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11.307 Beijing Urban Design Studio
Summer 2008

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绿色首钢：
全球可持续发展研究中心
**Greening Shougang Factory:
A Global Sustainability Institute in Beijing**

Sonam Gayleg 索纳姆
He Zhong Yu 何仲禹
Jesse Hunting
Sarah Neilson 莎拉

Sun Penghui 孙芃卉
Jia Zheng 贾铮

SUSTAINABILITY 可持续发展

ENERGY: solar, wind, cooling / air-conditioning,
能源 ocean / wave / tidal, and geothermal

TRANSPORTATION: rail networks, smart bikes,
交通 other transportation alternatives

FUELS: hydrogen, other alternative fuels

CLEANUP AND POST-POLLUTION:
工业污染的清洁 toxics, industrial pollution (air, water, land)

FARMING / AGRICULTURAL 农业

WASTE MANAGEMENT: garbage, recycling, compost
废物处理

ENERGY EFFICIENCY 能源效率

首钢可持续发展的定义

SUSTAINABILITY AT THE SHOUGANG SITE

“manage the transition to new uses, preserving elements of the site’s past and creating a pathway for future generations to meet their needs”

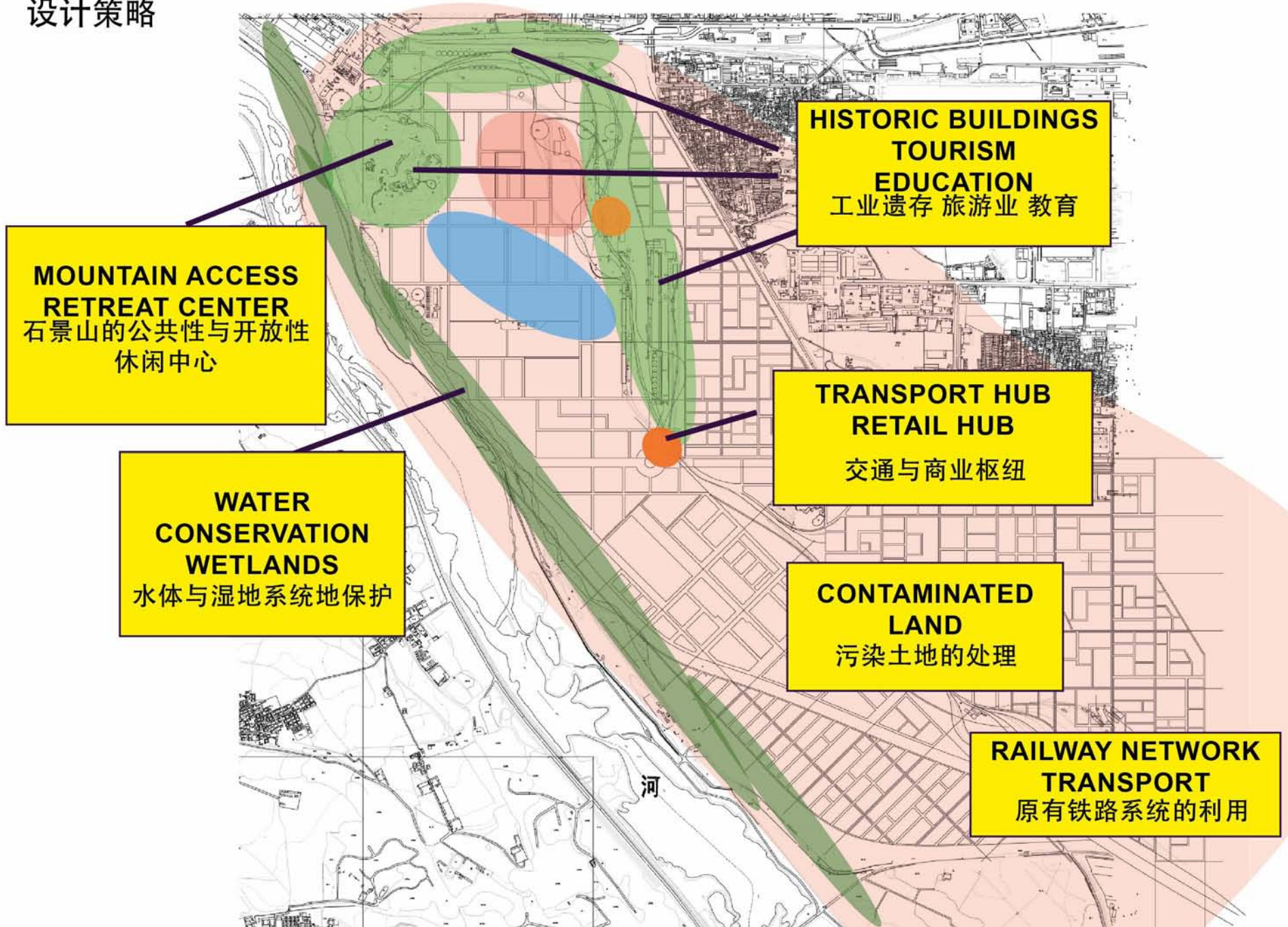
旧为新用，保留场地的历史元素，并满足首钢和北京的未来发展需求。



SUSTAINABLE DEVELOPMENT AT SHOUGANG

1. Existing site features and landscape

设计策略



两个层面上的可持续发展

2. New developments on site

Sustainable building design

Sustainable systems:

Water

Sewer

Waste

Transportation

Research institute: sustainable practices, green development

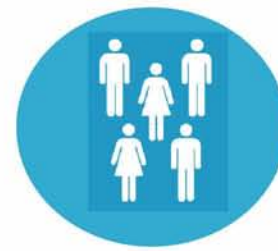
Flexible spaces for testing new technologies



环境



经济



社会

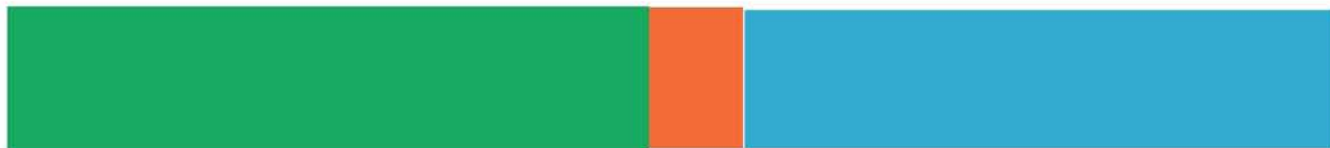
**MOUNTAIN ACCESS
RETREAT CENTER**
石景山的公共性与开放性
休闲中心



