

Design of Informal Green Space System for Landscape Equity in Hengshui, China



PROJECT STATEMENT

- The project, located in Hengshui City, Hebei Province of China, where economic development trails the national average. Hengshui has limited formal parklands but a wealth of informal green spaces dispersed across residential neighborhoods, under government buildings, beside railways, and beneath overpasses. These numerous informal areas are often enclosed and provide limited recreational opportunities to only certain residents.
- The design team exploited the potential of these informal green spaces in Gucheng County, Hengshui, choosing to redesign areas previously controlled by various government agencies. These spaces were opened up and converted into accessible public parklands, with a total renovated area of 61,638 square meters. The project implemented a tiered design strategy at the city, community, and block levels, focusing on ecological, recreational, and cultural improvements for three major community life circles.
- By integrating multiple informal green spaces into a clustered urban green framework, the project promotes landscape equity across various community life circles. Upon completion, 61,638 square meters of previously restricted green spaces were made available, providing extensive open green spaces for public use and enhancing local well-being. As a developing town, this initiative indirectly enhanced its influence and attractiveness.

PROJECT NARRATIVE AND CONTENTS

■ 01 Background

The project is located in Hengshui City, Hebei Province, China, a region whose economic development is below the national average. In Gucheng County, Hengshui, formal parklands are scarce; however, informal green spaces constitute 66.94% of all green areas. These are widely dispersed in residential areas, under government buildings, alongside railways, and beneath overpasses. Despite their abundance, most of these informal green areas are enclosed by walls. A significant 39.9% of these spaces are completely enclosed, predominantly consisting of green areas attached to government buildings. These areas are primarily used by government officials for parking and passage, failing to meet the broader community's needs for walking, resting, and socializing.

■ 02 Site Situation

The project focuses on three typical community life circles in Gucheng County, Hengshui City, analyzing the needs of the user groups, the current land use characteristics, and the distribution of green spaces within different circles. It has selected eight sites with the most significant contradictions in green space demand and supply and the highest potential for transformation. These sites consist of informal green spaces formerly belonging to government agencies such as the Transport Bureau, the Finance Bureau, and the Internal Revenue Service.

PROJECT NARRATIVE AND CONTENTS

■ 02 Site Situation

Common issues at these sites include: enclosure by walls, making them inaccessible; a singular focus on parking and transit that lacks sitting areas; and mixed traffic that leads to chaotic and unsafe conditions.

Therefore, the goal of this project is to open up these green spaces, enhancing their ecological, recreational, and cultural functions to transform them into open spaces shared by all residents within the community zones. This will provide numerous benefits for the citizens and enhance landscape equity in the area.

■ 03 Strategies

The design team selected eight informal green spaces totaling 61,638 square meters as the focus of their design efforts. Themed around "Green Integration," these spaces are clustered together to be incorporated into the urban green space system, enhancing the potential for landscape equity across different community life circles. The team developed a three-tiered design strategy: at the city level, to connect the green network; at the community level, to match the needs of the population; and at the block level, to organize activity routes.

PROJECT NARRATIVE AND CONTENTS

■ 03 Strategies

City Level: Green Network Connectivity

At the city level, a green network is constructed, integrating informal green spaces with the city's green infrastructure. This approach connects green spaces across the city to establish an ecological network; it coordinates the design of pedestrian pathways both inside and outside parks to create a recreational network; and it promotes Confucian culture to develop a cultural network. Through the renewal of these three major green space systems, the project leverages multiple benefits to drive an overall enhancement and upgrading of the regional living environment.

Community Level: Community Function Alignment

At the community level, the approach is tailored to the demographic composition and specific needs of the local populations. Through field surveys and interviews, the team aligns with the distinct needs identified within three different communities. They integrated 13 diverse activity types within five key categories: recreational sports, cultural exhibitions and so on. This approach ensures that each of the eight plots offers precisely tailored activity spaces and facilities for their respective target audiences.

PROJECT NARRATIVE AND CONTENTS

■ 03 Strategies

Community Level: Community Function Alignment

Based on the age composition of the surrounding communities and the emergency evacuation function of the CDC (Center for Disease Control and Prevention), YUE Park has reserved an open space in the center of the plot, paved with plastic fields, and arranged a small number of children's playground facilities around it, creating a multi-functional space that can be used for both daily and emergency purposes. It ensures the recreational needs and safety of children in daily life, and serves as an evacuation site in case of emergencies at the CDC.

As the largest of the eight plots, the park adjacent to YI Park serves a community with the most diverse composition, including elementary schools, secondary schools, and senior communities. Therefore, given extensive available space for modification and demand for all-age inclusiveness, it incorporates substantial activity areas such as basketball courts, badminton courts, table tennis areas, and children's activity zones to meet recreational needs of all age groups.

PROJECT NARRATIVE AND CONTENTS

■ 03 Strategies

Block Level: Block Route Combing

At the block level, activity routes are constructed for users based on the facilities surrounding each site. For instance, SHU Park has retained a large number of existing trees, which limits the availability of extensive activity spaces. Therefore, the design primarily focuses on traffic circulation, creating distinct pathways for staff, citizens, and motor vehicles. It allocates spaces for the Education and Sports Bureau and Supply and Marketing Cooperative to rest, areas for public sports facilities for citizen recreation, and peripheral zones for motor vehicle parking.

SHI Park and LI Park, being relatively small among the eight sites and surrounded mainly by government buildings and factories, have a lower demand for activity spaces. Consequently, the design emphasizes the creation of large lawn areas to maximize greenery, enhance the aesthetic value of the sites, and cater to both visitors and local residents.

PROJECT NARRATIVE AND CONTENTS

■ 04 Future Vision

After the completion of the project, the “Informal” Green Spaces covering an area of 61,638 square meters in the urban area will be opened and become “utilizable” green spaces, providing ecological benefits to citizens in various aspects such as urban green space equity, cultural exhibition, and environmental livability. In terms of urban green space equity, the overall green space ratio in the urban area has increased by 0.45%, and the service radius of parks within 500 meters has improved by 34%. On the aspect of environmental livability, the addition of four small sports fields, 42 fitness facilities, and two public restrooms has enhanced the well-being of approximately 19,400 residents. In the cultural domain, six new cultural display points have been introduced. Moreover, the construction process employed quiet construction techniques and dust control measures, which considered both the pace of construction and the working environment of the organizations located at the sites.

As a county in its fledgling stage of development, the project indirectly contributes to bolstering the urban influence and attractiveness.

