

IFLA ASIA-PAC LA AWARDS 2023 - LANDSCAPE ARCHITECTURE CATEGORY
1.1 BUILT PROJECTS - 1.1A) CULTURAL AND URBAN LANDSCAPE

"TWIN BRIDGES IN THE RAINY MIST"

- A CULTURAL HUB FOR CONTEMPORARY LIVING

双桥烟雨

TWIN BRIDGES IN THE RAINY MIST



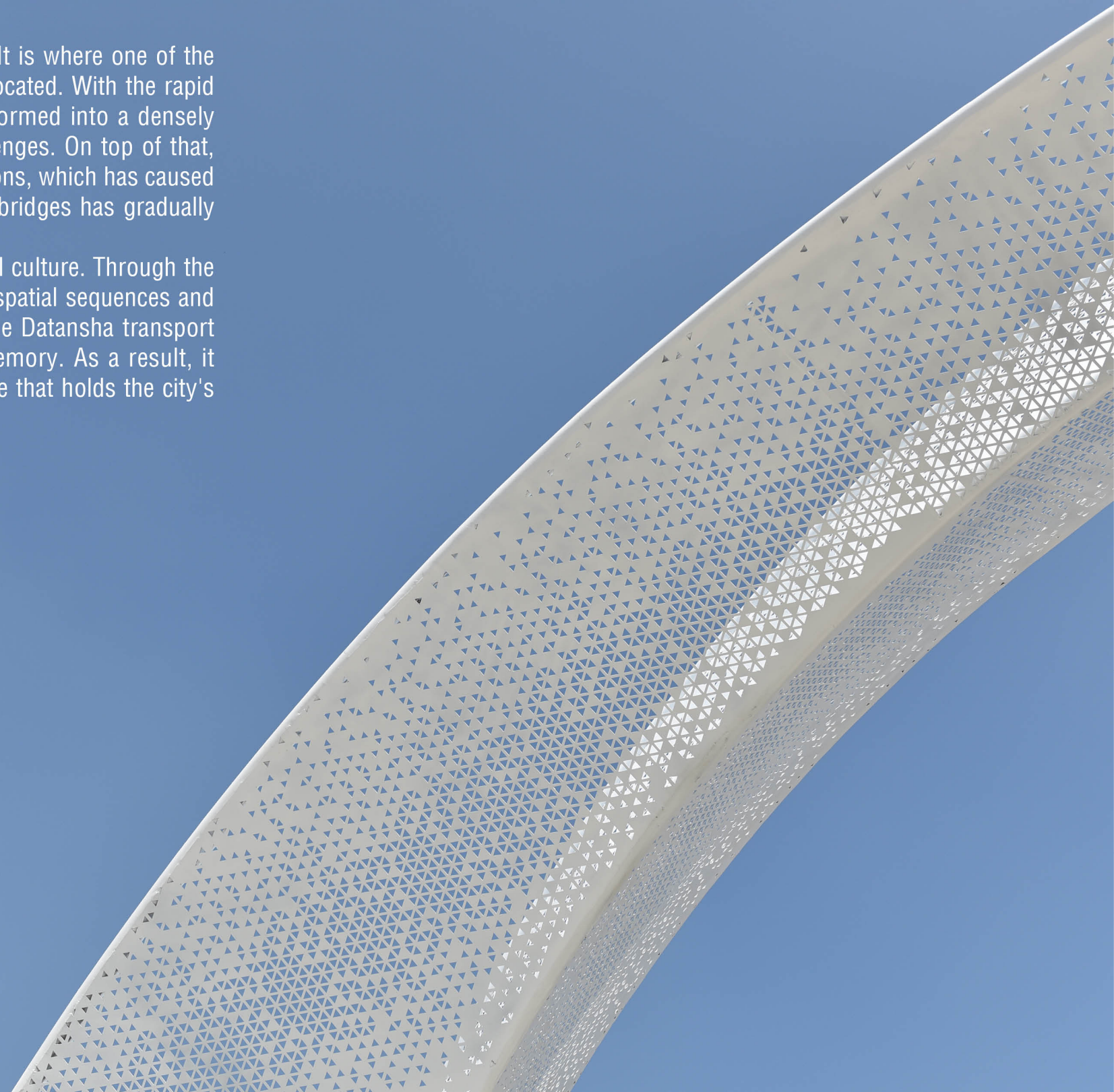
PROJECT TITLE

"Twin Bridges in the Rainy Mist" - a Cultural Hub for Contemporary Living

PROJECT STATEMENT

Datansha Island, a sandbar in the Pearl River, lies in the west of Guangzhou, China. It is where one of the "Eight Signature Scenic Spots of Old Guangzhou" - "Twin Bridges in the Rainy Mist" located. With the rapid urbanisation over the past two decades, the former village on the island has transformed into a densely populated urban area. However, such drastic development has brought severe challenges. On top of that, public open spaces and green spaces have been encroached upon by illegal constructions, which has caused a series of traffic safety issues. Moreover, the unique historical memory of the twin bridges has gradually been forgotten.

The vision for the project is to create a modern transport hub rooted in Lingnan's local culture. Through the contemporary translation of the cultural image of the Twin Bridges, reorganising the spatial sequences and combing the traffic flow, the designers aimed to reshape the central landscape of the Datansha transport hub and create a cultural landscape that carries Guangzhou city's centuries-old memory. As a result, it has become a vibrant open space for residents' daily interactions and a spiritual space that holds the city's profound historical and cultural heritage.



PROJECT NARRATIVE

1. Project Location, Scope And Scale

Datansha Island is a sandbar in the Pearl River that lies in the west of Guangzhou, China. The project location is in the Datansha Island transport hub, including Tanwei Transport Central Axis Square, Twin Bridges Park and the railway shelterbelt green space. The total renovation area is 38,900m².