**HISTORIC BUILDINGS
TOURISM / EDUCATION**
工业遗存 旅游 教育



**WATER CONSERVATION
WETLANDS**
水体与湿地的保护



**TRANSPORT HUB
RETAIL HUB**
交通与商业枢纽



CONTAMINATED LAND
污染土地的处理



**RAILWAY NETWORK
TRANSPORT**
原有铁路系统的利用



PHASING DEVELOPMENT AT SHOUGANG

规划分期



RESEARCH/ DEV. CLUSTER 研发
SITE CHEMICAL CLEANUP 污染清洁

RESEARCH/ DEV. CLUSTER
SITE CHEMICAL CLEANUP

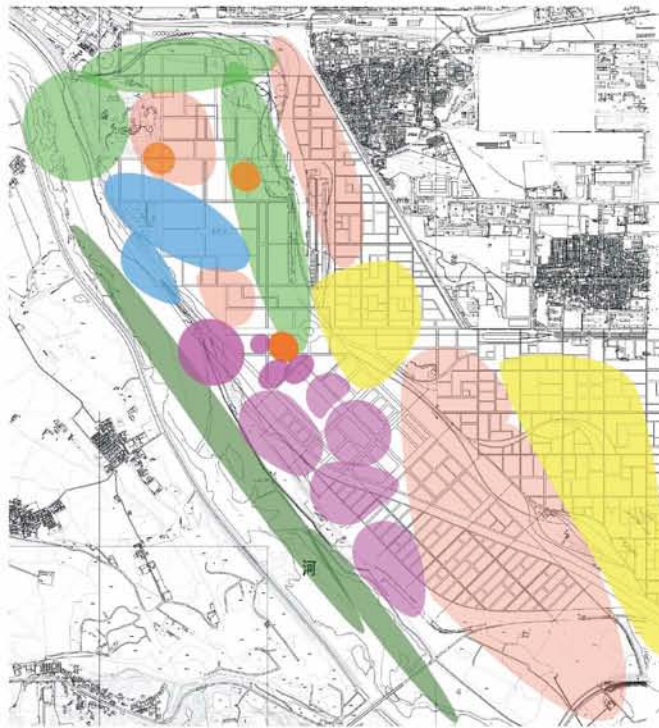
WETLANDS
湿地系统

RESEARCH/ DEV. CLUSTER
SITE CHEMICAL CLEANUP

WETLANDS
VISITOR HUB 游客进入
HOUSING 住宅进入

PHASING DEVELOPMENT AT SHOUGANG

规划分期



RESEARCH/ DEV. CLUSTER
SITE CHEMICAL CLEANUP