PROJECT LOCATION:HENGSHUI CITY



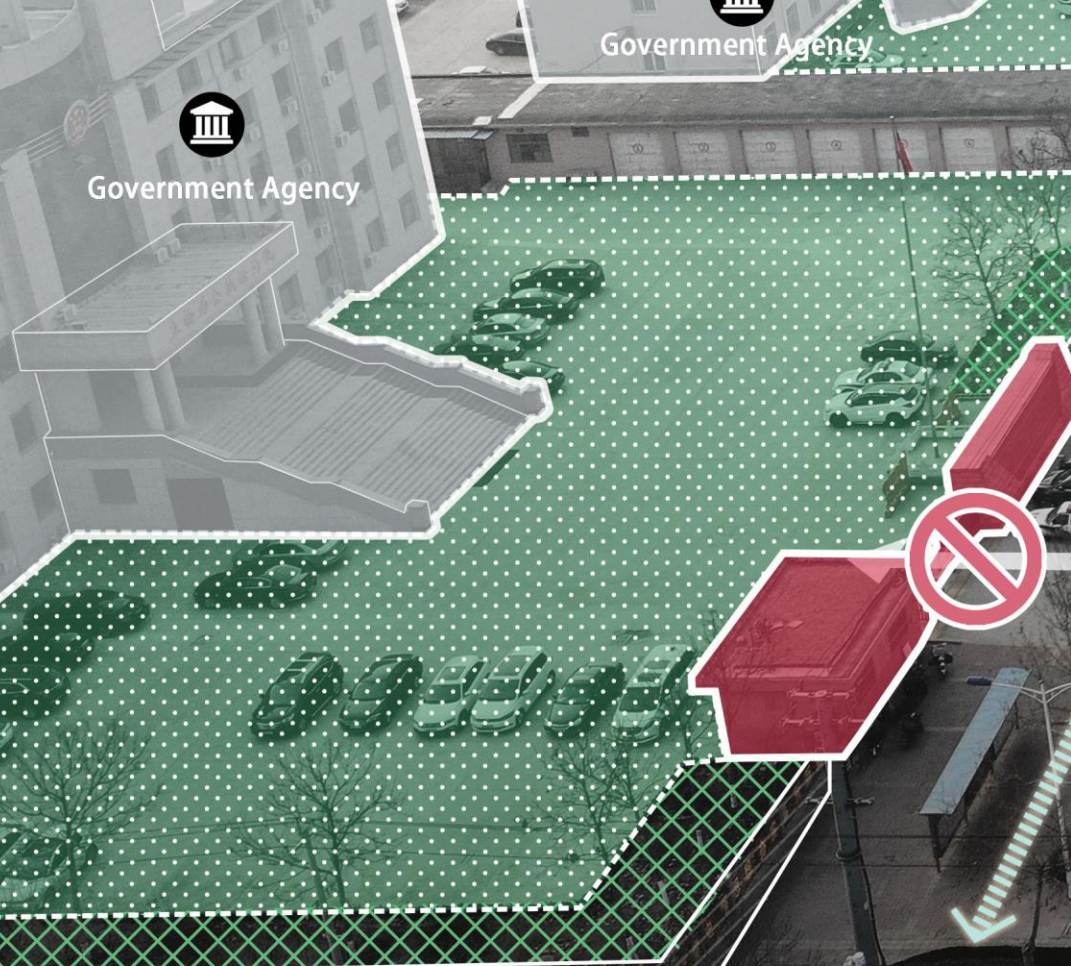
Nine Government Agencies:

- Education and Sports Bureau
- Transport Bureau
- Internal Revenue Service
- Finance Bureau
- Tax Service
- Bureau of Development and Reform
- Bureau of Housing
- Center for Disease Control
- Supply and Marketing

SITUATION OF ECONOMIC DEVELOPMENT

China 's average urban GDP in 2023: 184.2 billion¥≈25.2 billion\$

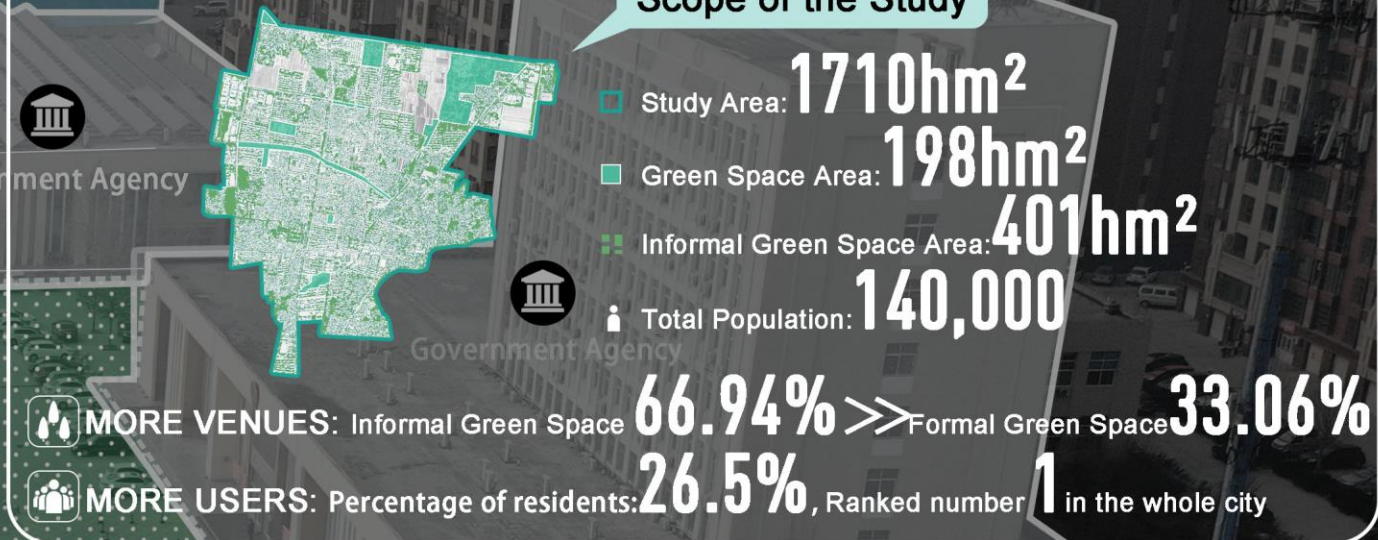
Gucheng in Hengshui city: 13.9 billion¥≈1.9 billion\$



