

The commercial and residential of Suzhou Suqian Industrial Park, Jiangsu

by / © 2021-03-25 10:15:18 / China / © 6 / PCN



Address 1 - street: Suqian Industrial Park 223800 SUQIAN,

Population: 98 000 Number of jobs: 21 000

Starting year of the project : 2007 Delivery year of the project : 2021

 $\textbf{Key words}: \textbf{Convenient transportation, convenient living, heritage protection, biodiversity, social and the protection of the protec$

integration, sustainable development

迢

380



2 147 483 647 ¥

Certifications :

ID CARD

This project received a mention for the Sustainable District Grand Prize of the Green Solutions Awards International 2020-21.

[Cooperation with Singapore elevates Suqian's opening up to a new level; Suzhou serves as the new model for the development of Northern Jiangsu] Suzhou Suqian Industrial Park is a typical "enclave economy" project in Suzhou Industrial Park which is a successful example of Sino-Singapore cooperation. It is planned and designed by Bangcheng of Singapore and managed by Suzhou Industrial Park. In addition, it draws lessons from the successful experience of Singapore and Suzhou Industrial Park in many aspects such as development concept and management mode. Since its establishment, the Park has been ranked first in the province in "South-North Co-construction" for 11 consecutive years (see Annex 7-1).

Suzhou Suqian Industrial Park's commercial and residential area has a planning area of 3.8 square kilometers and adopts the "four plus one" spatial cluster structure, i.e. a central business core area and four residential clusters. According to the overall planning strategy of "water management, green weaving and city building", the commercial and residential area have formed the waterfront space that can swim and rest by regulating and dredging the original river; The contact

space between human and nature is maximized, and the ecological green net is built and constructed through the green space system; with perfect supporting services, the Park is committed to becoming a high-quality and modern comprehensive new urban area with full of vitality and cultural charm.

- Organizational management: the Park is managed by a professional team deployed by Suzhou Industrial Park. With reference to Singapore's experience in urban construction, and the development model of Suzhou Industrial Park, a relatively independent development main body was formed to organize and implement development, construction, management.
- Economic Development: From scratch, it has become an important growth pole for Suqian Economic Development with rapid economic aggregate growth at the Park level. Since its establishment until 2020, the Park has realized a total revenue of 145.7 billion RMB, paid a total tax of 15.5 billion RMB, and made a total import and export of 2.36 billion US dollars.
- Industrial structure: With precise positioning, the Park is mainly engaged in high and new technology industries such as electronic information and precision machinery, continuously strengthening core industries and enterprises, and gradually forming a "1 + 1 + N "" characteristic industrial system.
- Living quality: The commercial and residential area has made full use of the current water resources, and built green park under the theme of "Jiangnan Water Town", forming the central green landscape core of the Park. In addition, a neighborhood center and waterfront livable community have been built to improve the overall environmental quality and life quality of the Park.
- Benign mobility: The commercial and residential area has reasonable overall functional layout, work-life balance, shorten the commuting distance of residents, and encourage the use of green transportation such as walking and bicycle; There are also complete supporting facilities and good overall liquidity
- Ecological environment: Emphasis is placed on urban ecological space conservation and biodiversity, and business and housing areas are designed to achieve the simultaneous development of environmental and economic benefits. Sugian City was ranked as "" the national eco garden city "" in 2019.
- Climate Resources: The commercial and residential area is located in the warm temperate monsoon climate zone, with good regional geological conditions and suitable for the development and utilization of shallow geothermal energy. The region has good solar thermal resources and is suitable for the development of integrated application technology of solar hot water and solar photovoltaic.

Programme

- Housing
- Offices
- Businesses and services
- · Public facilities and infrastructure
- Public spaces
- Green spaces

CO₂ Impact

CO2 Impact: 174 567 CO2

Method used to calculate CO2 impact

CO2 GB/T51366-2019 (GBT 51161-2016) 2007 50% 2014 65% 2019 6761.40tCO2/a

167805.28 CO2

Project progress

Delivery phase

Procedure type

- Urban développement permit
- .