RESEARCH/ DEV. CLUSTER
SITE CHEMICAL CLEANUP

RESEARCH/ DEV. CLUSTER

WETLANDS

WETLANDS

WETLANDS

VISITOR HUB
HOUSING

VISITOR HUB
HOUSING

VISITOR HUB
HOUSING

INSTITUTE CORE

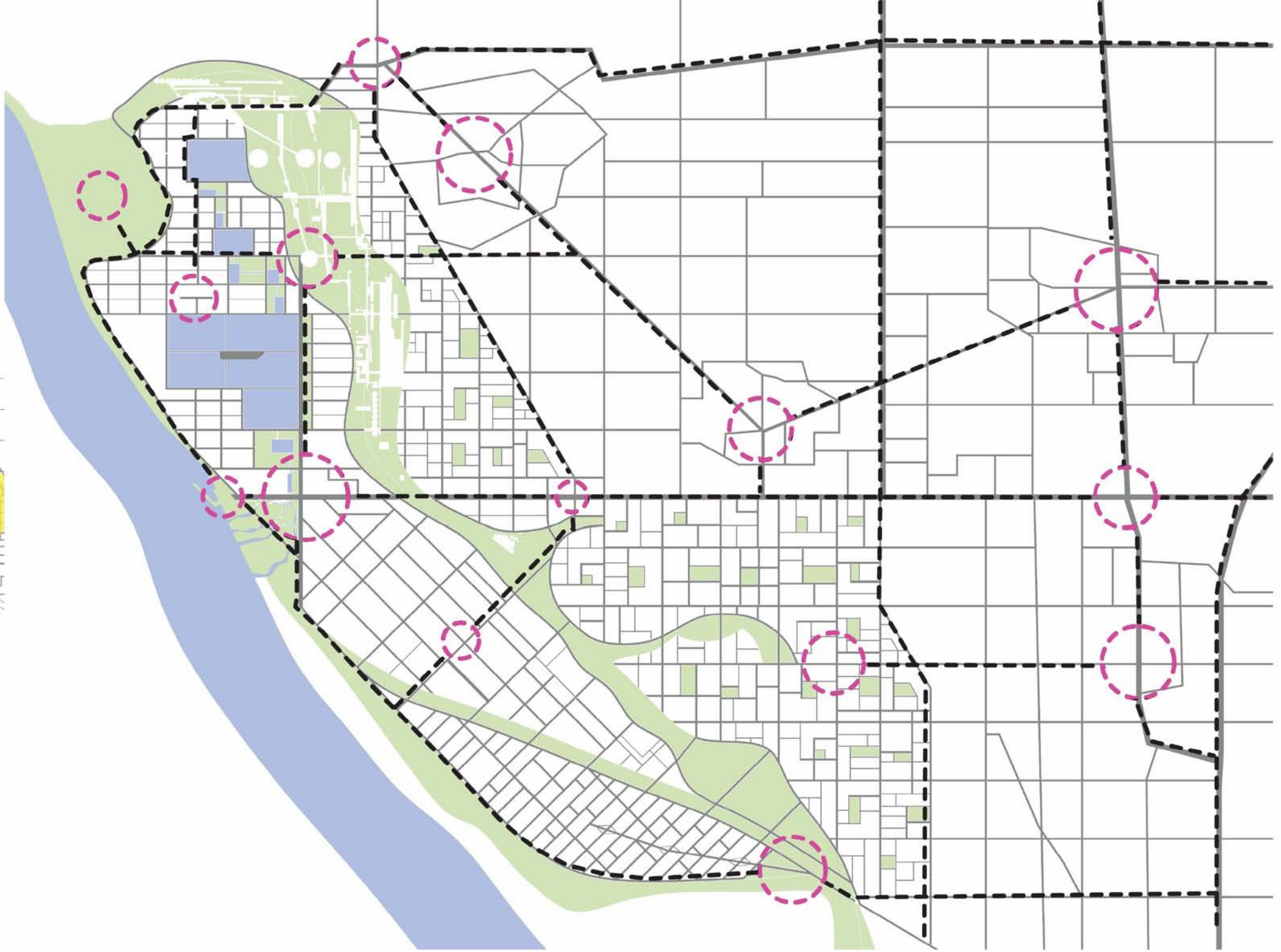
INSTITUTE CORE

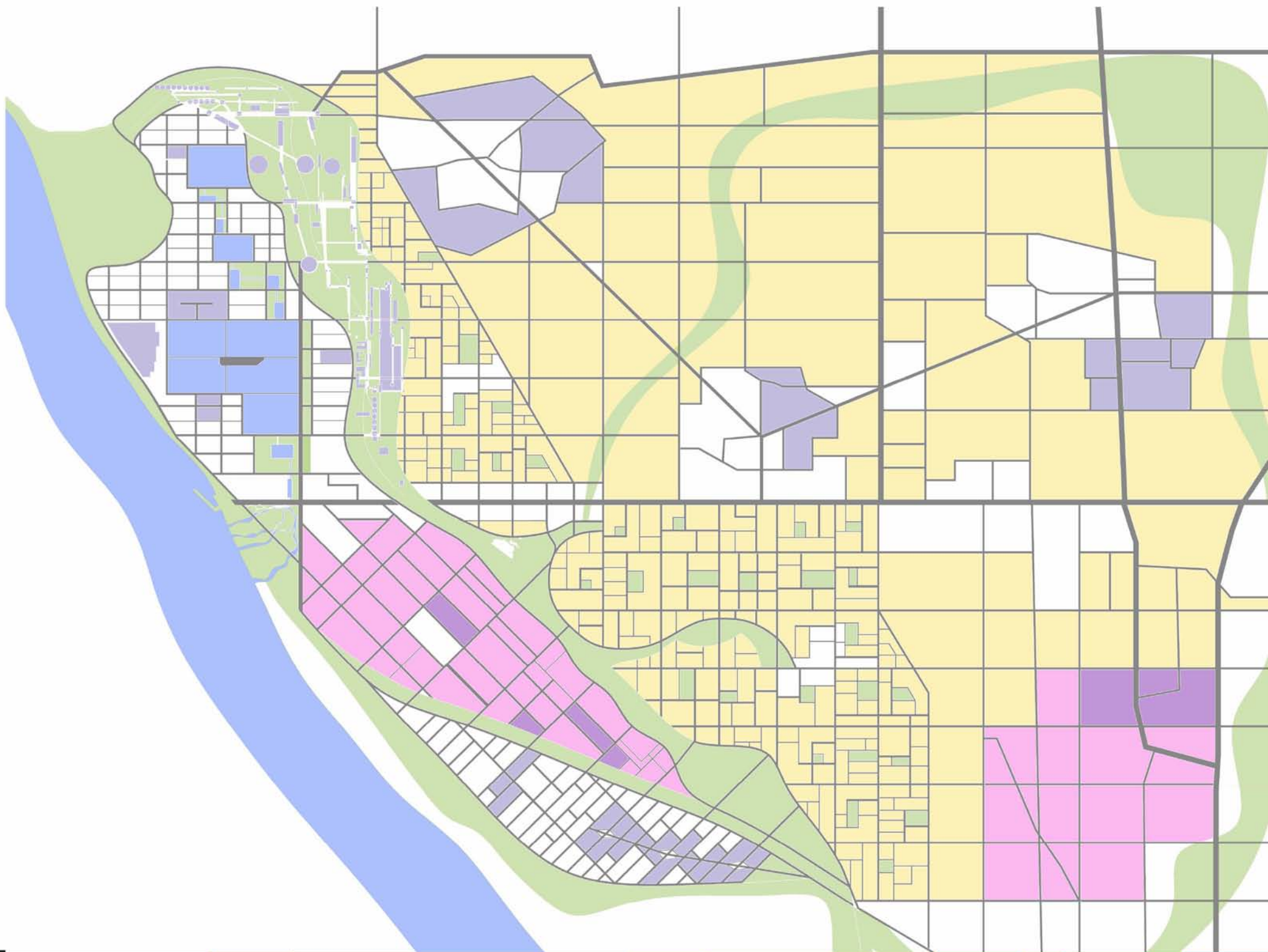
INSTITUTE CORE

