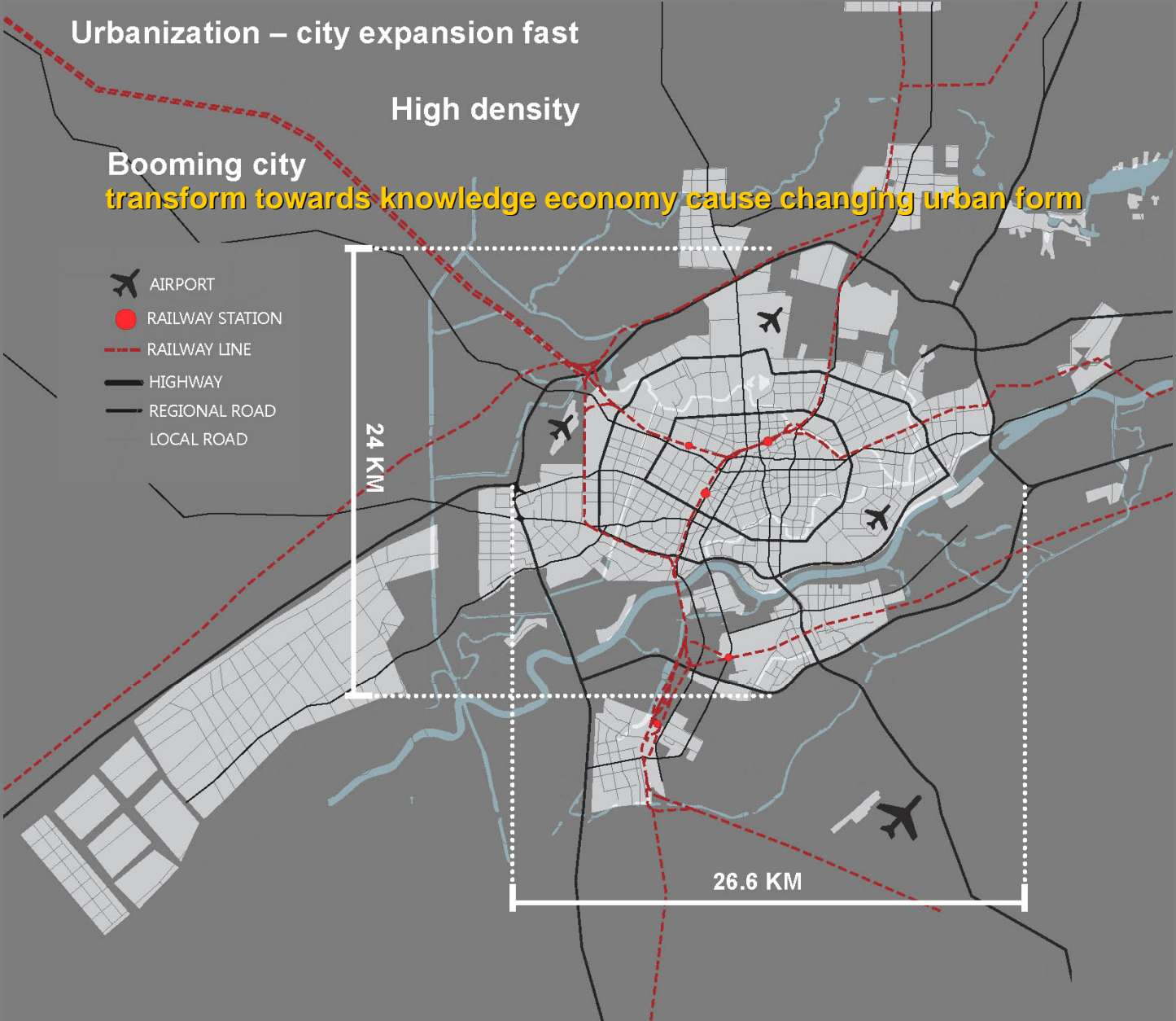


Univer 'city'



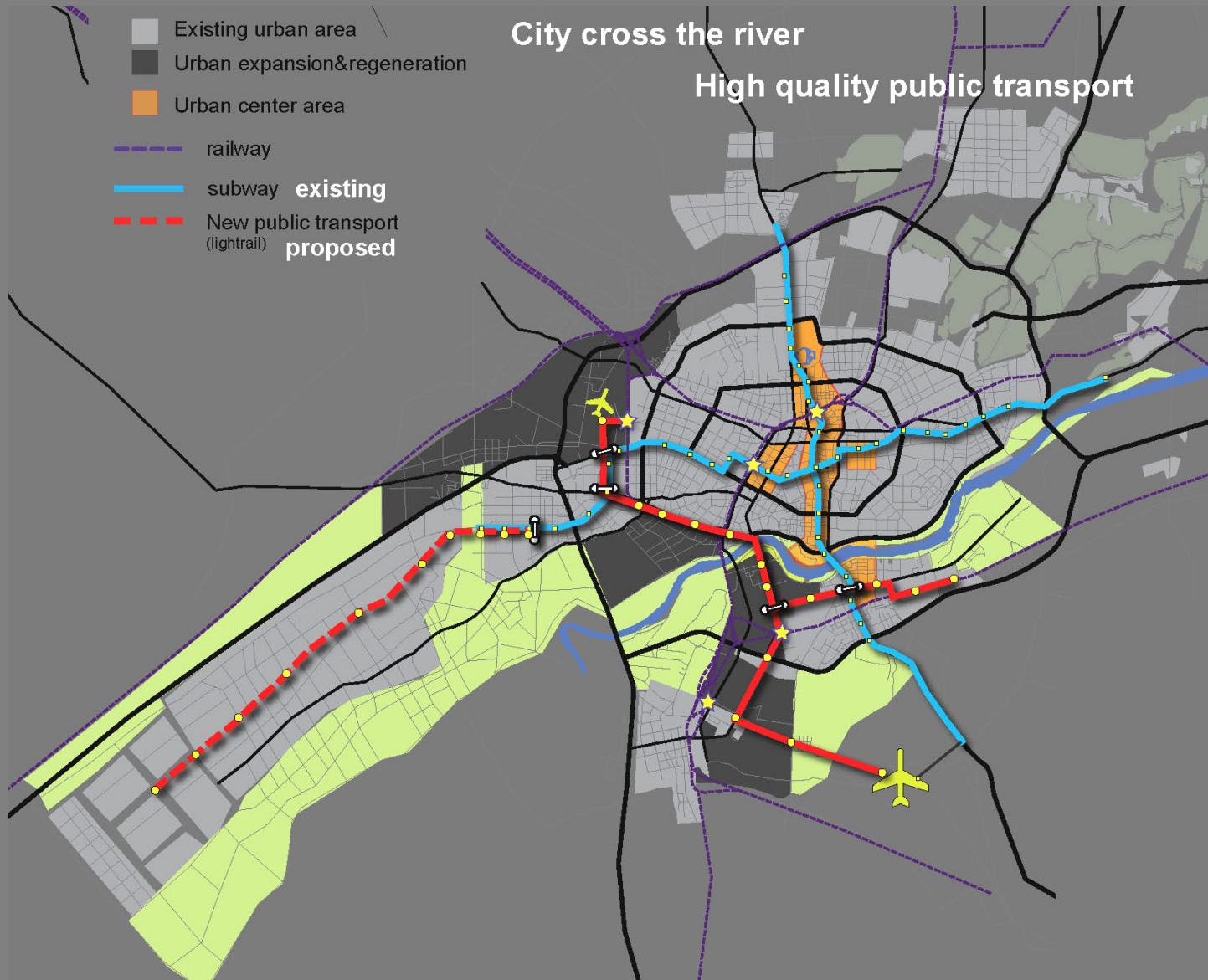
new livable creative city in the
KNOWLEDGED PERIPHERY of Shenyang

Shenyang – central city of Northeast China

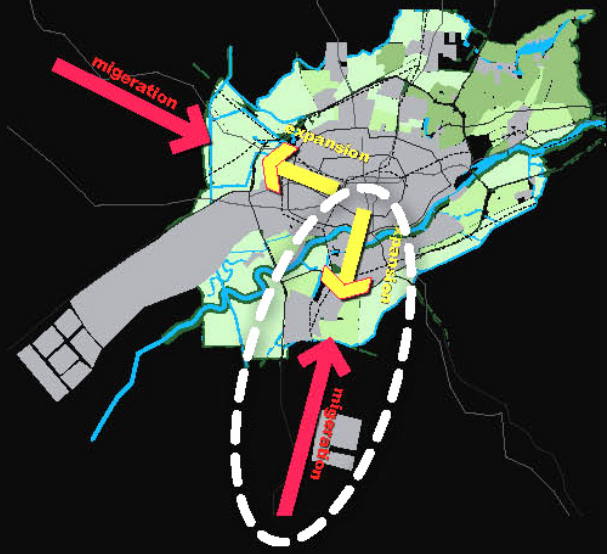


Long term vision for Shenyang

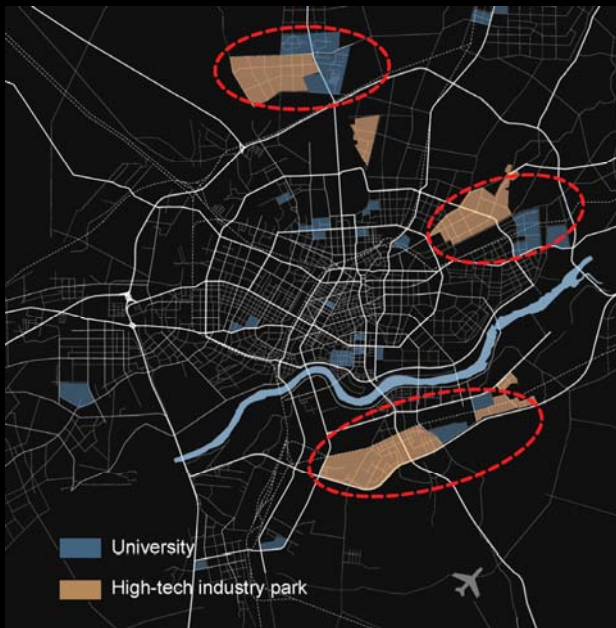
- Knowledge captial of Northeast China



South bank of Shenyang - new district of the city



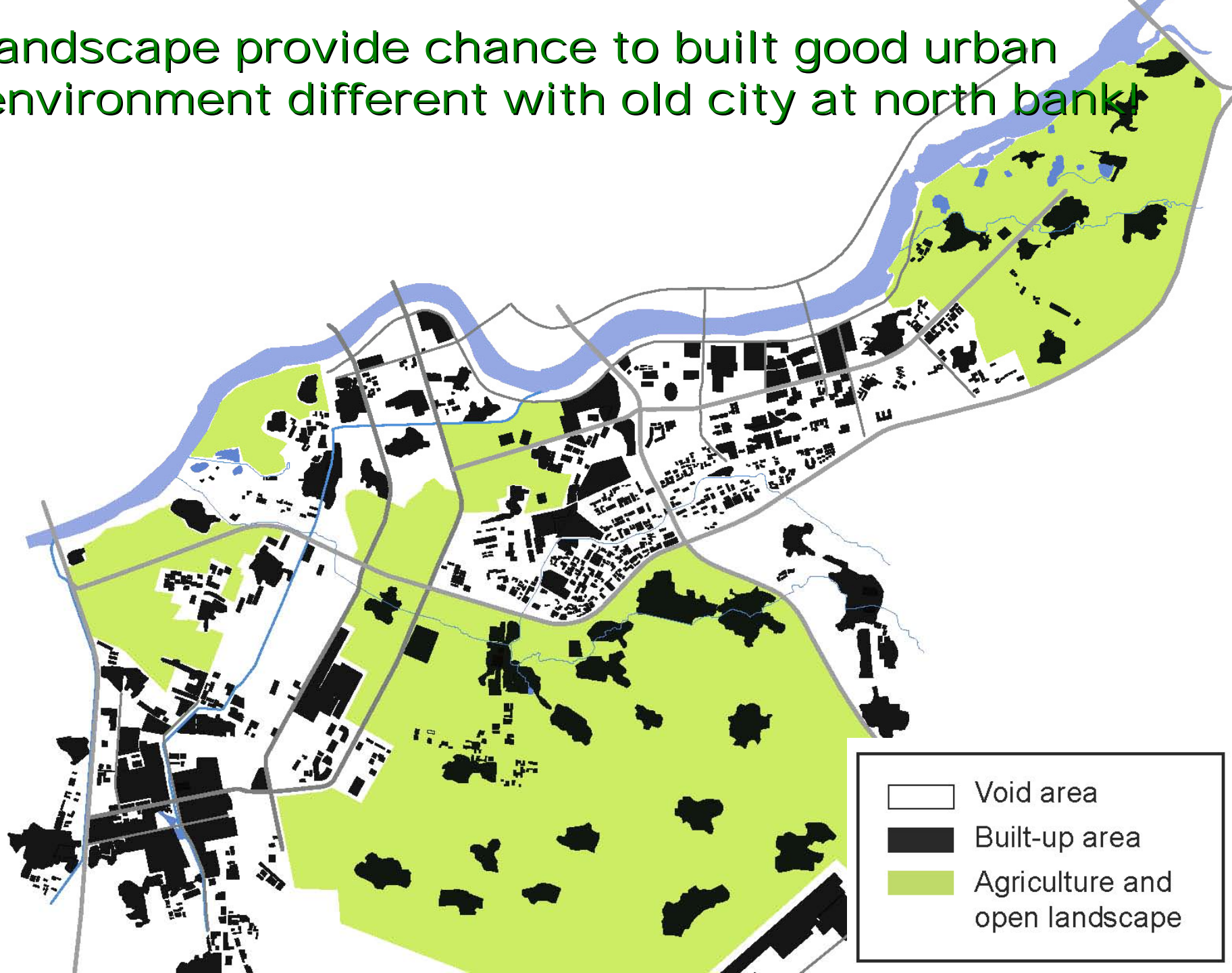
Main expansion direction because of high-tech industry development



Potential landscape resource at south bank

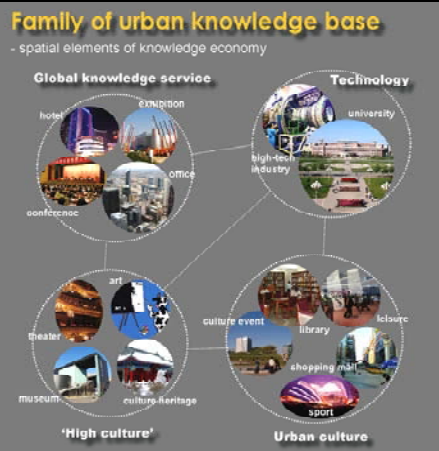
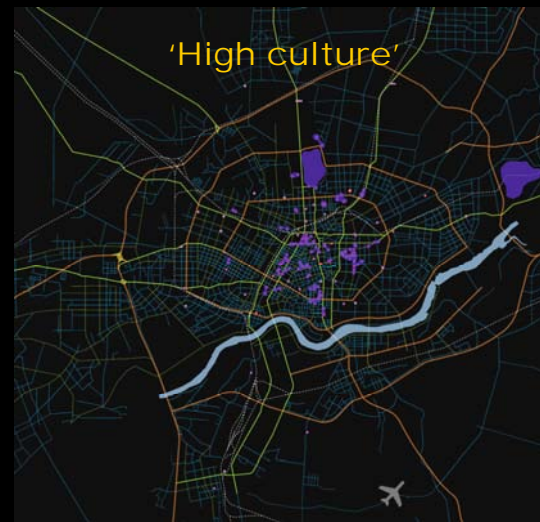


landscapes provide a chance to build a good urban environment different from the old city at the north bank



However, with the agglomeration of knowledge clusters, there are some problems emerged.....

All knowledge clusters related with urban life locate at the north bank – old city.



But one can only find high-tech and universities at the south bank

River as spatial barrier block the integration of south with the city



Spatial segregation caused by social segregation



80.000 knowledge workers
living in high price housing

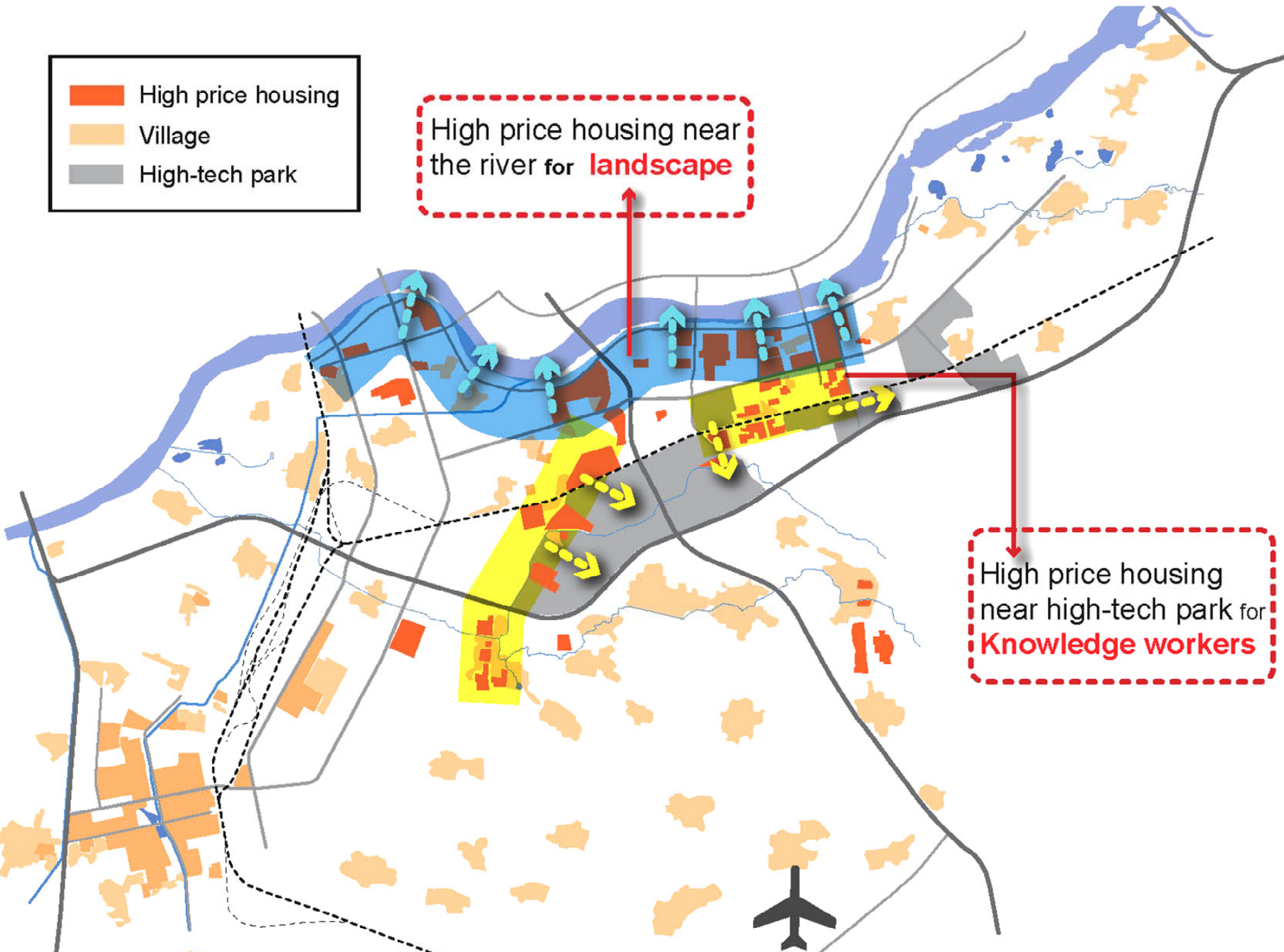


55.000 farmers living in village

- High price housing
- Village
- High-tech park

High price housing near the river for **landscape**

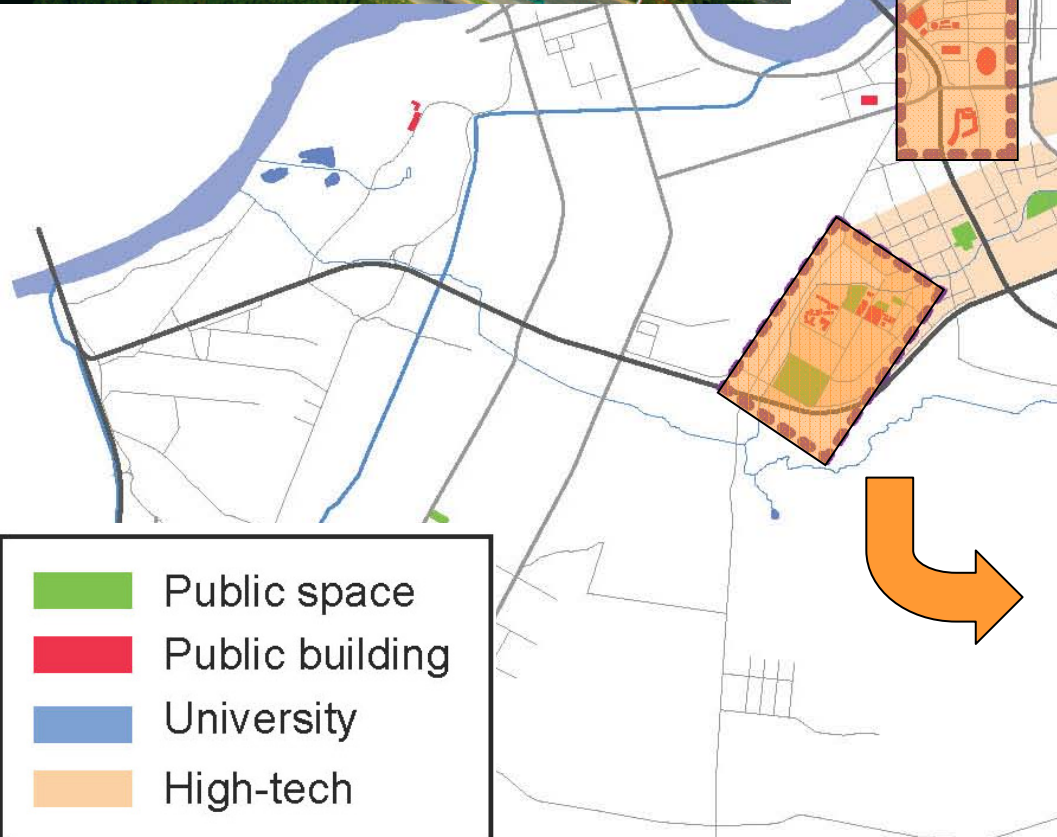
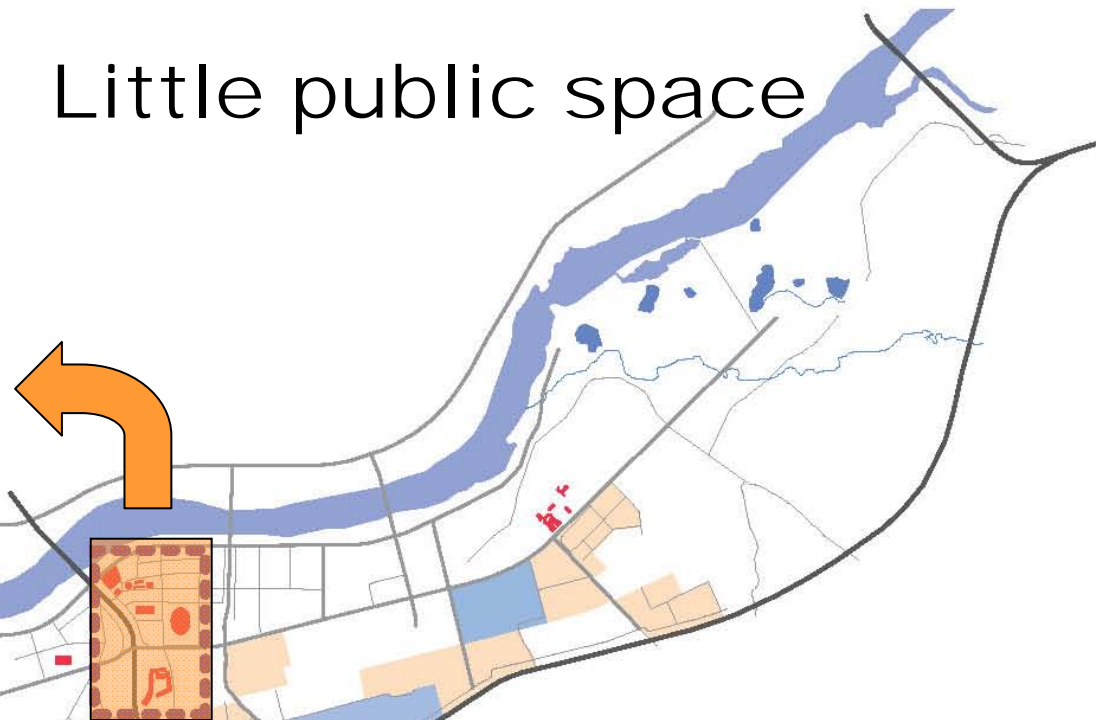
High price housing near high-tech park for **Knowledge workers**