Key points

- Governance
- Quality of life
- Economic development
- Mobility
- Resources
- Biodiversity

Approaches used

Local charter

Certifications

Autre

More info

☑ Gold Level Certificate of Healthy Community Design Label (first projects in the country) Jiangsu Province "Green Ecological Urban High Quality Construction Demonstration Zone (the first projects in Jiangsu Province)

Data reliability

Self-declared

Photo credit

Suzhou Sugian Industrial Park Planning and Construction Bureau Jiangsu Research Institute of Building Science Co. Ltd.

TERRITORY

Type of territory

[Cooperation with Singapore elevates Suqian's opening up to a new level; Suzhou serves as the new model for the development of Northern Jiangsu] Suzhou Suqian Industrial Park is a typical "enclave economy" project in Suzhou Industrial Park which is a successful example of Sino-Singapore cooperation. It is planned and designed by Bangcheng of Singapore and managed by Suzhou Industrial Park. In addition, it draws lessons from the successful experience of Singapore and Suzhou Industrial Park in many aspects such as development concept and management mode. Since its establishment, the Park has been ranked first in the province in "South-North Co-construction" for 11 consecutive years (see Annex 7-1).

Suzhou Suqian Industrial Park's commercial and residential area has a planning area of 3.8 square kilometers and adopts the "four plus one" spatial cluster structure, i.e. a central business core area and four residential clusters. According to the overall planning strategy of "water management, green weaving and city building", the commercial and residential area have formed the waterfront space that can swim and rest by regulating and dredging the original river; The contact space between human and nature is maximized, and the ecological green net is built and constructed through the green space system; with perfect supporting services, the Park is committed to becoming a high-quality and modern comprehensive new urban area with full of vitality and cultural charm.

- Organizational management: the Park is managed by a professional team deployed by Suzhou Industrial Park. With reference to Singapore's experience in urban construction, and the development model of Suzhou Industrial Park, a relatively independent development main body was formed to organize and implement development, construction, management.
- Economic Development: From scratch, it has become an important growth pole for Suqian Economic Development with rapid economic aggregate growth at the Park level. Since its establishment until 2020, the Park has realized a total revenue of 145.7 billion RMB, paid a total tax of 15.5 billion RMB, and made a total import and export of 2.36 billion US dollars.
- Industrial structure: With precise positioning, the Park is mainly engaged in high and new technology industries such as electronic information and precision machinery, continuously strengthening core industries and enterprises, and gradually forming a "1 + 1 + N "" characteristic industrial system.
- Living quality: The commercial and residential area has made full use of the current water resources, and built green park under the theme of "Jiangnan Water Town", forming the central green landscape core of the Park. In addition, a neighborhood center and waterfront livable community have been built to improve the overall environmental quality and life quality of the Park.
- Benign mobility: The commercial and residential area has reasonable overall functional layout, work-life balance, shorten the commuting distance of residents, and encourage the use of green transportation such as walking and bicycle; There are also complete supporting facilities and good overall liquidity.
- Ecological environment: Emphasis is placed on urban ecological space conservation and biodiversity, and business and housing areas are designed to achieve the simultaneous development of environmental and economic benefits. Suqian City was ranked as "" the national eco garden city "" in 2019.
- Climate Resources: The commercial and residential area is located in the warm temperate monsoon climate zone, with good regional geological conditions and suitable for the development and utilization of shallow geothermal energy. The region has good solar thermal resources and is suitable for the development of integrated application technology of solar hot water and solar photovoltaic.