2. Site Status Base Survey

Datansha Island, where the project is located, is the location of "Twin Bridges in the Rainy Mist", one of the eight signature scenic spots in old Guangzhou. The project is located at the exit of Tanwei Metro Station, the intersection of two metro lines, which is the gateway transport hub centre of Datansha. It is also on the city's main road, where dozens of bus lines meet, with viaducts and railways passing through the sky. Therefore, the hub is constant with high traffic and people flow.

With the rapid transport construction and land development in Datansha Island over the past two decades, the construction waste left by urban construction caused the original Twin Bridges Park to be destroyed and split from the middle and the public green space encroached and over 14,000m² of illegal buildings had emerged from the abandoned grey space, which not only affected the safe operation of the railway but also created a dirty environment along the street and squeezed the street public space for residents. As a result, the cultural memory of the former scenic spot "Twin Bridges in the Rainy Mist" has been gradually forgotten due to the drastic changes in the city landscape.

3. Design Vision and Strategies

The vision for the Datansha transport hub improvement project is to create a modern transport hub rooted in Lingnan's local culture. Datansha's crucial memory, "Twin Bridges in the Rainy Mist", embodies Guangzhou people's historical memories of the collision and fusion of the new modern railway transport in the traditional Lingnan water environment of the Pearl River Delta in the 1960s. Through the overall improvement of the Datansha transport hub, this project reconstructs a transport hub that meets current needs - working with local artists, taking the "Twin Bridges in the Misty Rain" large-scale urban installation art as the main scene to inject vitality into the long-forgotten Twin Bridges culture, continuing the city memory of Guangzhou.

The landscape architects have proposed three main strategies to transform the Datansha transport hub into a modern hub rooted in Lingnan's local culture.

Strategy 1 - Restoring Street Order & Activating Hub Vitality

The design is based on the comprehensive analysis of the daily average passenger flow and traffic flow of the Tanwei Metro Station. Analysing the site's issues, designers concluded that the public space is incoherent due to the large number of illegal buildings, which encroached on pedestrian space and affected traffic safety. In addition, they caused traffic chaos in dense traffic hubs.

In response to the above problems, 14,000m² of public space was released by demolishing illegal buildings. The designers reorganised the spatial sequence to enhance spatial continuity and increased the transit and waiting area appropriately. It increased the accessibility of the public area of the Datansha transport hub. It reconnected a series of spaces such as the Tanwei subway exit space, the central axis distribution square, and the Twin Bridges Park. Distribution space provided people with places to wait and stay while alleviating urban congestion.

Furthermore, the designers also reorganized the traffic streamline to realize the diversion of pedestrians and vehicles. Redesign the traffic streamline and increase the sidewalks for pedestrians to improve the efficiency and safety of traffic.

Meanwhile, the designers aimed to improve the quality of the environment and enhance the overall amenity of the environment. To improve the comfort of the space by improving the space environment along the street, the designers considered removing construction waste, adding benches and updating public facilities such as guardrails.

Strategy 2 - Recover Green Space & Construct An Eco-Friendly Transport Hub

Twin Bridges Park is currently the only urban park on Datansha Island. The excavation project of the Guangzhou Metro Line 5 and 6 in the early 2000s resulted in a break from the middle of the Twin Bridges Park into two parts, the east and the west part and the green space in the middle has not been recovered ever since. The hard ground has been used as a landfill to pile up construction waste for a long time. At the same time, since Twin Bridges Park has not changed its enclosed park management method since the 1980s, the park is in a closed state, with poor accessibility and a low utilisation rate.

To deal with the problem of unrecovered green space, the designers restored the function of green space in the centre of Twin Bridges Park. Since the central axis square is located on the subway roof, it is unsuitable for planting trees. The designers increased the green area of the main axis square by raising the terrain and increasing the covering soil according to local conditions, and selected plant species with shallow root systems to increase the green viewing rate of the central axis square and improve the space environment.

To solve the problem of low park usage, the designers opened the park boundaries to improve the accessibility of the park. By dismantling the park boundary fence and expanding the park entrance, the park is connected with the community, allowing residents to enter the park on foot, which is convenient for residents to enter and participate in activities. After removing the fence, the number of entrances to the park has increased. In addition, it is directly connected to the city road, which is convenient for people to enter Twin Bridges Park from different angles, increasing the accessibility and attractiveness of the park.

Designers also use modern sponge methods to improve stormwater management. By constructing rainwater collection facilities to collect and filter rainwater, the water recycled could be used for irrigation and the intelligent mist spray of the "Twin Bridges in the Misty Rain" installation art, reducing the impact of rainwater on the park and surrounding areas. At the same time, such facilities help improve the park's environmental quality and ecological value.

Strategy 3 - Revisiting The Memory Of Guangzhou City & Recreating Life Scenes

Datansha's crucial memory, "Twin Bridges in the Rainy Mist", embodies Guangzhou people's historical memories of the collision and fusion of the new modern railway transport built in the traditional Lingnan water environment of the Pearl River Delta in the 1960s. To recreate the signature scenic view of the "Twin Bridges in the Rainy Mist", the landscape architects worked with installation artists and calligraphers to complete a large-scale urban landscape art installation, which continued the memory of the city, reshaped the style of the Datansha portal. Datansha Island takes Singapore as a benchmark and is the Guangdong-Singapore cooperation council's frontier urban development area. The design used modern techniques to abstractly design the large-scale urban installation art "Twin Bridges in the Rainy Mist", which incorporates the intention of the twin bridges and the overlapping of orchid leaves. To enhance the image of the transport hub, famous Lingnan calligraphers and painters were invited to inscribe the words "Twin Bridges in the Rainy Mist", which now became a cultural component consumating the idea of twin bridges.

The reappearance of "Twin Bridges in the Rainy Mist" reminds Guangzhou citizens that the first railway bridge in the 1960s - the Pearl River Bridge was erected on the Lingnan Pearl River Delta water network, awakening the collective urban memory of the Guangzhou people. Furthermore, it reminds people of the construction and development of Guangzhou and connects the centuries-old history through the new spatial image of the twin bridges in the misty rain.