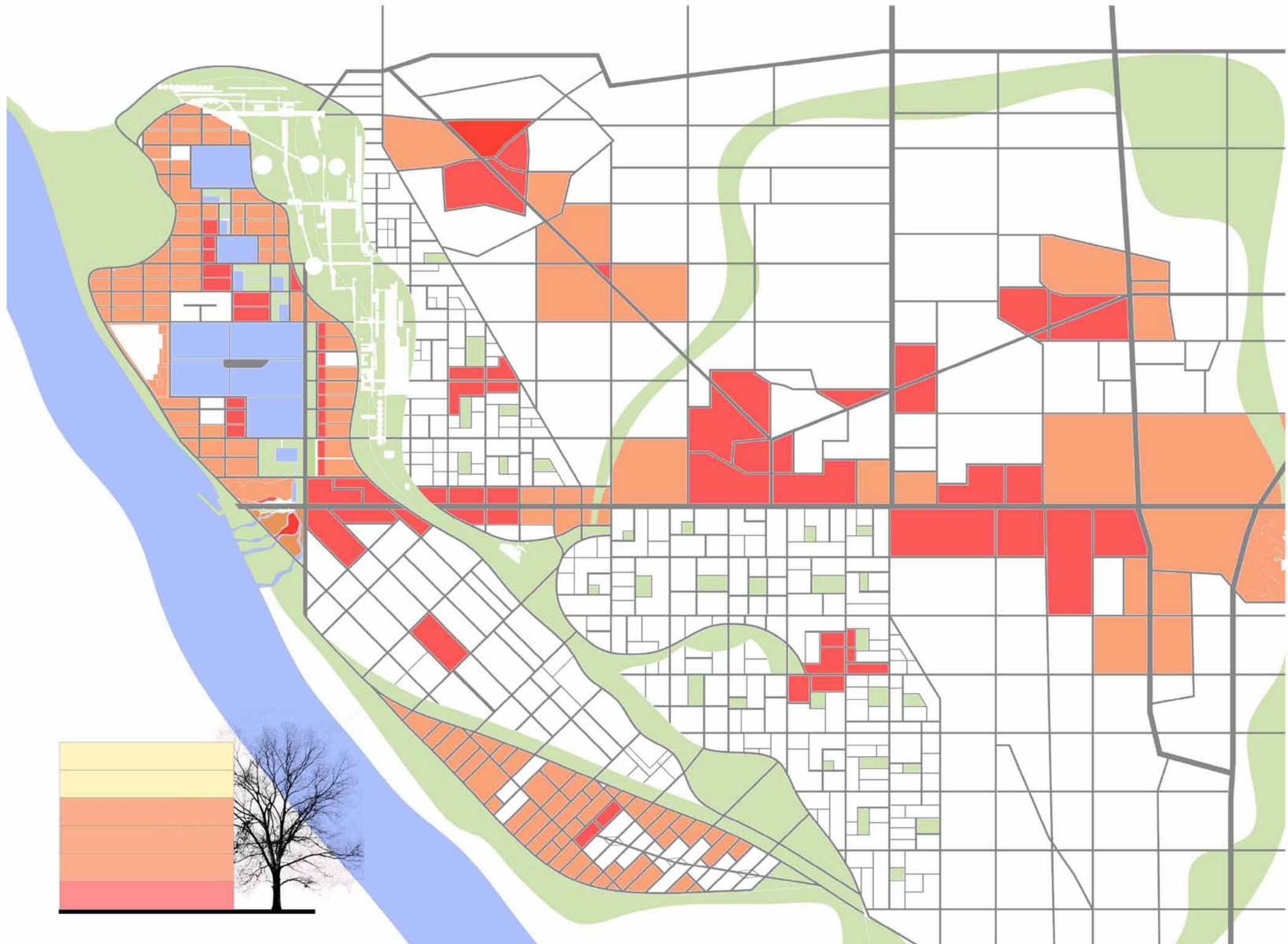
企业研究
机构进入

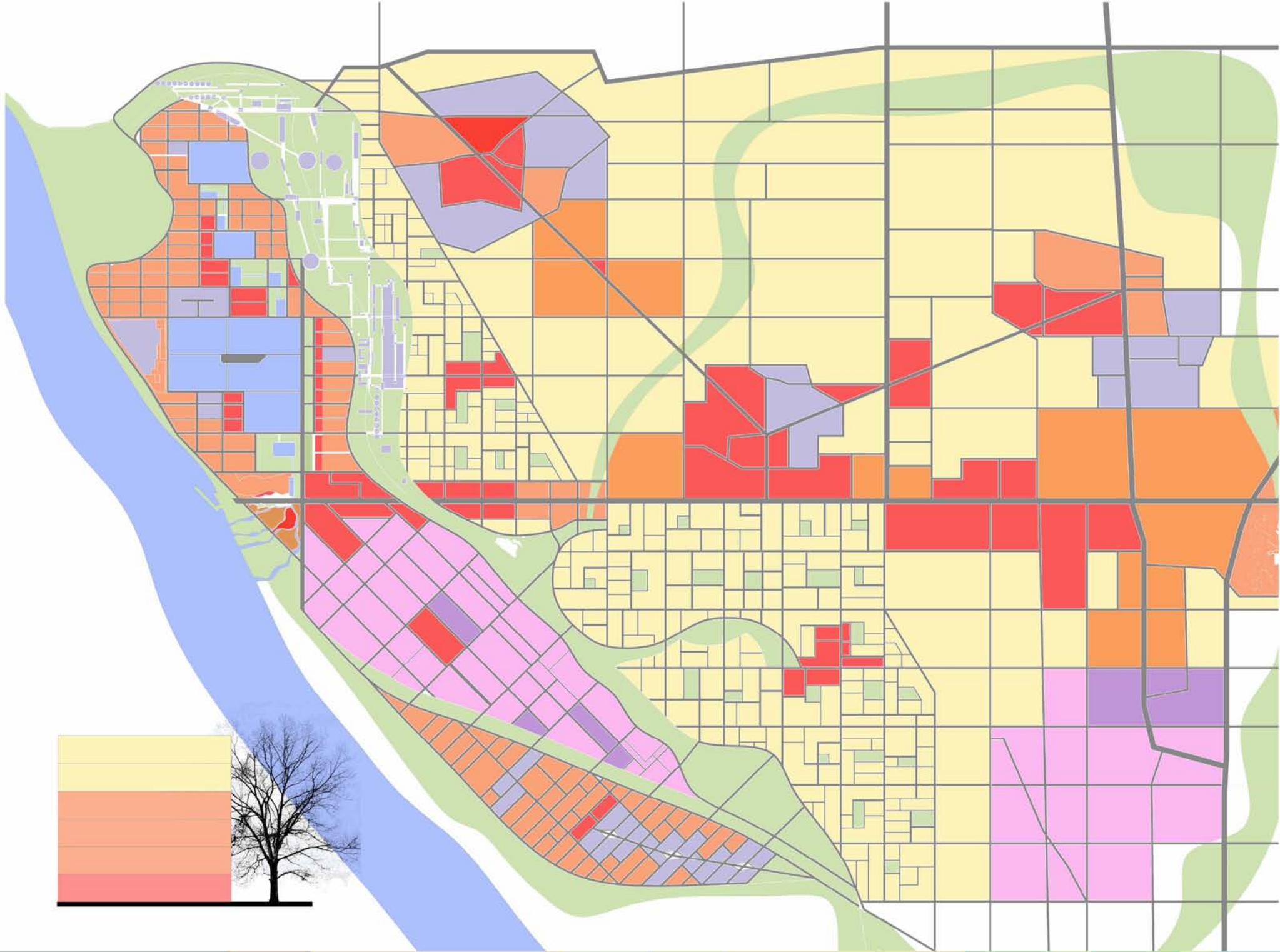
UNIVERSITY CAMPUS AREA
校园

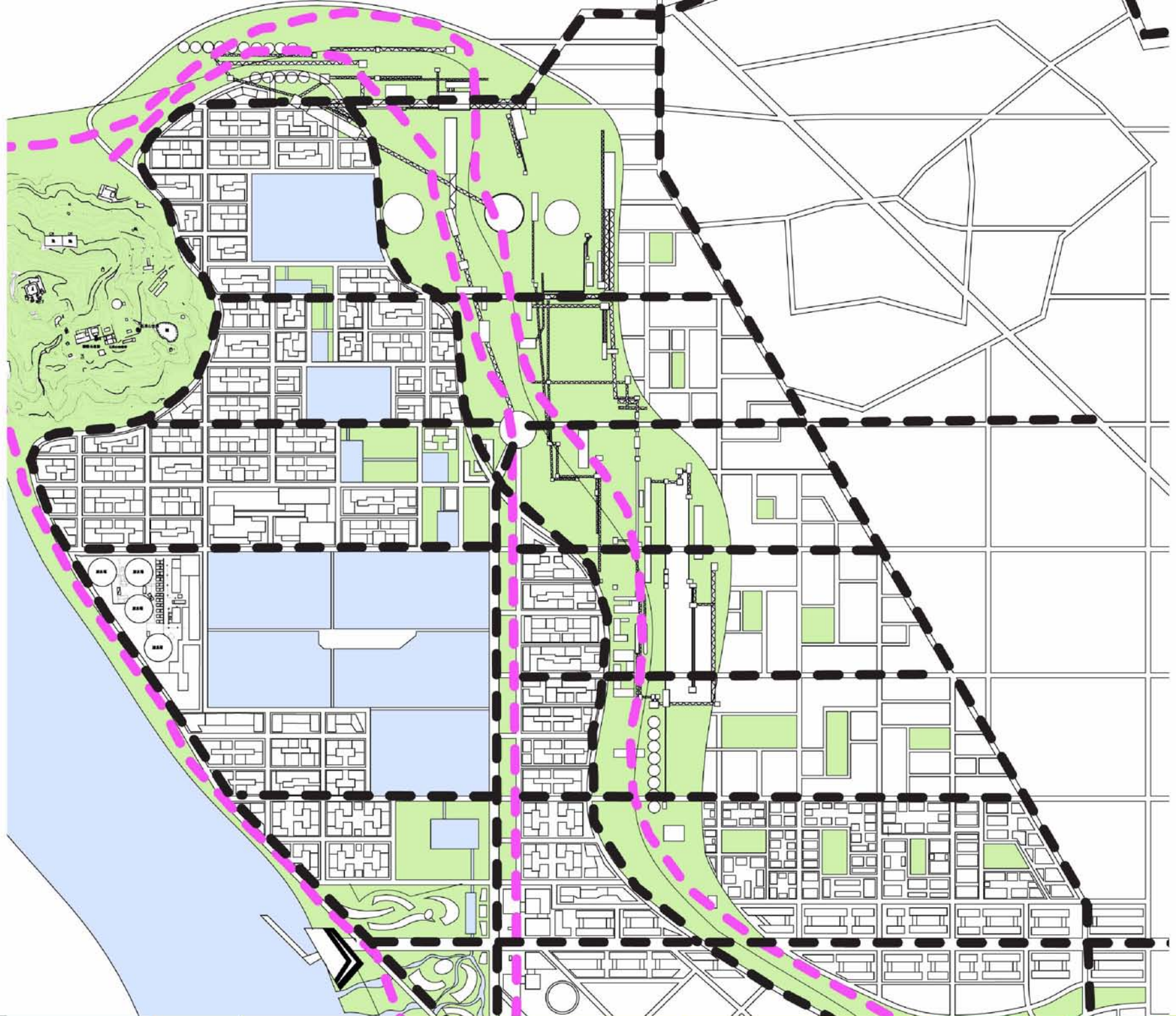
UNIVERSITY CAMPUS AREA

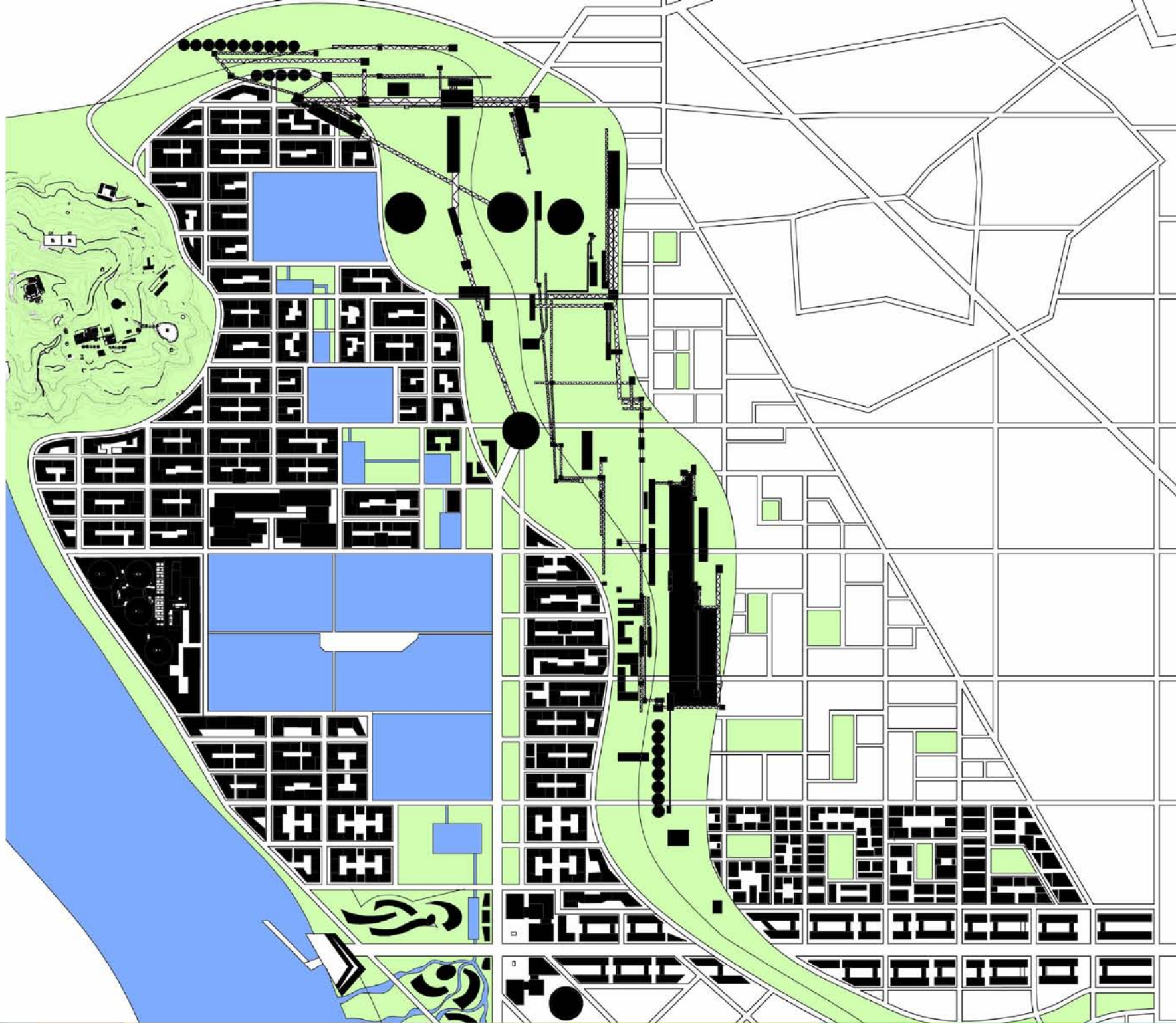


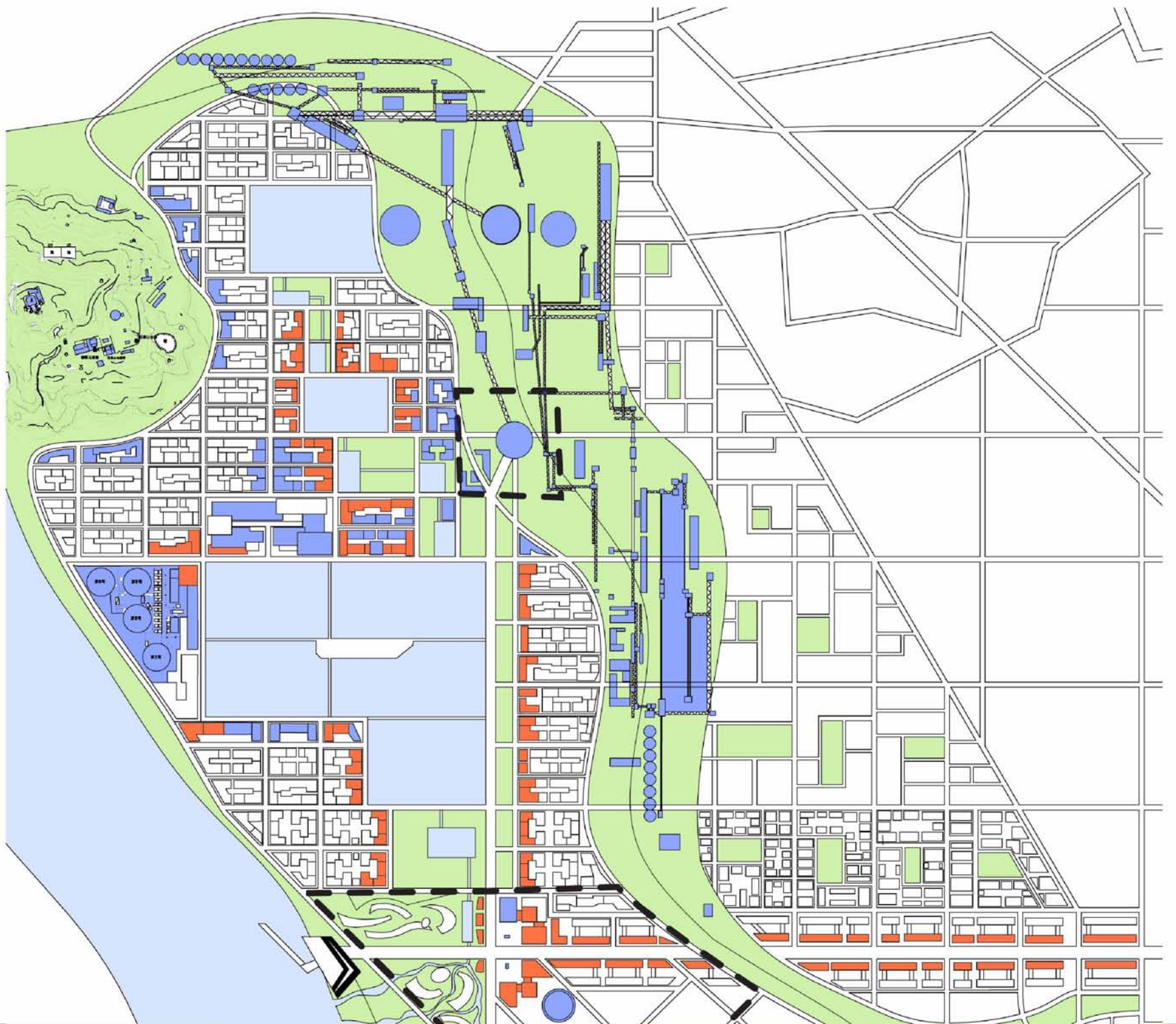