Large scale urban project



Little public space



Closed campus



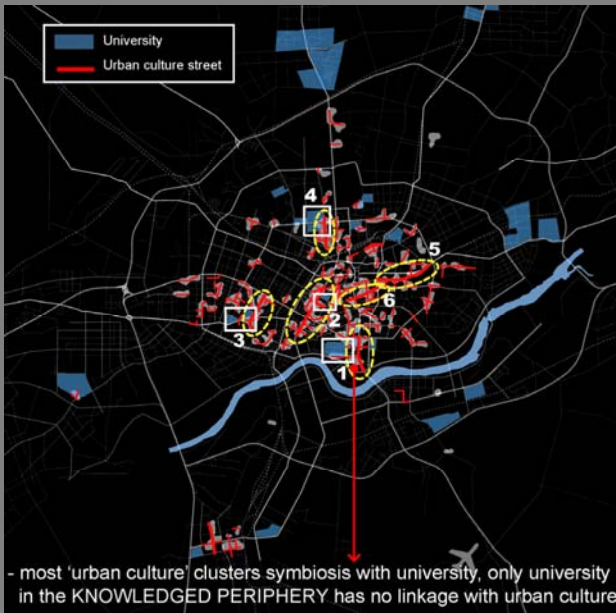
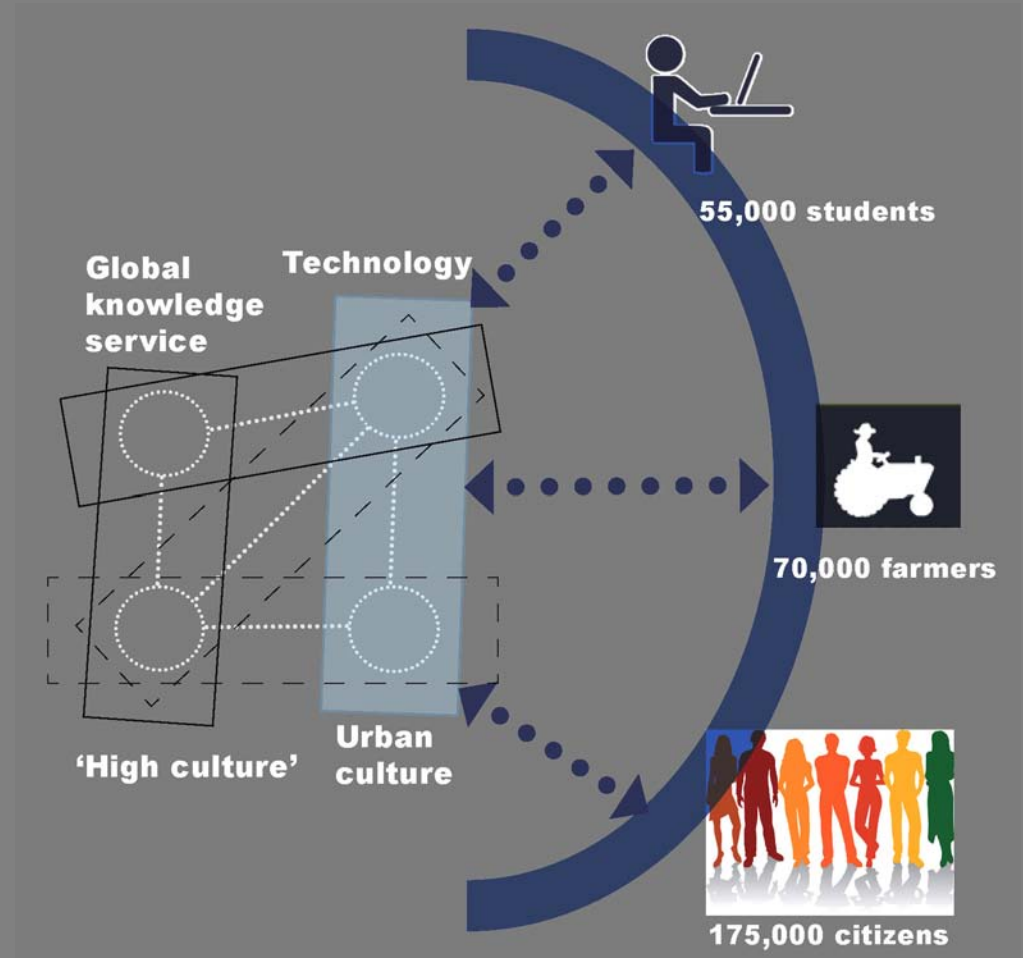
- Public space
- Public building
- University
- High-tech

Then, what are potential urban elements as instruments to create new urbanity?

'Urban culture'



New universities can be core urban elements to reorganize spatial structure of the south

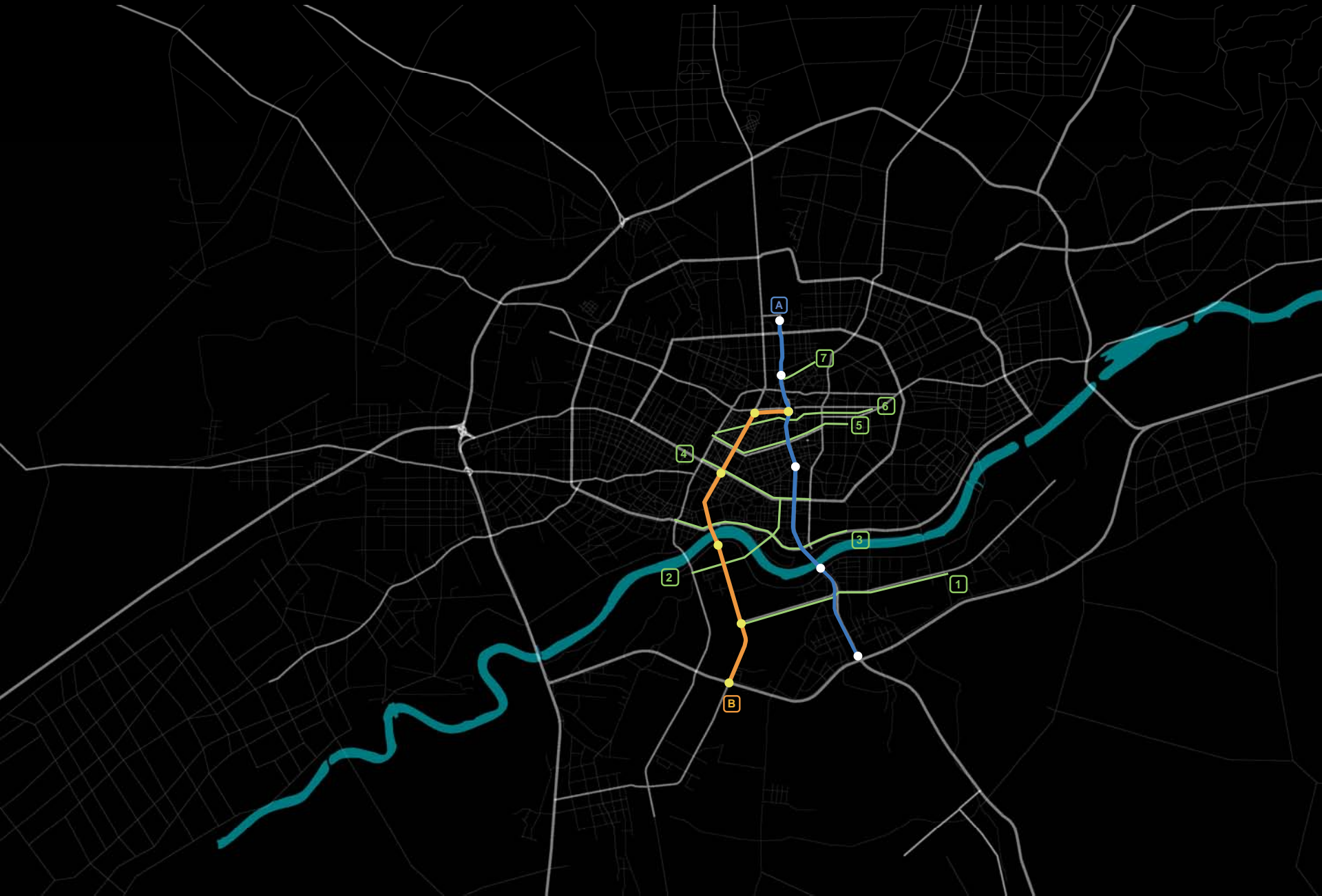


University can serve all 3 different kinds of inhabitants if integrated with 'urban culture' street

Translate programmatic into spatial intervention

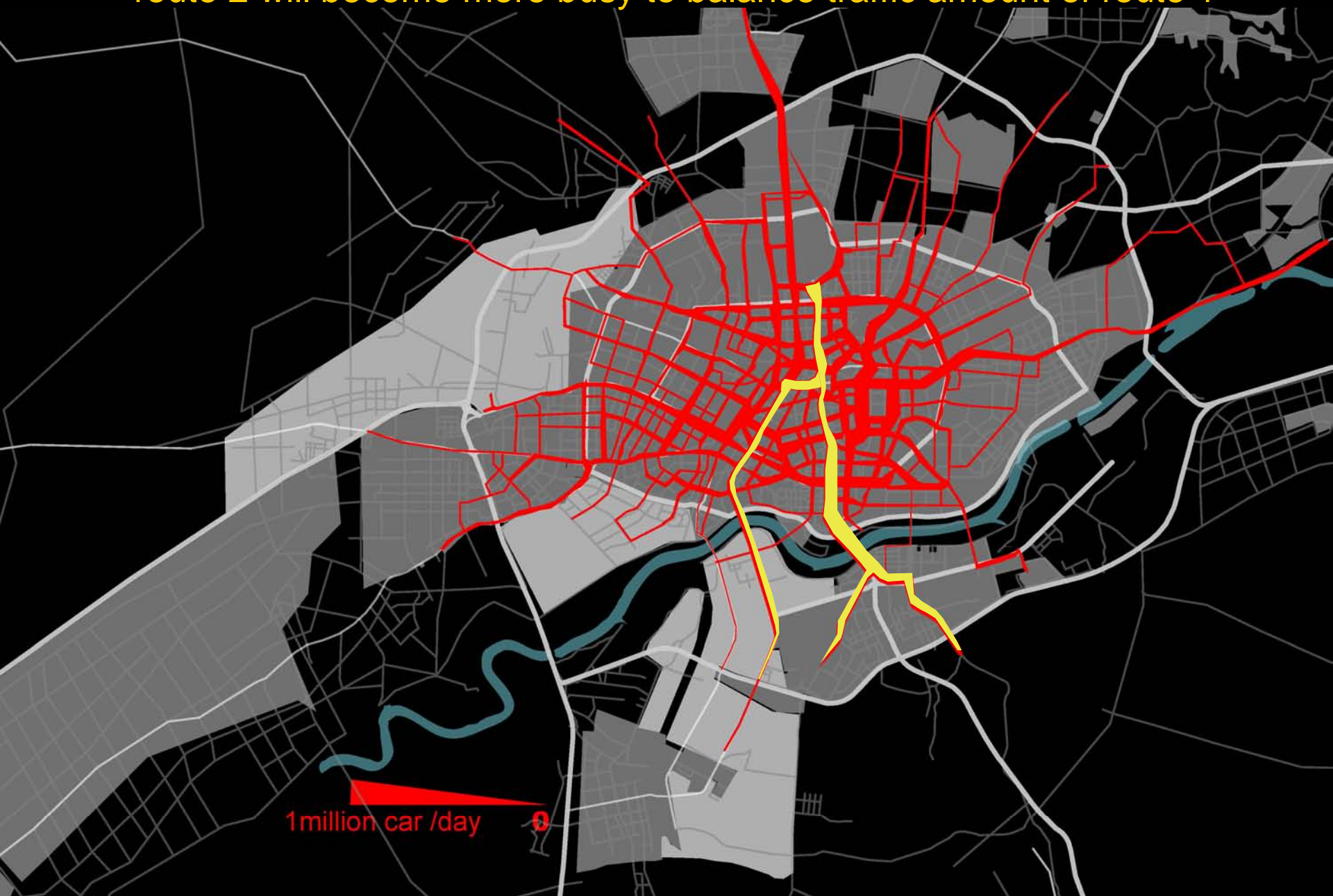
Connect the south with traditional city – to be a new organic part of the city

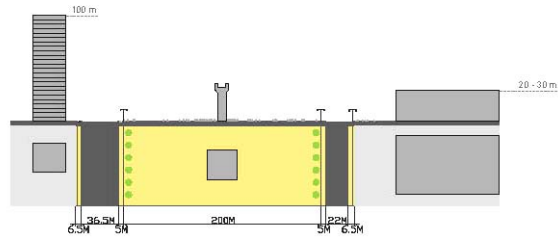
Two routes connect south bank with old city