The Datansha Transport Hub - Creating a Cultural Hub For Contemporary Living

SITE LOCATION



- Guangdong Province is located in the Pearl River Delta, a Chinese megalopolis, a core for high technology, manufacturing and foreign trade.

- Guangzhou is the capital and largest city of Guangdong province. Located on the Pearl River, it has a history of over 2000 years.

- Liwan district was one of the four old districts in Guangzhou and was positioned as "the central urban area with the most Lingnan characteristics".

THE DATANSHA TRANSPORT HUB

KEY INDEX

38,900M²

TOTAL RENOVATION AREA

14,000M²

DEMOLITION AREA

26,880M²

GREEN SPACE INCREASED

12,020M²

PUBLIC OPEN SPACE AREA

TARGETED USERS

70,000

RESIDENT POPULATION OF THE DATANSHA ISLAND

120,000

AVERAGE DAILY PASSENGER FLOW OF TANWEI STATION

Datansha Island is a sandbar in the Pearl River that lies in the west of Guangzhou, China. The project location is in the Datansha Island transport hub, including Tanwei Transport Central Axis Square, Twin Bridges Park and the railway shelterbelt green space. The total renovation area is 38,900m².

After renovation, the Datansha transport hub has transformed into a modern hub rooted in Lingnan's local culture.

Datansha Island, where the renowned signature scenic spot in history - "Twin Bridges in the Rainy Mist" locates, carries the precious memory of the old guangzhou city.

雨煙橋雙
景入第評
有江江
物事
承
并
花
松
竹
蘭

雨煙橋雙

The Twin Bridges, referring to the Pearl River Bridge, are divided into East and West Bridges. They connect Guangzhou and Foshan through Datansha Island, the first road and railway dual-purpose bridge across the Pearl River in Guangzhou. In 1963, it was rated as one of the "Eight Significant Scenic Spots of Yangcheng".

1900s

THE DATANSHA ISLAND

THE CANTON-SAMSHUI RAILWAY TRAIN

THE PEARL RIVER WEST BRIDGE

THE PEARL RIVER EAST BRIDGE

"TWIN BRIDGES IN THE RAINY MIST"
ONE OF THE EIGHT SIGNATURE
SCENIC SPOTS IN OLD GUANGZHOU

TANWEI STATION
A BUSY TRANSIT HUB

THE GUANG-SAN RAILWAY TRAIN

THE SECOND-HAND MARKET

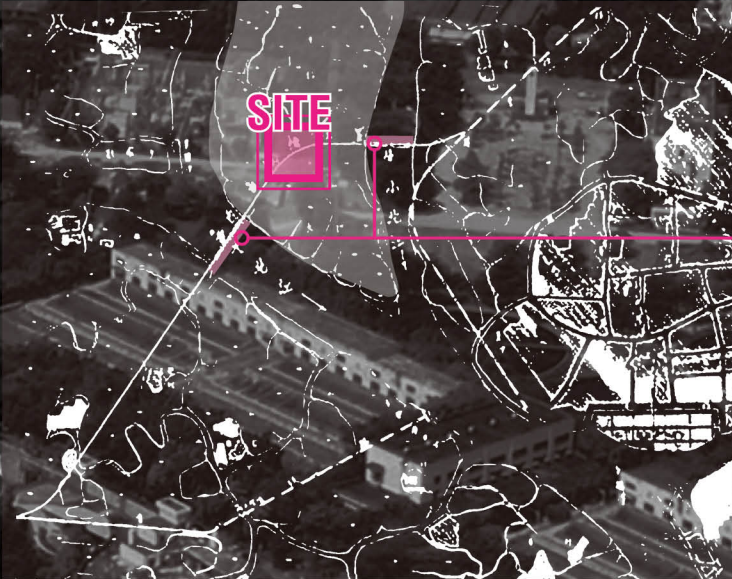
2000s

THE TANWEI METRO STATION

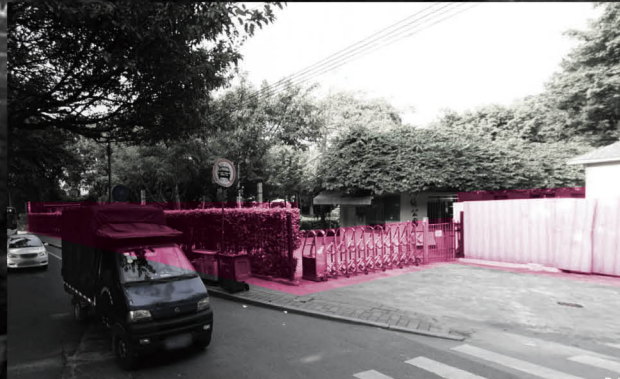
With the completion of Guangzhou Metro Line 5 and 6, Tanwei Station in Datansha has become an increasingly important transport hub. At this stage, Datansha Island was faced with unordered development and the space under the bridge was occupied by the second-hand market of illegal construction.

Challenges - Datansha Island has undergone unordered development

THE DATANSHA ISLAND



- TWIN BRIDGES MEMORY FORGOTTEN



- THE PARK IS FENCED, INACCESSIBLE

"TWIN BRIDGES IN THE RAINY MIST"

THE TWIN BRIDGES PARK WEST

METRO COVER ABANDONED HARD LAND

THE TWIN BRIDGES PARK EAST

RAILWAY TRAIL

TWIN-BRIDGE ROAD

TWIN-BRIDGE ROAD

TANWEI METRO STATION

- ILLEGAL CONSTRUCTION

SECOND-HAND MARKET OF ILLEGAL CONSTRUCTION



- STREET OCCUPIED, POOR SECURITY

2019

THE CHANGE IN LAND USES

1999

2009

PROJECT AREA

PROJECT AREA

PROJECT AREA

Short After the Twin Bridges Park Construction Completed.

