



Xixian Great City Master Plan

Xian, China

ADRIAN SMITH+GORDON GILL
ARCHITECTURE

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Xian, China

AS+GG's winning master plan for Xixian Great City in Xian, China has an overall project area for the city is 3,817,000 sm or 382 hectares. Approximately 47% of the land will be devoted to farmland conservation, 5% to wetland conservation and restoration, 10% to roads and infrastructure, with the remaining 38% dedicated to urbanized areas.

SERVICES

Master Planning
Urban Design

CLIENT

Beijing Vantone Citylogic
Investment Co., Ltd

FUNCTION

Mixed-use

FACTS

3,817,000 sm project area

Within this urbanized area 56.3% of the land will be devoted to development parcels, 20.9% to public green areas and 22.8% to infrastructure and roads and is comprised of 96 parcels averaging 8,450 square-meters. Four of these parcels have been designated as District Parks and another four have been assigned to development currently underway. The remaining 88 parcels are for development of the Xixian Great City's buildings.

The plan proposes a perimeter building concept for the design of individual parcels, with above-grade parking screened from view by innovative architecture. The concept not only creates strong urban streets but also allows for multiple building configurations on each plot depending on the desired program. The perimeter concept can be applied on both high-density parcels and lower-density parcels, except on Civic buildings, as it is desired that these be special buildings with unique architecture.

In the City Center, a major "Green Bridge" is proposed over the existing train line. The cost of this significant infrastructure investment will be offset by higher density development on adjacent parcels. Further, because this structure is elevated above the ground, these higher-density parcels will use the space under the bridge for the required additional parking.

Perhaps the most important aspect of the Xixian Great City master plan is the extensive sustainable framework that is comprehensively integrated into the physical planning of the City. Eight sustainable themes are presented in the plan, which cover all aspects of life in Xixian and include Sustainable Economics, Sustainable Transportation, Climate and Energy, Sustainable Community, Ecology and Biodiversity, Waste and Water, Sustainable Agriculture, and Sustainable Construction. Contained in these eight themes are 30 specific sustainable goals for achieving a world-class level of environmental performance. AS+GG's plan suggests that if these 30 goals are realized, Xixian Great City will be regarded as one of the greatest urban achievements of the 21st century.



SITE PLAN







Orient buildings on an east-west axis to maximize solar exposure on the south facades to help reduce heating loads and maximize daylight in interior spaces.



Design shading devices for this latitude to help reduce cooling loads in summer without compromising solar heat gain in winter.



Create single loaded, courtyard or L-shaped buildings to maximize daylight in all residential units.



Consider natural ventilation as a strategy to reduce the use of air conditioning in summer; this airflow should be incited through cross ventilation and stack effect.



Consider overshadowing and prevailing winds when massing tall landmark buildings.



Allow for direct sunlight on public spaces to maintain warmer microclimates. This can be achieved by allowing exposure to the south and west sun.



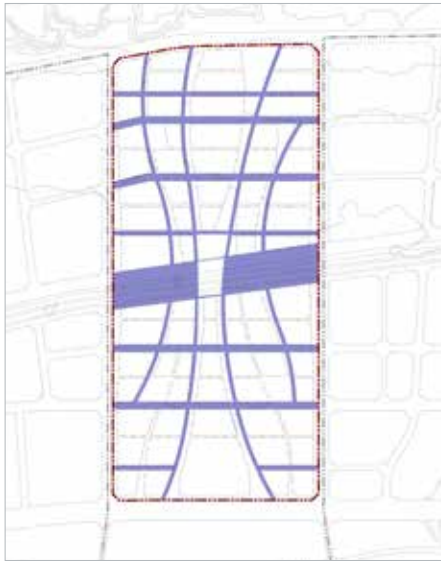
Propose using high thermal mass, well insulated structures and airtight envelopes to help maintain comfortable interior temperatures.



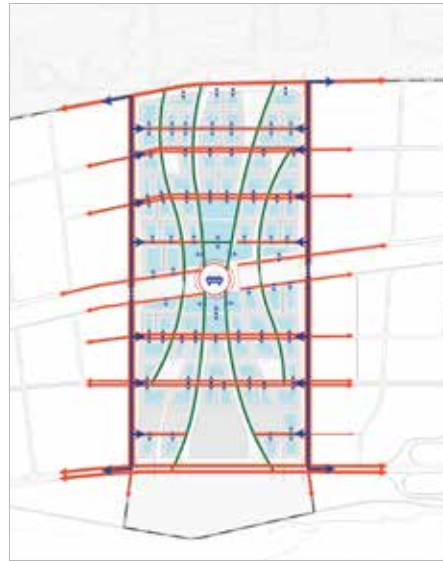
Protect outdoor spaces from the cold winds to extend their periods of use into the colder months.



Reduce the window to wall ratio and block the wind exposure of glazed facades to help keep buildings more airtight and warm.



