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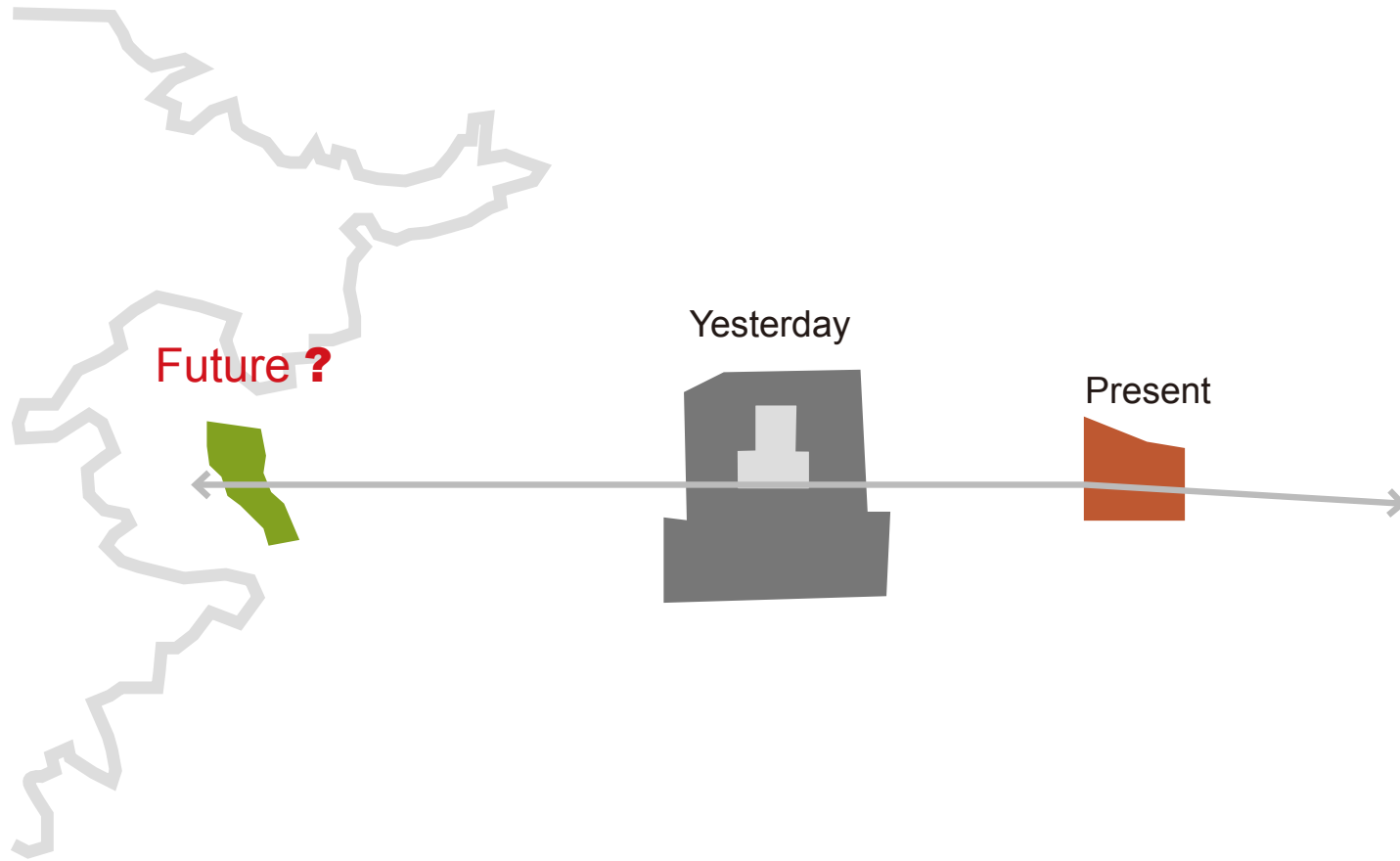
11.307 Beijing Urban Design Studio
Summer 2008

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URBAN NATURE

Concepts

Concepts:



Harmony

Urban & Nature
城市与自然

Human & Animals
人与动物

Activities & Environment
人类活动与环境

Programs

Programs:

Zoo

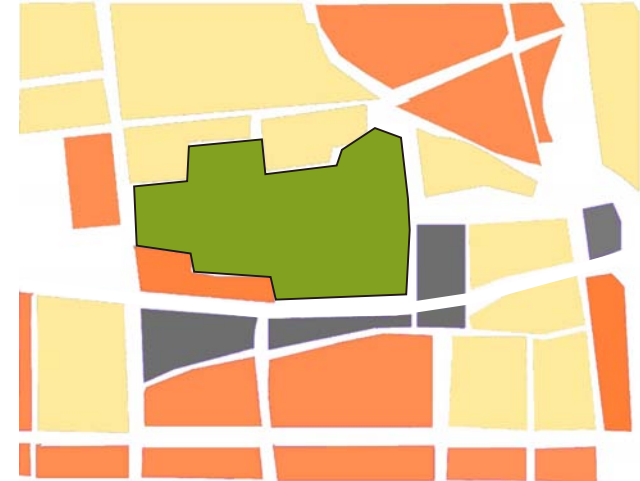
Why we located zoo in Shougang Area?

Animals' poor living condition
动物的生活条件很差

Traffic problem
交通问题

Business requires more land
商业发展需要更多用地

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Zoo

Why we located zoo in Shougang Area?

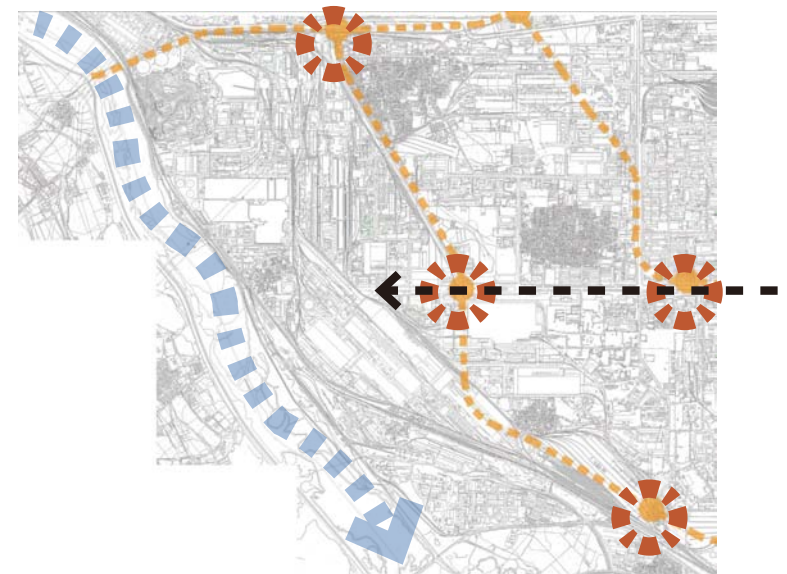
Four subway stop
四个地铁站

East-west axis
北京城的東西轴线端点

Enough land
足够的用地

Industrial landscape
工业景观

.....



What kind of zoo should be here?

动物园的种类

Urban zoos
城市动物园

Open-range zoos
郊野动物园

Safari parks
野生动物园

Animal theme parks
动物主题公园

Rescues and sanctuaries
自然保护区

Petting zoos
儿童动物园

Specialized zoos
专项动物园

Roadside zoos
路边动物园

Urban zoos
城市动物园

Open-range zoos
郊野动物园

Safari parks
野生动物园

Animal theme parks
动物主题公园

Petting zoos
儿童动物园

Specialized zoos
专项动物园

Our zoo
城市公园

the Zoo in the Future

未来的动物园

Conversation, Education, Recreation, Conservation, Research...