The Construction of the New Metro Line Resulted in the Excavation of the Central Part of the Park.

Illegal Buildings and Construction Waste Occupied the Intermediate Plots.

METHODOLOGY

PROBLEMS BROUGHT BY URBAN DISORDERLY SPRAWL



UNAUTHORIZED / ILLEGAL CONSTRUCTION

CONGESTED STREET SPACE AND BLOCKED SIDEWALK

POOR PEDESTRIAN SAFETY OF THE TRANSPORT HUB

CONSTRUCTION DEBRIS POLLUTED THE STREETS




LOW UTILIZATION RATE OF THE ONLY PARK IN DATANSHA

METRO EXCAVATION REDUCED GREEN SPACE RATE

THE PARK WAS FENCED OFF AND INACCESSIBLE


HARD WASTELAND INCREASED CHANCE OF FLOODING



FADED MEMORY OF OLD GUANGZHOU CITY

THE TWIN-BRIDGES CULTURAL MEMORY LOST

HUB IMAGE DID NOT MATCH URBAN DEVELOPMENT



STRATEGIES



DEMOLISH ILLEGAL BUILDINGS TO RELEASE PUBLIC SPACE



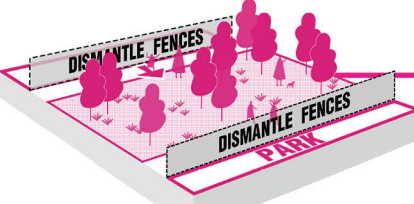
RESTORE PUBLIC OPEN GREEN SPACE



INHERIT THE CULTURAL LEGACY OF GUANGZHOU CITY



REORGANISE SPATIAL SEQUENCE AND SEPARATE PEDESTRIANS AND VEHICLES




OPEN BORDERS OF THE PARK AND INCREASE ACCESSIBILITY



CREATE A VIBRANT TRANSPORT HUB FOR DATANSHA ISLAND



IMPROVE THE ENVIRONMENT QUALITY TO ENHANCE SPATIAL LIVABILITY



FORM A RESILIENT RAIN-WATER NETWORK



REVISITING MEMORIES OF GUANGZHOU CITY & RECREATING LIFE SCENES

RESTORING STREET ORDER & ACTIVATING HUB VITALITY

RECOVER GREEN SPACE & CONSTRUCT AN ECO-FRIENDLY TRANSPORT HUB

REVISITING MEMORIES OF GUANGZHOU CITY & RECREATING LIFE SCENES

A MODERN TRANSPORT HUB ROOTED IN LINGNAN'S LOCAL CULTURE

MASTER PLAN

1. "Twin Bridges In The Misty Rain" Art Installation
2. Tanwei Transport Central Axis Square
3. Twin Bridges Park West
4. Twin Bridges Park East
5. Demolition And Green Space Restored - Railway Shelterbelt
6. Demolition And Green Space Restored
7. Tanwei MRT Station Exit Space
8. Native Old Banyan Tree
9. Open West Park Entrance
10. Open East Park Entrance
11. Railway Management And Maintenance Office
12. Underground Facilities Belt
13. Original Entrance Of East Garden
14. Viaduct Bottom Grey Space
15. New West Park Entrance
16. New East Park Entrance