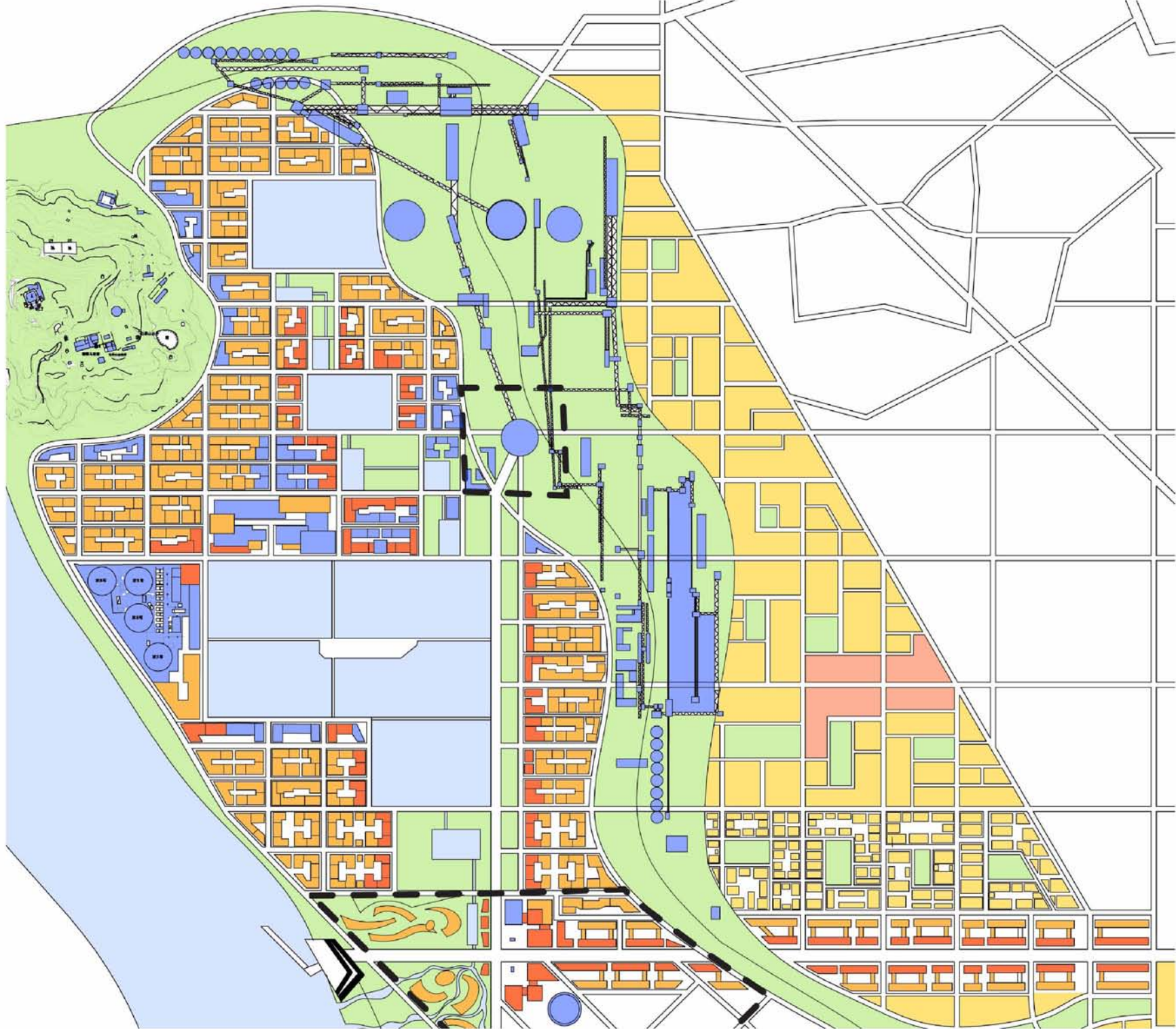












BLAST FURNACE 四号高炉

Visitors Center for historical node 游客中心

Trolley connection (using existing train track) 电车站点

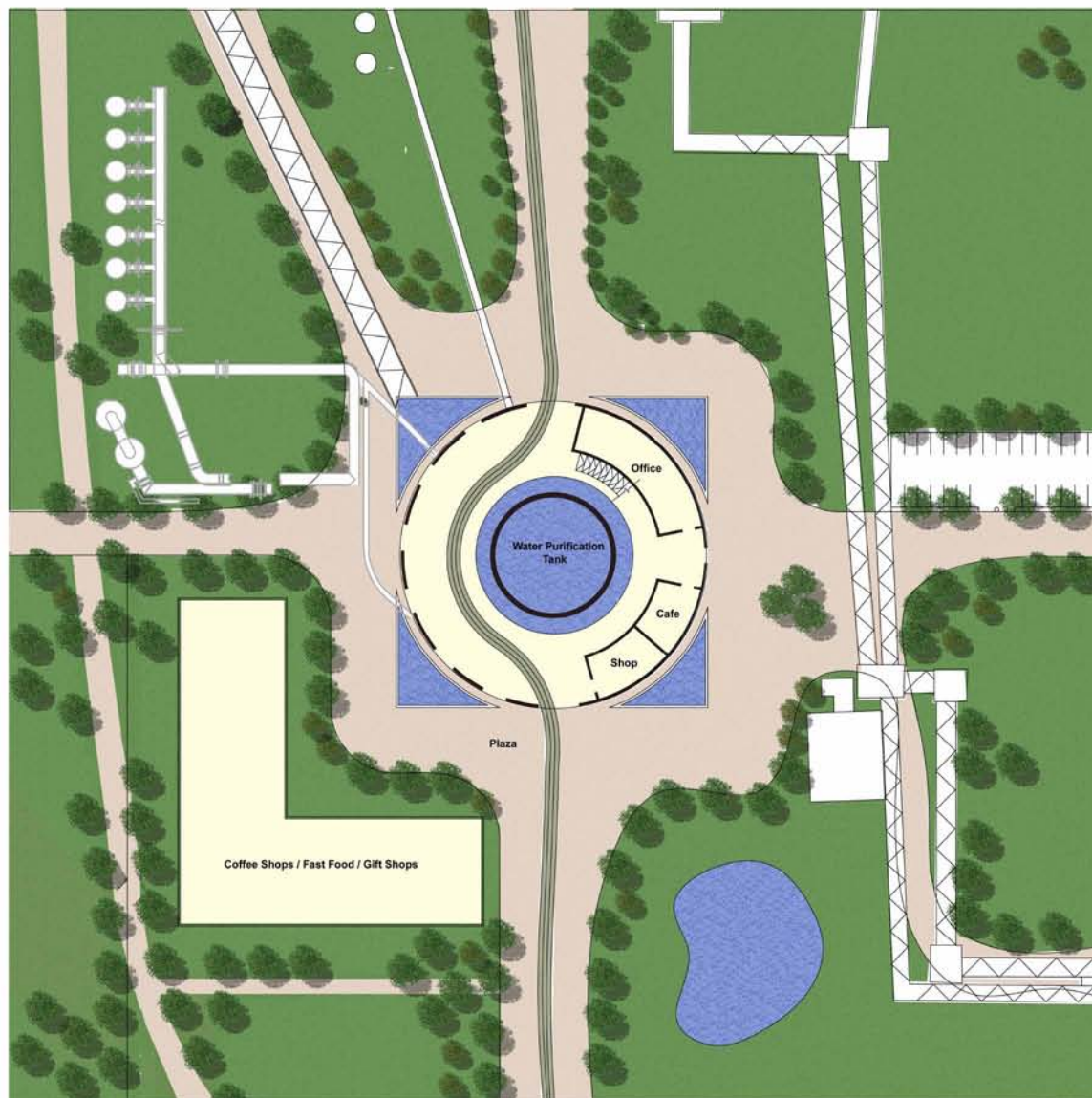
Exhibition space

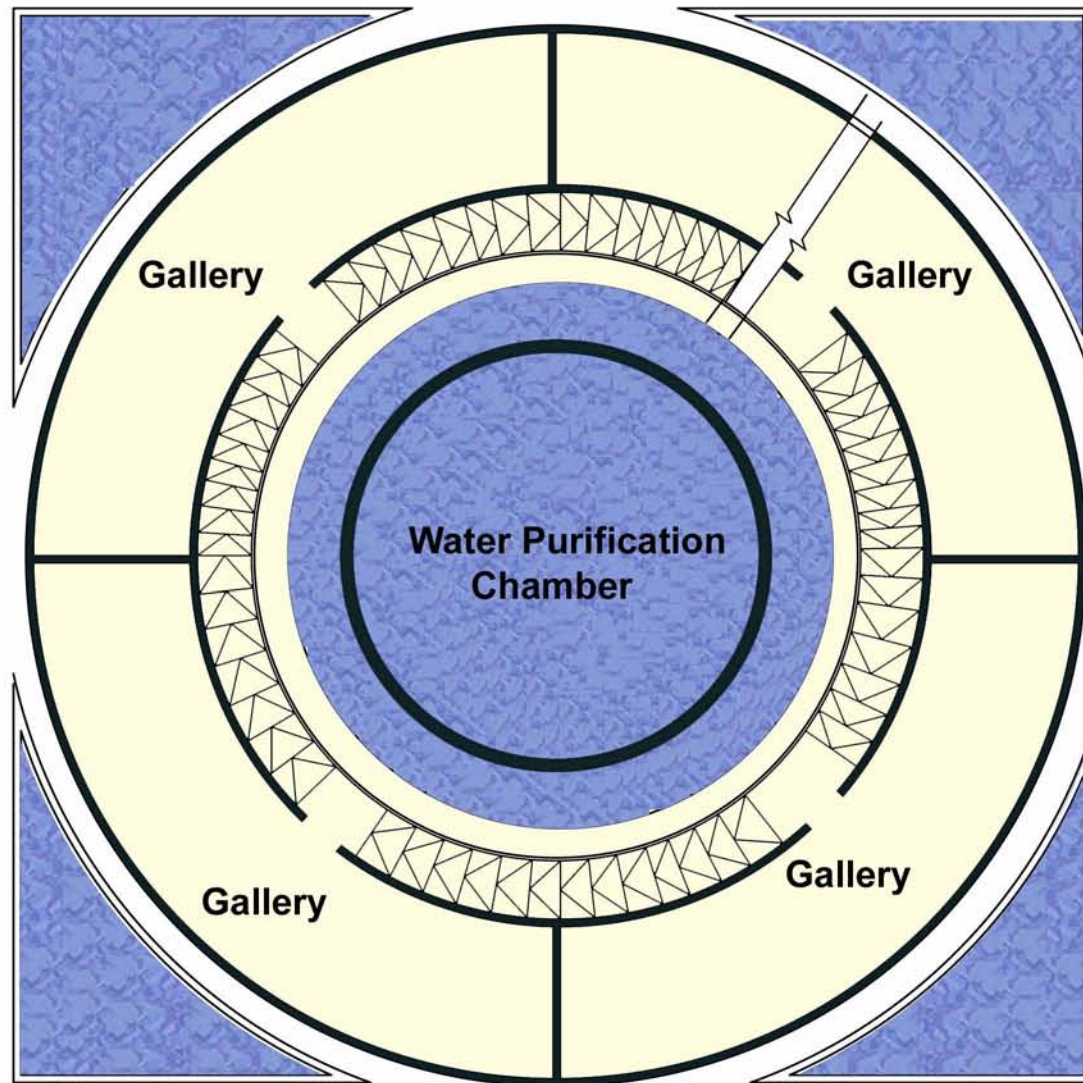
Shougang 展示空间
Beijing history exhibitions