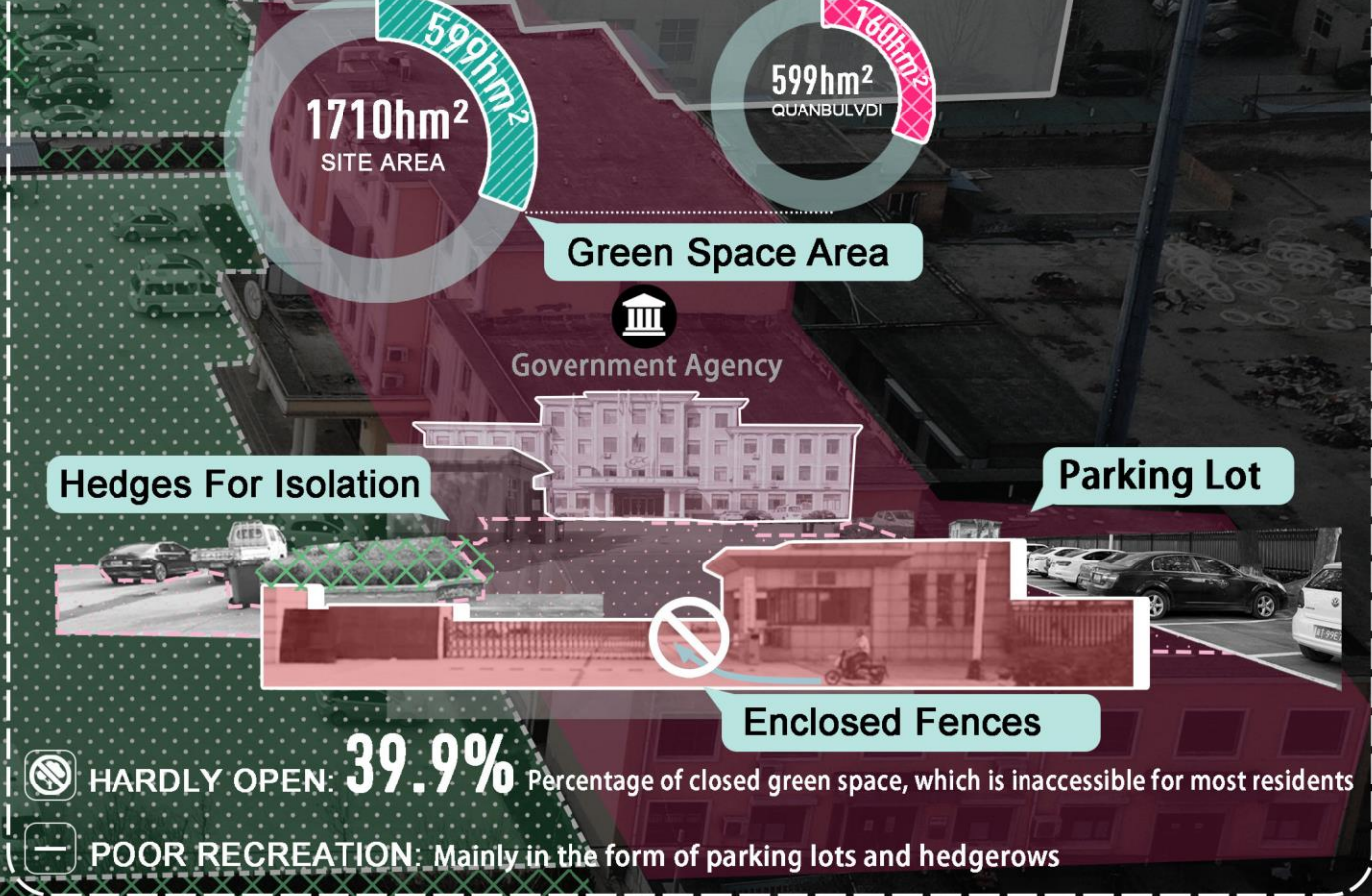
INFORMAL GREEN SPACE

Hengshui City has a large number of informal green spaces but closed borders, providing only limited recreational services for some residents. Taking the ancient city of Hengshui as an example, the project opens the closed informal green space that originally belonged to government units at all levels to a park green space, so as to improve the potential of landscape equity in high-density urban areas.

OPPORTUNITY



THREAT

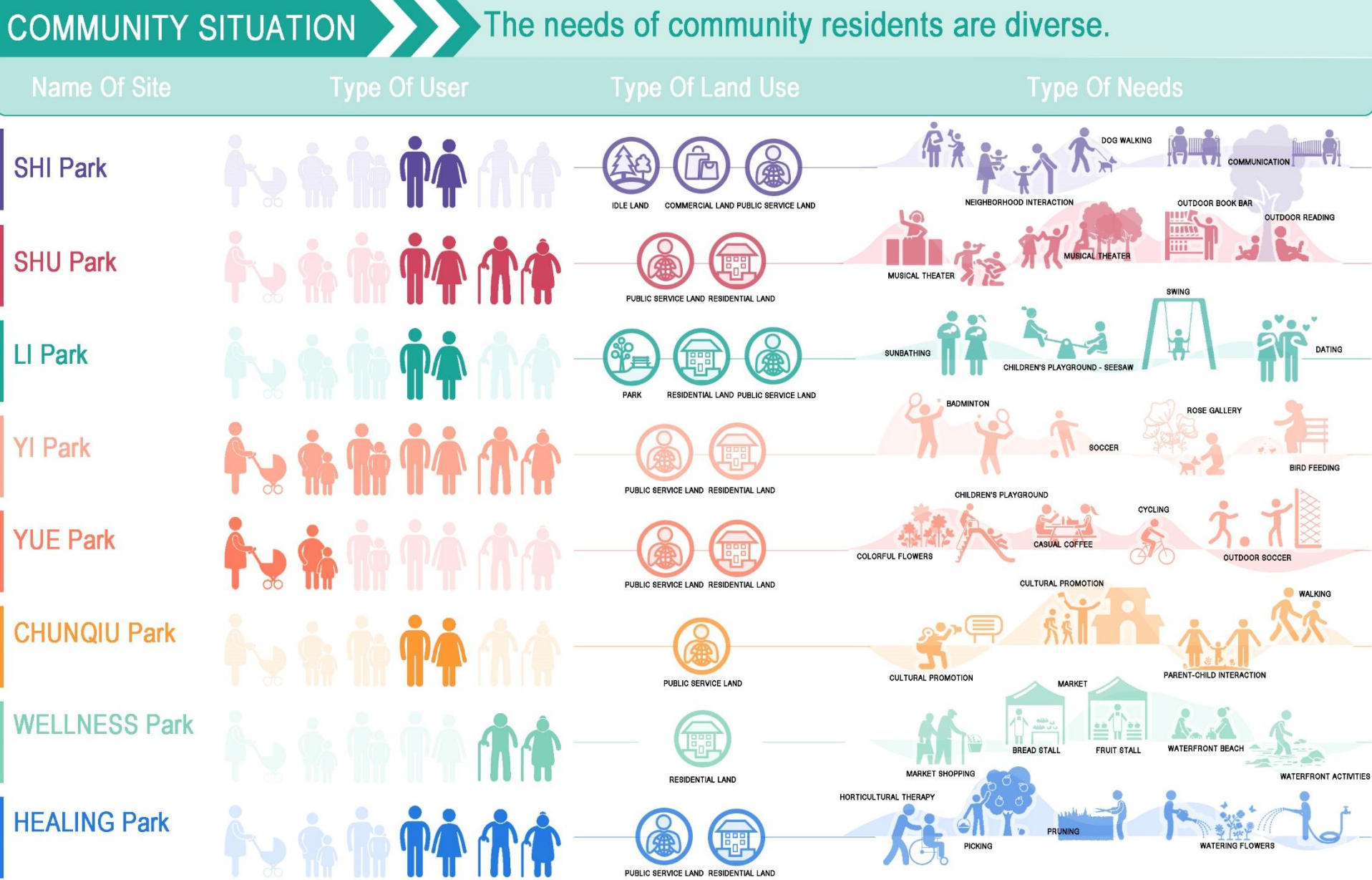
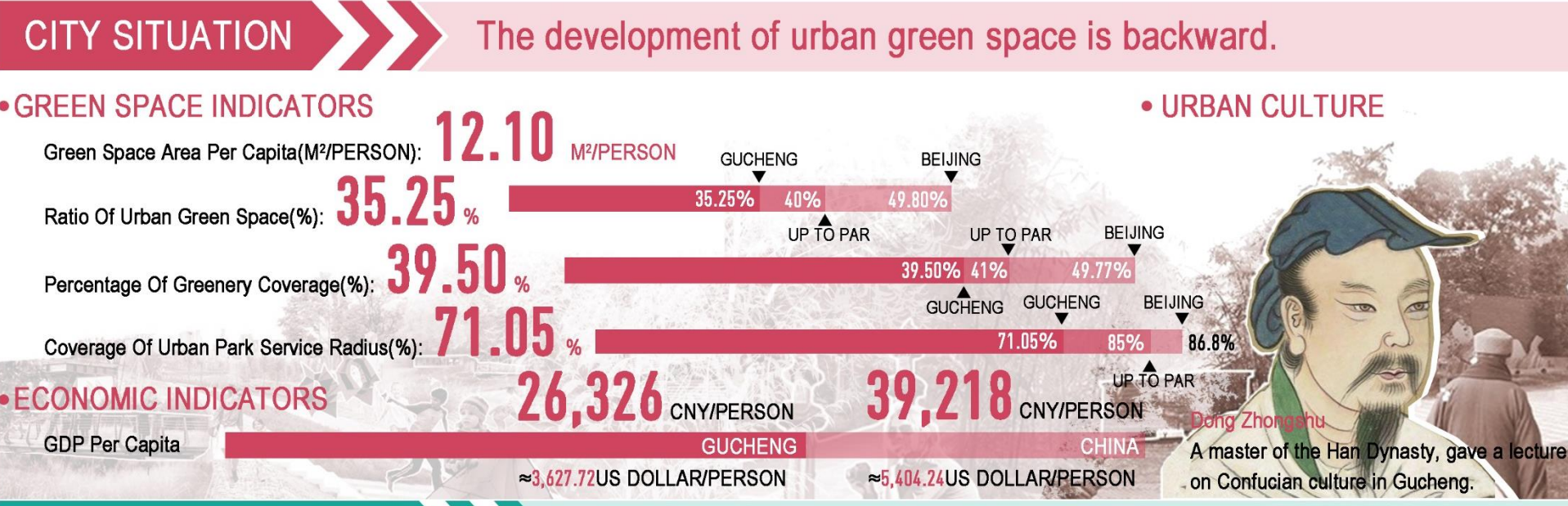
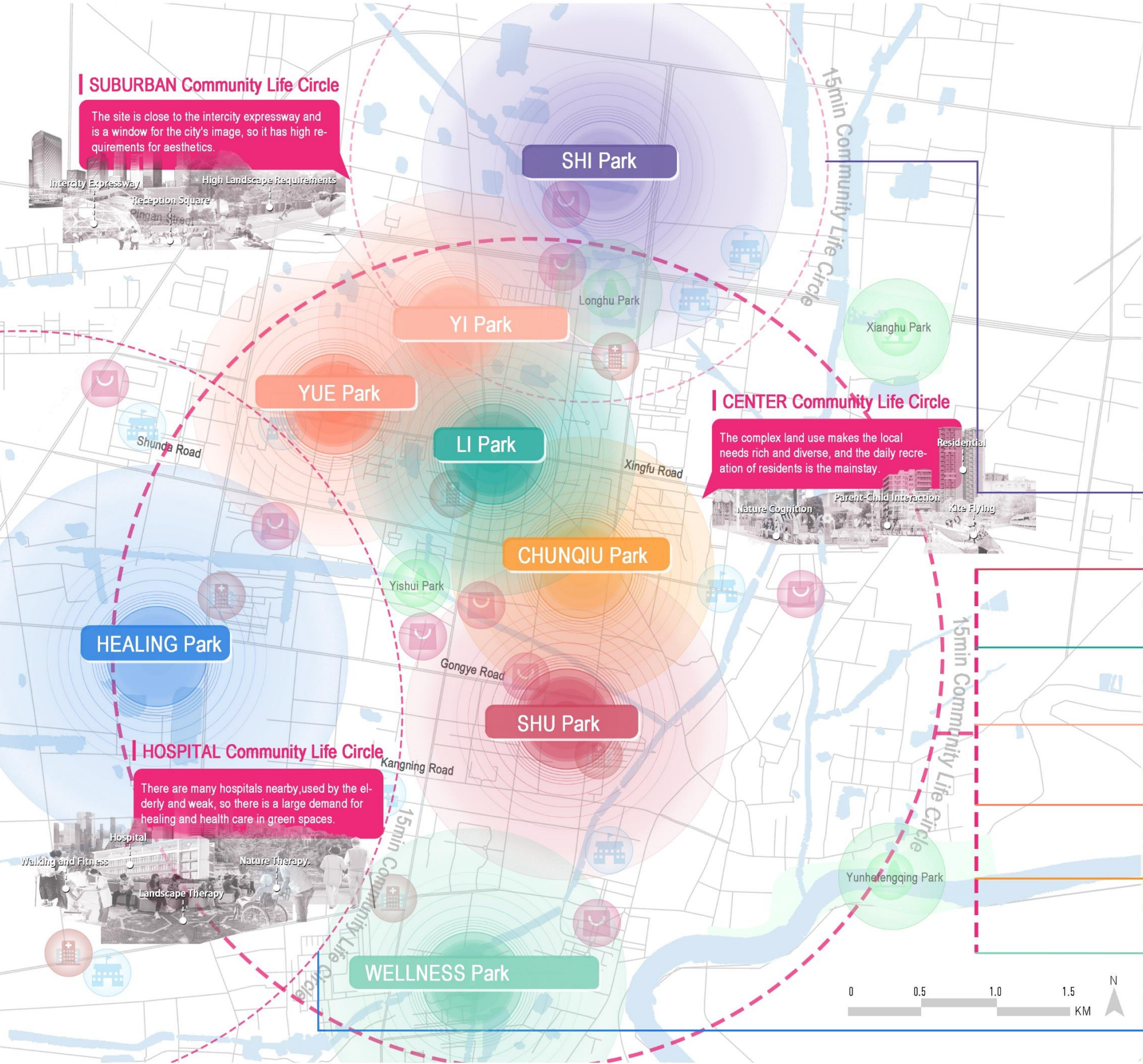