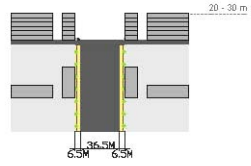
Two main connections

- route 2 will become more busy to balance traffic amount of route 1

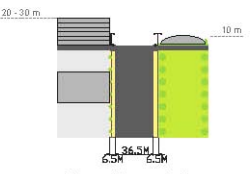




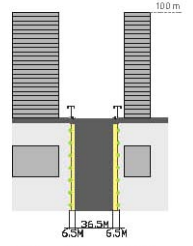
Section A1



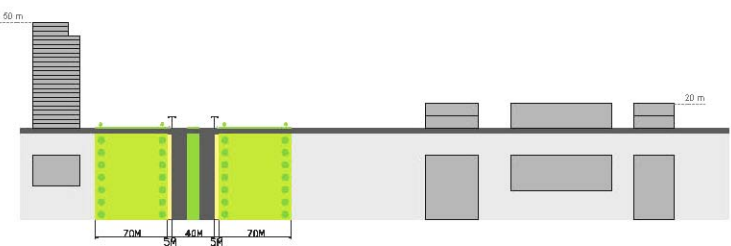
Section A2



Section A3



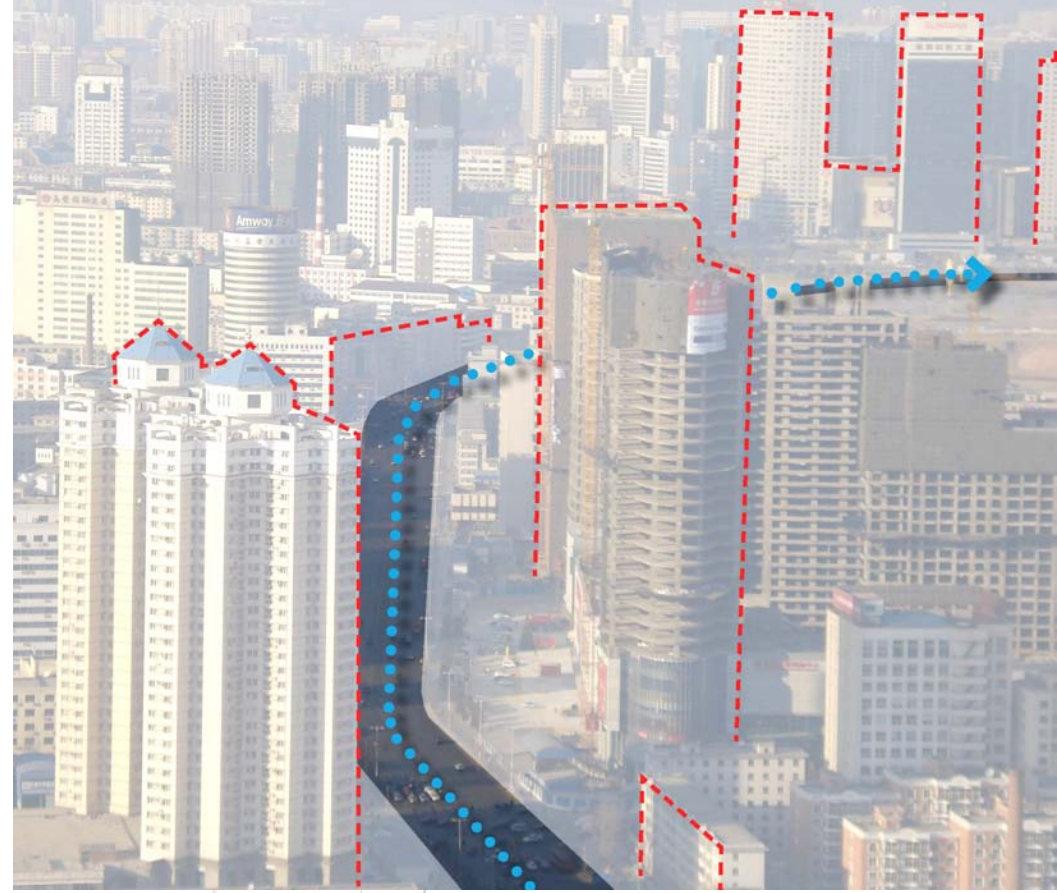
Section A4

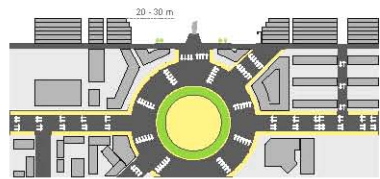


Section A5

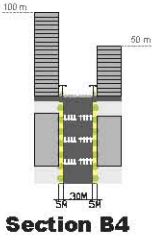
Route 1

Global knowledge economy route for tourist and business men

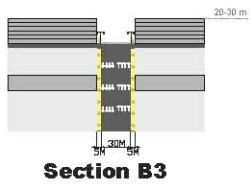




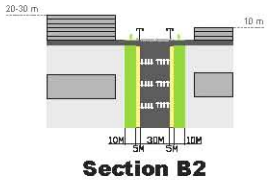
Section B4/5



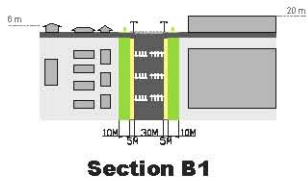
Section B4



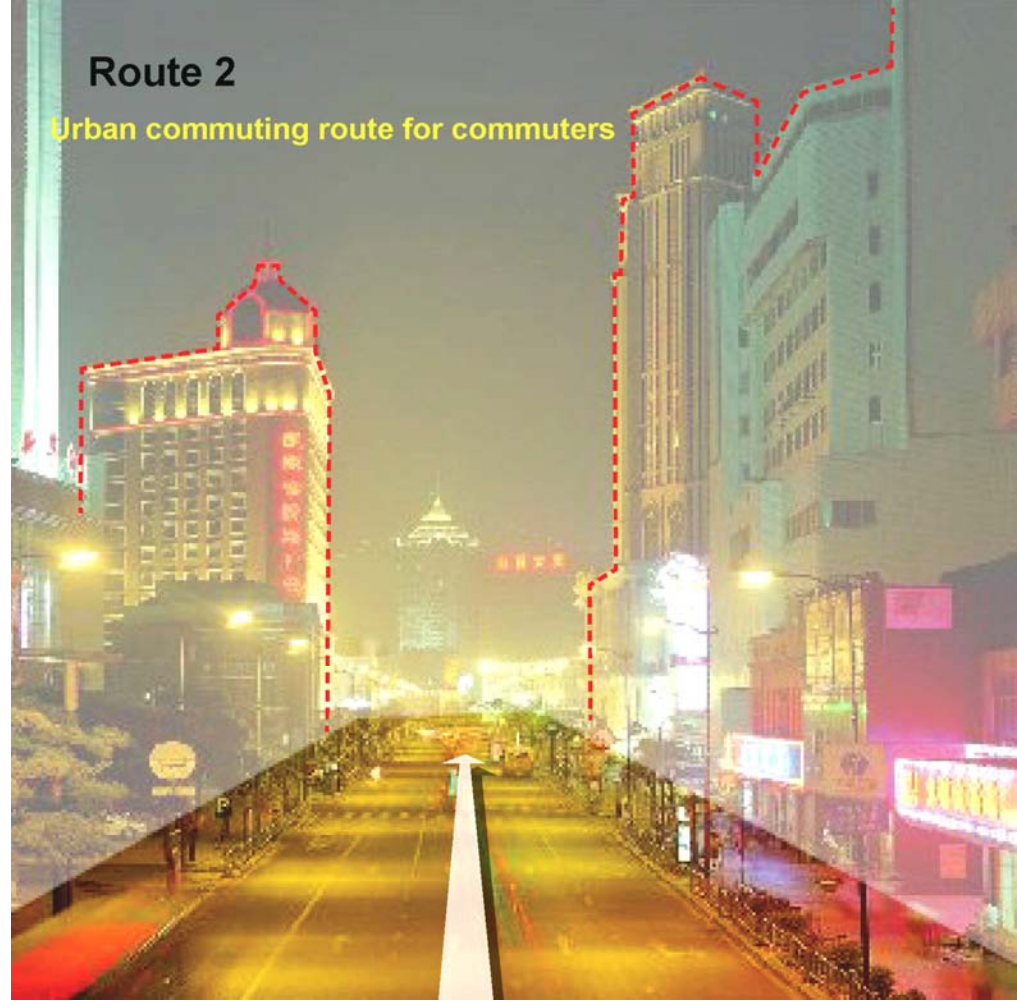
Section B3



Section B2



Section B1



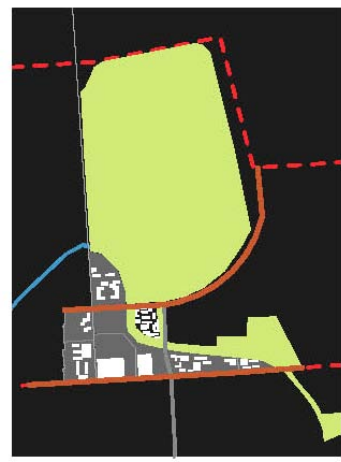
Route 2

Urban commuting route for commuters

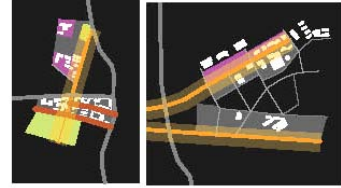


Connection street between route 1 & 2

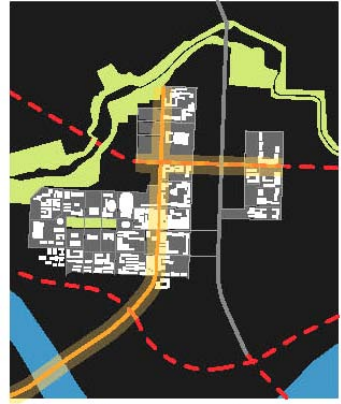
- Urban living street



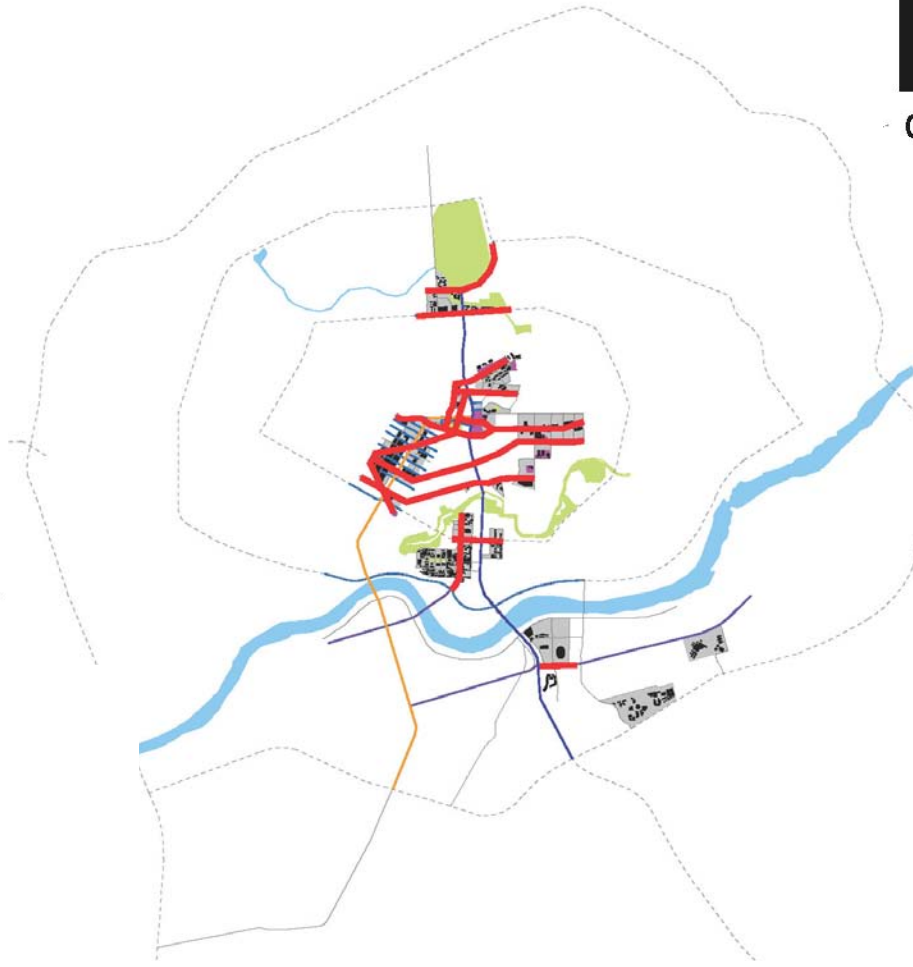
royal park



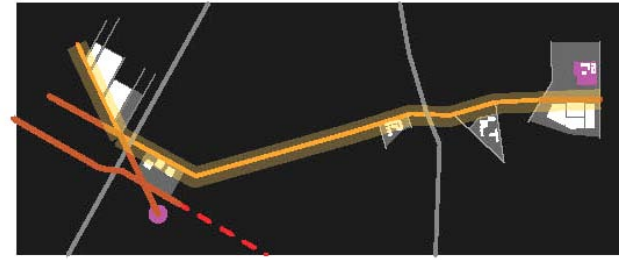
traditional center



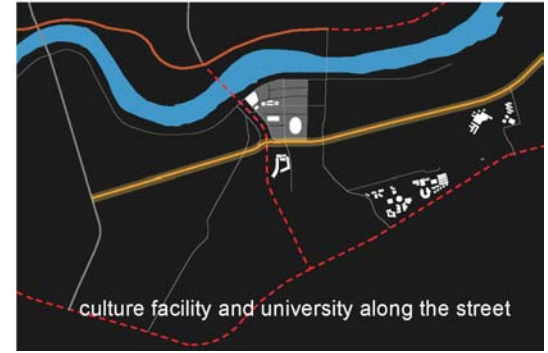
media market /
TV station / university



old forbidden city and square

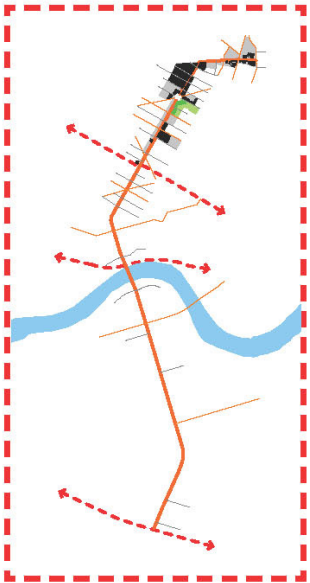


shopping mall and park



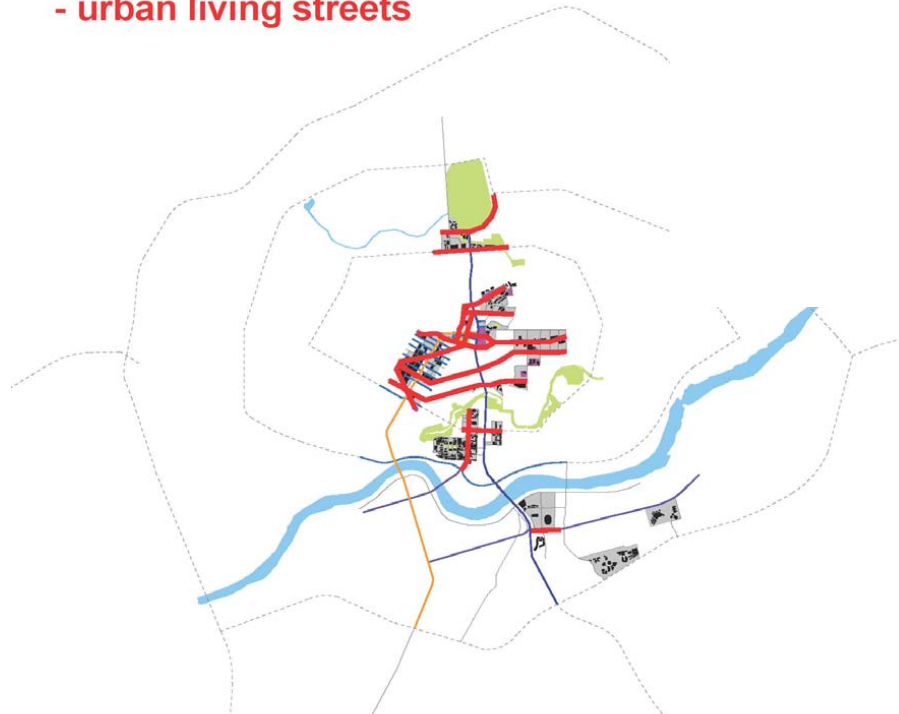
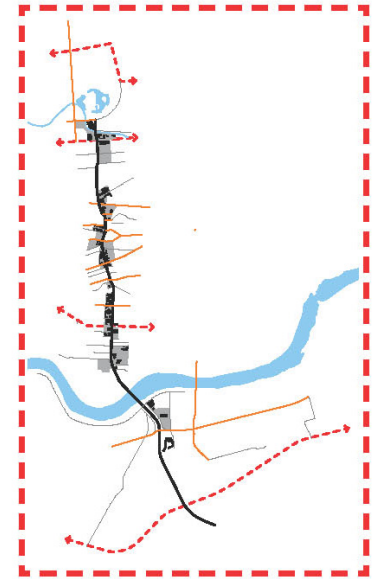
culture facility and university along the street

**Route 2 - Urban commuting
for commuting people**



**Connection streets between two routes
- urban living streets**

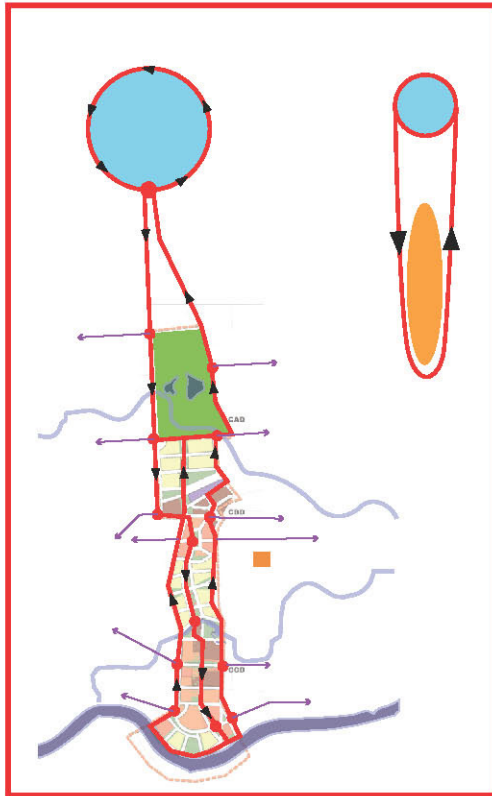
**Route 1 - Global knowledge economy
for elites and tourists**



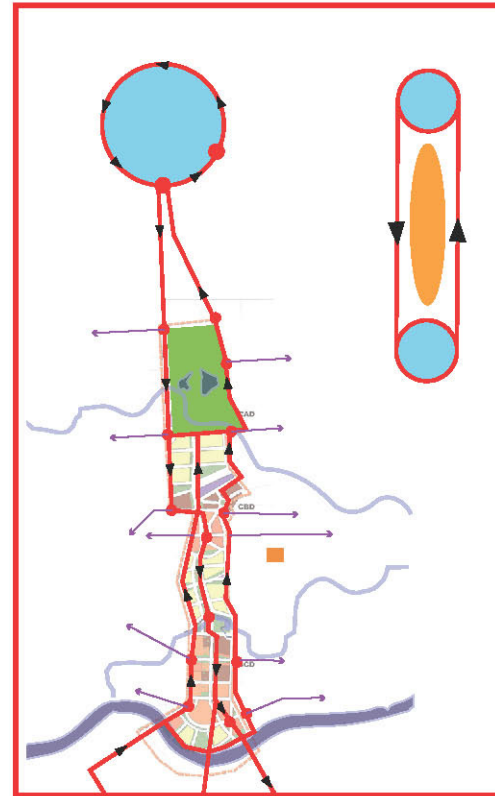
urban living streets are required for real urban life which are needed in the south

Aim - integrate the south with the whole city

knowledge production - university



knowledge production - university

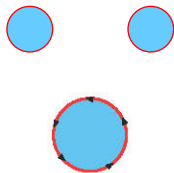


knowledge consumption
- media market,
culture center, CBD



knowledge production
- university

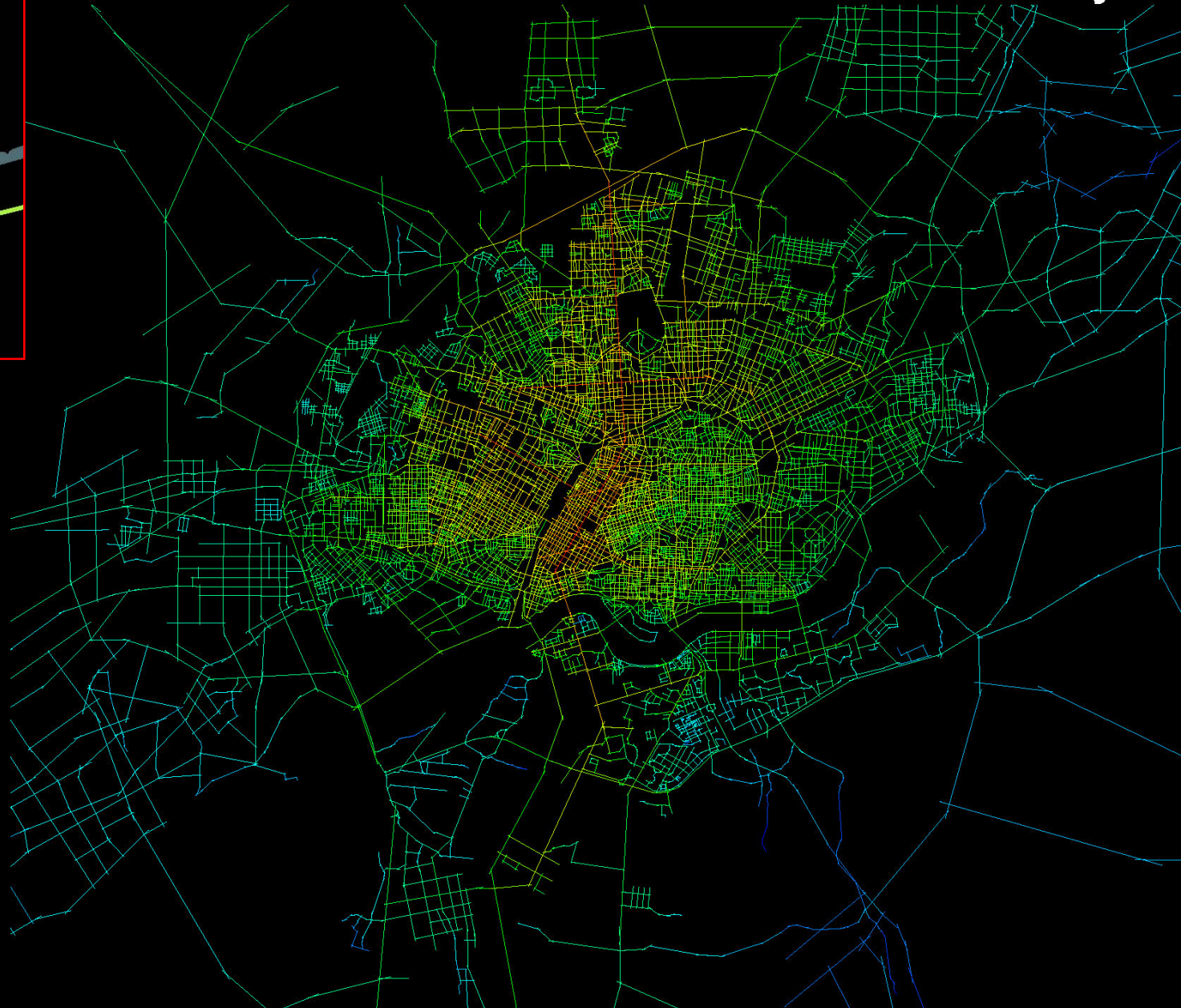
?



Fragment culture resource

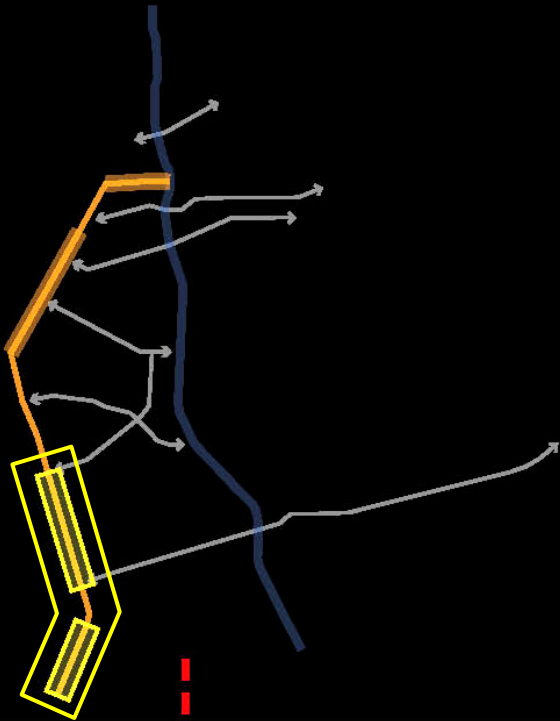
Integrate fragmentation into
organization of cultural landscape

Route 2 has more spatial potential to be main connection between South and the city



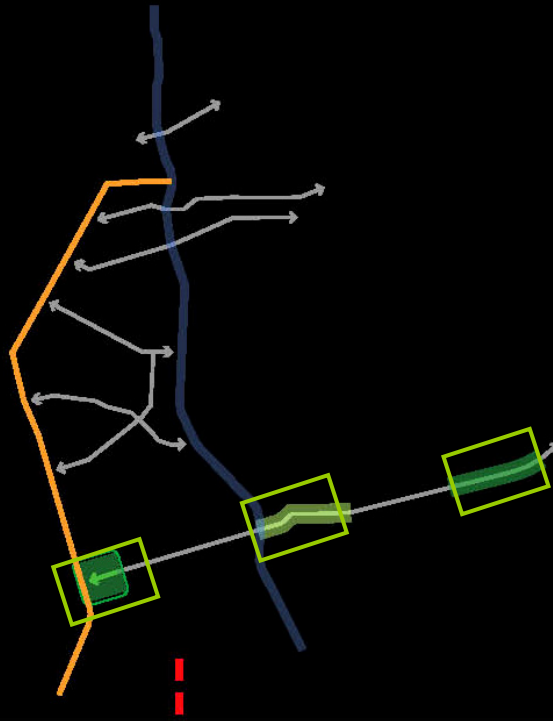
Spatial strategy

Extend distribution of urban activities along route 2



Continuity

Highlight 3 nodes as new centrality at the south bank






Diversity

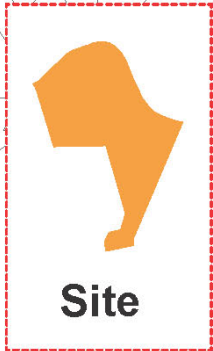
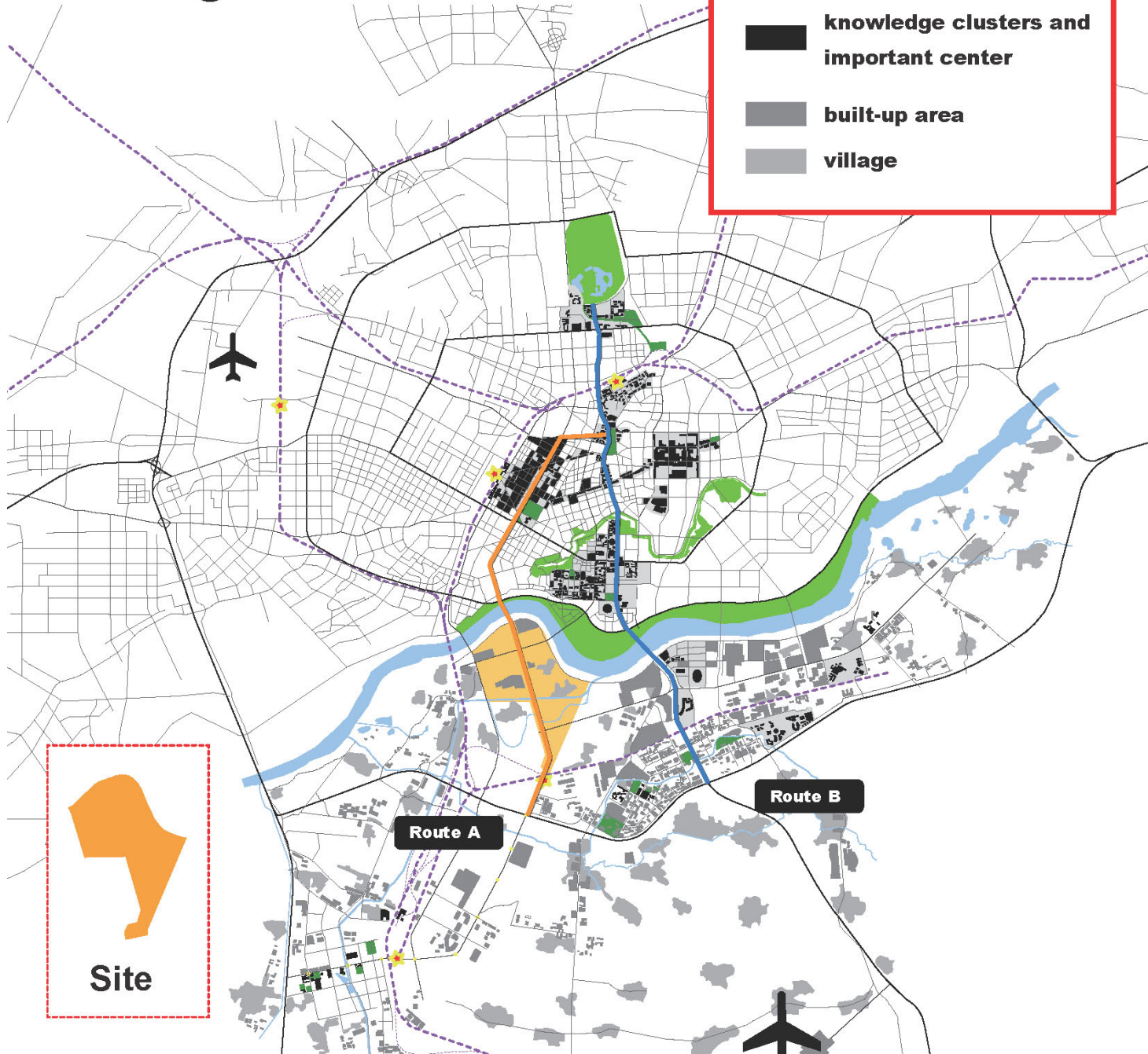
Create new connection streets in-between routes 1&2 as southern counterpart being urban living streets



Connectivity

Existing condition of the site

-  plan site
-  knowledge clusters and important center
-  built-up area
-  village



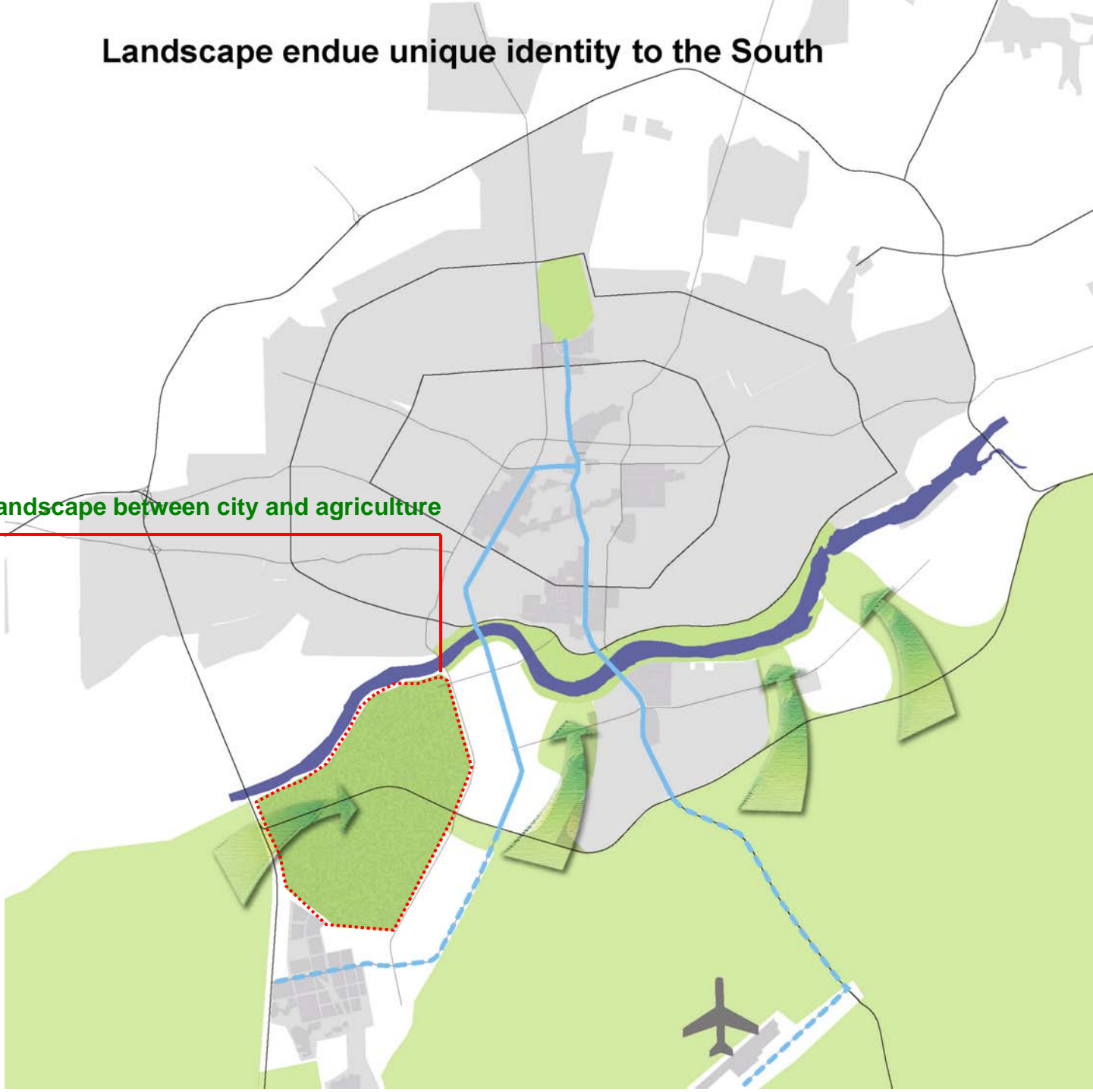
Route A

Route B

Site

Landscape endue unique identity to the South

transition landscape between city and agriculture



Bridge central city with cultural landscape!