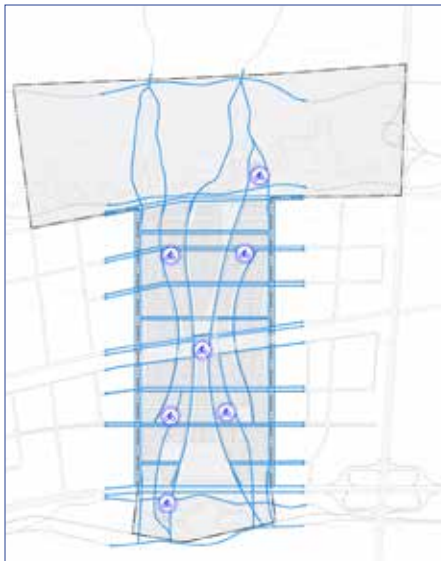
STREETS AND INFRASTRUCTURE LAND AREA PLAN



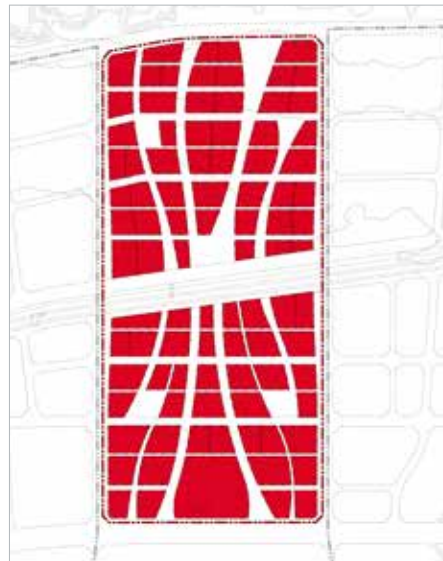
ROAD USE LAND AREA PLAN



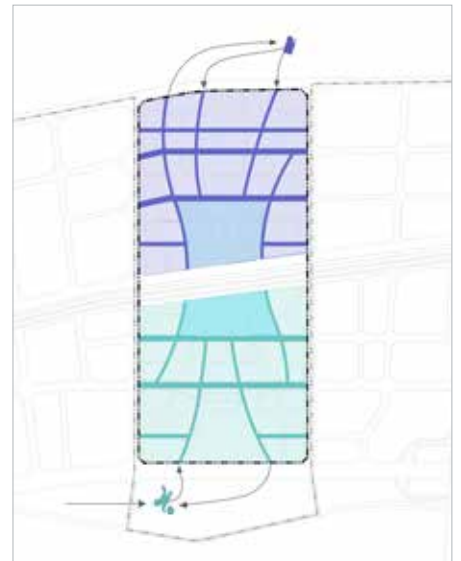
PEDESTRIAN LAND AREA PLAN



BICYCLE USE DIAGRAM



DEVELOPMENT LAND AREA PLAN



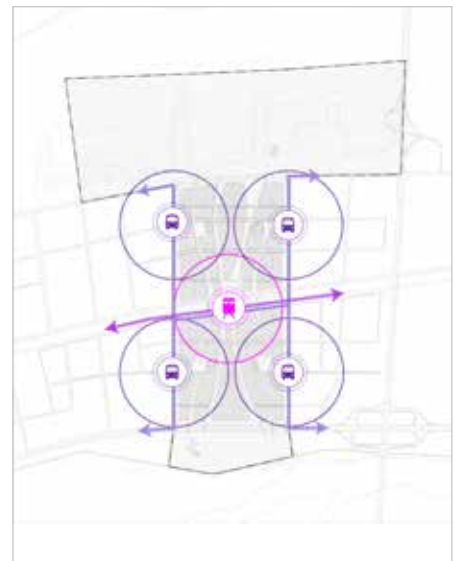
WATER PLAN



STORMWATER PLAN



WASTE PLAN

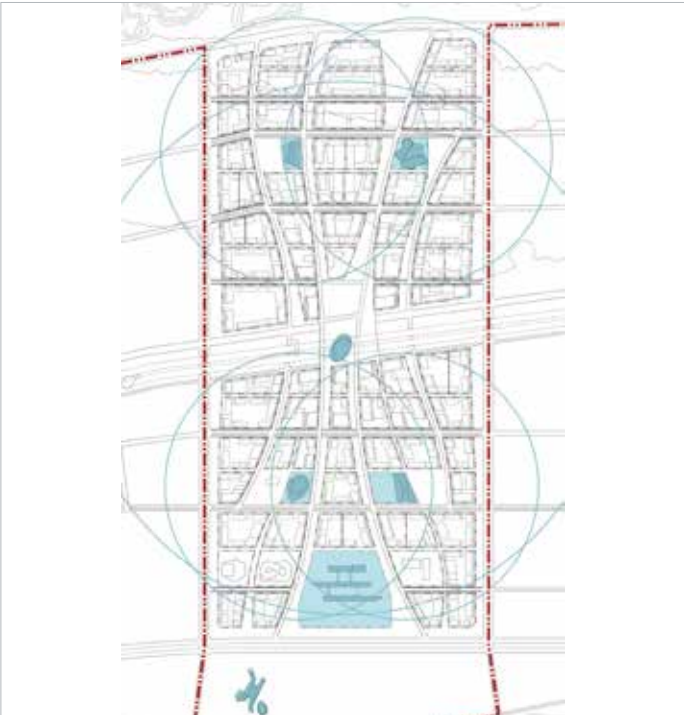


TRANSIT PLAN

OFFICE AND MANUFACTURING CORE



CIVIC LAND USE PLAN



RESIDENTIAL LAND USE PLAN



PARKS AND OPEN SPACES PLAN