Industry Area Reuse
工业区再利用

Riverside Openspace
滨河城市公园

Urban Safari Park
城市中的野生动物园

What will a Zoo Bring to the site and Beijing?
动物园能带来什么？

Tourists

Beijing Zoo, 7,000,000 tourists per year, 12,000,000 tourists in 1984.
北京动物园，年游客量700万，1984年1200万

Forbidden City, the most frequented tourist attraction in China, 8,760,000 tourists per year.
故宫，全国之首，年游客量876万

Amusement park in Shenzhen, 3,000,000 tourists per year.
深圳欢乐谷，年游客量300万

Unlike World's Fair and Olympic Park, zoo is a permanent program.
动物园是一个常盛不衰的项目

What will a Zoo Bring to the site and Beijing?

动物园能带来什么？

Zoo name	Annual attendance	Admission fee	Revenue (total admissions fees; operating expenses unknown)	Staff size	Attractions (separate fee?)	Separate fee amount	"Claim to fame"
Bronx Zoo	2 million	\$15/\$27 POP pass	\$30,000,000 x 6.7 = 207,000,000 yuan		Skyfari Monorail safari	\$3 \$4	Largest urban zoo in the US – 265 acres
Riverbanks Zoo	900,000	\$9.75	\$8,775,000 x 6.7 = 58,792,500 yaun		Hiking trail 3D theater Botanical Garden Adventure tours Animal rides Carousel	\$0 \$0 \$0 \$20 for members/ \$25 for non-members \$4 \$1	
Woodland Park Zoo	1,070,000	\$11/\$15	\$913,000	370 full- and part-time employees 110 seasonal employees			
Beijing Zoo	10,000,000	15 yaun	150,000,000 yaun / 6.7 = \$22,388,059.8		Pandas	5 yuan	Largest animal park in Asia (attendance)

What will a Zoo Bring to the site and Beijing?
动物园能带来什么？

Tourists—restaurants—recreation—Shops—housing

Housing—residents—supermarkets—shopping malls

More tourists—expositions—offices

What will a Zoo Bring?

动物园能带来什么？

Mix used center, open space for whole city, international zoo for world.

混合**功能中心**，北京市的**城市公园**，世界性的**动物园**

People come here because they can stay with animals, they can be close with nature, they can have some entertainment, they can live, they can work, they can go shopping...

Beijing citizens rarely go to the current zoo, but they will go to the new one because it is a **riverside open space**.