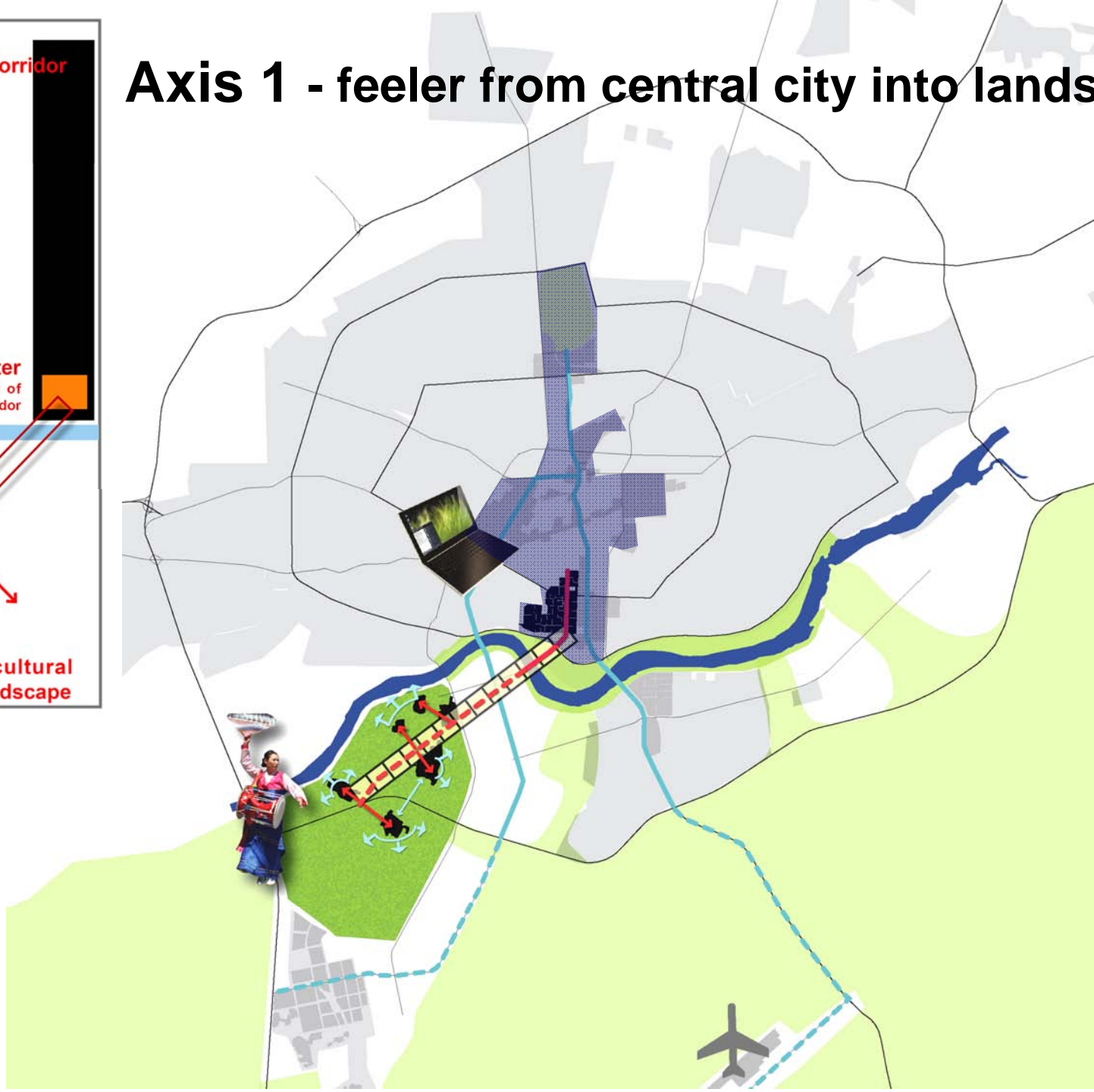


Central Urban Corridor

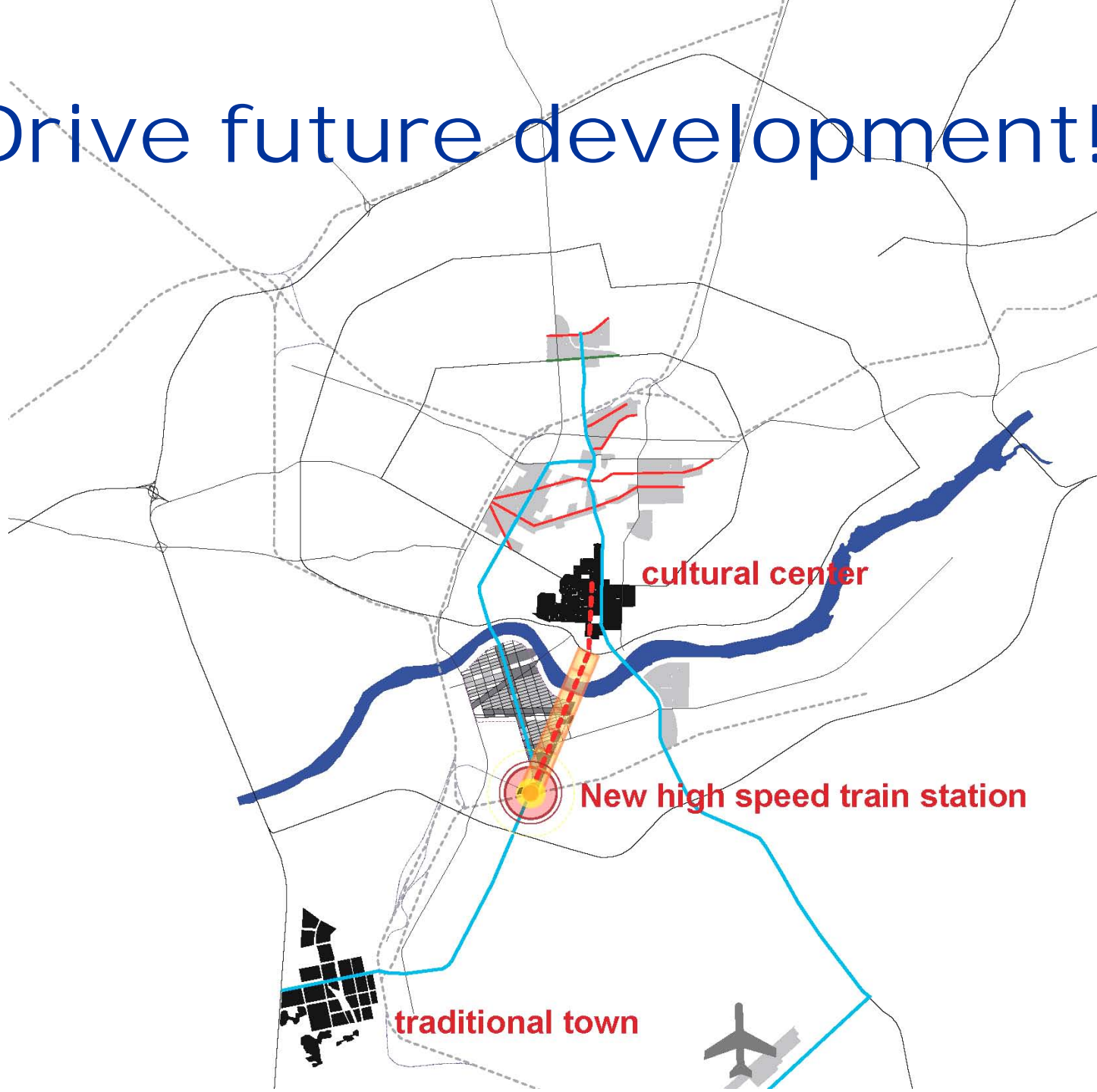
Culture Center
in the south end of
central urban corridor

fragement cultural
village in landscape

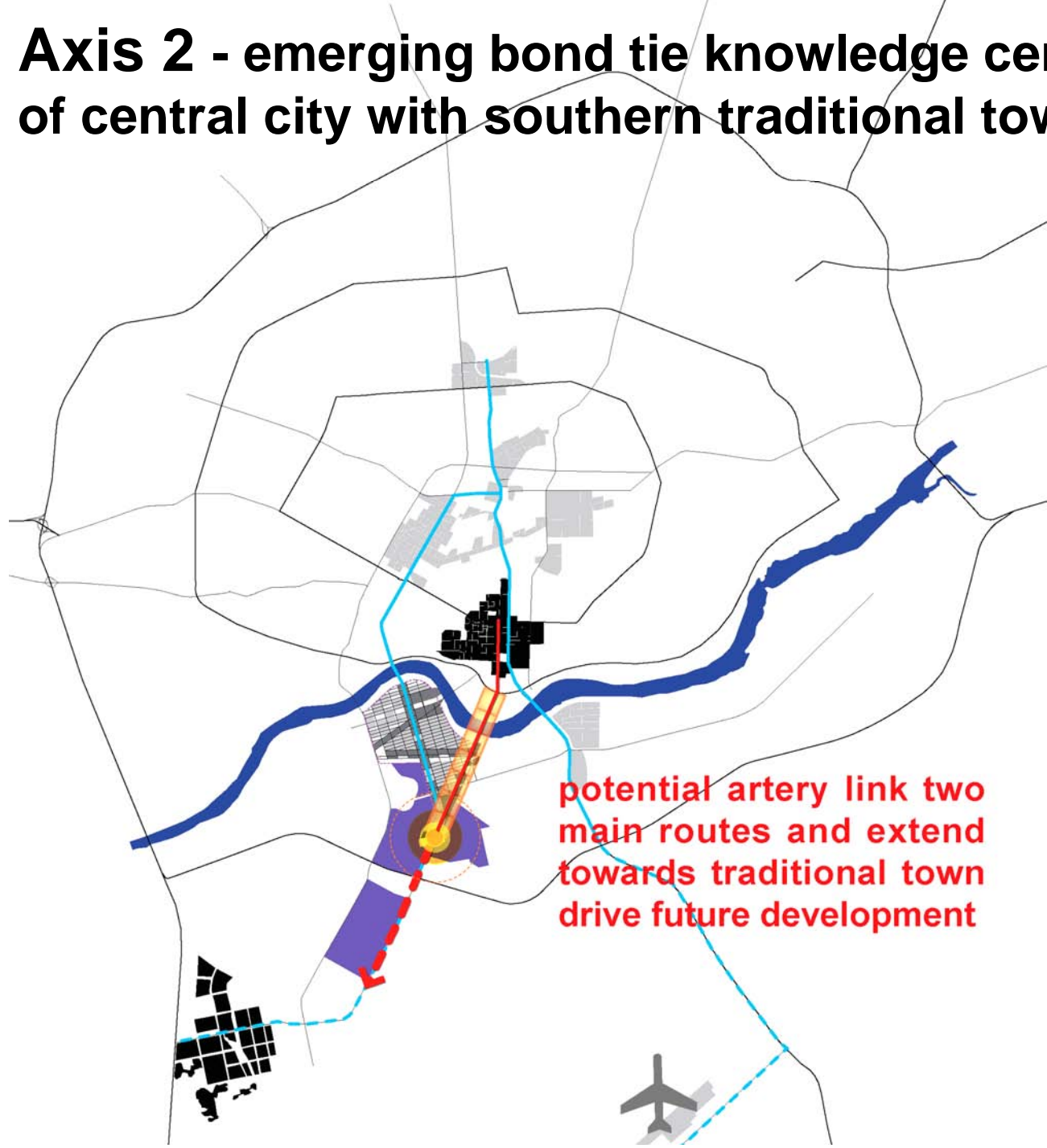
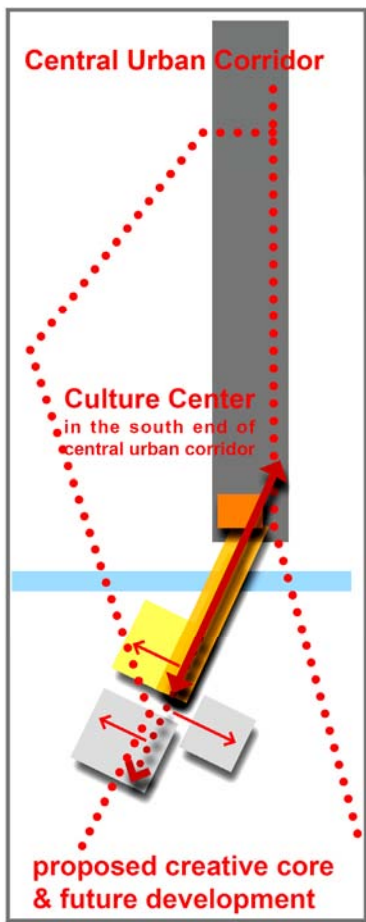
Axis 1 - feeler from central city into landscape



Drive future development!

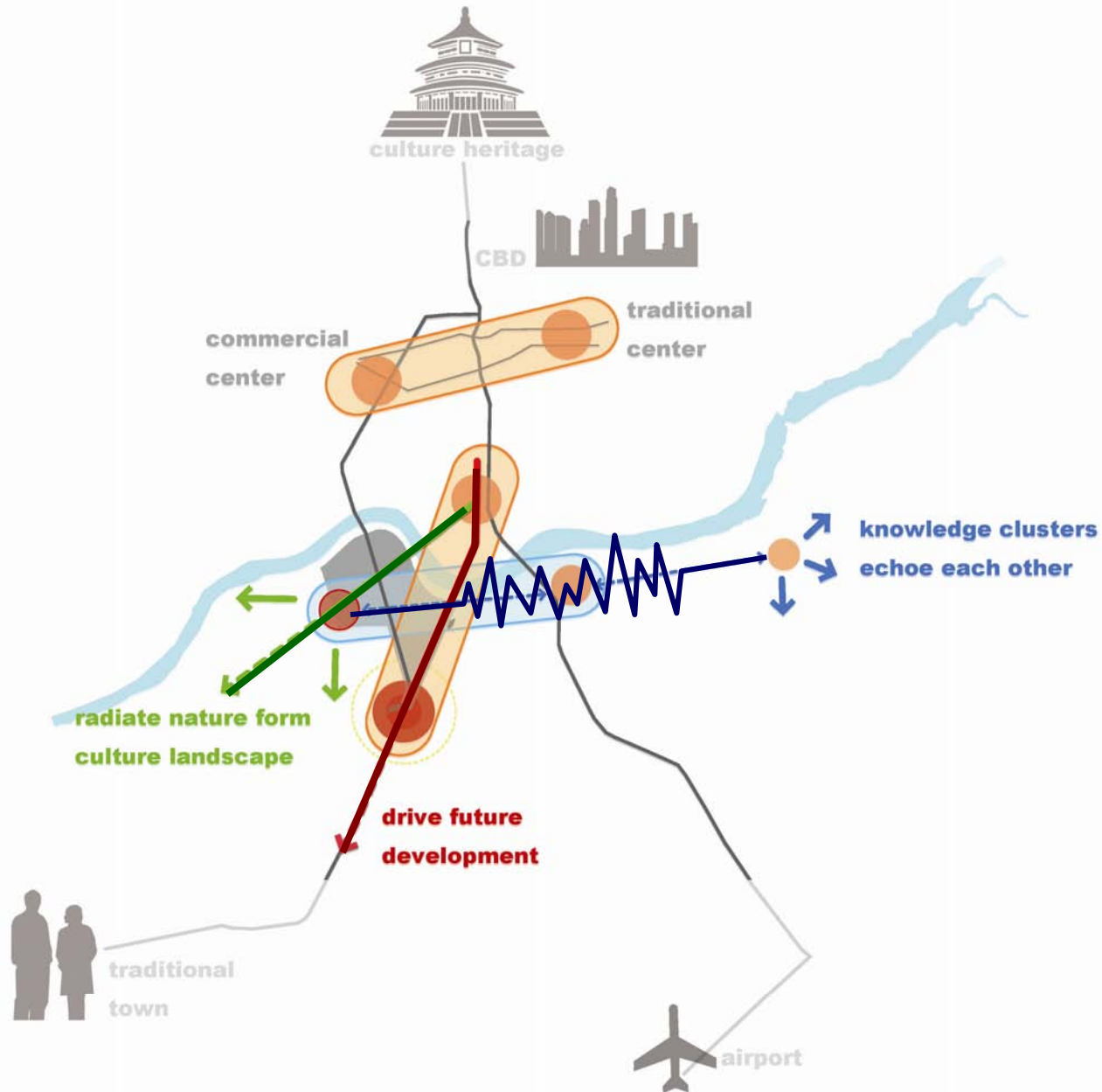


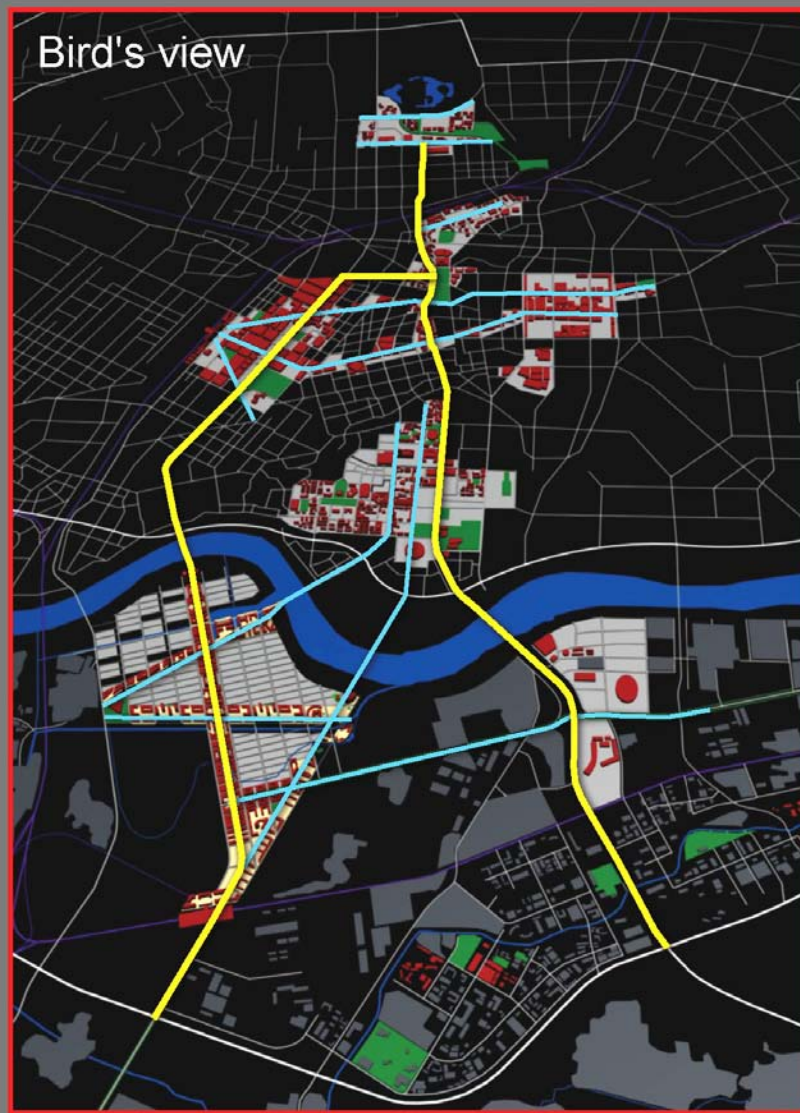
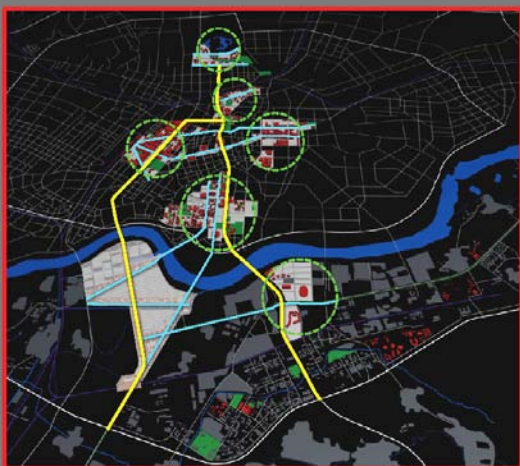
Axis 2 - emerging bond tie knowledge centrality of central city with southern traditional town



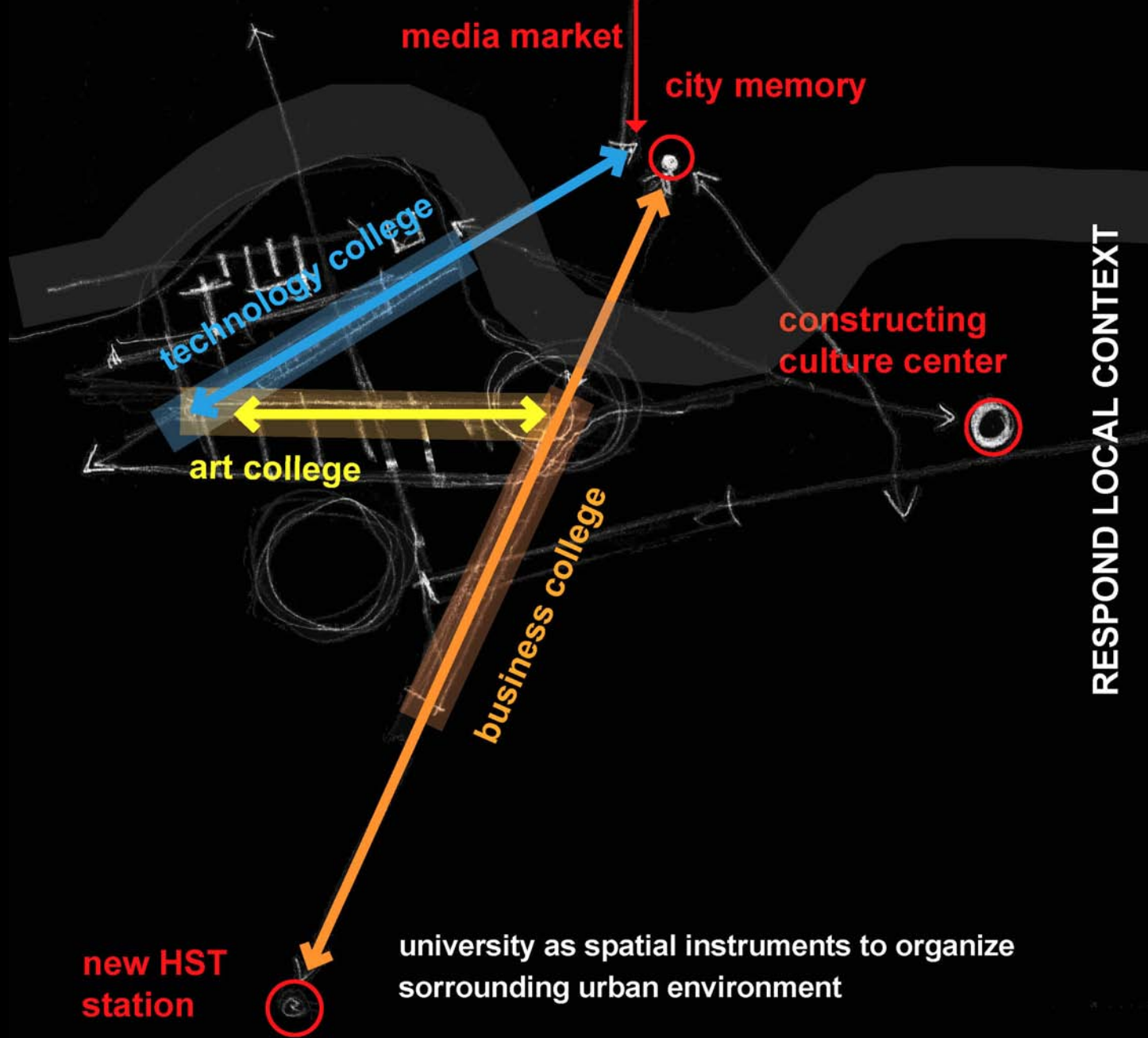
Spin - off

- forming organic cultural landscape in the South to echo the structure of the whole city