PROJECT GOAL: Improve Potential For Landscape Equity In Community Life Circle

To build a city governed by the people and for the people, To build a park changed from small space but of grant importance

SITUATION

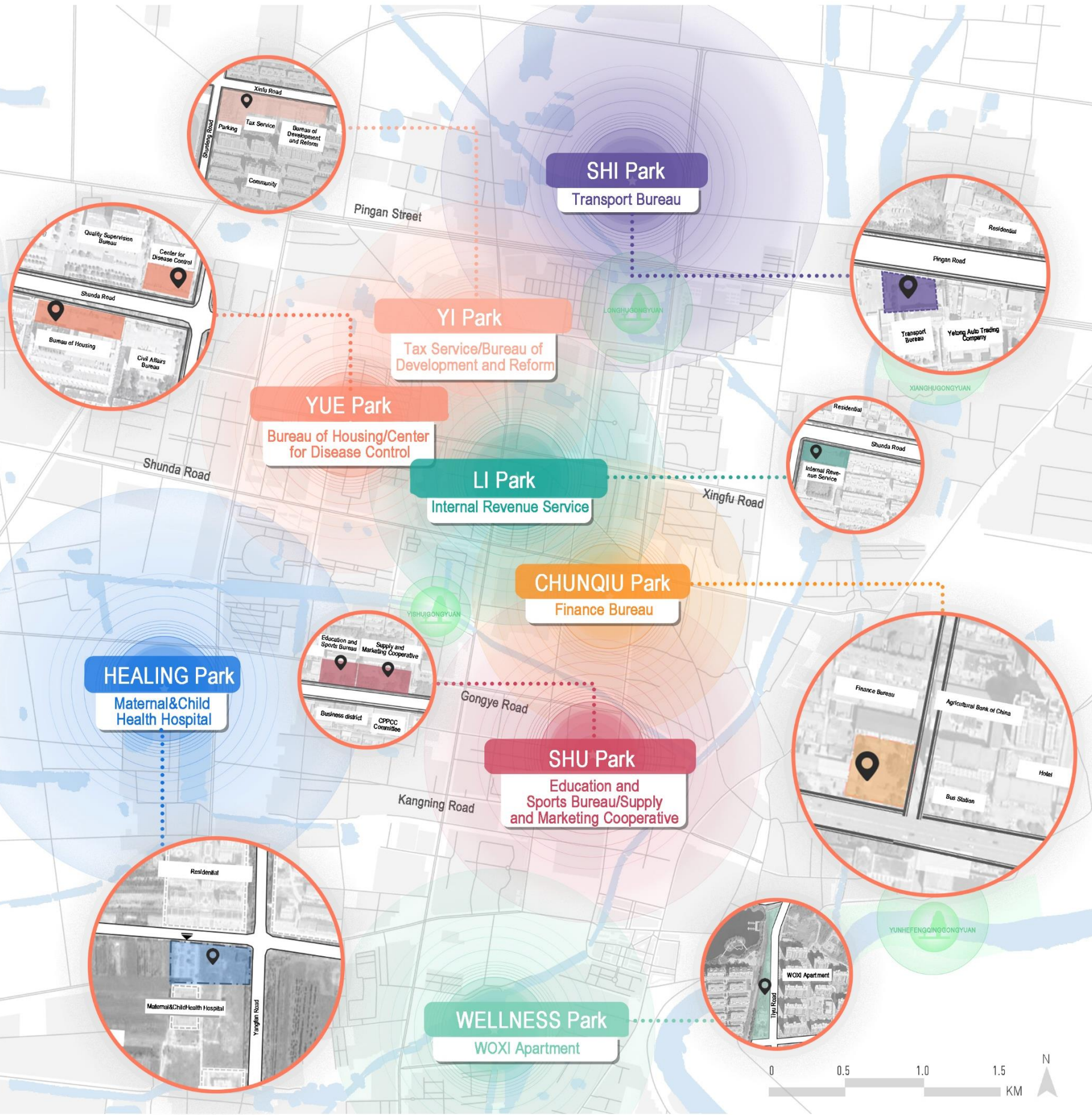
BACKWARD ECONOMY & ALL-AGED NEEDS



In Gucheng County, Hengshui City, located in Hebei Province, China, economic development is below the national average, and the quantity and distribution of urban green spaces significantly lag behind those of other cities. Within the three typical community life circles of Gucheng County in Hengshui City, there are various types of service populations, leading to usage demands that are increasingly oriented towards inclusivity for all ages and diversification.

SITUATION

CLOSED FENCES & CHAOTIC TRAFFIC



BLOCK SITUATION

The site is fenced off, and people and vehicles are mixed.

SHI Park

No plant

The site is empty and desolate.

Lack of outdoor seats

SHU Park

Narrow Sidewalk

Chaotic traffic and mixed circulation lines

LI Park

Existed lush plants

Closed corner space

YI Park

No one comes to play and it's boring to be empty!

Available security room to be used

YUE Park

There are too many cars and it's not safe for my kids to play here after school!

Apartment with Lots of inhabitants

CHUNQIU Park

Nowhere to sit

Separated interior and exterior spaces

HEALING Park

Unused vacant land

I want a place where I could grow flowers and exercise.

Excellent parking facilities

WELLNESS Park

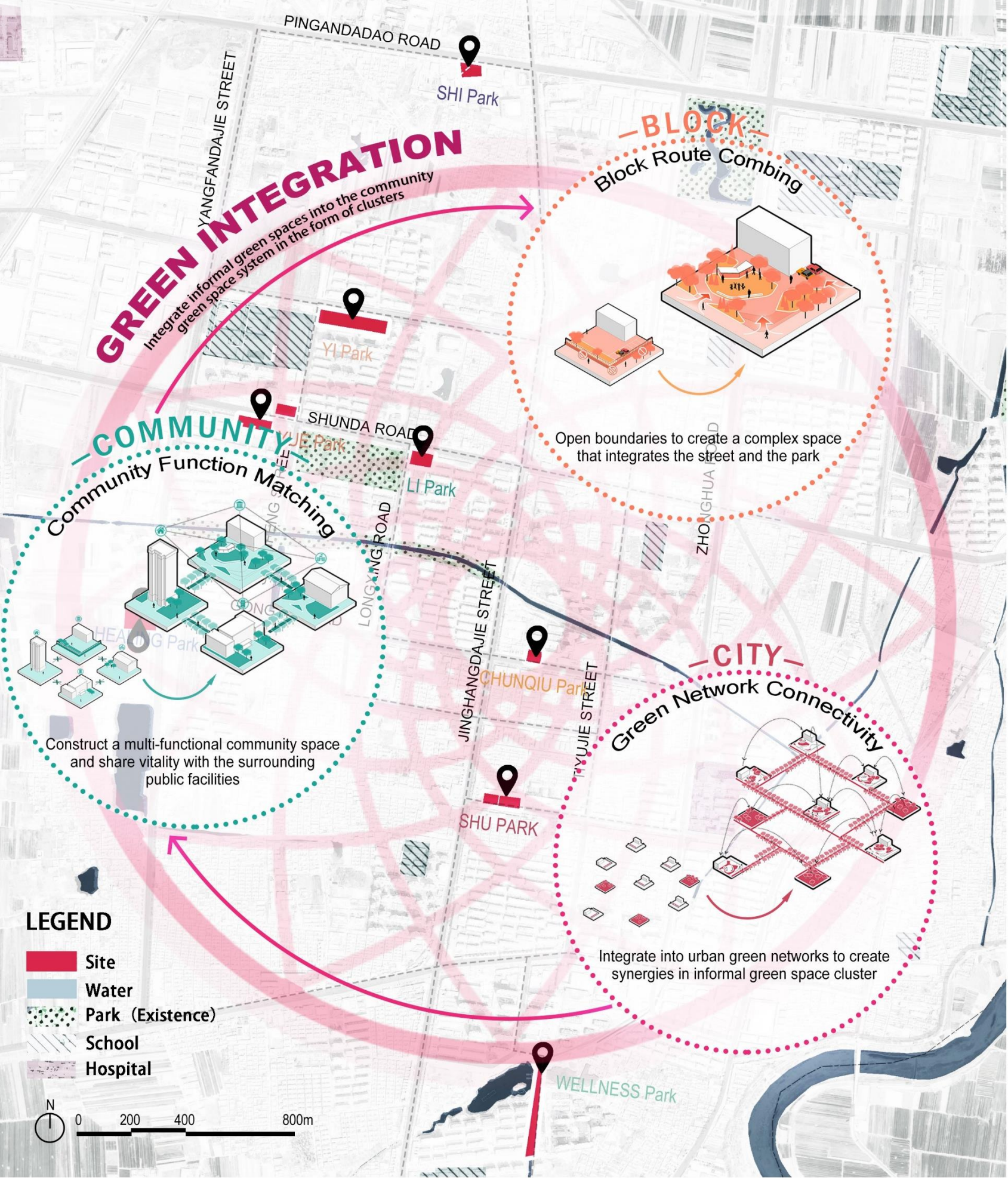
Closed fences

Monotonous street scene

Apartment

Among them, 9 informal green spaces originally belonging to government institutions such as the Transport Bureau, the Finance Bureau, and the Internal Revenue Service are enclosed by walls and suffer from mixed traffic flow, leading to transportation difficulties. The overall recreational value of the eight sites formed from these existing green spaces is poor, resulting in low recreational willingness among residents, which urgently requires optimization and renewal.

STRATEGY & SITE PLAN



The design team, guided by the theme of "Green Integration," clusters several informal green spaces into the urban green system, aiming to foster landscape equity within different community life circles. They have crafted a design strategy across three levels: city, community, and block. This strategy includes Green Network Connectivity, Community Function Alignment, and Block Route Combing.