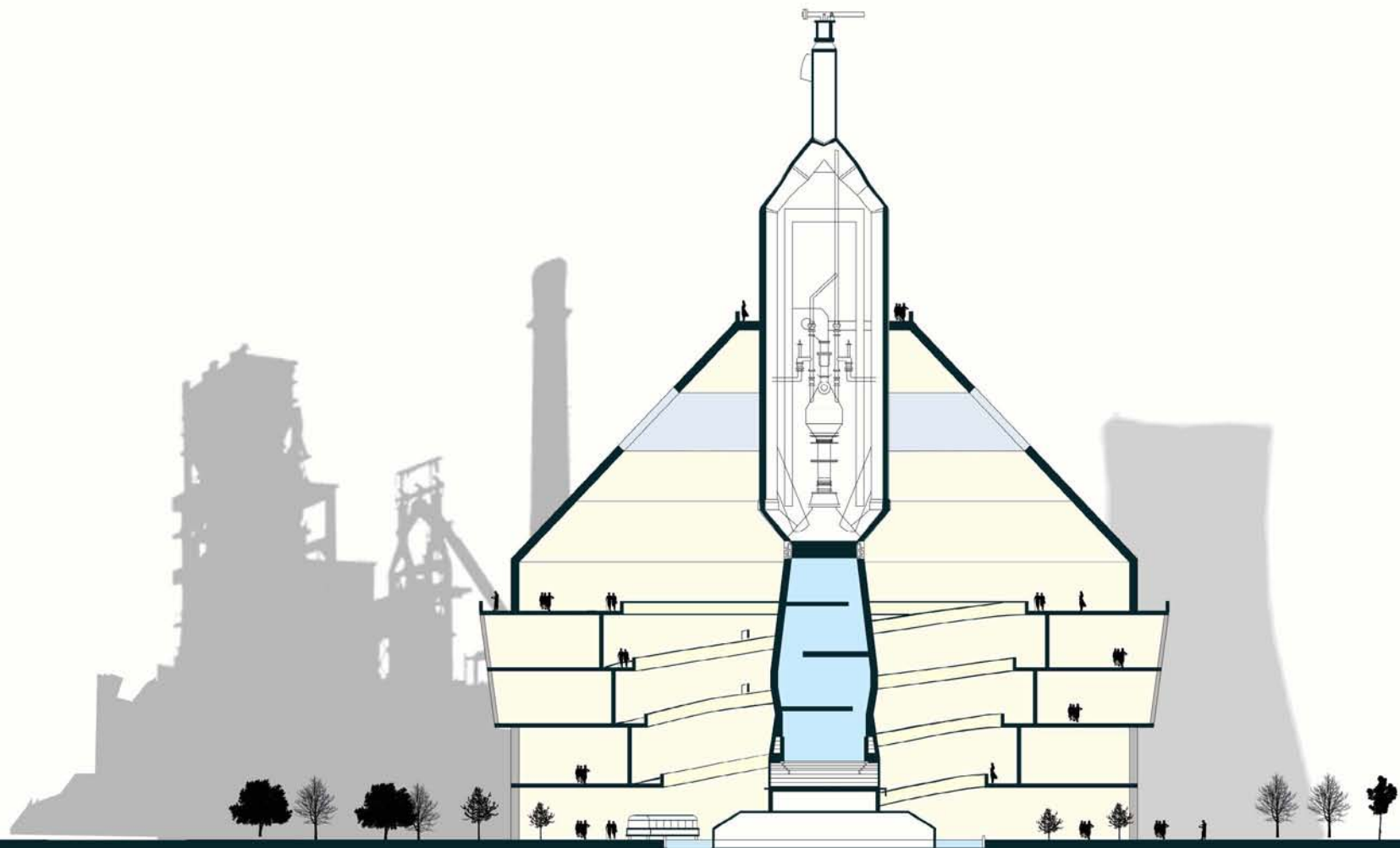
Viewing areas 观景空间

Cafe 咖啡馆

Rooftop deck 屋顶平台

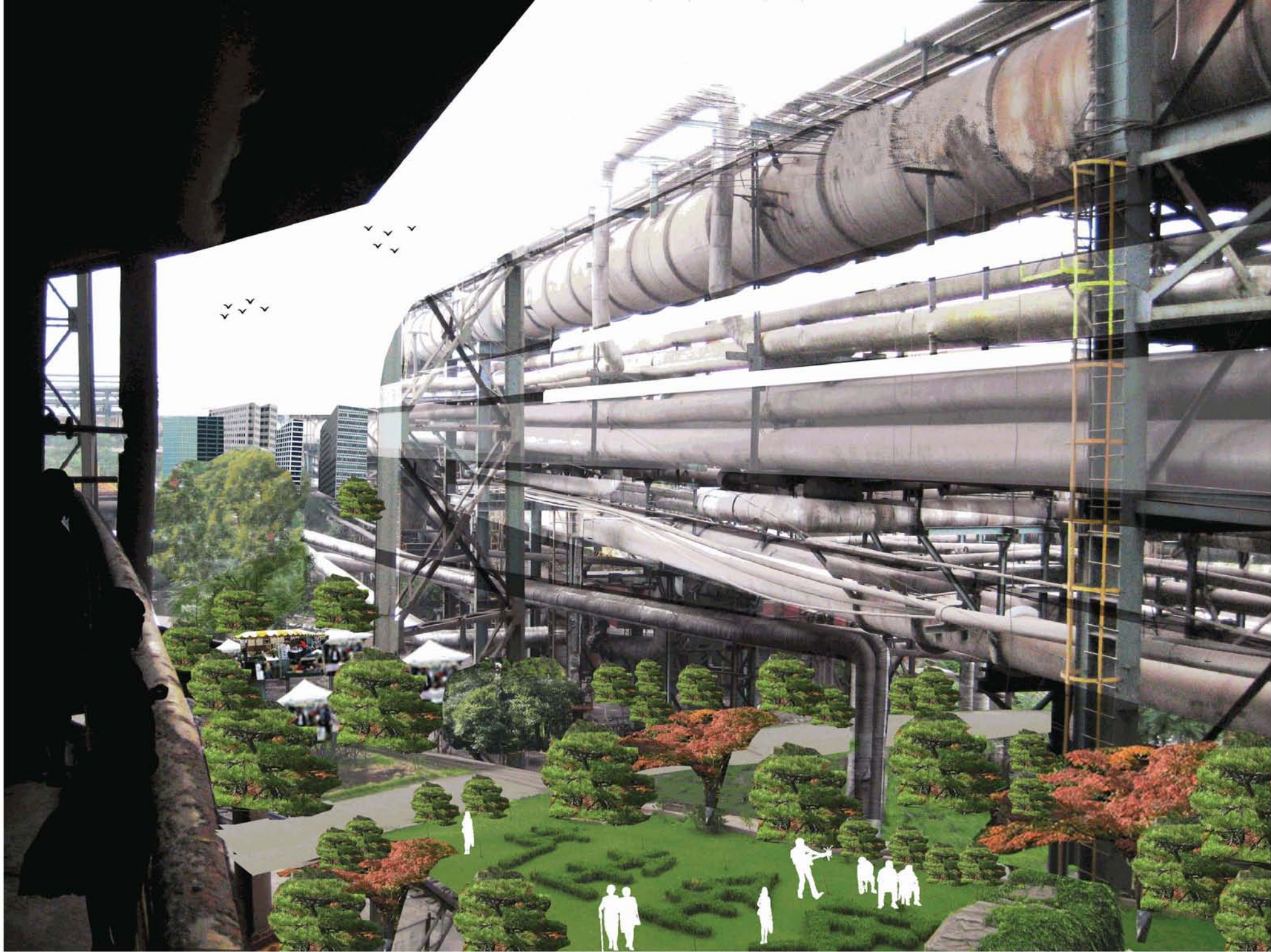






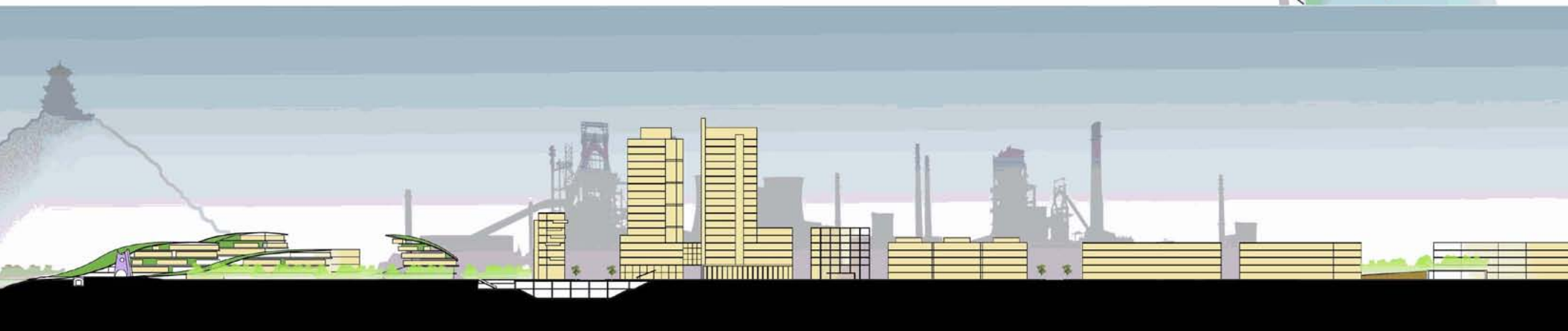
Views







TRANSIT HUB 交通枢纽



Beijing Subway Connection 北京地铁站点

Entrance to pedestrian area/ Western edge of site

Pathway to the wetlands

pedestrian area

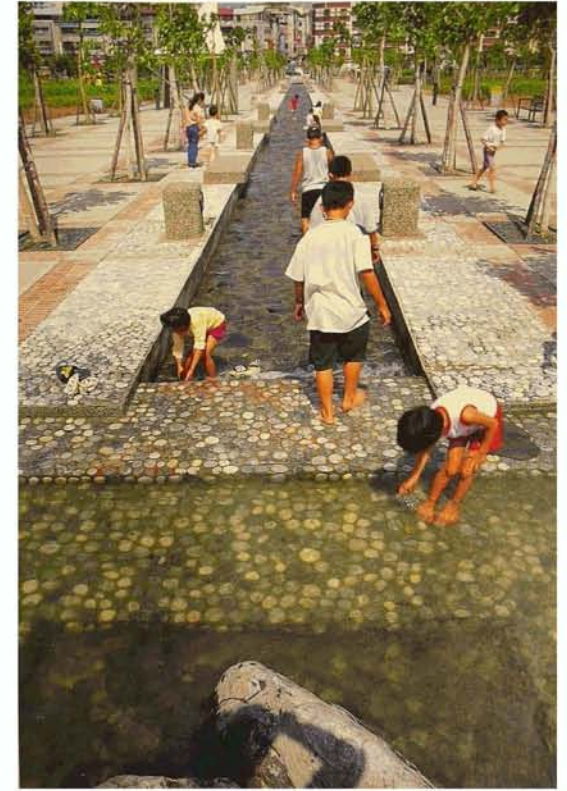
western edge of the site

通往湿地

场地西侧步行区入口

Commercial / Office / Residential