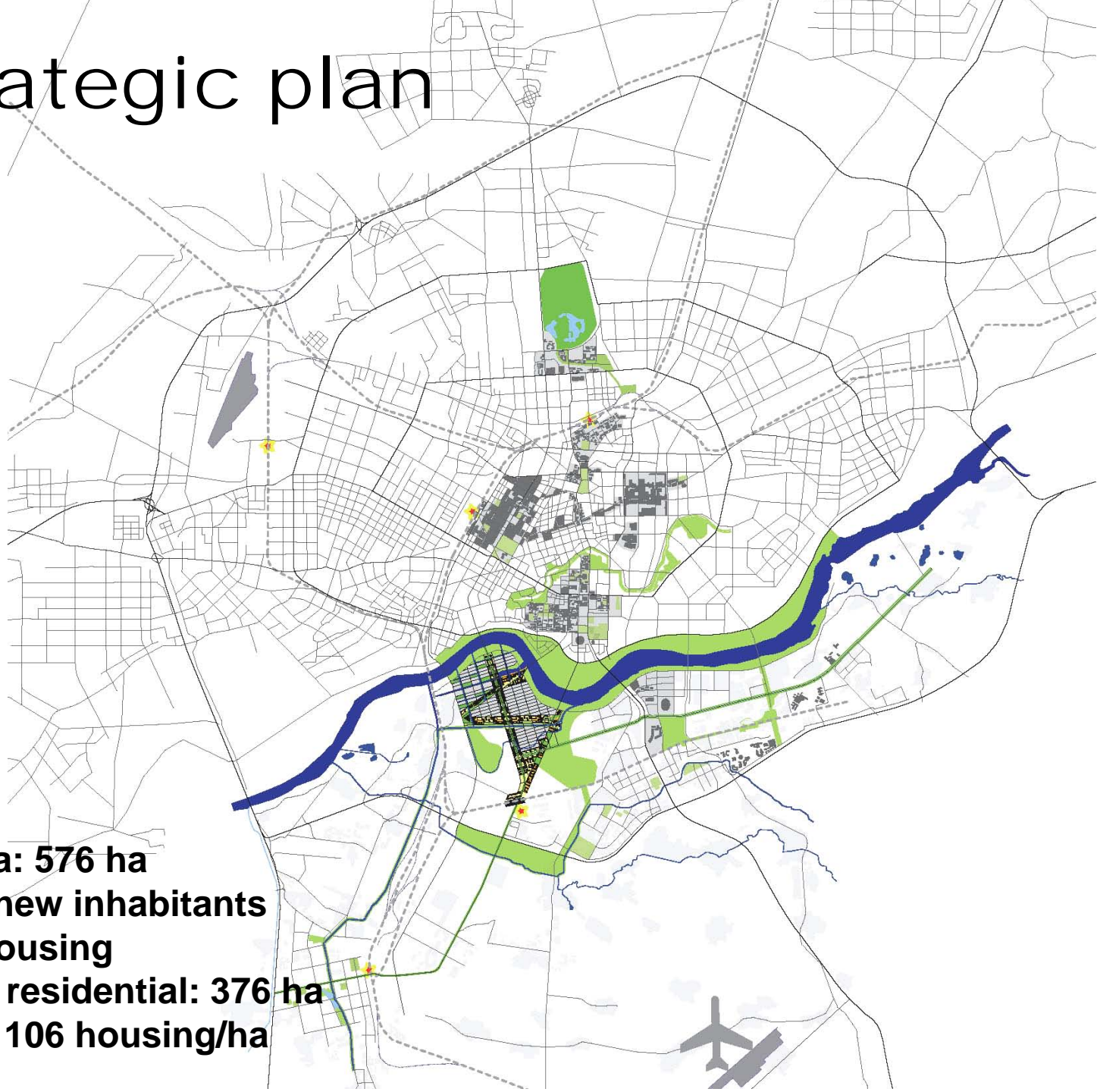




3 UNIVERSITY COLOR 3 SECTIONS

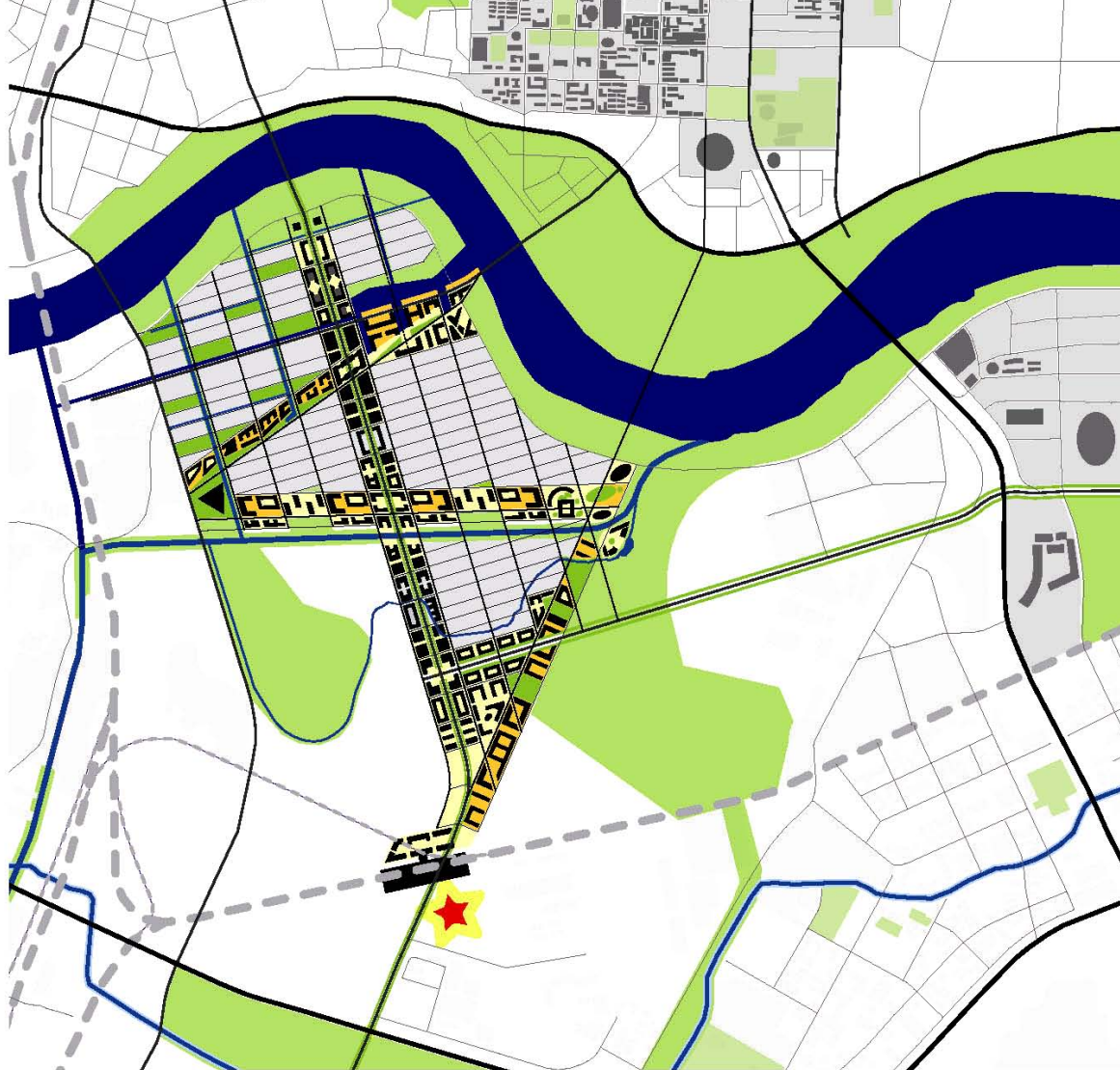


Strategic plan



Plan area: 576 ha
100,000 new inhabitants
40,000 housing
Land for residential: 376 ha
Density: 106 housing/ha





University area: 78 ha
Floor space: 1.150.000 sqm
11. 000 students
Urban culture related with university: 55 ha

10-15 companies
11. 000 employees
Commercial area: 67 ha
Residents: 5.000

university has similar size with MIT [US] (Massachusetts Institute of Technology, Cambridge)
Shenyang city (5.2 million people) has the similar size with large Boston metropolitan area (4.5 million)

Plan - green system



PLAN - green system



Green & blue as feeder from the river

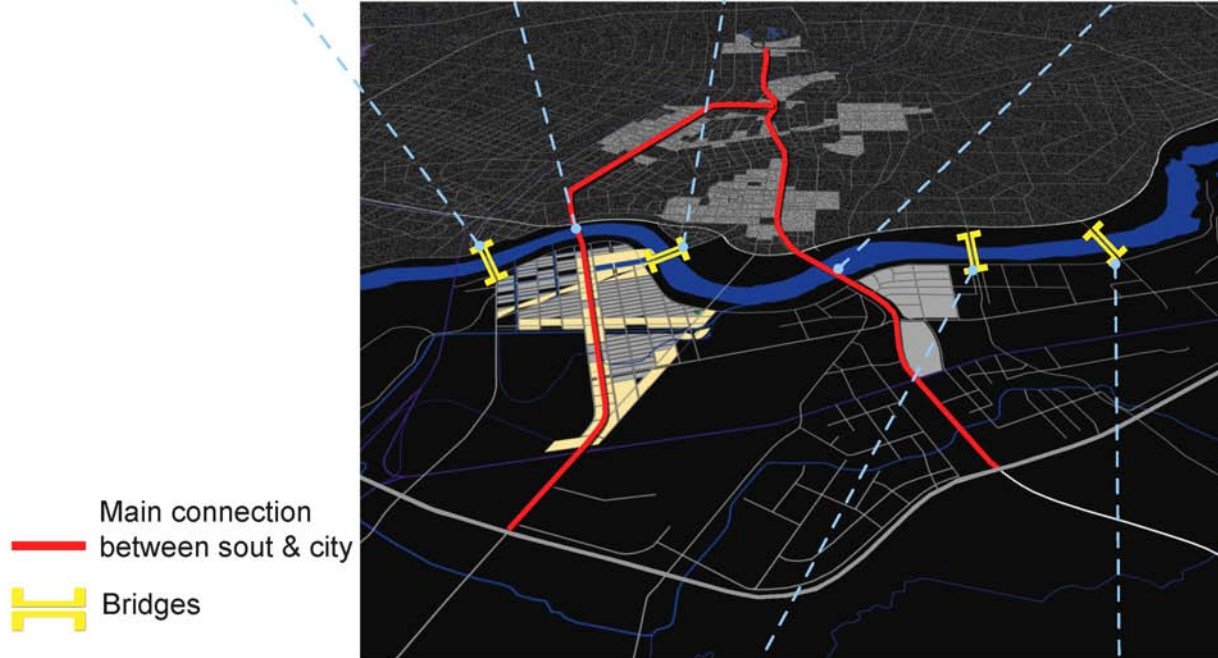


River view





Bridges cross the river



PLAN - infrastructure system

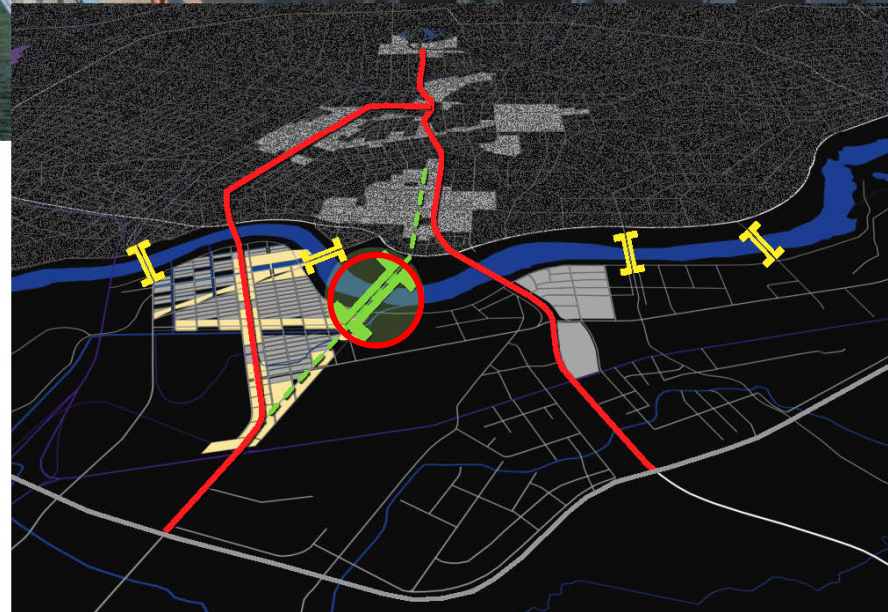


Pedestrian bridge

Main connection
between south & city

Bridges

proposed pedestrian bridge



PLAN - tram connect south with the city

existing subway



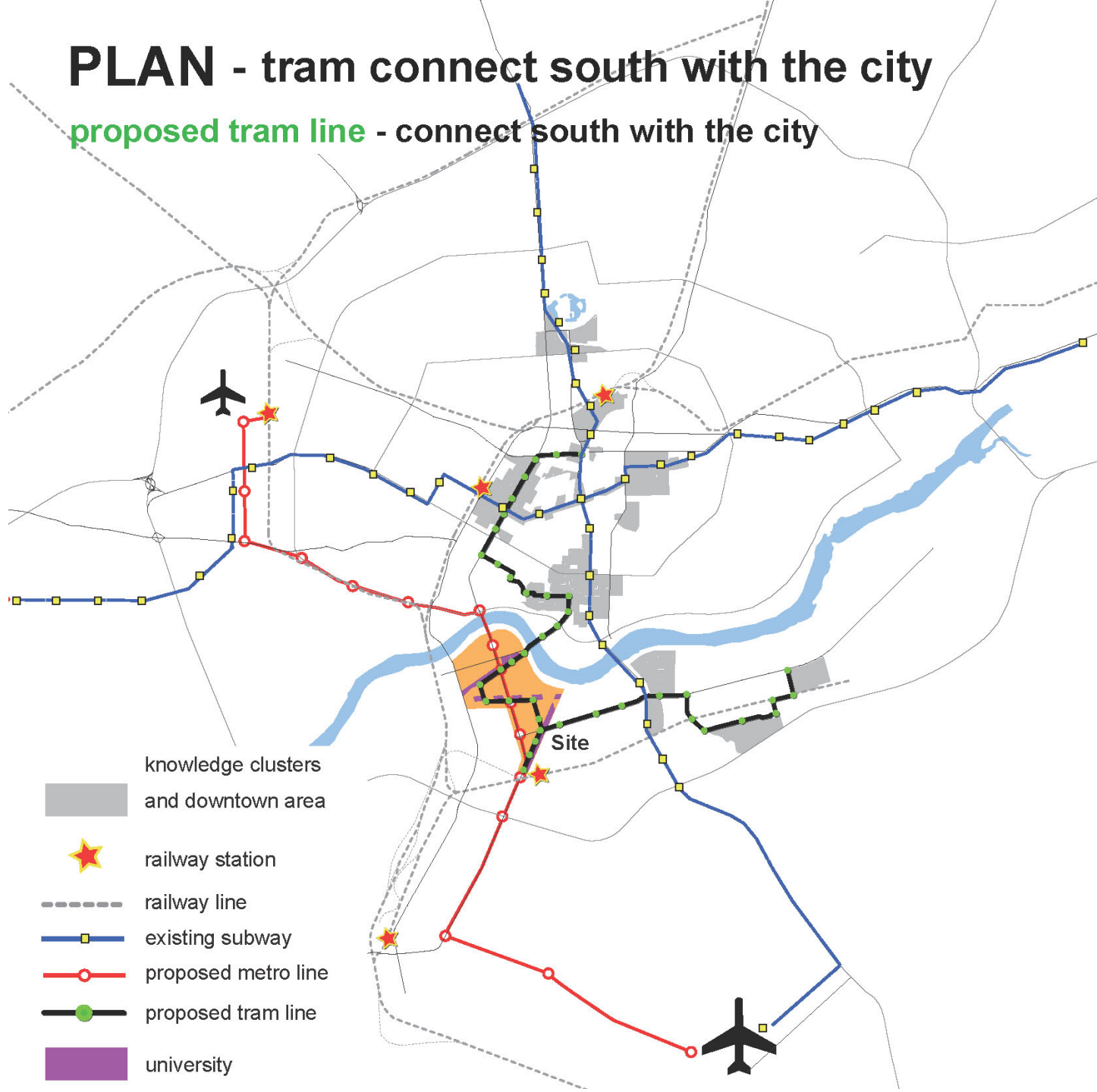
PLAN - tram connect south with the city

proposed metro line consider from city scale (see collective work)



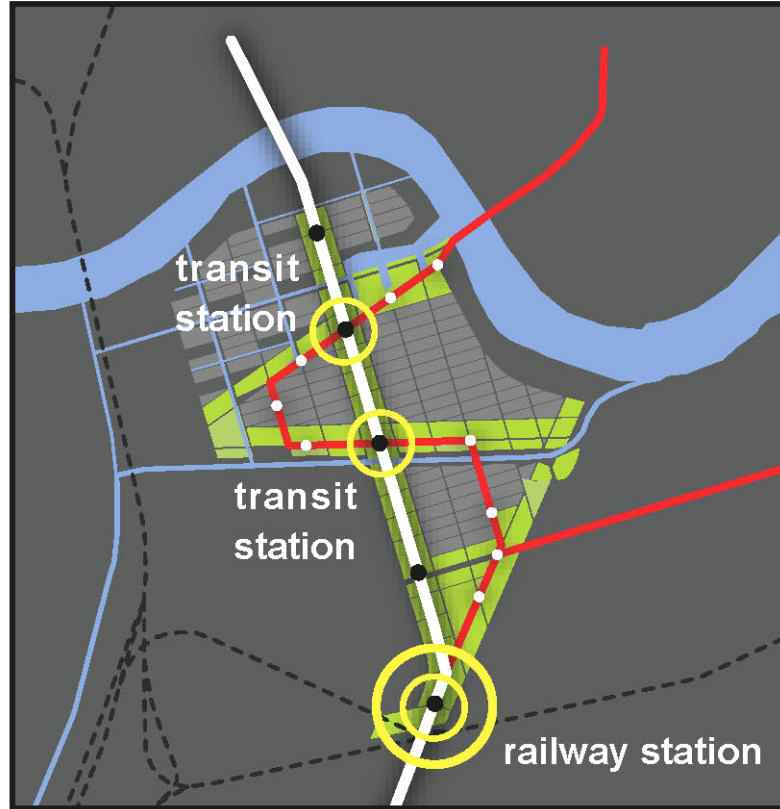
PLAN - tram connect south with the city

proposed tram line - connect south with the city



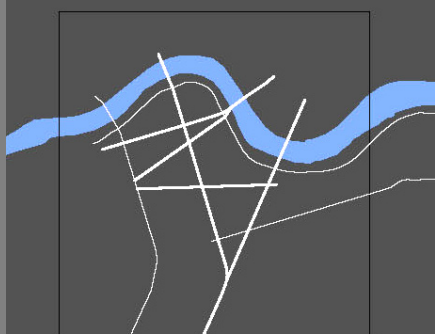
PLAN - public transport

transit among different public transport



3 transit station

distance: 1000 - 1500m

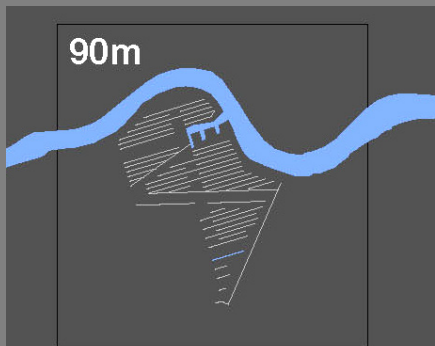


3 boulevards - spatial structure of university



250m

basic urban grid - main direction



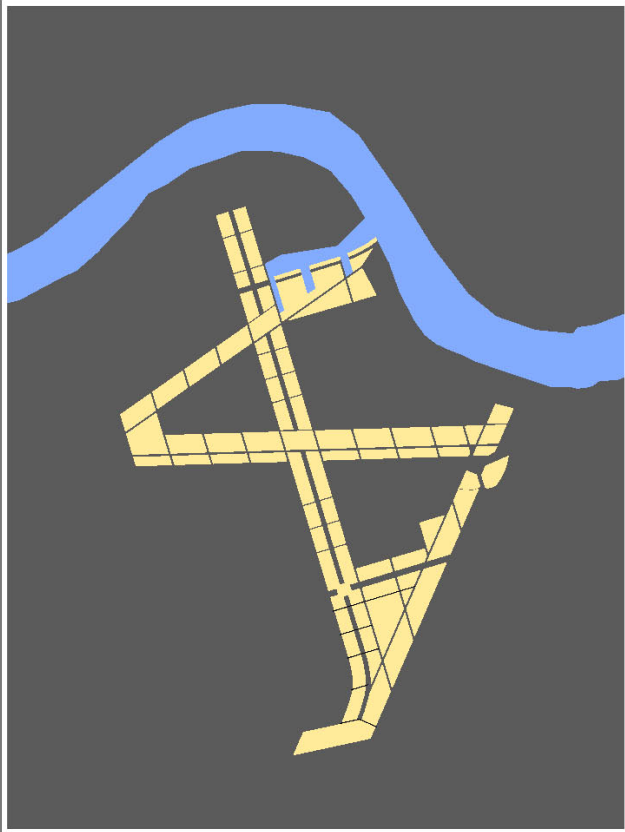
90m

basic urban grid - secondary direction



250m * 90m grid: flexible urban form
north to south - mainly for Motor Vehicle
north to south is the main direction for traffic of the site
due to the position (bridge area to cross the river)
west to east - mainly for pedestrian