GREEN NETWORK CONNECTIVITY

UPDATING 3 MAJOR SPATIAL SYSTEM

Ecology System

1

Connectivity of green spaces throughout the city

Recreation System

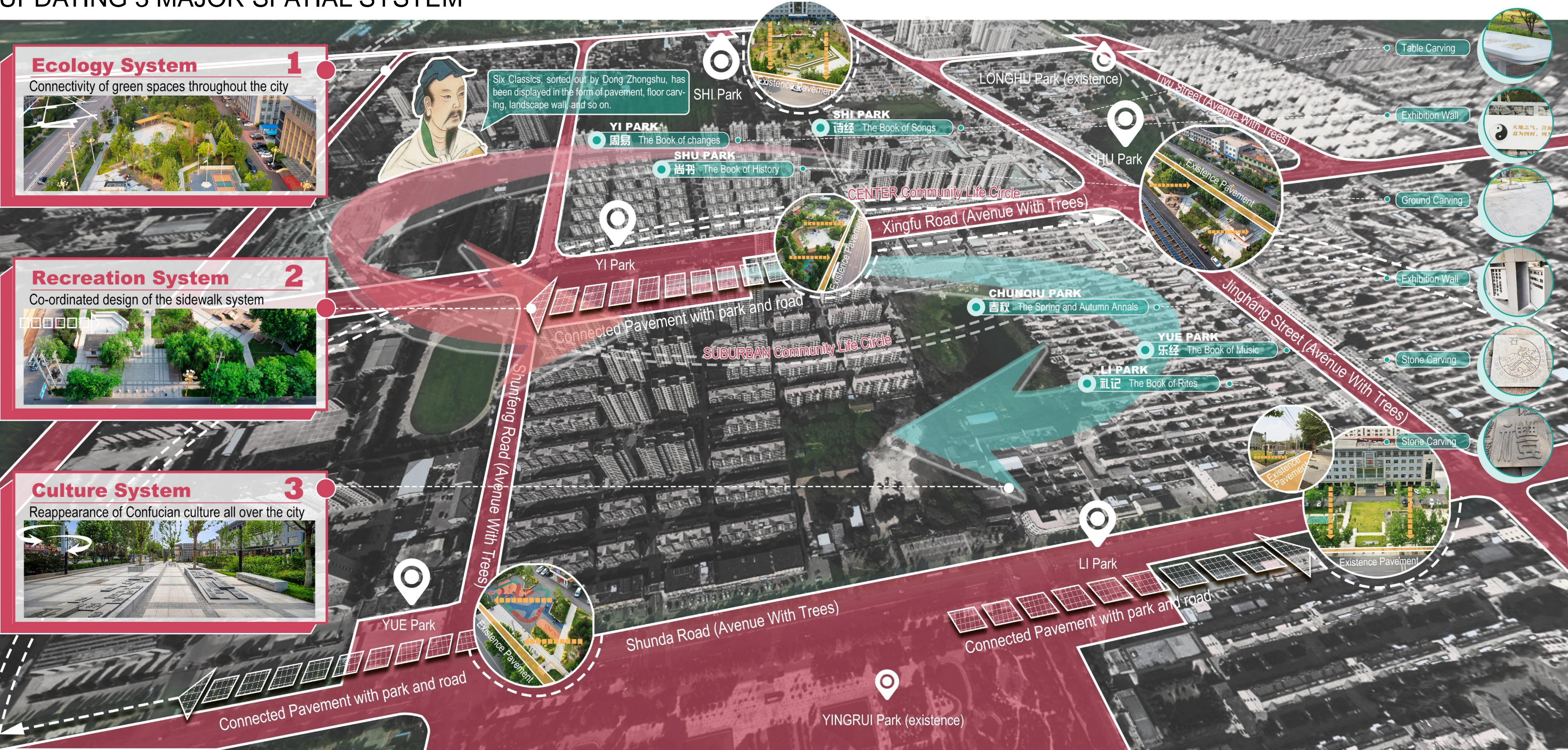
2

Co-ordinated design of the sidewalk system

Culture System

3

Reappearance of Confucian culture all over the city



At the city level, a green network is established by integrating informal green spaces with existing green infrastructure. This effort involves the renewal of 3 systems—ecological, recreational, and cultural. It connects green spaces throughout the city, coordinates design of pathways inside and outside parks, and showcases Confucian culture. Ultimately, this approach leverages multiple benefits to significantly enhance and upgrade the overall living environment.

COMMUNITY FUNCTION MATCHING

MEETING 5 TYPES OF PEOPLE’S ACTIVITY NEEDS



Children's amusement facilities

Elderly activity facilities

Ball ground

Service station

City book cafe

Leisure service facilities

Lighting facilities

Diversified facilities



+



+



+



+



After conducting thorough site visits and surveys, successfully matched the varying needs of the three communities, taking into account their specific demographic compositions and demands. They integrated 13 diverse activity types within five key categories: recreational sports, cultural exhibitions and so on. This approach ensures that each of the eight plots offers precisely tailored activity spaces and facilities for their respective target audiences.

COMMUNITY FUNCTION MATCHING

YUE PARK



Based on the age composition of surrounding communities and emergency evacuation function of the CDC (Center for Disease Control and Prevention), YUE Park has reserved an open space and arranged some children's playground facilities around it, creating a multi-functional space that can be used for both daily and emergency purposes. It ensures recreational needs and safety of children in daily life, and serves as an evacuation site in case of emergencies.