Climate zone

[Dfb] Humid Continental Mild Summer, Wet All Year

KEY FIGURES

Green areas, roofs included

Green areas, roofs included: 784 677 m²

Public spaces area

Public spaces area: 399 683 m²

Office floor area

Office floor area: 39 815 m²

Commercial floor area

Commercial floor area: 188 608 m²

Public facilities floor area

Public facilities floor area: 171 259 m²

Housing floor area

Housing floor area: 4 032 019 m²

Refurbished floor area

Refurbished floor area: 0,43

Number of residential units

Number of residential units: 24 793

Total investment costs (before tax)

Total investment costs (before tax): 4 923 ¥/m²

GOVERNANCE

Project holder

Name: Suzhou Sugian Industrial Park Planning and Construction Bureau

Type: Autre

General description:

Suzhou Suqian Industrial Park Planning and Construction Bureau is the city planning and construction administration institute under the Suqian Industrial Park Management Committee, responsible for planning, construction, land, real estate, environmental protection, urban management and other administrative functions within the administrative jurisdiction of the Park.

Project management

Description:

We learn from Singapore's international advanced management concept and manage the Park through three layers of organization. First is the Joint Coordination Council, a high-level coordination body co-chaired by the secretaries of the two municipal Party committees, is responsible for making decisions on major issues and important work in the development of the Park; the second is the bilateral working committee led by the vice mayors of the two cities, is responsible for coordinating and handling important issues in development and construction; the third is the Party Working Committee and Management Committee of the Park, as the agency of Suqian Municipal Party committee and municipal government, which exercise management functions and authority on behalf of Suqian Municipal Party committee and municipal government, and implement the management mode of full authorization and closed operation.

The whole-process management of project construction in commercial and residential area. In the stage of land transfer, design conditions were clearly defined, and the building energy-saving ratio, green building star, prefabricated building area ratio and so on are taken as mandatory indicators; in the planning and design stage, the implementation of project design indicators was monitored; in the construction stage, various pollution sources in the construction stage of the project were strictly controlled to create a green construction site; in the operation and maintenance stage, green intelligent operation and maintenance is implemented and the project operation and maintenance information management platform is constructed.

- Public Participation: The public needs are fully considered in the process of planning and construction of commercial and residential area. During urban
 construction, people are put in the first place, public participation is achieved, public interests are safeguarded, public supervision is accepted and the public
 will is embodied.
- Capital Integration: Jiangsu Suzhou Suqian Industrial Park Development Co., Ltd. (with a registered capital of 600 million RMB) was jointly funded by
 Jiangsu Province, Suzhou City, Suqian City and Suzhou Industrial Park in the ratio of 1:0.5:0.5:4. The company was entrusted by Suzhou Suqian Industrial
 Park Management Committee to carry out comprehensive development of commercial and residential land.

Project stakeholders

Jiangsu Research Institute of Building Science Co. Ltd.

Function: Technical consultancy agency

Jiangsu Research Institute of Building Science Co. Ltd. is the technical support unit of Suzhou Suqian Industrial Park Green High-quality Demonstration Zone. The company has been involved in a number of projects, including Green Building High-quality Demonstration Zone, Healthy Community, Green Building, Ultra-Low Energy Consumption Building, Green Transformation of Existing Buildings, Smart City and other projects.

110595747@qq.com

Construction21 company page:

QUALITY OF LIFE

Quality of life / density

- Convenient transportation: The transportation system in the commercial and residential area consists of trunk roads, secondary trunk roads and branch roads, forming a two vertical and three horizontal road network. The branch network is dense in the central area while in the residential area, the branch network density is relatively sparse. The rational density of branch network can optimize the resource allocation. There are also special green public transport planning and convenient public transport system in the area. Within the 500m radius of the area, 100% coverage of public transportation is realized.
- Convenient living environment: the construction of commercial and residential area prioritizes functional agglomeration and interaction to enhance the vitality of the city, which is in line with the development trend and requirements of modern city's multi-functional complex. In terms of functional layout, the spatial cluster structure is adopted, with central business district in the center, four residential clusters and four neighborhood centers in the periphery. Perfect public facilities, reasonable allocation of educational resources and complete life service functions fully embody the concept of "ecological sharing and service sharing", and follow the scientific development concept of harmonious coexistence between man and nature in urban construction.