STRATEGY 1

RESTORING STREET ORDER & ACTIVATING HUB VITALITY



DEMOLISH
ILLEGAL
BUILDINGS
TO RELEASE
PUBLIC SPACE



REORGANISE
SPATIAL SEQUENCE
AND SEPARATE
PEDESTRIANS AND
VEHICLES



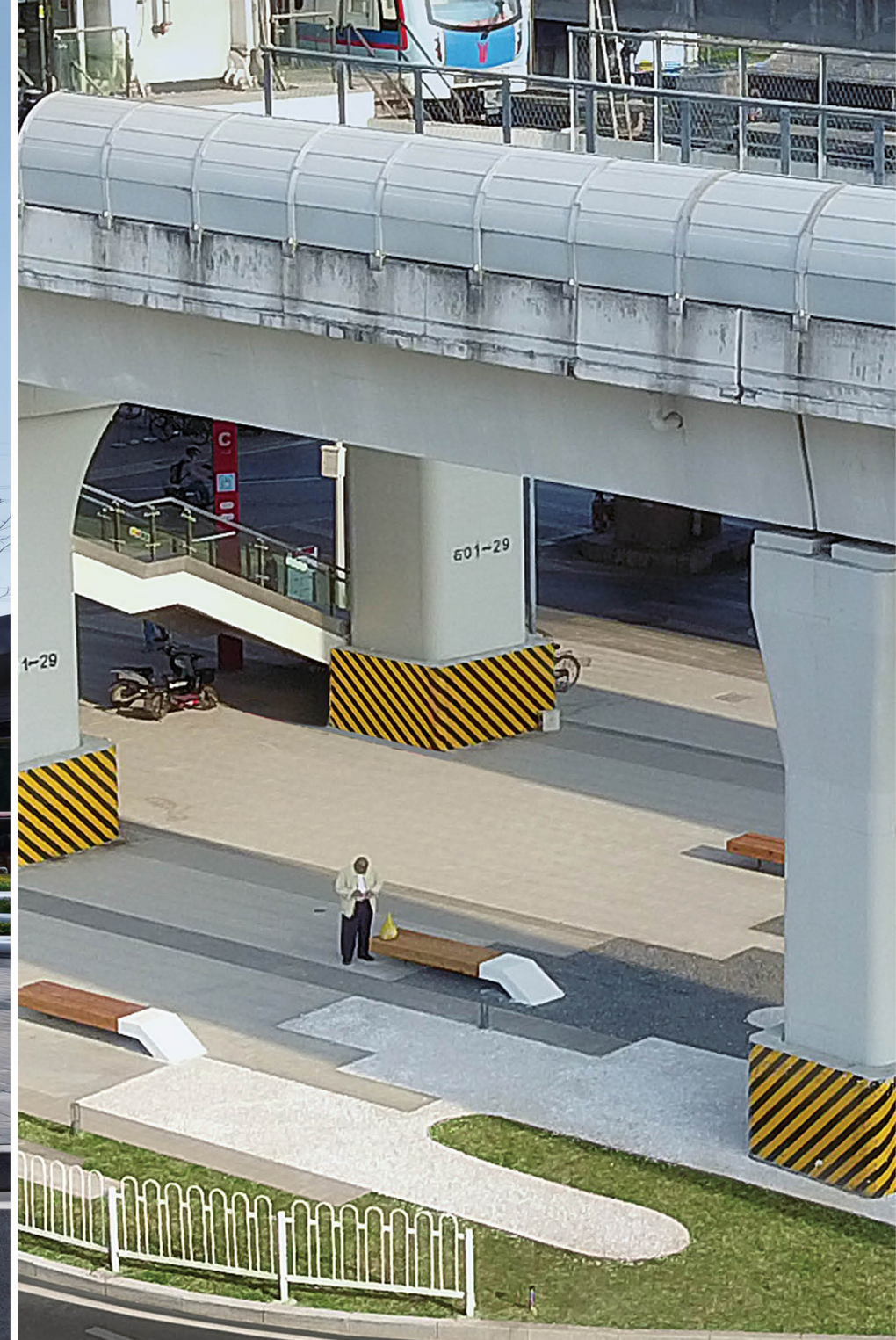
IMPROVE THE
ENVIRONMENT
QUALITY TO
ENHANCE SPATIAL
LIVABILITY



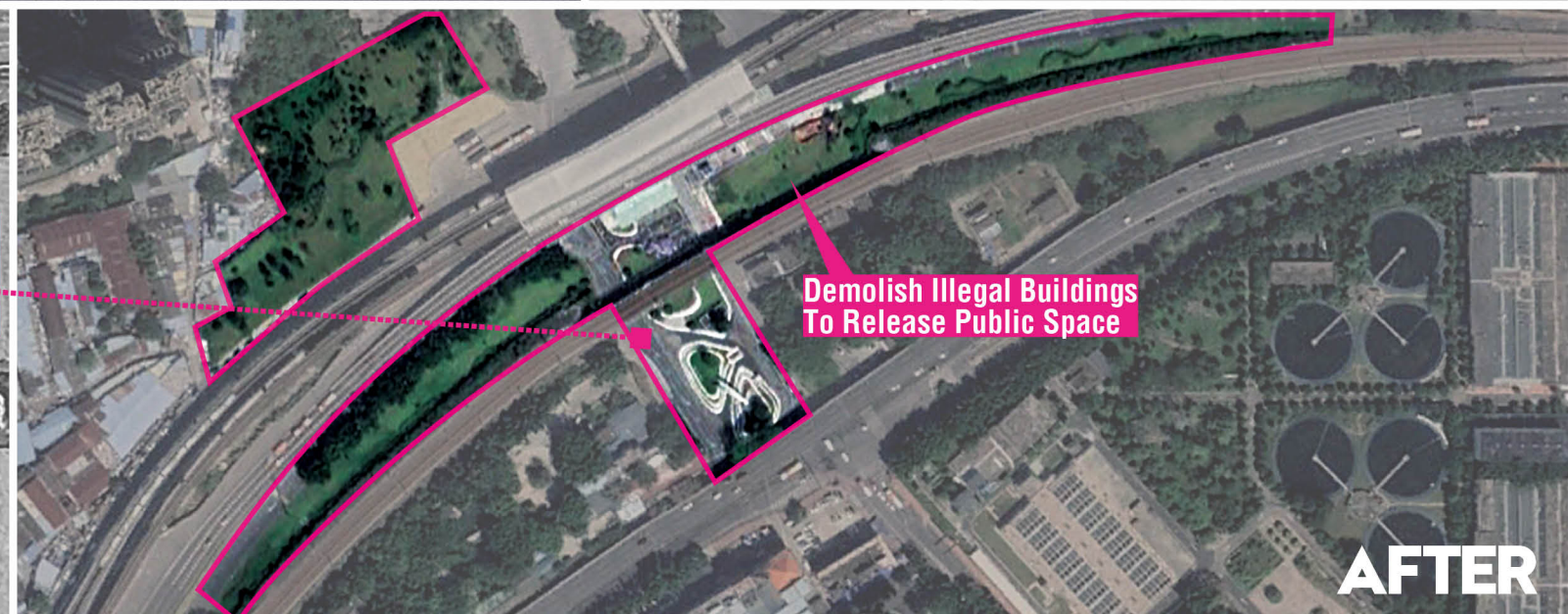
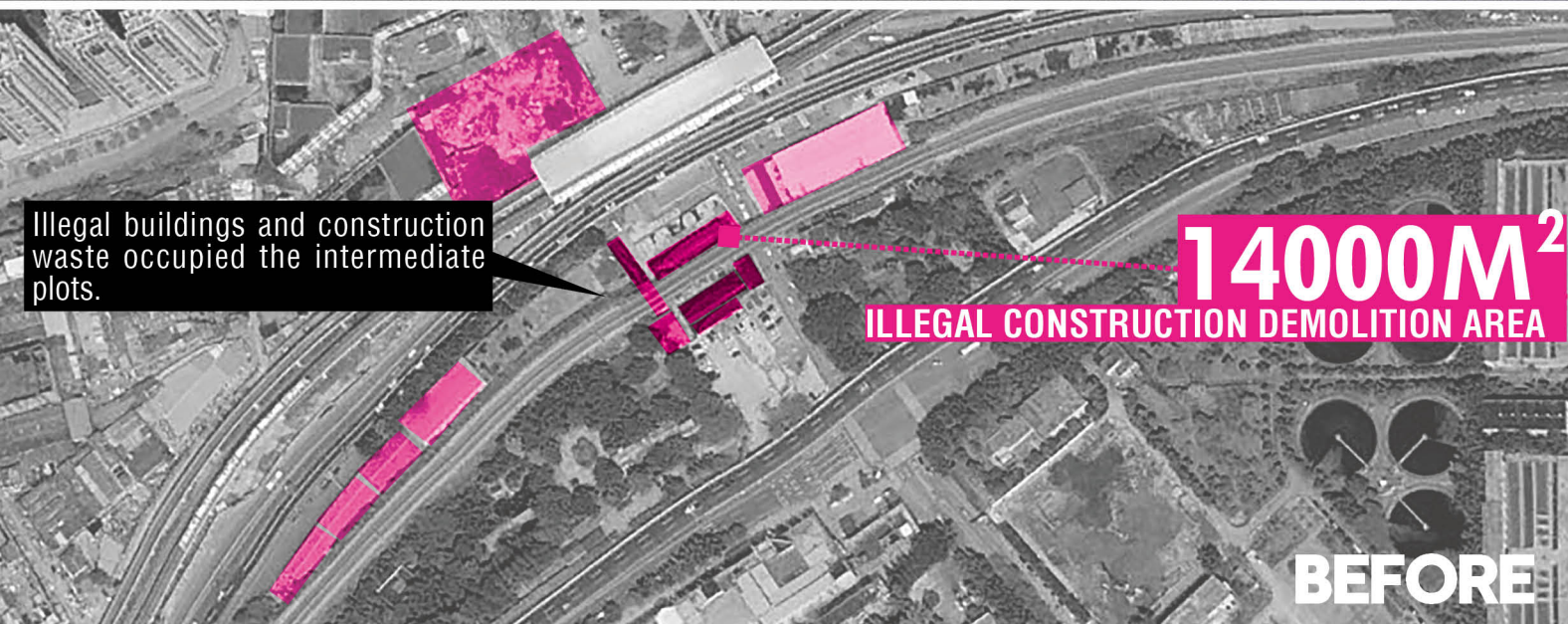
DEMOLISH ILLEGAL BUILDINGS TO RELEASE PUBLIC SPACE