北京居民很少去动物园，但如果这里成了一个城市公园，将吸引更多的人前来

Master plan

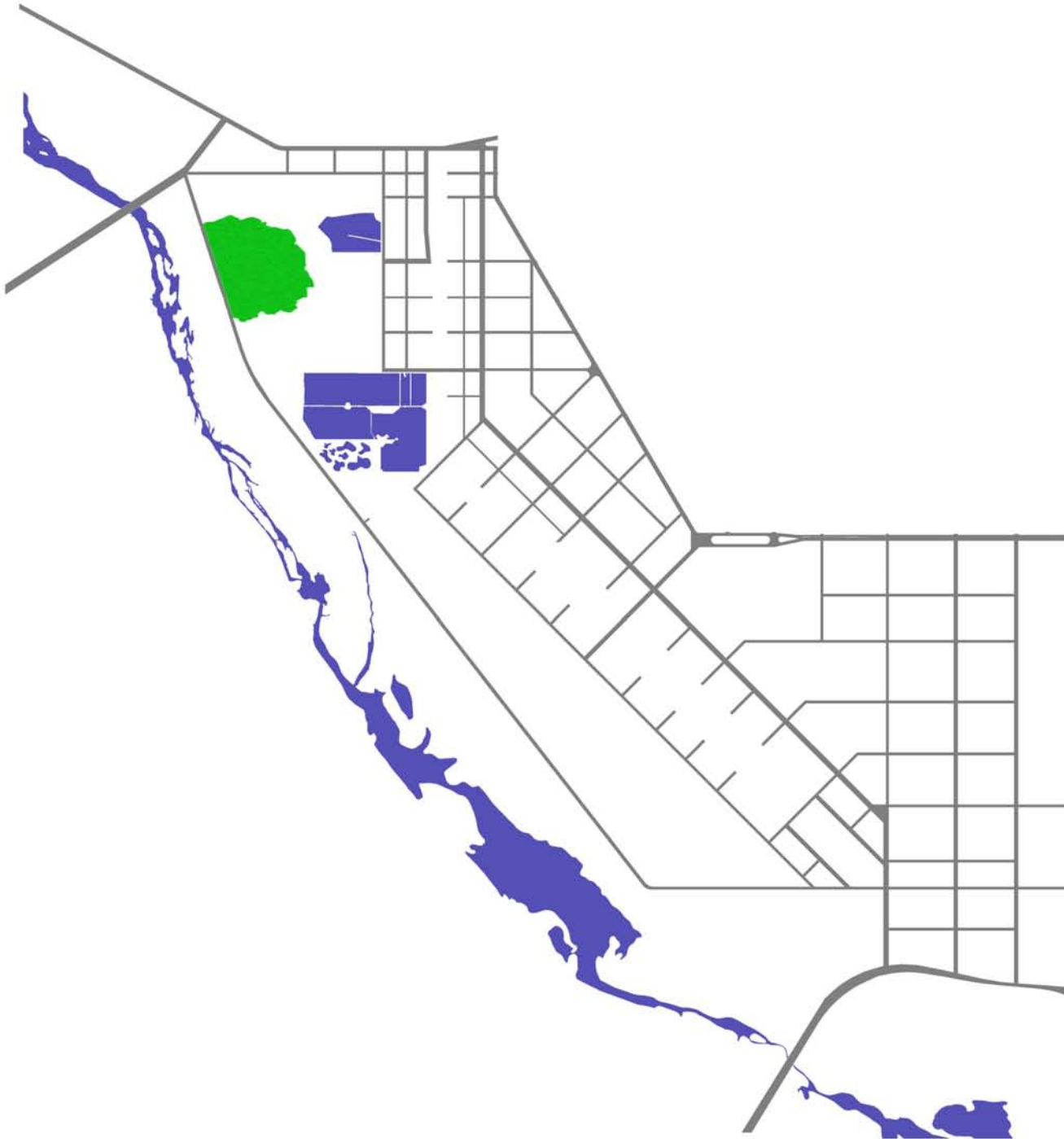
Master plan:



