned as a prototype or model city to be replicated in other locations throughout the country. The development is intended to respond to the problem of overburdened infrastructure in many of China's major urban centers without contributing to the high energy consumption and carbon emissions associated with suburban sprawl.

When completed in about eight years, Great City will be home to about 30,000 families totaling 80,000 people, many of whom will also have opportunities to work within the development. The distance from any location in the city to any other location will be walkable within about 15 minutes, all but eliminating the need for most automobiles. The city will also be connected to Chengdu and surrounding areas via mass transit to be accessed at a regional transit hub at the Great City center.

The project has been designed to achieve a remarkable series of sustainable benchmarks. Great City will use 48% less energy and 58% less water than a conventional development of similar population. It will also produce 89% less landfill waste and generate 60% less carbon dioxide.

The project has been designed to conserve existing farmland, with more than 60% of the 800-acre site area preserved for agriculture and open space. The 320-acre urbanized area will be surrounded by a 480-acre buffer landscape, whose natural topography—including valleys and bodies of water—will be integrated into the city itself. Within the city, 15% of the land will be devoted to parks and landscaped space, while 60% will be parcelized for construction. The remaining 25% will be devoted to infrastructure, roads and pedestrian streets.

The development program within Great City will include commercial, residential, office, light manufacturing and a medical campus which will provide health services to residents as well as a larger regional and perhaps national constituency. The city's medical campus is also intended to address the needs of the growing Chinese demographic of young married couples who live in combined households with extended families that may include two sets of grandparents.

The city's perimeter is defined by a clear edge, from which the city center can be reached on foot within 10 minutes. An extended recreation system connects the pedestrian network to trails that run through the green buffer and surrounding farmland. The infrastructure and public-realm networks include electric shuttles, plazas, parks and links to the recreation system. As a primarily pedestrian city, only half of the road area is allocated to motorized vehicles. All residential units will be within a two-minute walk of a public park.

In addition to improved efficiencies within buildings, the city will use seasonal energy storage to use waste summer heat to provide winter heating, and a power generation plant will employ the latest co-generation technology to provide both electricity and hot water. AS+GG has worked with the infrastructure consultant Mott MacDonald on plans for an Eco-Park located on the northwest edge of the city will integrate waste water treatment, solid waste treatment and power generation.

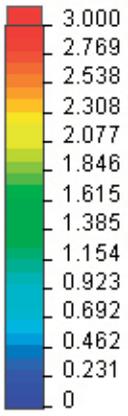
AS+GG's master plan includes architectural design guidelines for massing and placement of buildings. Several international design firms, including AS+GG, will begin design work on the architecture later this year. Preparation of the site is scheduled to begin in fall 2012.





City Section





Velocity [m/s]

Cut Plot 3: contours