Demolition of illegal buildings on the top of the Tanwei metro station to restore public urban space functions.



Remove the illegal buildings under the bridge and release the grey space.





REORGANISE SPATIAL SEQUENCE AND SEPARATE PEDESTRIAN AND VEHICLES

KEY INDEX

9730M²

TRANSIT AND WAITING AREA

500M

SIDEWALK INCREASED

650M

DRIVEWAY INCREASED

THE TWIN BRIDGES PARK

BUS TERMINAL

TANWEI MRT STATION

PARK ENTRANCE

DRIVEWAY

RAILWAY

METRO EXIT

TWIN-BRIDGE ROAD

SIDEWALK

DRIVEWAY

SIDEWALK

TWIN-BRIDGE ROAD

PARK ENTRANCE

THE TWIN BRIDGES PARK

RAILWAY FACILITIES

9730M²

TRANSIT AREA INCREASED

500M

SIDEWALK INCREASED

650M

DRIVEWAY INCREASED



IMPROVE THE ENVIRONMENT QUALITY TO ENHANCE SPATIAL LIVABILITY



Illegal construction wastes
have polluted the street
environment.



Remove construction waste and restore
traffic function under the bridge.



Illegal buildings occupying
the railway shelterbelt has
affected the street interface.

Household waste piled
up on the street.



Restoring the function of the railway
shelterbelt and improving safety.



Illegal buildings occupied the
metro entrance and exit space,
bringing safety hazards.

TANWEI
MTR
STATION



Release the entrance and exit space of the subway
and improve the amenity of the environment.