master plan



uses



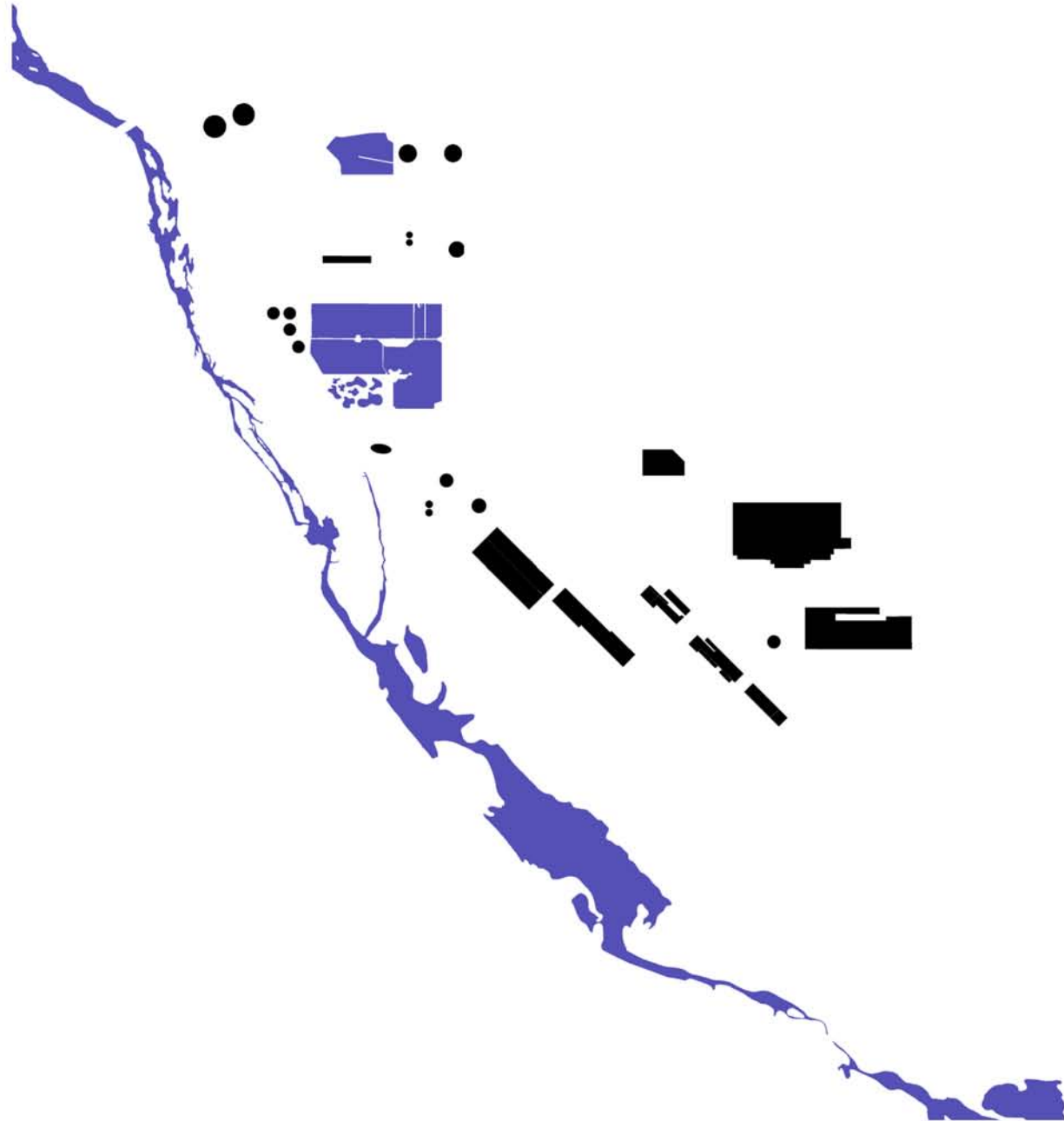
roads



inner transportation

- monorail

- subway station
- monorail station



preserved buildings



green area

- central park

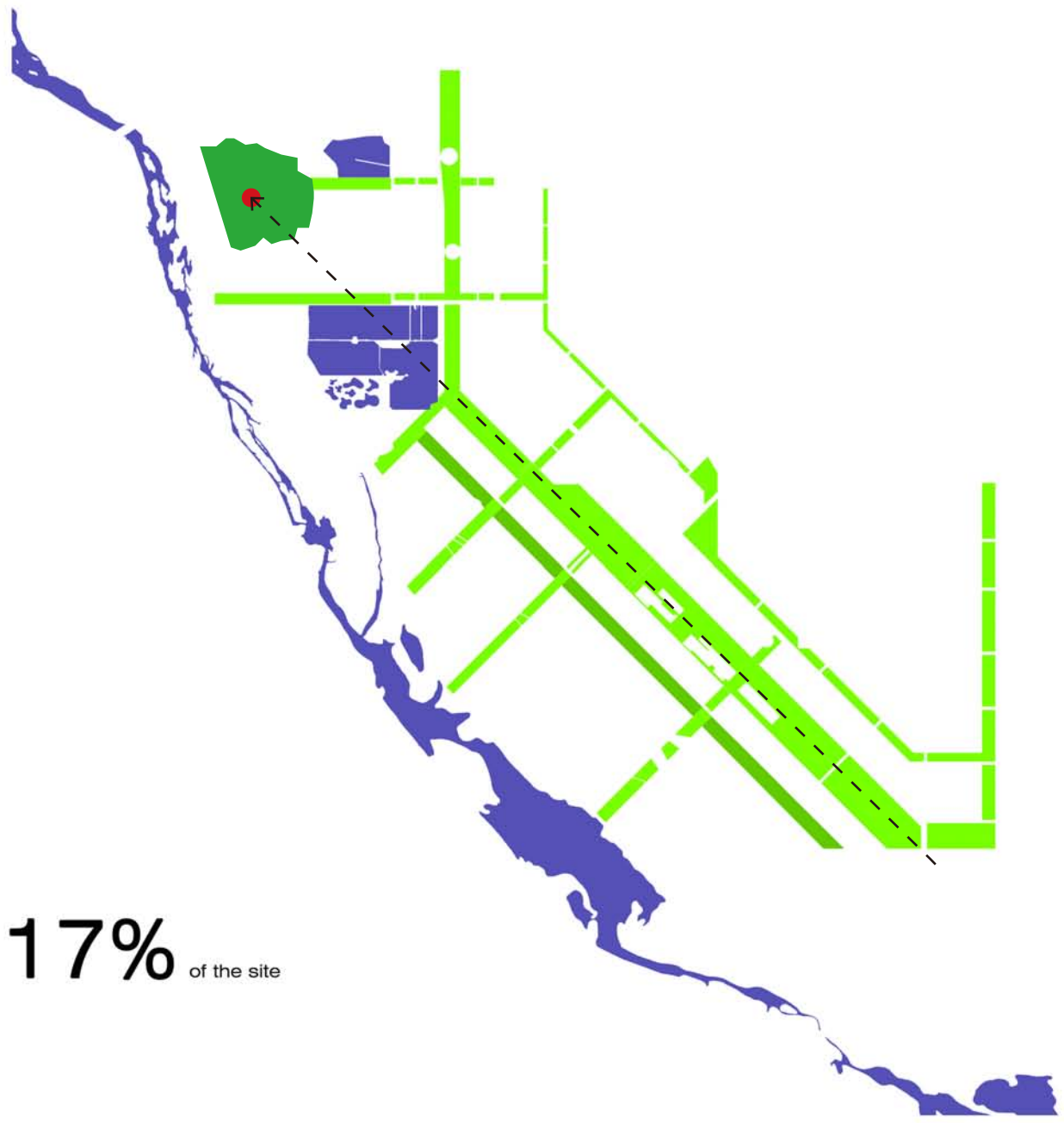