COMMUNITY FUNCTION MATCHING

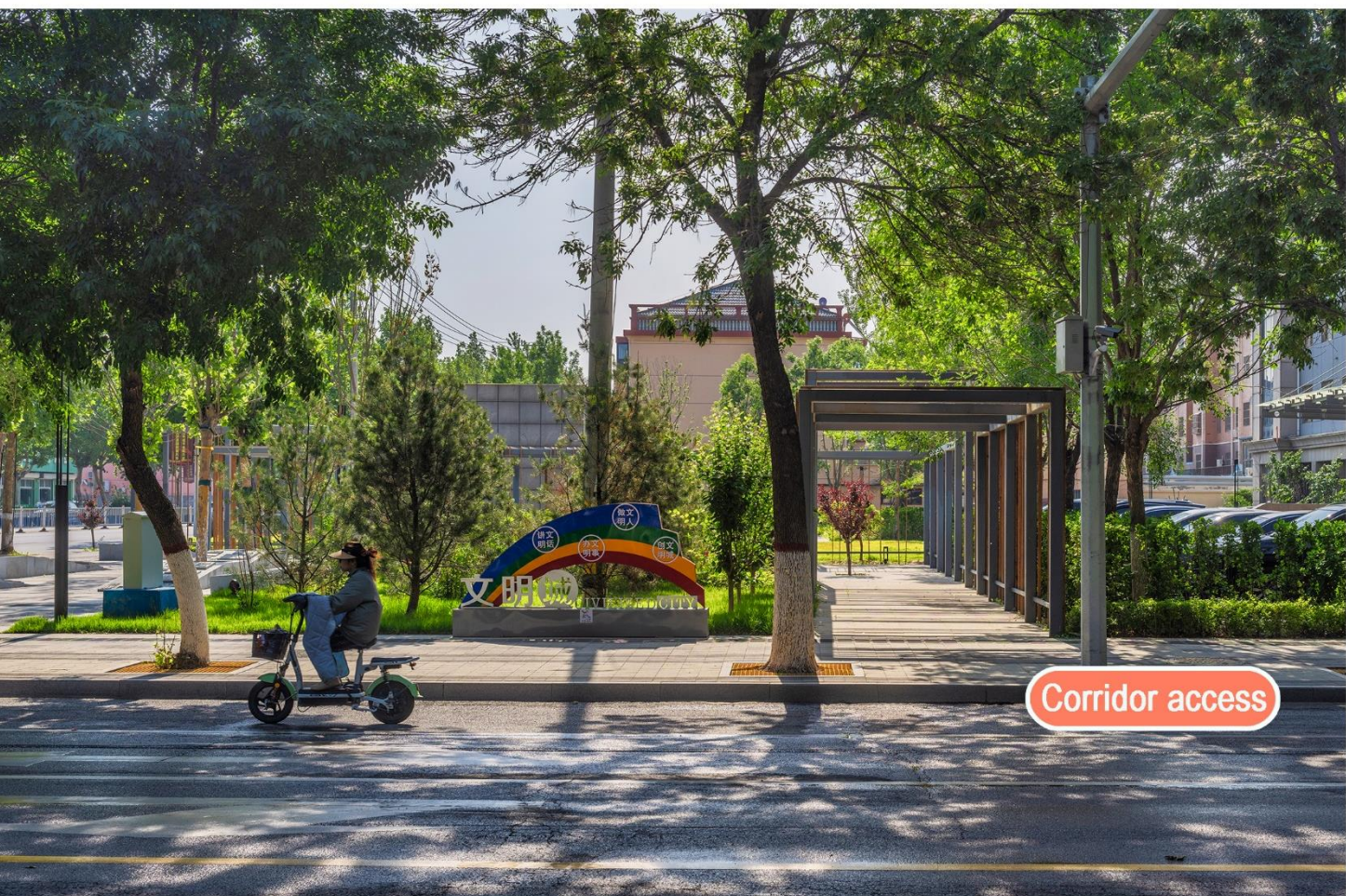
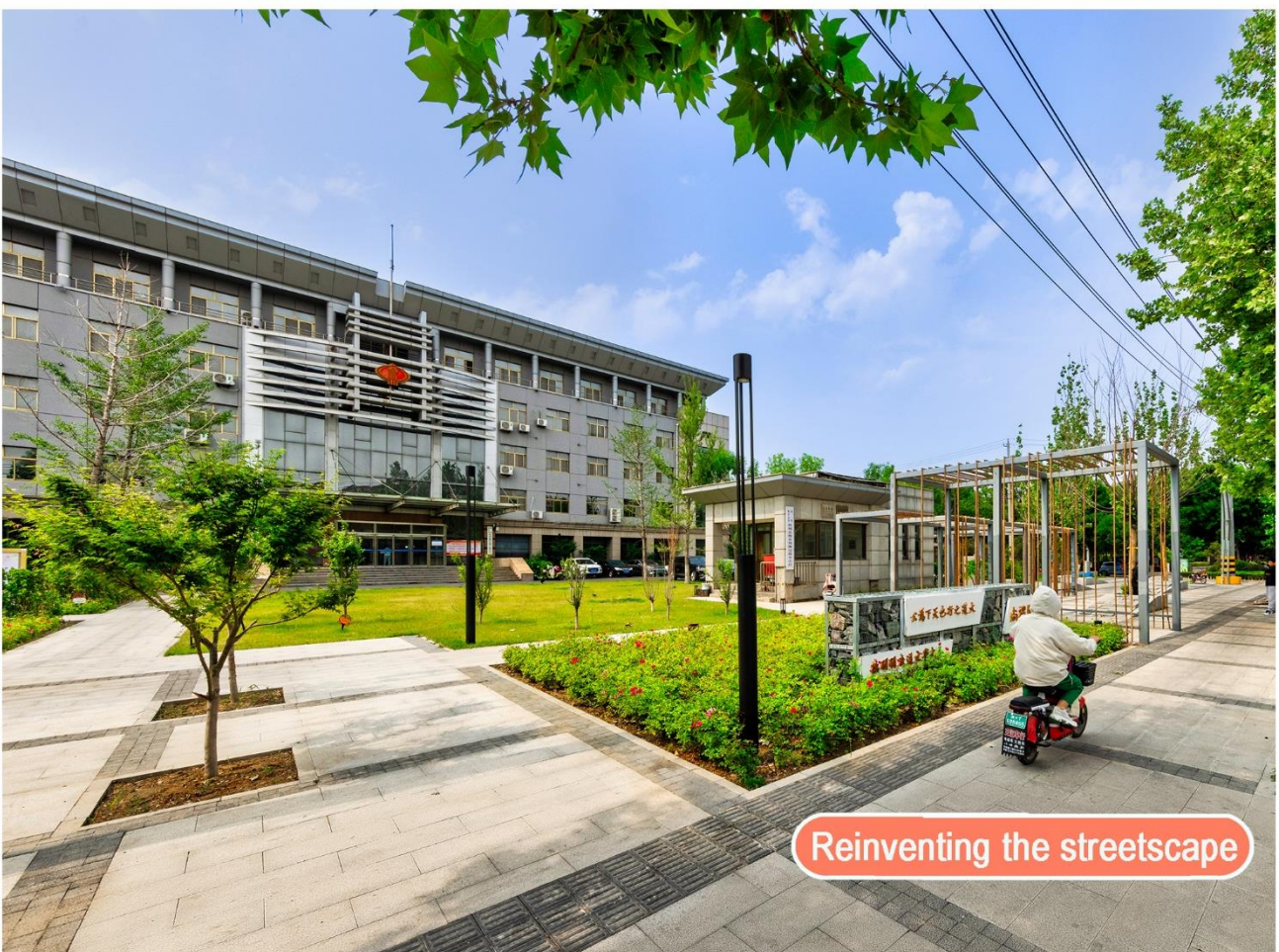