Culture and heritage

- History and culture: Suqian City, where commercial and residential area is located, is situated in the north of Jiangsu Province. Since ancient times, it has been known as "being adjacent to Shandong in the north, Jianghuai in the south, in the middle of Huaihe River System and Yishusi River System and in the front of two capitals". It is the origin of Wu culture and Western Chu culture.
- Heritage protection: There is a former site of Da'an Temple in the commercial and residential area built around 1750, which is a cultural relic protection unit of Suqian City. During project renovation and design, profound cultural deposits of Suqian were excavated and new landmarks in Suqian cultural field were created.
- Cultural Heritage: The commercial and residential area focuses on mining and improving the characteristic regional culture. While carrying on the local culture of Northern Jiangsu, new elements of Southern Jiangsu culture have been added, and Singapore's advanced business and management methods adopted to create a new region with humanistic characteristics. In addition, the new culture carrier system has also been established and improved. Taking full account of the unique construction history, opportunity, urban structure and layout, economic development and other core contents of the commercial and residential area of Suzhou Suqian Industrial Park, we have built personalized buildings and landscapes to realize the co construction of the characteristics of the two cities, the reappearance of urban layout, and the inheritance of water culture.

Social diversity

- Residents' service: The commercial and residential area is planned to be divided into four zones, each of which will be equipped with a neighborhood center and a supporting neighborhood park green space to provide businesses, supporting elderly care, community services, cultural facilities, health service stations, communication venues, outdoor fitness venues, etc., to create a 10min urban living circle for surrounding residents.
- Education resources: Nine kindergartens are planned to be built within a 300m service radius. In the Park, there is Suqian Suzhou Foreign Language School, a brand school and a nine-year consistent public school jointly built by Suzhou and Suqian. Its high school admission rate, four-star high school line rate and other indicators rank first in the public schools in the central urban area, continuously leading the balanced development of compulsory education in the city.
- Living and working environment: The commercial and residential area has made full use of the existing excellent ecological landscape resources to create a high-quality living and working environment, promote the regional value, and attract enterprises and individuals pursuing environmental quality.

Social inclusion and safety

- Social integration: The commercial and residential area took the lead in building two people's liaison offices, carrying out "social situation and public opinion day" activities in a normalized way, and the ability of mass autonomy was significantly improved. In 2019, it was awarded "national model harmonious industrial park of labor relations" (the only one in Northern Jiangsu).
- Public safety: The "Safety Production Education Hall" was built in the commercial and residential area, encompassing the exhibition hall of safety production achievements, the interactive experience area of intelligent safety supervision, the safety science and technology experience hall, the safety culture and art exhibition hall, and the safety production lecture hall. Through the interaction of wall chart display board, multimedia display and simulation platform, the public can have a more intuitive understanding of safety knowledge, keep in mind the lessons of accidents, so that the public can better do self safety protection and reduce the occurrence of safety accidents. In the whole city and even the whole province, it has the role of pilot, demonstration and leading. In early 2020, the International Safe Community Certification Center (isccc) officially awarded the title of "International Safe Community" to Suzhou Sugian Industrial Park.
- Comprehensive disaster prevention: a comprehensive disaster prevention system for commercial and residential area has been formulated, covering earthquake prevention, flood control, fire control and civil air defense projects, constituting a complete emergency management plan.

- Improving air quality: In the commercial and residential area, a series of measures, such as greening the site, planting trees, setting up green belts on the site and roads, have been taken to significantly improve the waste gas and noise pollution of the site construction. During construction waste water is controlled, dust pollution is prevented and controlled, and main responsibilities are implemented. With these efforts, there is no industrial pollution source exceeding the standard within the radius of 300m outside the boundary of commercial and residential area. Tonghu Avenue is the main road separating industrial areas and commercial and residential area, and about 50m wide isolation and protection green belts are set on both sides.
- Prevention and control of noise pollution: In commercial and residential area, there are reasonable spatial layout, noise reduction green belts, outdoor sound environment monitoring, low-noise equipment and other noise pollution prevention and control measures to ensure that the noise emitted by living noise, construction noise and surrounding industrial enterprises in commercial and residential area meet the current relevant national standards.
- Industrial waste monitoring: in order to ensure that the discharge standards are met and to ensure the environmental safety and health, the Park conducts real-time online monitoring of the pollution source emissions of enterprises, and at the same time, the Environmental Protection Bureau of the Park regularly detects the waste gas and wastewater discharged by the enterprise.