PLAN - block



special block
- university and main shopping street

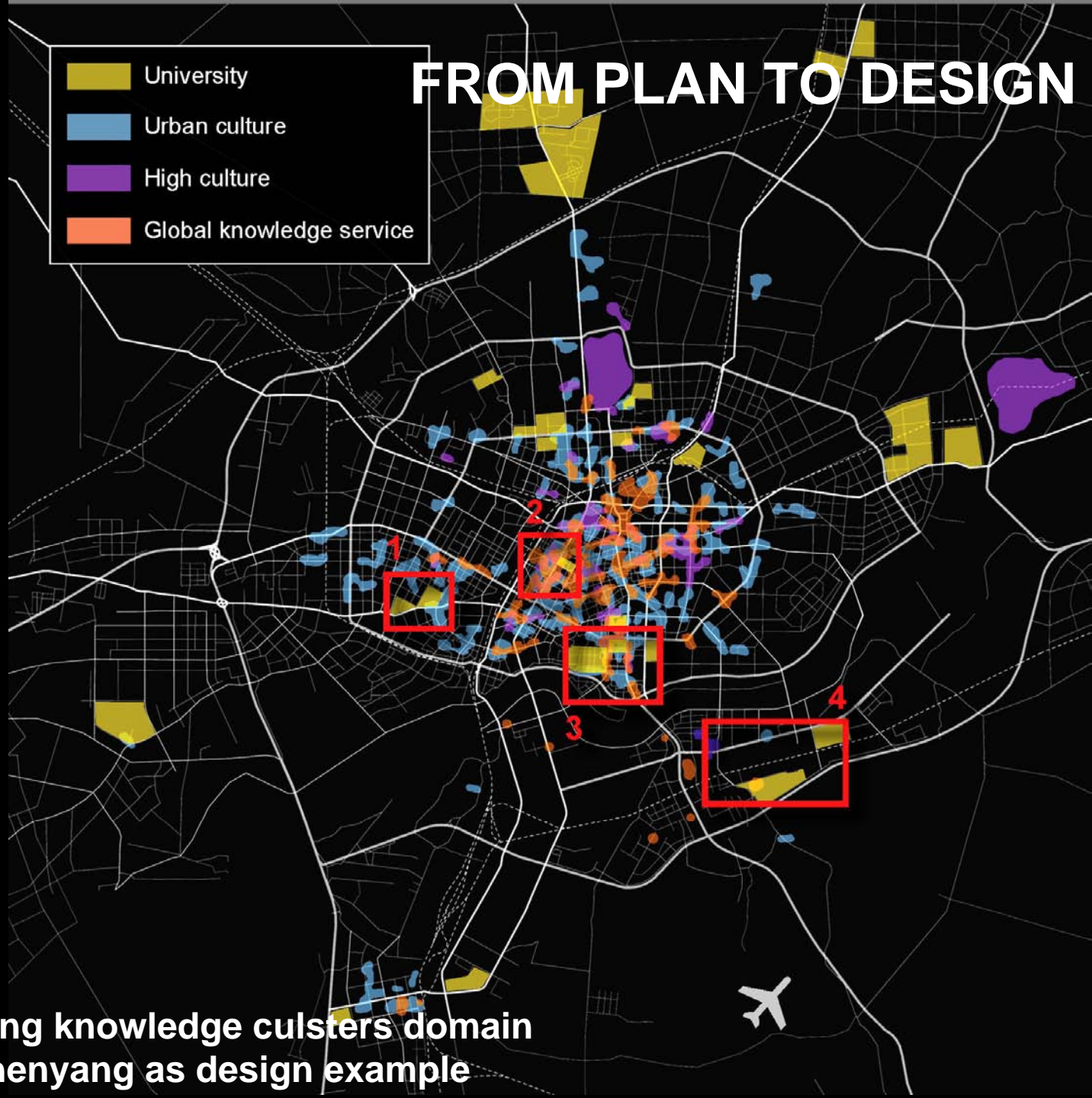
general block
- mixed use residential

building mass



public building and space used both by
university and general public people

FROM PLAN TO DESIGN



Learning from existing knowledge clusters domain by universities in Shenyang as design example

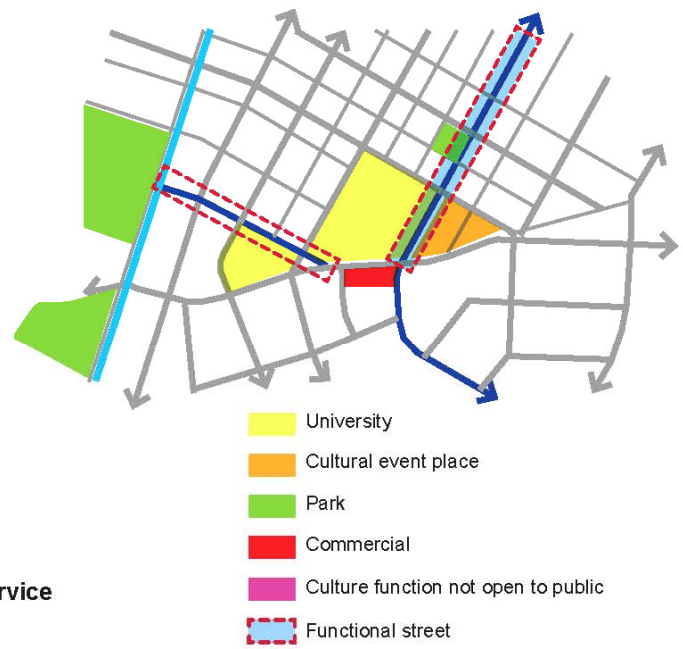
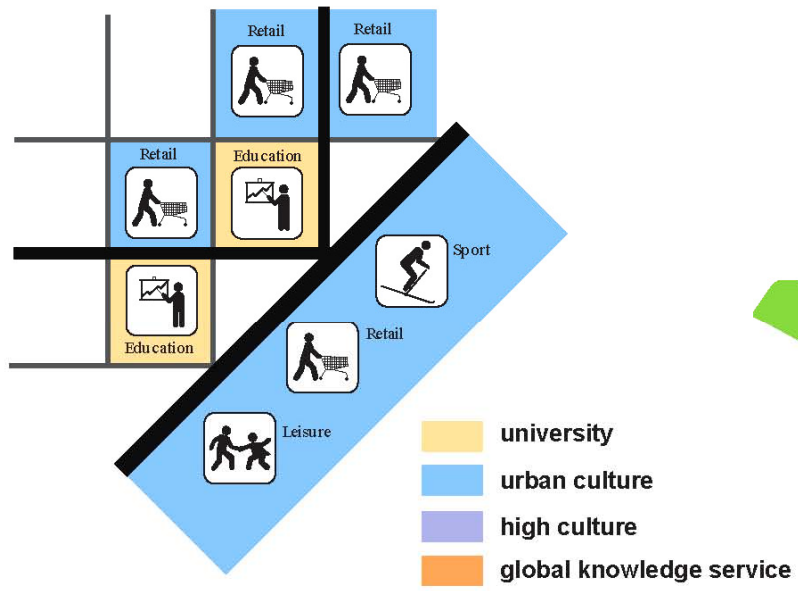
Commercial street



Agglomerate many shopping mall

Cluster 1 - university & urban culture connect by two streets

University inside the poor neighborhood



Common example in Chinese cities

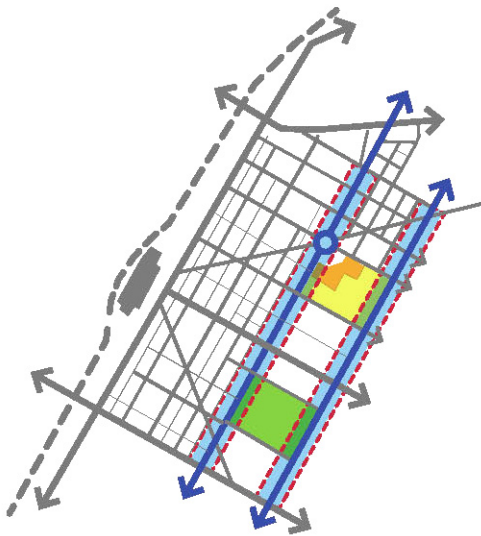
streets connect university and retail, park



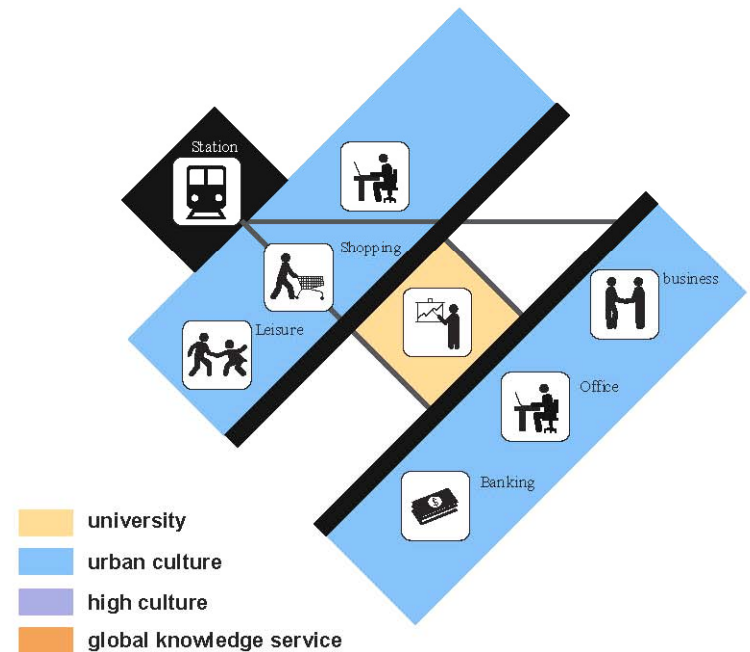
Cluster 2 - university in-between office streets

Good example especially together with railway station

University in commercial center



University in-between office streets





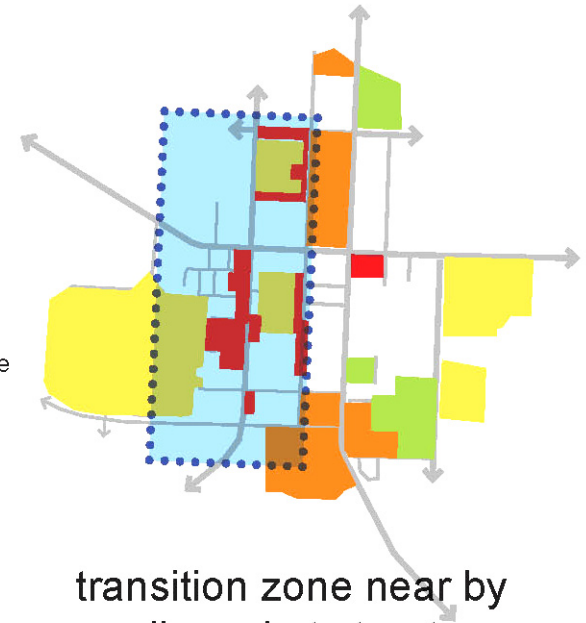
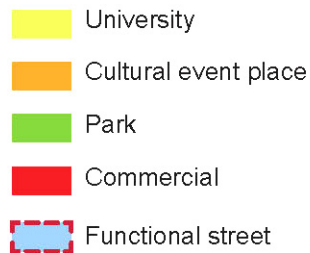
Cluster 3 - three universities along main street and generate a special shopping district (art, computer, software)

Universities in urban cultural district

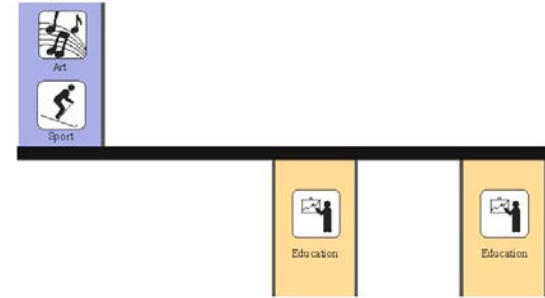
Best example because of highly mixed knowledge clusters



Highly mixed use area

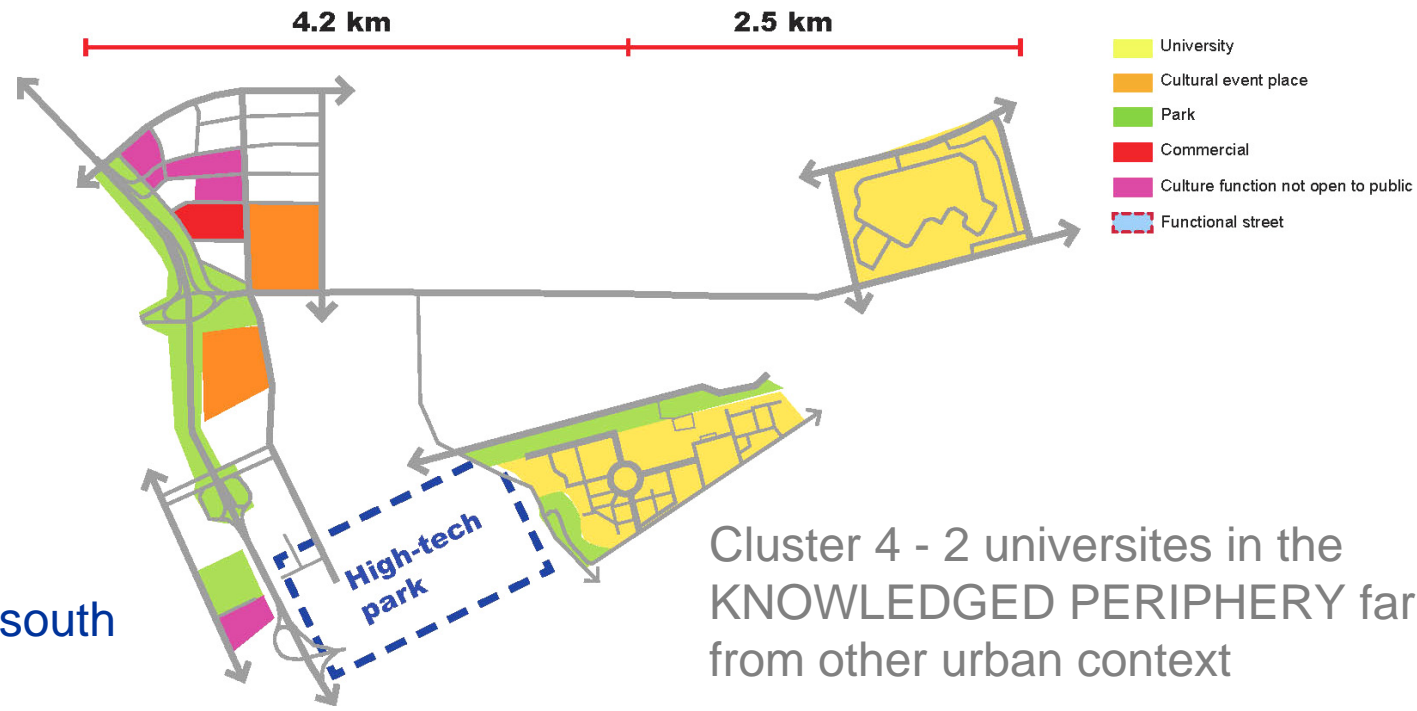


Poor public space



No relationship between the **new cultural center and universities.**

Universities in the knowledge periphery

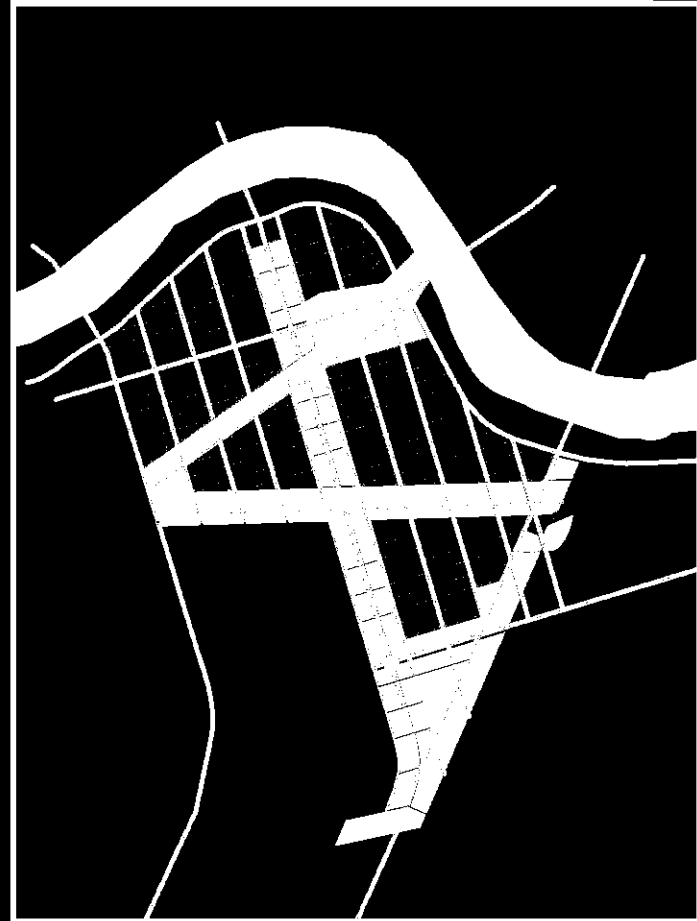


Bad example in the south

Cluster 4 - 2 universities in the KNOWLEDGED PERIPHERY far from other urban context

UNIVERSITY DESIGN

- 3 different relationship between university & 'urban culture'
- avenue as connect universities and city
- public space and landscape organized by university avenue

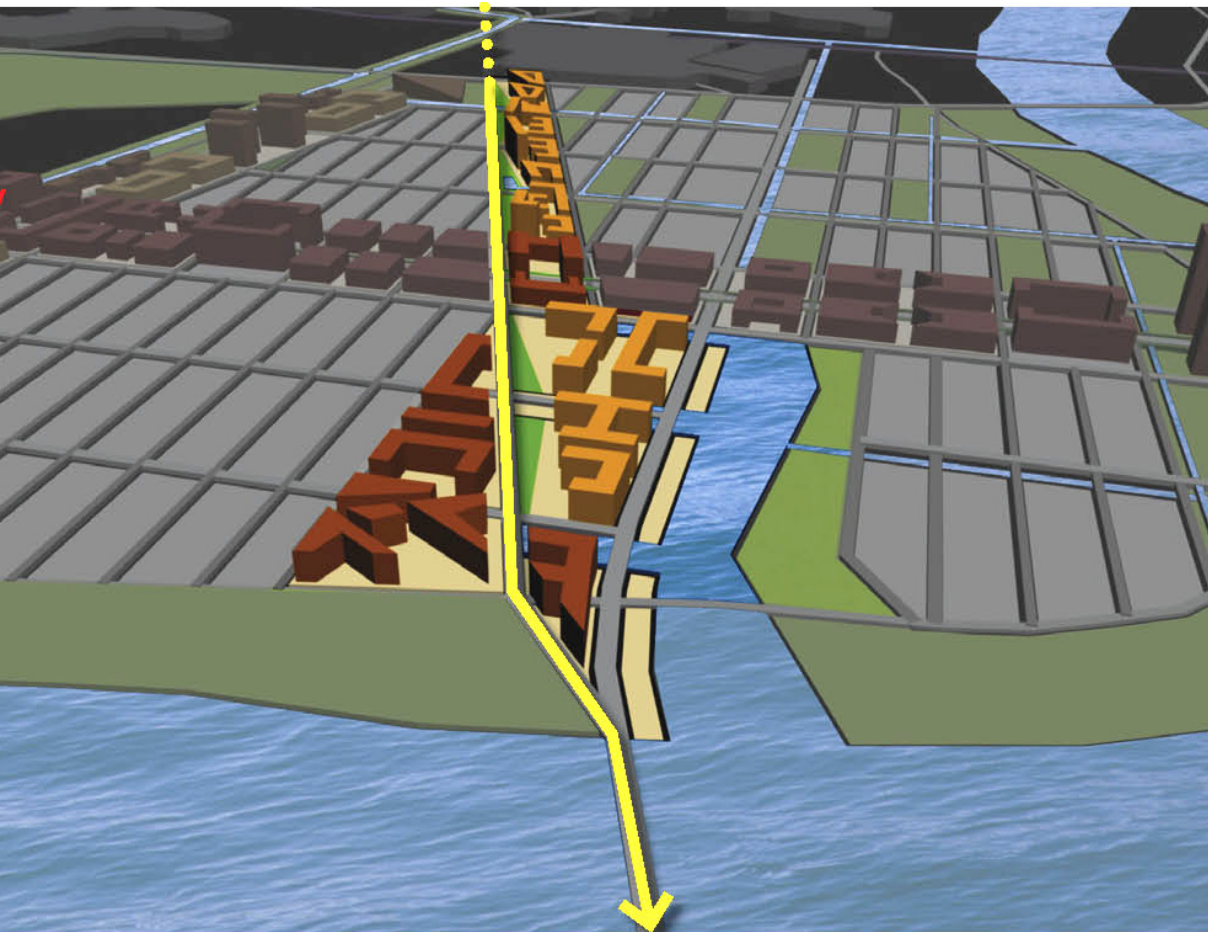


University design - avenue as spatial backbone



University 1 - Infiltrate

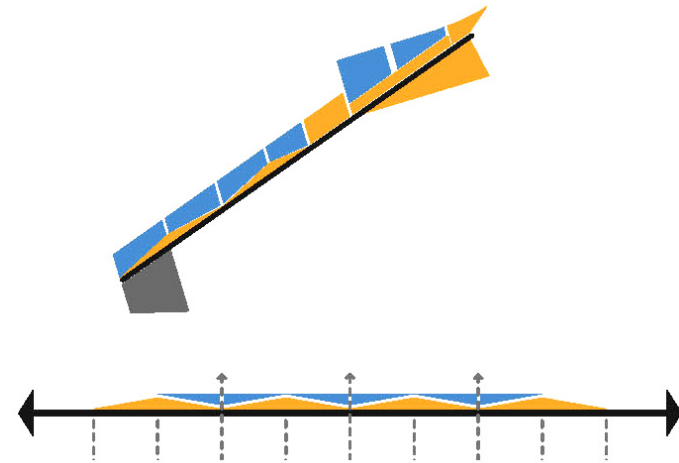
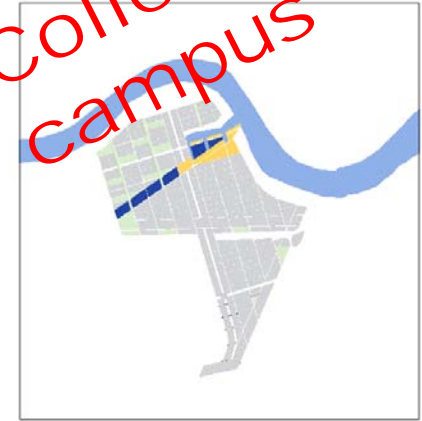
- 'urban culture' and technology faculty form urban 'hotspot' as articulation in-between two banks
- Public space infiltrate into campus as meeting places