TANWEI
MTR
STATION

STRATEGY 2

RECOVER GREEN SPACE & CONSTRUCT AN ECO-FRIENDLY TRANSPORT HUB



RESTORE
PUBLIC
OPEN
GREEN
SPACE



OPEN
BORDERS OF
THE PARK AND
INCREASE
ACCESSIBILITY



FORM A
RESILIENT
RAIN-
WATER
NETWORK

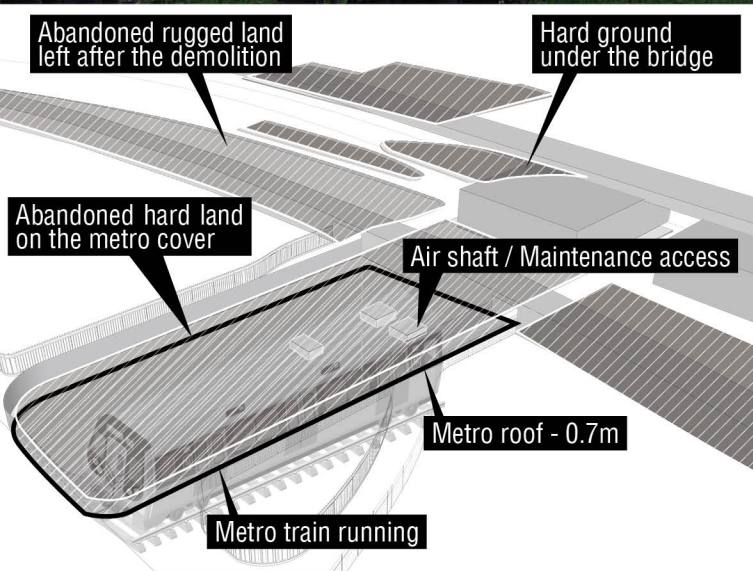




RESTORE PUBLIC OPEN GREEN SPACE

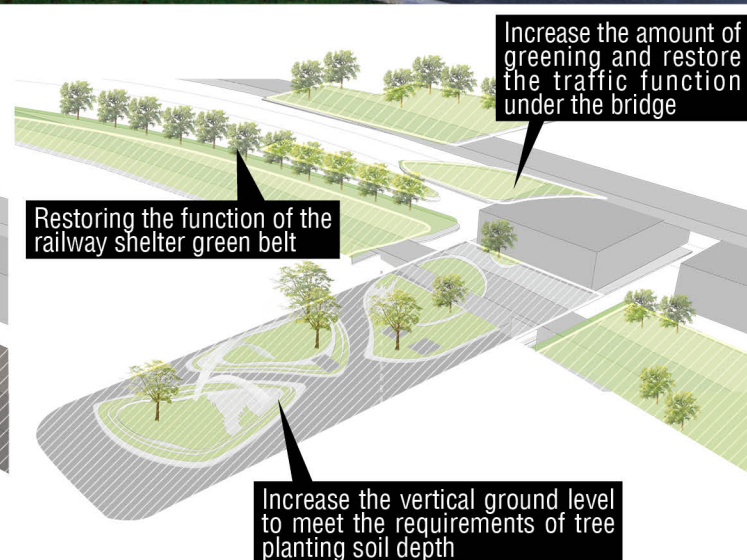


Restoring the green space function of the connecting block in the middle of Twin Bridges Park to increase the amount of greenery.



Abandoned rugged land left after the demolition

The site was composed of the abandoned hard land left by the metro excavation, the construction waste left by the demolition.



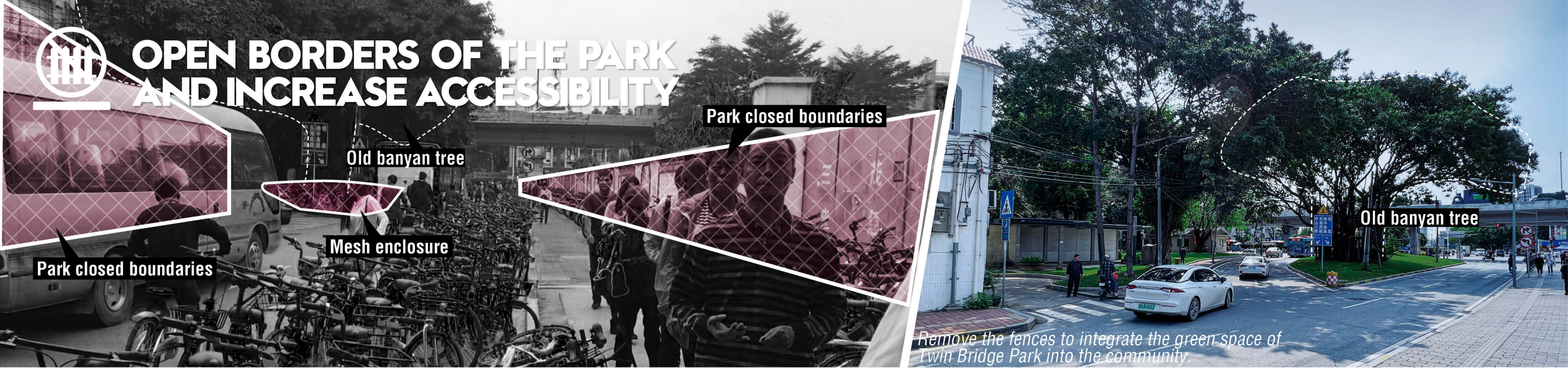
Public open green space restored

Restore the green space function and increase the amount of greenery. Create a breathing green area for the Datansha hub.

26,880M²
GREEN SPACE INCREASED
237
NEW TREES PLANTED



Increase greening rate and reduce carbon.





FORM A RESILIENT RAINWATER NETWORK

USE INTELLIGENT RAINWATER HARVESTING SYSTEM TO IMPROVE RAINWATER RECYCLING RATE

The height difference created by the grass steps is used to build a built-in reservoir to collect rainwater in the site. After purification, it becomes water for mist spraying of the cultural installation - "Twin Bridge in the Misty Rain". The recycled rainwater is also reused for irrigation.