ECONOMIC DEVELOPMENT

Local development

- Development strategy: The Park accurately locates the industrial direction, insists on misplaced development with the surrounding development zones, maintains concentration, intensive cultivation, and constantly expands the core industry and strengthens the core enterprises. The Park gives full play to the advantages of Suzhou and Suqian by implementing the comprehensive development of urban functions such as advanced manufacturing and service industries to promote industrial gradient transfer. A gathering place for high-level industries such as electronic and electrical engineering, precision machinery, new energy, new materials and so on has been initially formed. The two major industries including electronic information and precision machinery have even become the leader of the industrial economic development of the Park by virtue of a high industrial agglomeration scale, and their industrial output value and employment absorption account for more than 90% of the whole park.
- Industrial scale: The total income was 145.7 billion RMB from the establishment of the Park to 2020, the tax payment was 15.5 billion RMB, and the total import and export volume reached 2.36 billion US dollars. It has become an important growth pole of economic development of Sugian.
- Characteristic shaping: Suzhou Suqian Industrial Park attaches importance to promoting regional development and the construction of ecological civilization while realizing great-leap-forward economic development. The charm of "garden-style industrial park" is exuded in the Park everywhere.

Circular economy

The development path of circular economy in the Park:

- Efficient use of energy: Commercial and residential area actively promote scientific and technological progress and institutional innovation, and achieve efficient use of energy through the development of high-quality green buildings, improvement of the energy-saving rate of buildings, pilot construction of ultra-low energy consumption, near zero energy consumption buildings, promotion of solar energy, shallow geothermal energy and other renewable energy applications, industrial waste heat utilization and other measures.
- Resource recycling: Commercial and residential area make great efforts to build the industrial chain of resource recycling in the Park, and establish the
 system of recycling of urban waste. Classified utilization and centralized disposal of domestic waste, construction waste and industrial waste, docking of
 garbage removal and recycling systems in the Park, supporting industrial hazardous waste treatment facilities, processing and utilization of renewable
 resources in the form of raw materials or semi-finished products under the premise of innocuity, and coordinated disposal of end wastes to achieve
 harmonious coexistence between urban development and the ecological environment.
- Harmless treatment of waste: Commercial and residential area achieve harmless disposal of waste through landfill, incineration, composting of waste and other treatment measures to reduce the impact of the garbage on the ecological environment.

TRANSPORT

Mobility strategy

- Overall planning: Commercial and residential area formulate special green traffic planning, carry out overall planning of all kinds of traffic facilities in the region inside and outside, and optimize the applicable plan of road traffic organization and green traffic management system (intelligent transpo\rtation system) to ensure green traffic travel paths and improve green travel efficiency.
- Green travel system: Commercial and residential area strive to improve public transport operation capacity, optimize and adjust operating routes, increase operating vehicles, extend operating time, expand the coverage of bus lines, and constantly increase the proportion of public transport travel. Implement the green travel advocacy project, carry out various activities such as "Bus week", "Car free Day" and "Less driving", advocate the choice of public transport, bicycles and walking, and advocate the use of clean energy vehicles and low-emission and low-energy vehicles.
- Green infrastructure: Commercial and residential area is equipped with new energy public transport as well as complete charging facilities, and the bus charging piles should be built according to the vehicle pile ratio of 1:1 requirements. The ratio of charging piles to parking lots in each plot is not less than 10%

SMART CITY

The Park establishes a smart city system, including smart park, smart city management, smart illumination, smart sanitation, environmental monitoring and other functional blocks (see Annex 8-1).