■ 'urban culture' building

■ University building

Collective campus



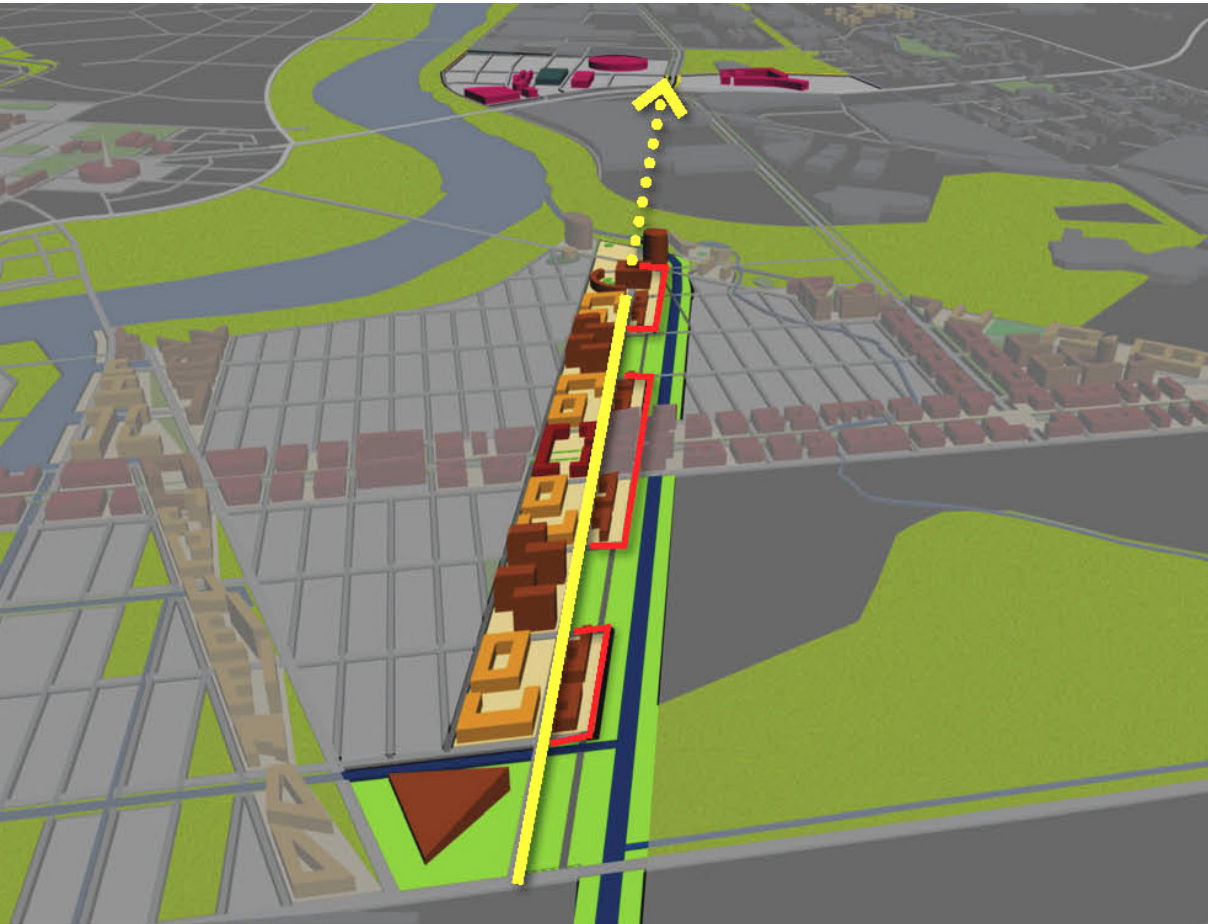
■ campus

■ Public space

University 2 - Homogenize

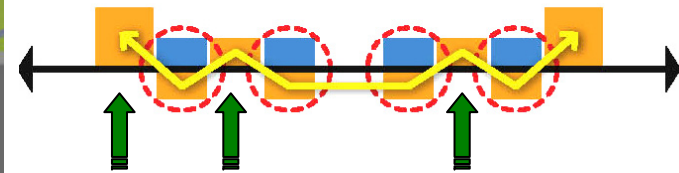
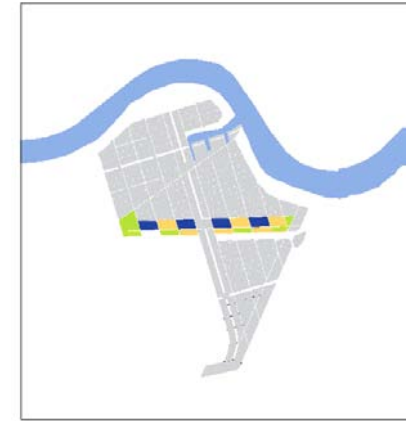
Ecological campus

Landscape and 'urban culture' locate homogenously with art faculty



■ 'urban culture' building

■ University building



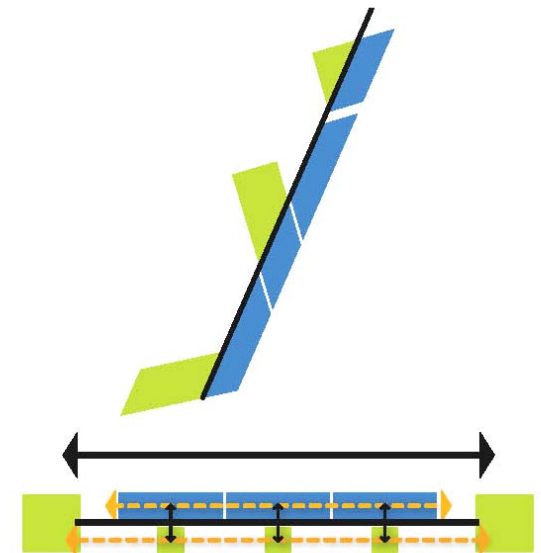
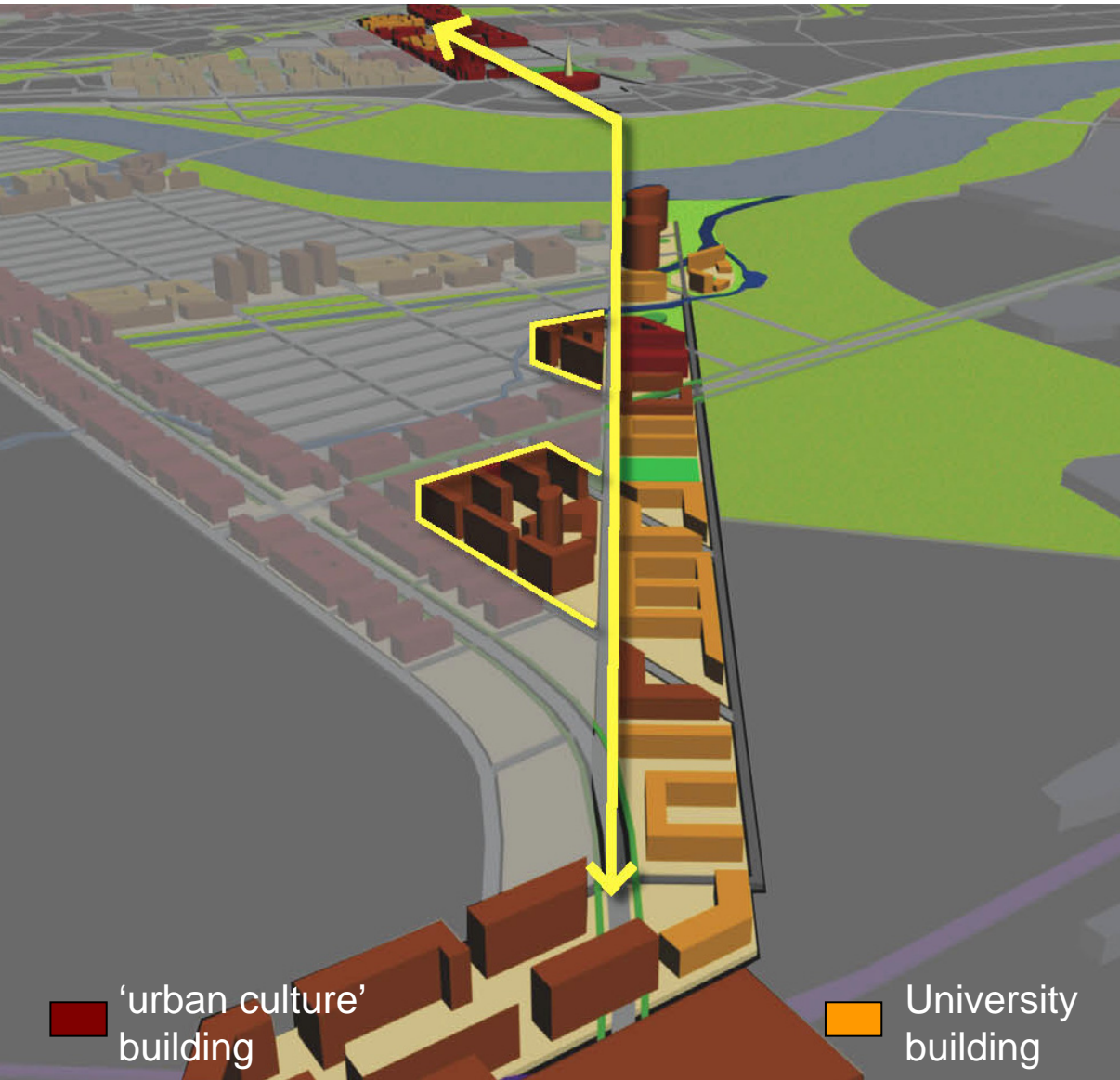
■ campus

■ Public space

University 3 - Branch

transition campus

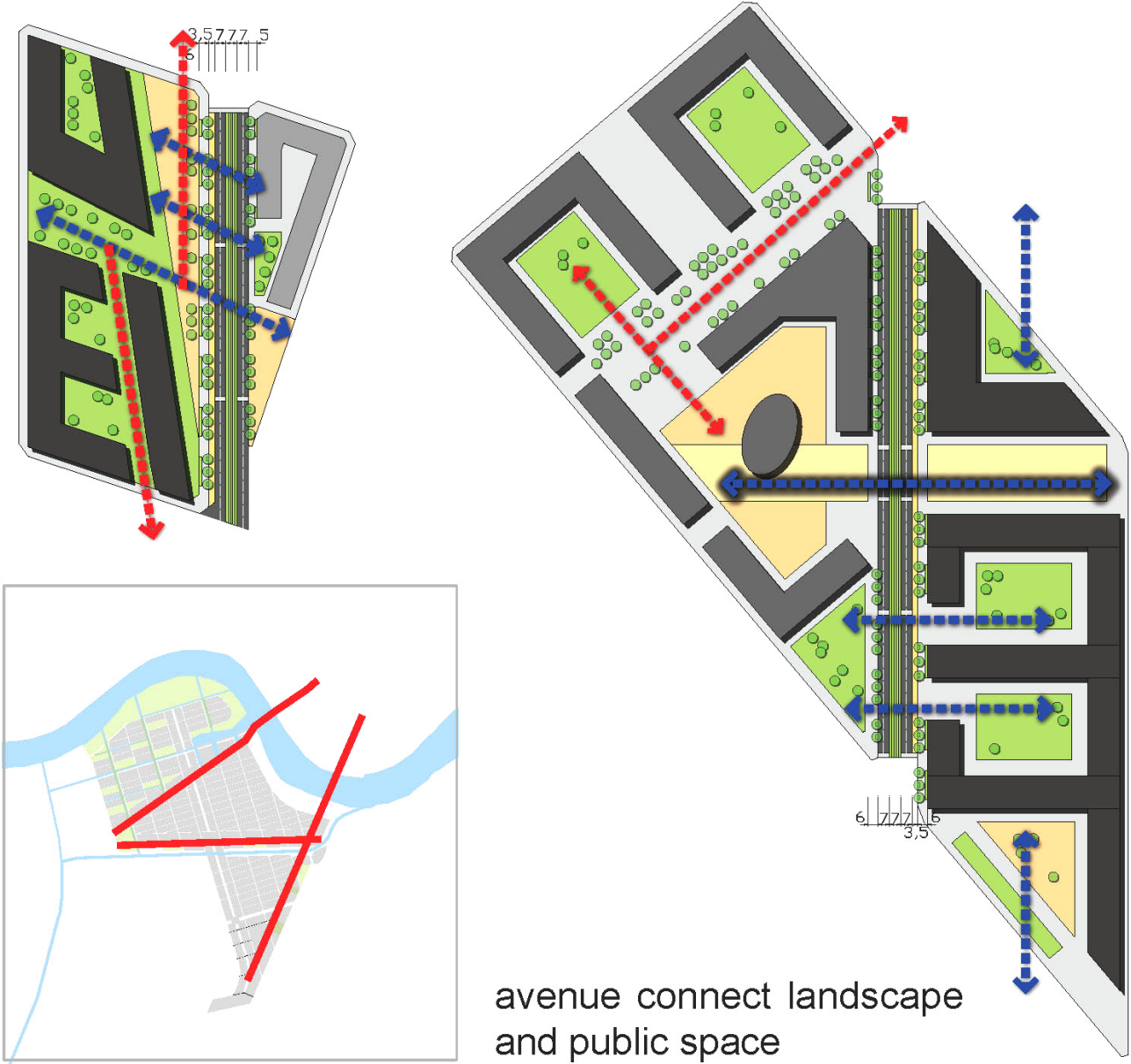
business faculty fertilize business district as branch and connect urban and green



campus

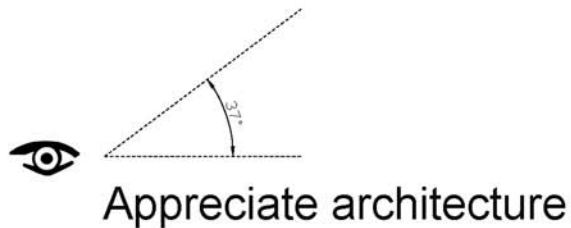
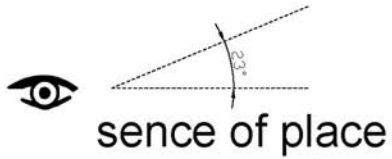
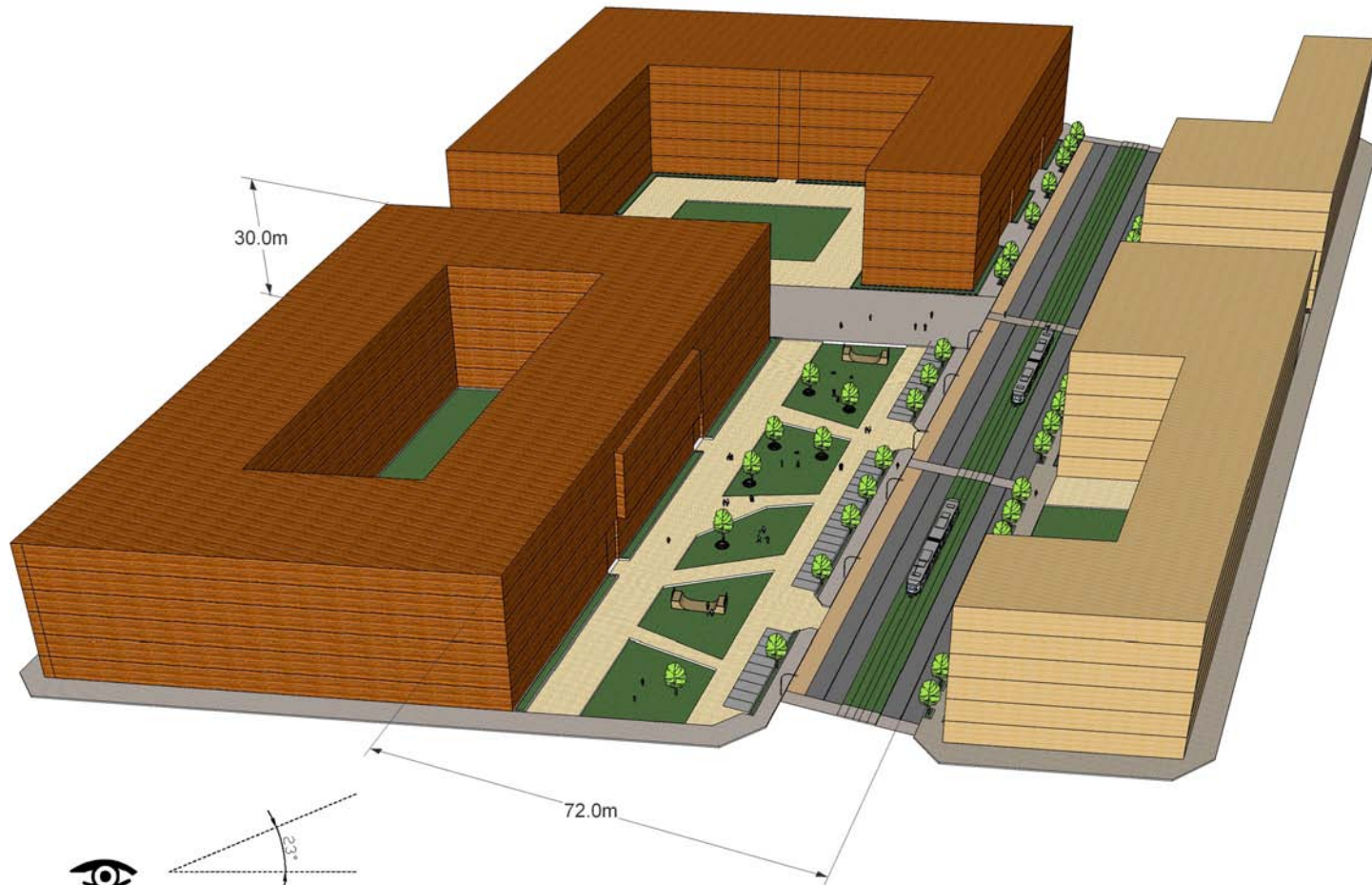
Public space

University design - public space link with avenue



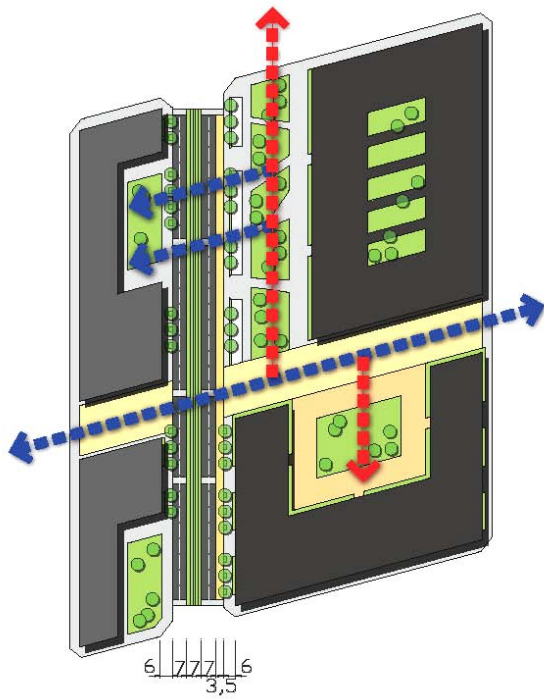
avenue connect landscape and public space

University design - avenue & public space



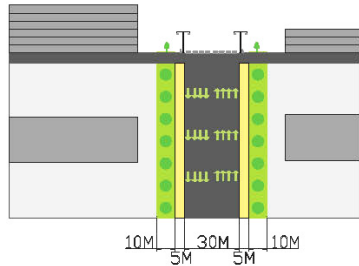
elevation angle < 40

distance/ height = $D/H = 1.3 \sim 2.4$



tram add green and different experience to the avenue

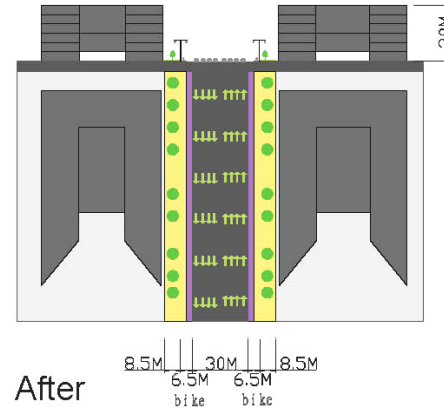
Main shopping street



Before

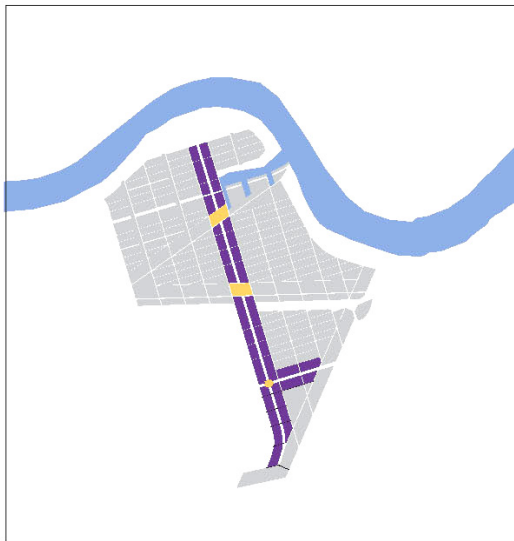
high speed road

main shopping street with department store block along it

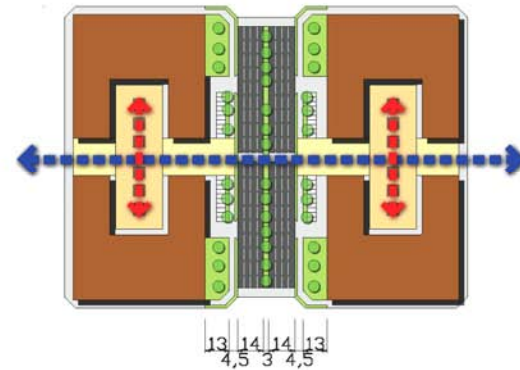


After

landscape in the middle of the road, shopping block has inside pedestrian street and public space and good accessibility to public transport - new metro line