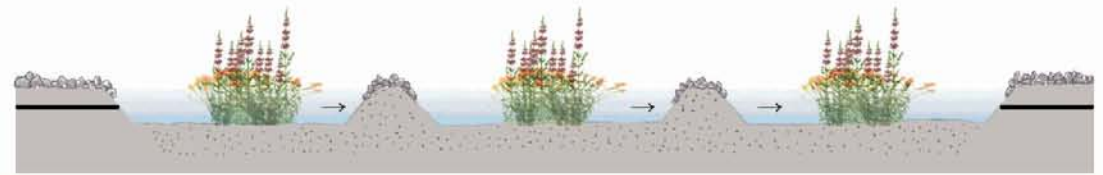
商业、办公与居住



BENEFITS OF WETLANDS

- wastewater treatment
- stormwater or sewage treatment
- biofilter for pollutants in water (including heavy metals)
- habitat for wildlife
- recreation

湿地的生态功效



下一步设计 LOOKING AHEAD TO NEXT WEEK

GREEN BUILDING TECHNOLOGIES 绿色建筑

LEED STANDARDS 参考LEED标准

WASTE / RECYCLING / COMPOST SYSTEMS
废物回收循环利用系统

FURTHERING PLANS FOR: 校园区和厂区周边的
areas nearby to Shougang 深化设计
campus area