- Smart park: The most important part of the smart city system, with a total investment of 150 million RMB. The wisdom park system focuses on urban transportation center and urban transportation system, and adopts urban management means to achieve the innovative development of management mode and management concept through data collection, intelligent fusion, process reengineering, science and technology empowerment and other system construction. The wisdom park covers five major functions including perception center, research and judgment center, early warning center, decision-making center and command center, aiming at promoting efficient urban governance and ensuring the safe and orderly operation of the city.
- Smart city management: use GIS platform in administration and law enforcement as an auxiliary tool, including law enforcement system, intercom system, positioning system, monitoring system, control system and so on.
- Smart sanitation: count on garbage removal and collection in the Park, and equip sanitation workers with healthy bracelets to monitor health data and position.
- Smart monitoring: set up indoor and outdoor air quality monitoring systems in the Park, upload outdoor air quality parameters in real time, monitor the water quality of surface water (Qingshui River, Fumin River, Limin River, Weimin River), and set up automatic monitoring stations to feed back the water quality in the Park in real time.

RESOURCES

Water management

- Water resources saving and utilization of non-traditional water sources: commercial and residential area vigorously develop urban greening, improve the rate of urban green space, and retain the original water system in the urban area; The total annual runoff control rate of the project design site designed after 2014 is equal to or more than 55%. It is encouraged to adopt rain water recycling and greening irrigation techniques to build a sound sponge city technology system (see Appendix 8-5, 8-6).
- Water quality guarantee and leak control of water supply network: new buildings in commercial and residential area is designed in accordance with the current national standard Water Saving Design Standard for Civil Buildings GB50555, and mature water supply and drainage systems are also designed in this way. Source pollution control, the effluent quality of waterworks is regularly tested to ensure that the quality of domestic water meets the requirements of standards, and valves and equipment with good sealing performance and pipes and fittings with good corrosion resistance and durability are selected, and municipal water supply pressure is regulated so as to reduce the leak rate of the water supply network, the leak rate of the Park pipe network is 8.71%
- Urban sewage collection and reclaimed water supply system: a sewage treatment plant is built in commercial and residential area, with a treatment scale of 50,000 t / d, and the proportion of collection and treatment reaches 100%. The water after treatment is used for river replenishment and municipal road cleaning.

Soil management

- Soil and water conservation: establish a soil and water conservation management mechanism in commercial and residential area, approve soil and water conservation plans in the project planning and design stage, and carry out soil and water conservation monitoring in the construction and operation stage. The main prevention and control objectives include soil erosion control degree ≥ 95%, soil loss control ratio ≥ 0.9, residue protection rate ≥ 97%, forest and grass vegetation restoration rate ≥ 97%, forest and grass coverage rate ≥ 25%. Prevent soil erosion and effectively improve the basis of the ecological environment through a series of measures.
- Soil natural conservation: centralized setting of green space in commercial and residential area, build a large, sparse and dense urban spatial pattern, and restore and protect the natural soil in combination with the river water system. Select suitable plants according to the landforms and climate of commercial and residential area, and apply trees, shrubs, vines and herbs to create landscapes, promote the growth and development of garden plants, and enhance the function of urban green soil for water conservation.

Waste management

- Domestic waste: commercial and residential area put the comprehensive utilization of solid waste in the social, economic, resource and environmental system, and promote the process of source reduction, resource utilization and harmless disposal of solid waste disposal through the management of the whole process from the source of garbage generation to the final disposal of solid waste. Equip commercial and residential area with garbage transfer stations, food and kitchen wastes are collected and transported directly, and establish a special system for food and kitchen waste collection, transportation and disposal.
- Construction waste: Set up a construction waste distribution yard in commercial and residential area, and backfill engineering residue, which is mainly based on market balance; Decoration waste and demolition waste are centrally classified and stacked at the source, place unusable materials in the final disposal site; Use construction mud at the source as far as possible.

BIODIVERSITY

Biodiversity and natural areas

Suqian City, where commercial and residential area are located, pays attention to urban ecological space protection, and is rich in biodiversity, comprehensive species index \geq 0.60 and local woody plant index \geq 0.80. Suqian City was rated as "National Ecological Garden City" in 2019.