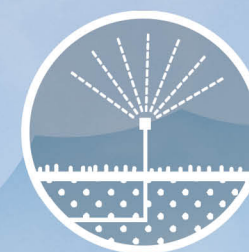
FLOOD
DETENTION



RAIN WATER
PERMEABILITY

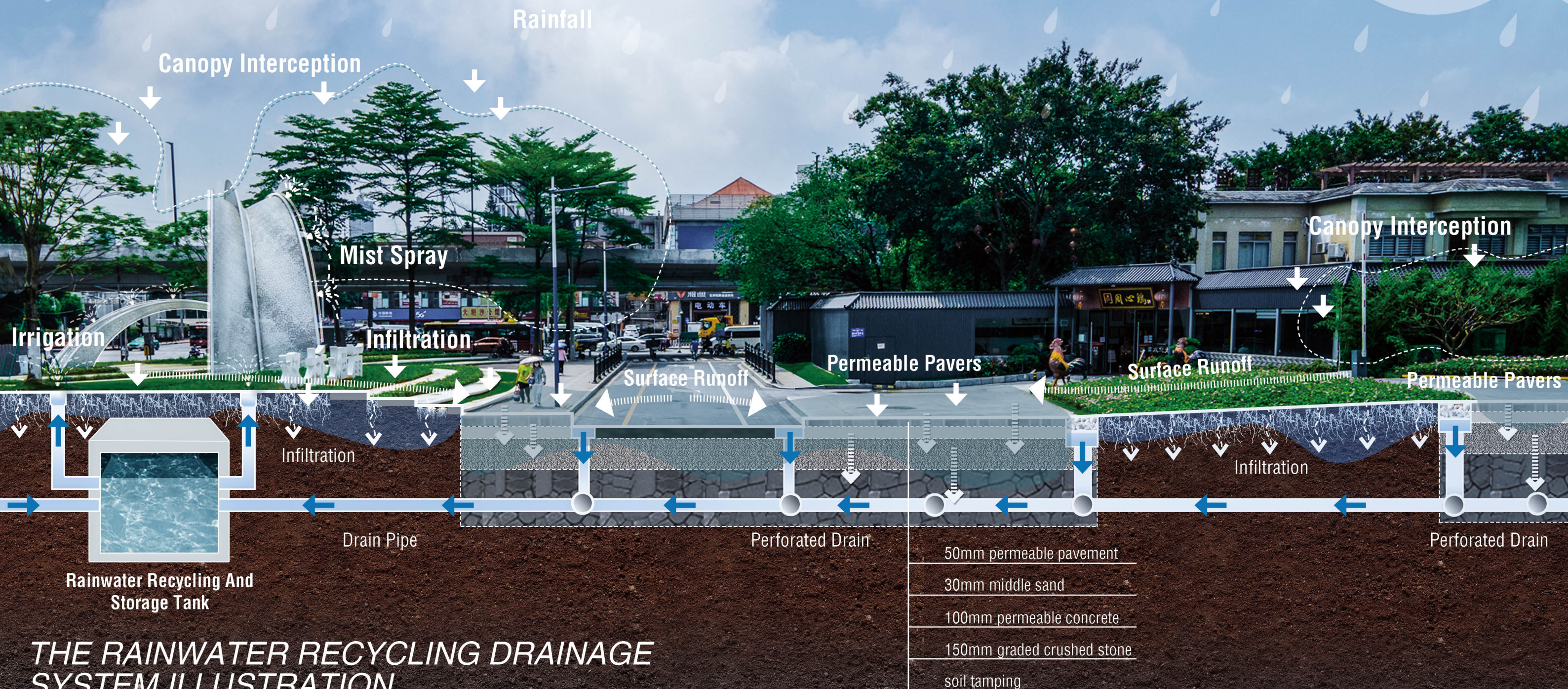


STORM WATER
RETENTION



STORM WATER
RECYCLING

Rainfall



THE RAINWATER RECYCLING DRAINAGE SYSTEM ILLUSTRATION

STRATEGY 3

REVISITING MEMORIES OF GUANGZHOU CITY & RECREATING LIFE SCENES



INHERIT THE
CULTURAL
LEGACY OF
GUANGZHOU CITY



CREATE A VIBRANT
TRANSPORT HUB
FOR DATANSHA
ISLAND





INHERIT THE CULTURAL LEGACY OF GUANGZHOU CITY

Datansha's crucial memory, "Twin Bridges in the Rainy Mist", embodies Guangzhou people's historical memories of the collision and fusion of the new modern railway transport built in the traditional Lingnan water environment of the Pearl River Delta in the 1960s.

To recreate the signature scenic view of the "Twin Bridges in the Rainy Mist", the landscape architects worked with installation artists and calligraphers to complete a large-scale urban landscape art installation.

DATANSHA ISLAND

Datansha Island takes Singapore as a benchmark and is the Guangdong-Singapore cooperation council's frontier urban development area.

Vanda 'Miss Joaquim' SINGAPORE

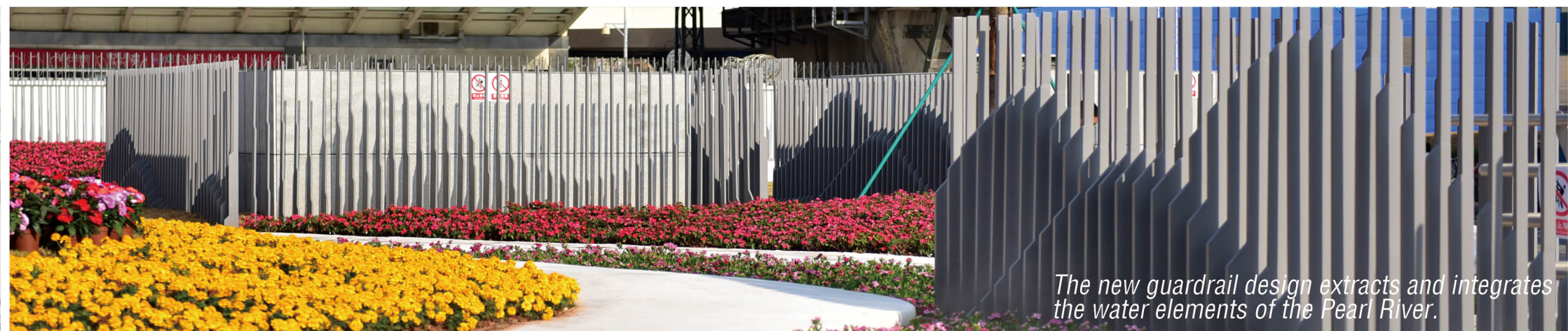
ORCHIDACEAE TWIN BRIDGES



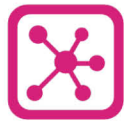
Working with installation artists and calligraphers to recreate "Twin Bridges in the Rainy Mist".



PEARL
RIVER
WATER



The new guardrail design extracts and integrates the water elements of the Pearl River.



CREATE A VIBRANT TRANSPORT HUB FOR DATANSHA ISLAND

The reappearance of “Twin Bridges in the Rainy Mist” reminds Guangzhou citizens that the first railway bridge in the 1960s - the Pearl River Bridge was erected on the Lingnan Pearl River Delta water network, awakening the collective urban memory of the Guangzhou people. Furthermore, it reminds people of the construction and development of Guangzhou and connects the centuries-old history through the new spatial image of the twin bridges in the misty rain.



"TWIN BRIDGES IN THE RAINY MIST"

- A CULTURAL HUB FOR CONTEMPORARY LIVING

Through the overall improvement of the Datansha transport hub, this project reconstructs a transport hub that meets current needs. It has become a vibrant open space for residents' daily interactions and a spiritual space that holds the city's profound historical and cultural heritage.