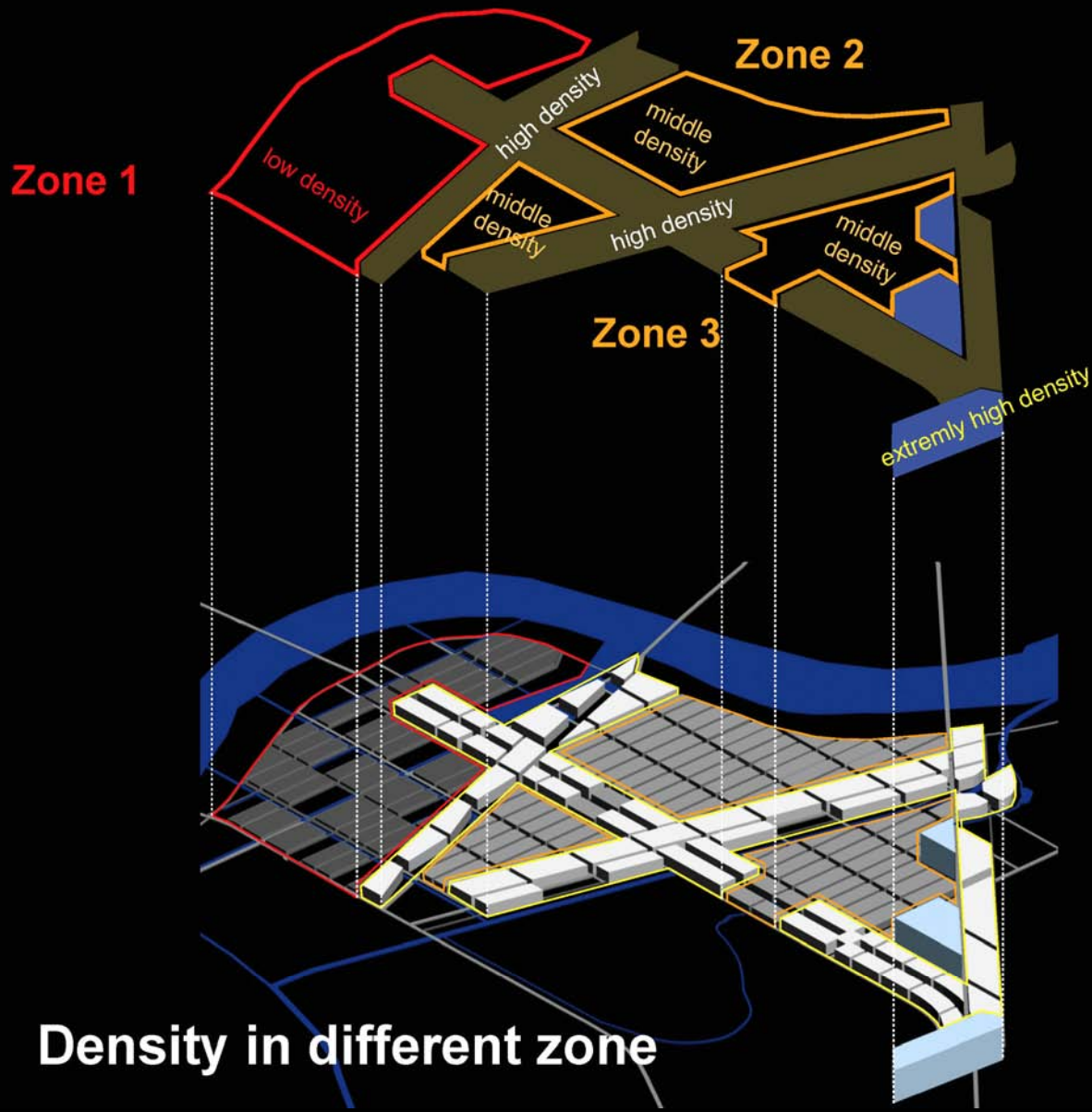


pedestrian public space inside the block



CONTROL

- urban design guideline of residential block



Density in different zone

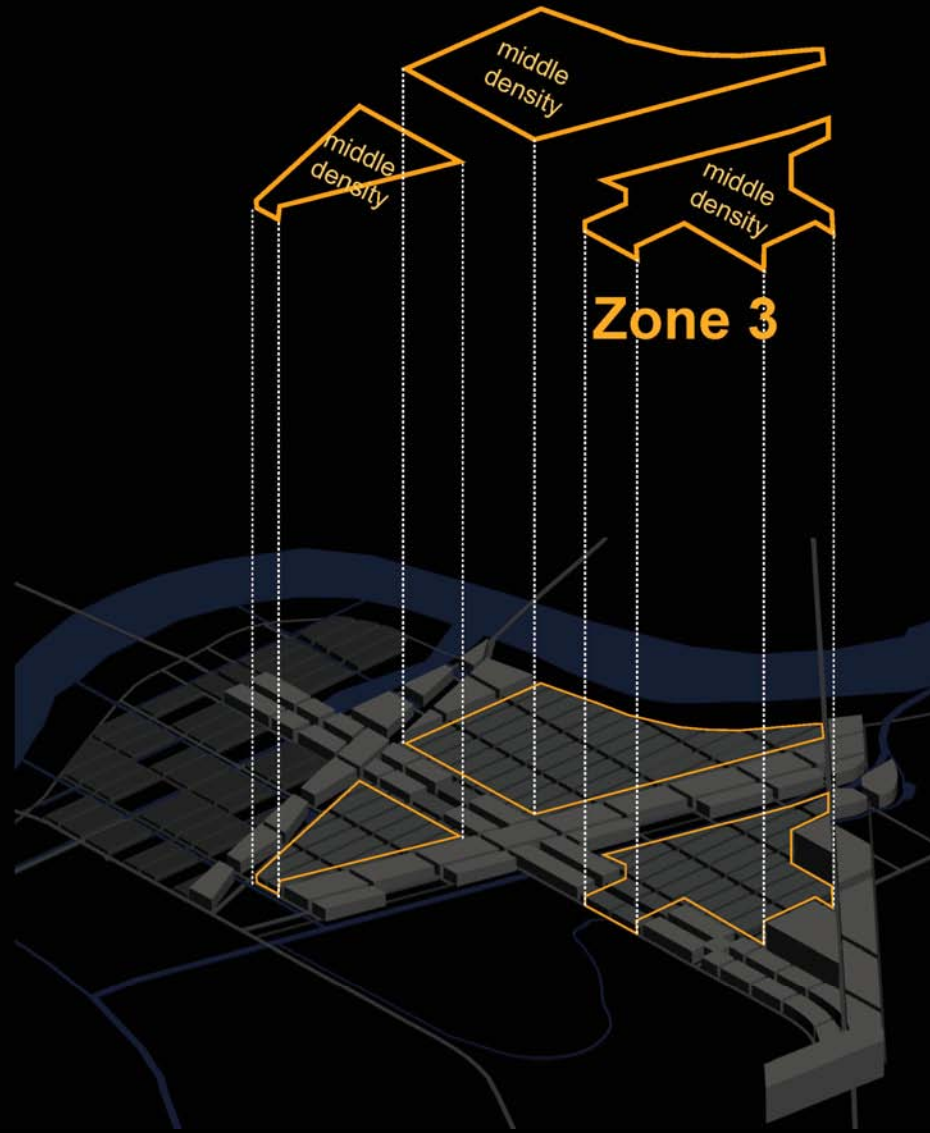
Zone 1

- The first zone cross the river in the south bank
- transition zone
- low density, good access



Zone 2

general residential area
with middle density
FAR 1.8 ~ 2.1

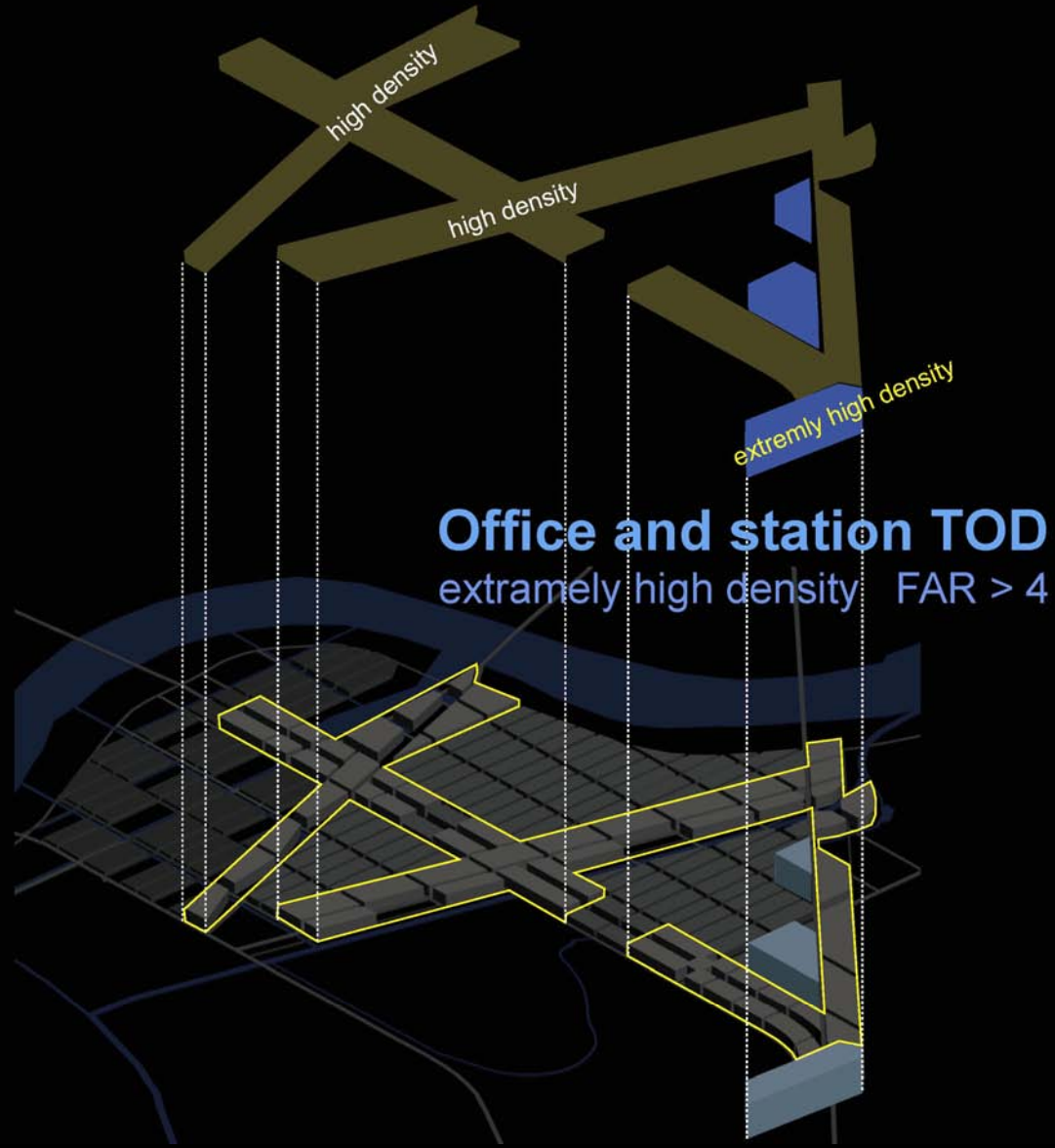


Zone 3

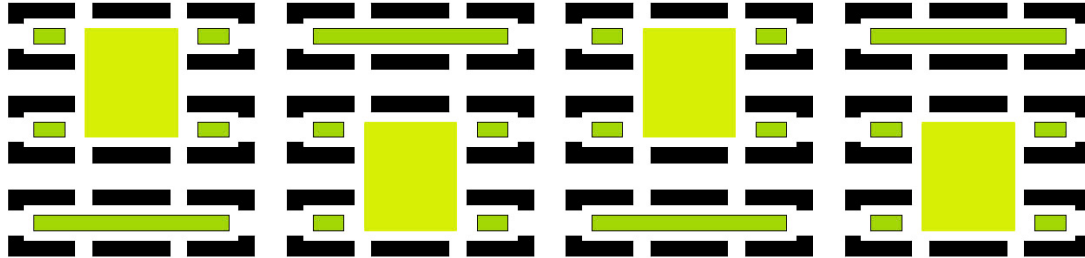
University and shopping district

high density

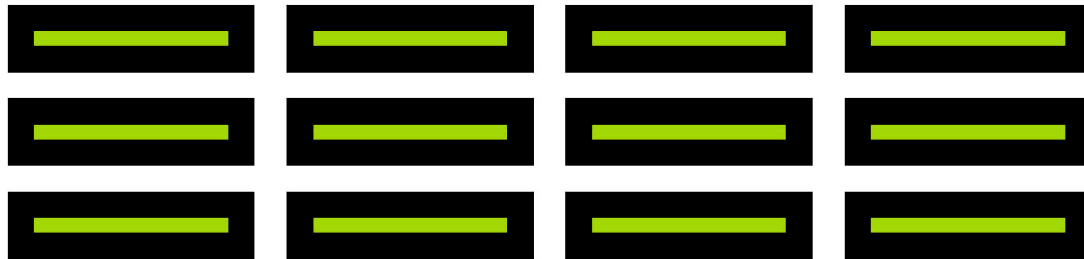
FAR 2.5 ~ 3



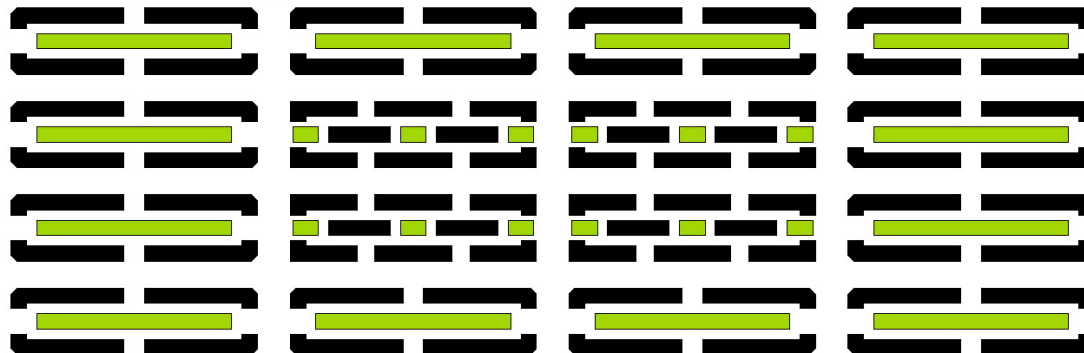
Low density - with large green in zone 1 which is near the river



High density - not suitable for Shenyang because of cold weather



Middle density - in zone 2,3 to the south of zone 1

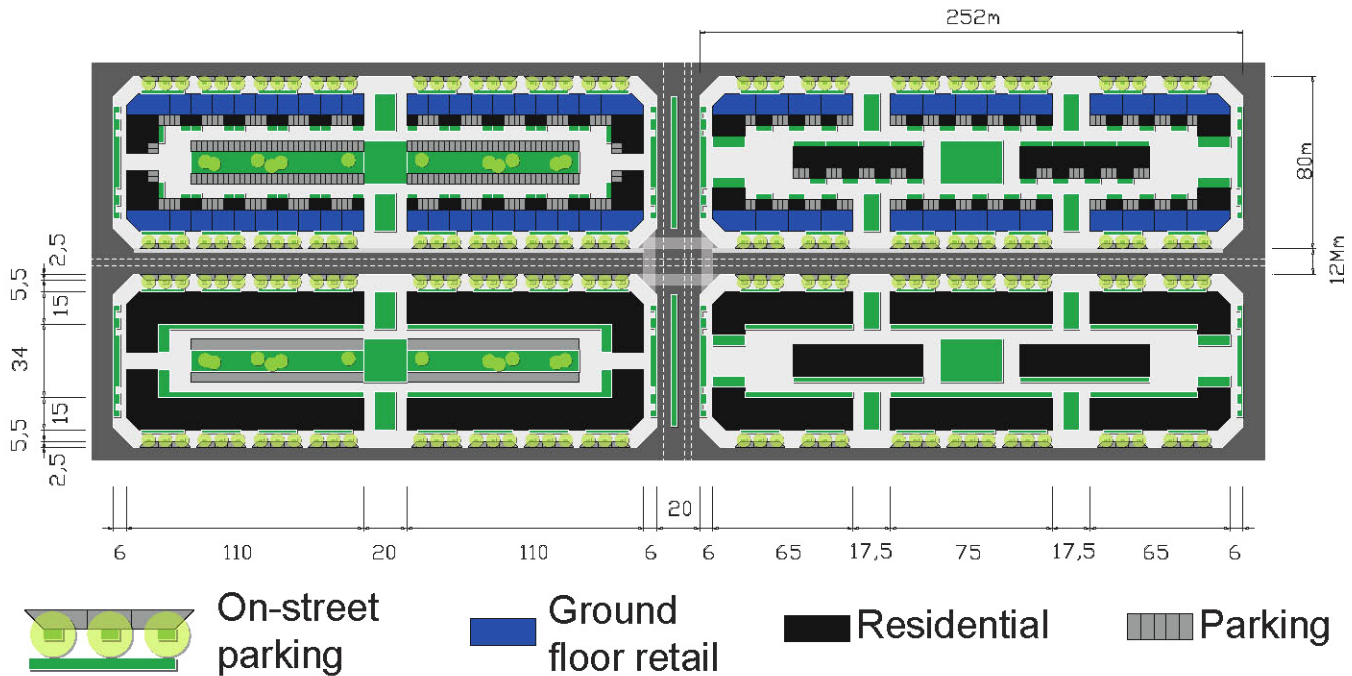


80% blocks with high density
6 floor, FAR 2.2
216 housing

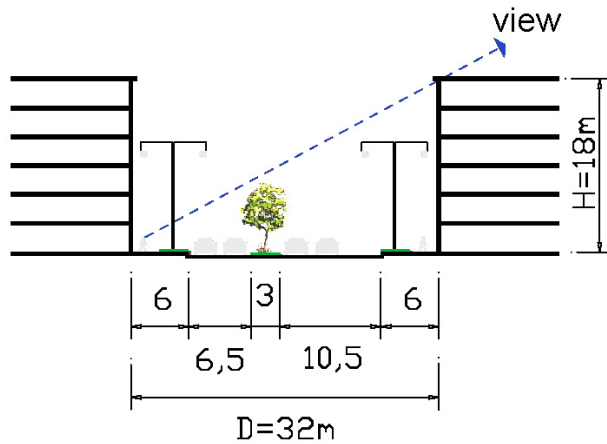
20% blocks with low density
3 floor, FAR 1.3
64 housing

General residential block

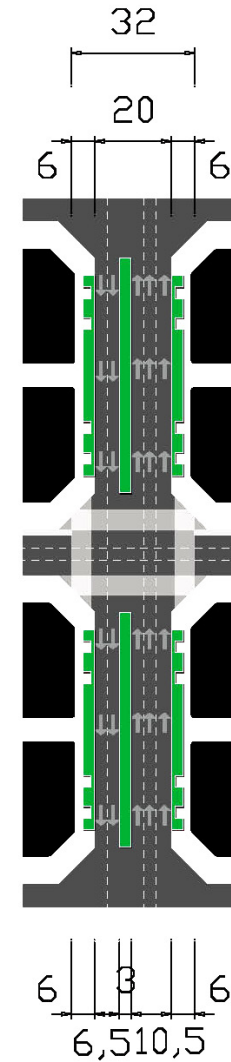
- Ground floor retail along roads with pedestrian orientation
- Inerblock green with parking
- Parking along secondary roads



General residential block - main road



$$D/H=1.78$$

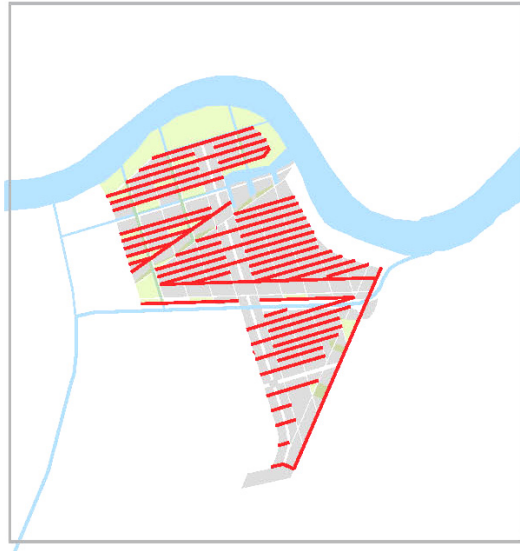




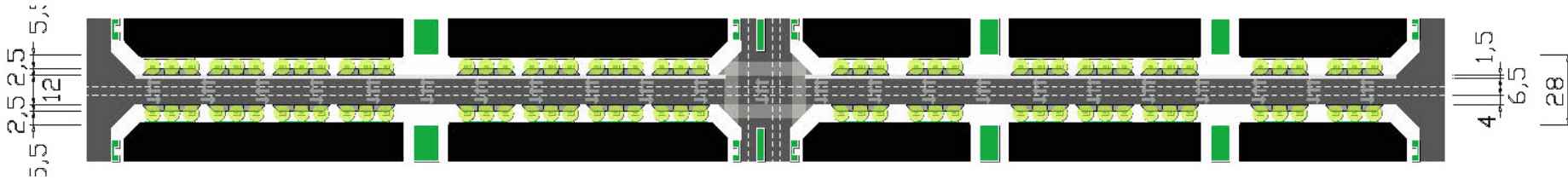
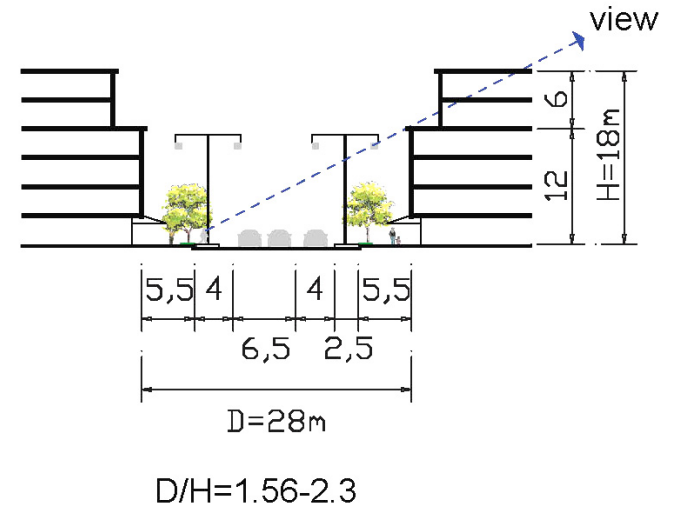
north to south

- mainly for Motor Vehicle with landscape in the middle

General residential block - secondary road



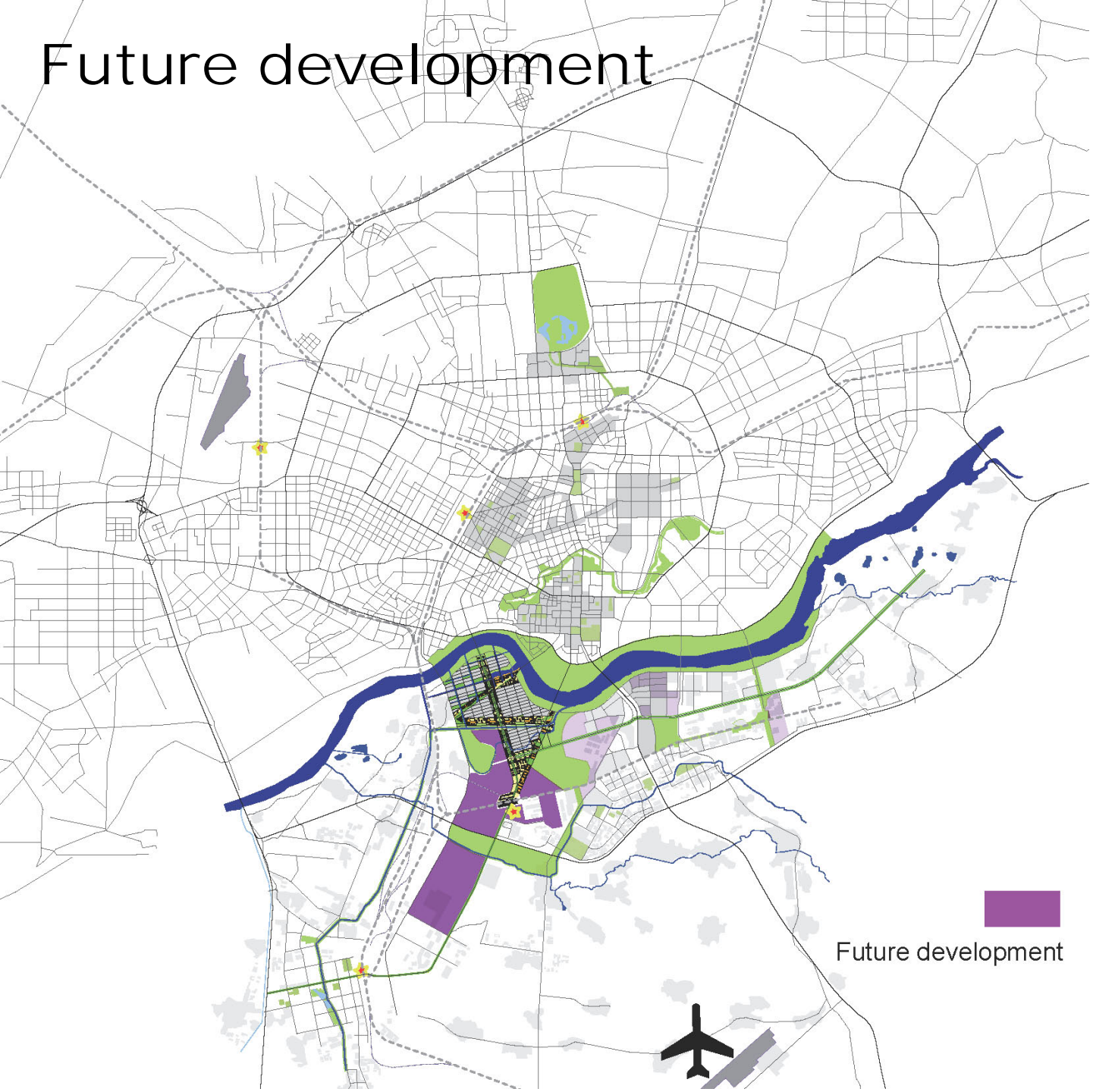
west to east





- mainly for pedestrian with retail along the route and also has dedicated lane for bus and bike. There are some parking place along the road, too.

Future development



Future development