Focusing on creating "four cities" goal of shade of trees colorful city, garden city, sponge city, Suqian is accelerating the construction of people's livelihood garden and carefully creating the characteristic landscape of the city. The urban personality is gradually highlighted, and the living environment is continuously optimized. Ranked first in the fifth national civilized city.

Promote the protection of biodiversity, improve the relationship between biology and the environment, improve the quality of human settlements, and create conditions for urban sustainable development through the cultivation of species diversity in the planning and construction of commercial and residential area.

ENERGY/CLIMATE

Climate adaptation, resources conservation, GHG emissions

- Building comfort performance: In the planning stage, fully consider the impact of the outdoor environment on the building in commercial and residential area to optimize the urban layout. In architectural design, arrange the division of indoor functional space reasonably, the space scale is appropriate and has a certain degree of privacy, and the requirements of indoor lighting and ventilation are fully considered to avoid line-of-sight interference.
- Optimize the use of resources: commercial and residential area efficient management and use of land resources to maximize utilization efficiency; Improve the level of digital services, empower the intelligence and refinement of the urban governance system.
- The use of green building materials Enhance the proportion of reusable materials and recyclable materials utilization amount in the building in the commercial and residential area. It is encouraged to use green products and green building materials in the buildings during the civil construction and decoration stages.
- Emission reduction strategy objectives: Comprehensively improve the management level of green buildings, actively expand the application forms of building renewable energy, speed up the promotion of efficient carbon reduction technology products, and reasonably guide the public to change their low-carbon lifestyle in commercial and residential area to ensure that carbon emissions in the Park will peak by 2030 and carbon neutral can be realized by 2060.

Energy sobriety

- Optimize energy consumption: in the process of commercial and residential construction, fully consider the coordinated development of energy, economy, society and environment; implement sustainable development strategy to reduce energy consumption. Overall planning, scientific management from the strategic and overall level, to achieve the optimization of energy consumption.
- Utilization of waste heat: in commercial and residential area, frequency conversion technology is adopted in the water and air systems of the project heating, ventilation and air conditioning systems to improve energy efficiency; Cold storage and heat storage systems are reasonably adopted; Zoning control and fresh air heat recovery are implemented in the building. The main functional rooms in the building are equipped with heating, ventilation and air-conditioning system terminals, and the temperature and humidity can be adjusted independently according to the actual demand to save energy.
- Proportion of energy saving in new buildings: green building development plans are formulated in commercial and residential area, in combination with the requirements of green buildings in Jiangsu Province, the building area ratio of the project designed after 2014 with an energy saving rate of 65% is 100%, and buildings with an energy saving rate of 75% and ultra-low energy consumption buildings are actively promoted. The proportion of design logo projects above two stars in new buildings is 100%.

Energy mix

- Energy structure optimization: commercial and residential building energy planning adheres to the development concepts such as "follow the maximization of low-carbon energy and renewable energy according to local conditions; combine energy planning with municipal facilities planning to maximize the function of infrastructure; gradient utilization and quality matching of energy to maximize energy efficiency; Matching optimization of energy system planning and building energy use system to maximize economic benefits" and so on. Vigorously promote the application of new energy and renewable energy in the field of construction, and reduce the consumption of conventional energy in buildings. Promote the improvement, science and rationality of the energy structure and ensure energy security.
- Renewable energy utilization: commercial and residential area have good solar photothermal resources, which is suitable for the development of solar hot water, solar photovoltaic and other building application technologies. Good regional geological conditions, and the forms of shallow geothermal energy utilization such as buried pipe heat transfer and groundwater heat transfer are suitable for development and utilization. Residential buildings in commercial and residential area fully adopt solar hot water system to replace domestic hot water, and public buildings implement 3 renewable energies available to be selected. The application area of renewable energy is up to 1315449.68m2, the annual amount of energy saving is 13907343.60kwh, and the annual carbon reduction is 9217.09t/a.