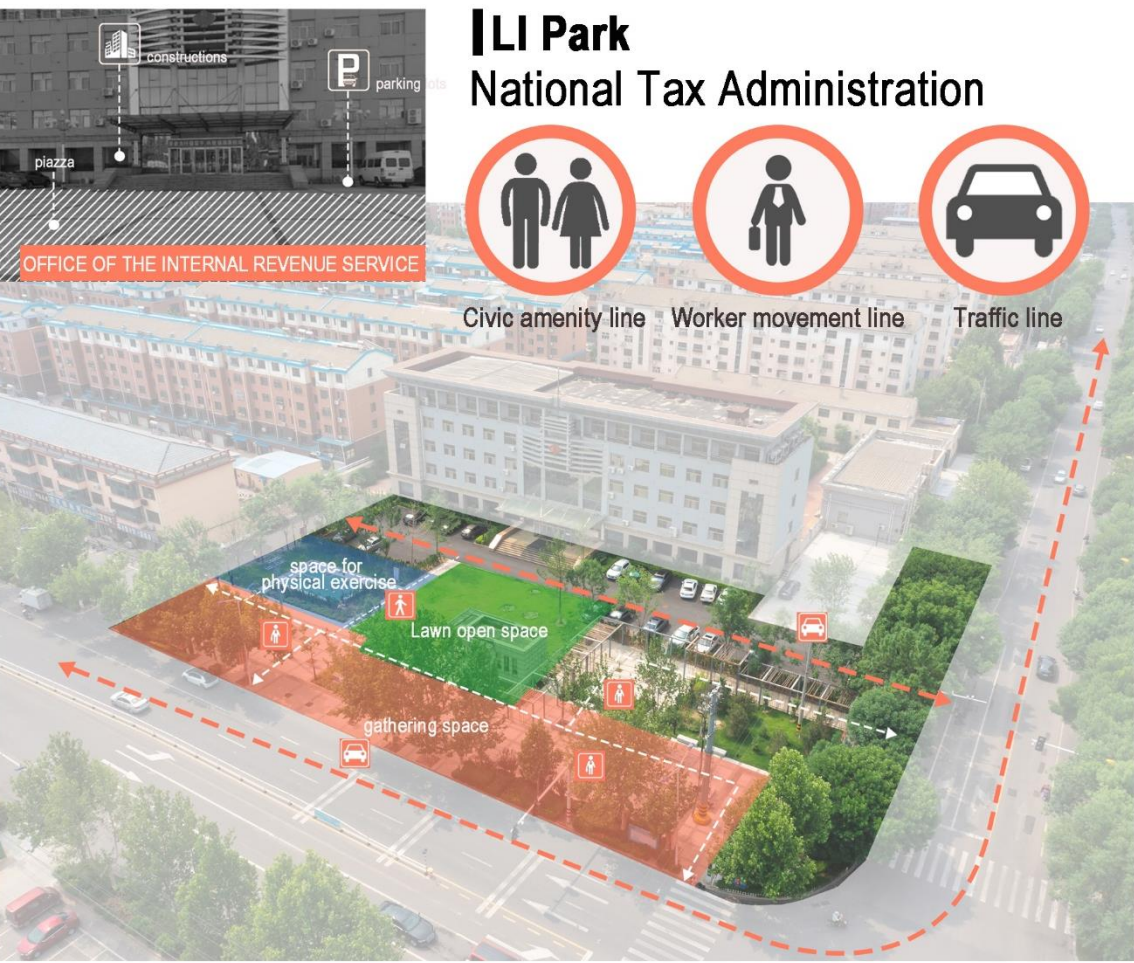
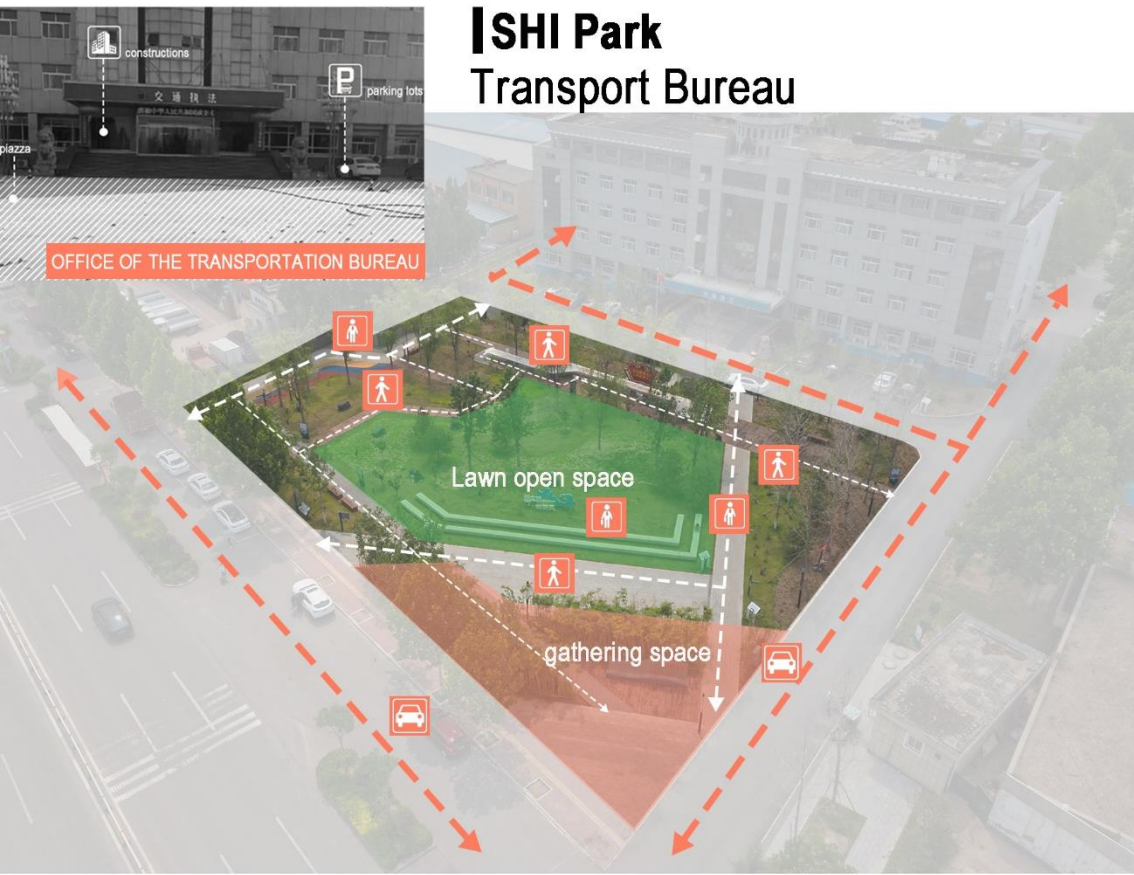
YI PARK