Total electricity needs of the project area /year

Total electricity needs of the project area /year: 134 898 000,00 kWh

BUILDINGS

Buildings

- 1. The proportion of green buildings above two stars in the new building area (%): 100.00 (for related calculation, see Annex 1, for certificate of green building label and management documents, see Annex 9)
- 2. The area ratio of existing buildings that have passed the green building star certification (%): 60.99
- 3. The area ratio of prefabricated building building area to new building area (%): 40.90
- 4. Number of construction projects with green construction demonstration projects in urban area (%): 100.00
- 5. The proportion of the number of certificate of green building label obtained to the number of completed projects (%): 0.00 (according to the conditions of land

transfer, the Park plans to apply for 37.50% of the number of certificate of green building operation label)

(1) Green Ecological Urban High Quality Construction Demonstration Zone

As "the agglomeration area of industrial transfer, the pilot area of system innovation, the guide area of comprehensive development and the demonstration zone of modern new city", Suzhou Suqian Industrial Park strives to embody the concept of environmental protection, harmony, wisdom and sustainable development. The commercial and residential core area of Suzhou Suqian Industrial Park was awarded the "Green Ecological Urban High Quality Construction Demonstration Zone" of Jiangsu Province in 2018 (the first batch of the whole province), covering an area of 1.18 square kilometers, with a creation period from 2018 to 2021. The key demonstration goals include: 1) Green Construction: integrated application of lean construction, digital construction, green construction, assembly construction 2) Green building: focus on the construction of high-quality green buildings in the demonstration zone. In the new green building projects, the building area of two-star and above marking projects accounts for 100%, and the construction area of operating marking projects accounts for 35%. 3) Improvement of energy efficiency: 75% energy-saving buildings and ultra-low energy consumption projects are carried out in new buildings, and green renovation and contract energy management projects are promoted in existing buildings. 4) Public perception: set up a special exhibition place for green ecology so as to publicize and display to the public. Conduct dynamic monitoring and comparative display of energy consumption, temperature, humidity, carbon dioxide, air quality and other indicators to enhance public awareness and recognition of green buildings.

(2) Gold Level Certificate of Healthy Community Design Label

According to the principle of adapting measures to local conditions, project of "The Commercial and Residential Core Area of Suzhou Suqian Industrial Park, Jiangsu" uses appropriate and mature health technology in combination with the characteristics of climate, resources, natural environment, economy and culture of the community and taking full consideration of community features to achieve a healthy, environmental protection and livable community model. As the **first batch of healthy community identification projects in the country**, the community is promoting the development of northern Jiangsu and even Jiangsu Province, and plays a good leading role in the development of healthy communities in Jiangsu Province. The project has perfect building function, excellent indoor and outdoor environment quality, provides users with a harmonious and healthy living environment, **establishes an important line of defense to protect people's health, and plays an important role in the expansion of healthy buildings to healthy communities in our country.**

(3) Ultra-low energy consumption building demonstration project -- Suzhou Street 8# Building Sugian Mansion Project

The commercial and residential Suzhou Street project aims at being built as a new carrier for the blending of Suzhou culture and Suqian culture and a new benchmark for Suqian characteristic commerce. The architectural style is mainly Suzhou-style traditional residential architecture, and the landscape adopts Suzhou garden architecture style. 8# Building is set as a green ecological exhibition hall. By virtue of the passive design lead, the integrated application of active appropriate technology and the implementation of special intelligent operation management strategy, the project can achieve the "double control" of static and dynamic goals with distinctive features. The comprehensive energy saving rate of the project has reached 85%. Combined with the application of renewable energy buildings and dynamic operation optimization strategy, the comprehensive energy consumption level of buildings has been reduced by more than 50% compared with the current standards, while excellent indoor comfort indicators are ensured. The project is aimed at creating an ultra-low energy consumption practice benchmark project to inherit the cultural characteristics of Jiangnan residential houses in hot summer and cold winter areas, and exploring and forming a technical system that can be used for reference and popularized.

Contest





Date Export: 20230410132452