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BLOCK ROUTE COMBING

SHI PARK & LI PARK



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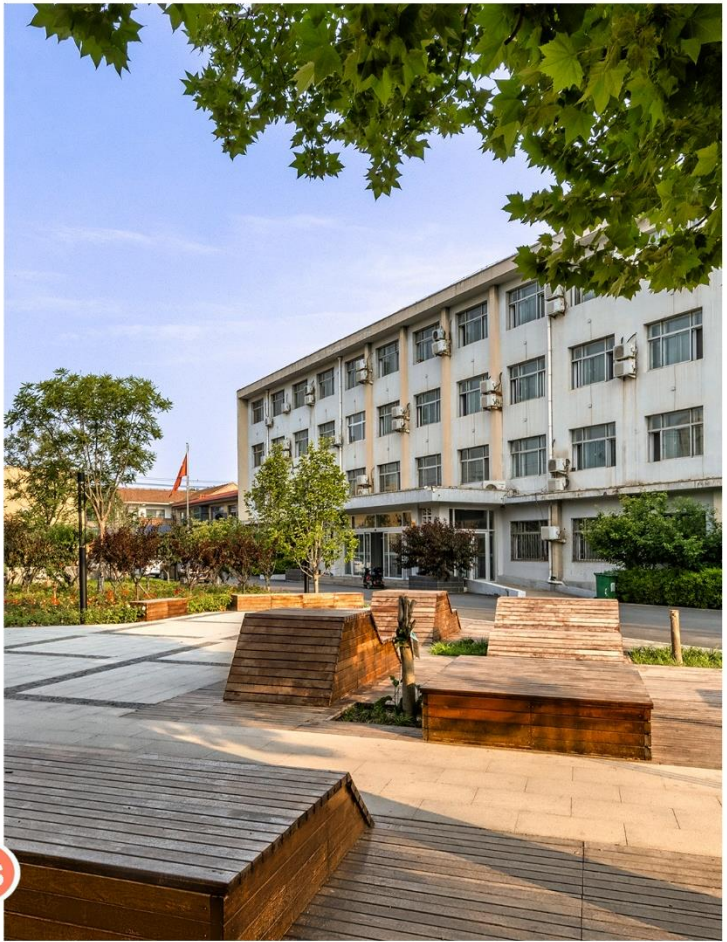
SHU PARK



Retention of buildings and trees



Recreational and sports facilities



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VALUE

EQUITY Green Space Rate Increase
0.45%
Coverage Rate of
500M Service Radius of Park Increase
34%

EOLOGY
21
Local Tree Species
7.1 Tons
Tdemolition Materials

LIVABLE Sports and Leisure Facilities
42 Sets
Public Toilets
2
4 Type
Micro Playground
Benefiting **19400** People

CULTRUE
锦诗
PARK
6
Traditional Cultural
Education Points

GOVERNMENT
REPRESENTATIVES
DESIGNER
Multi-party
Collaboration

SPRINKLER
TRUCKS
Anti-dust
Construction

SPECIAL
CONSTRUCTION
SCHEDULES
Silent
Construction

LOW
INTERFERENCE
HIGH
EFFICIENCY

Local Media Cooperation
Multi platform full process project promotion



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