green area

- green band



green area
- green corridor

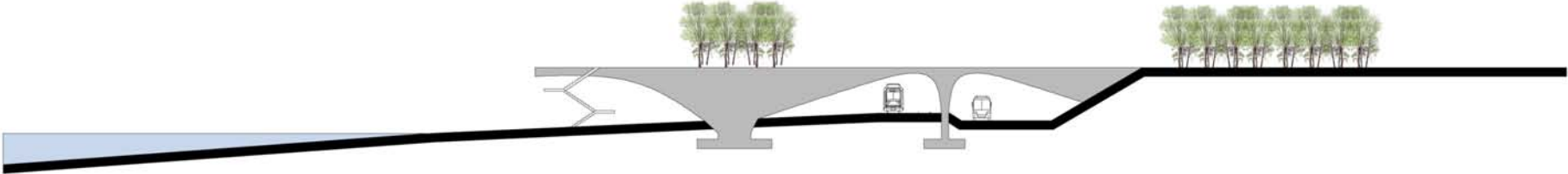


green area

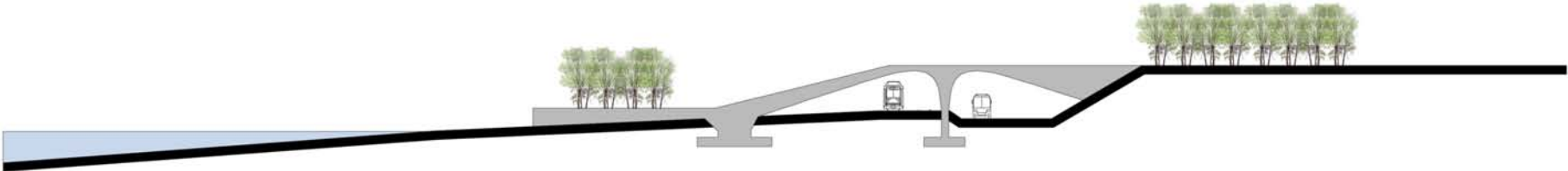
17% of the site

section of green corridor

alt. 1



alt. 2



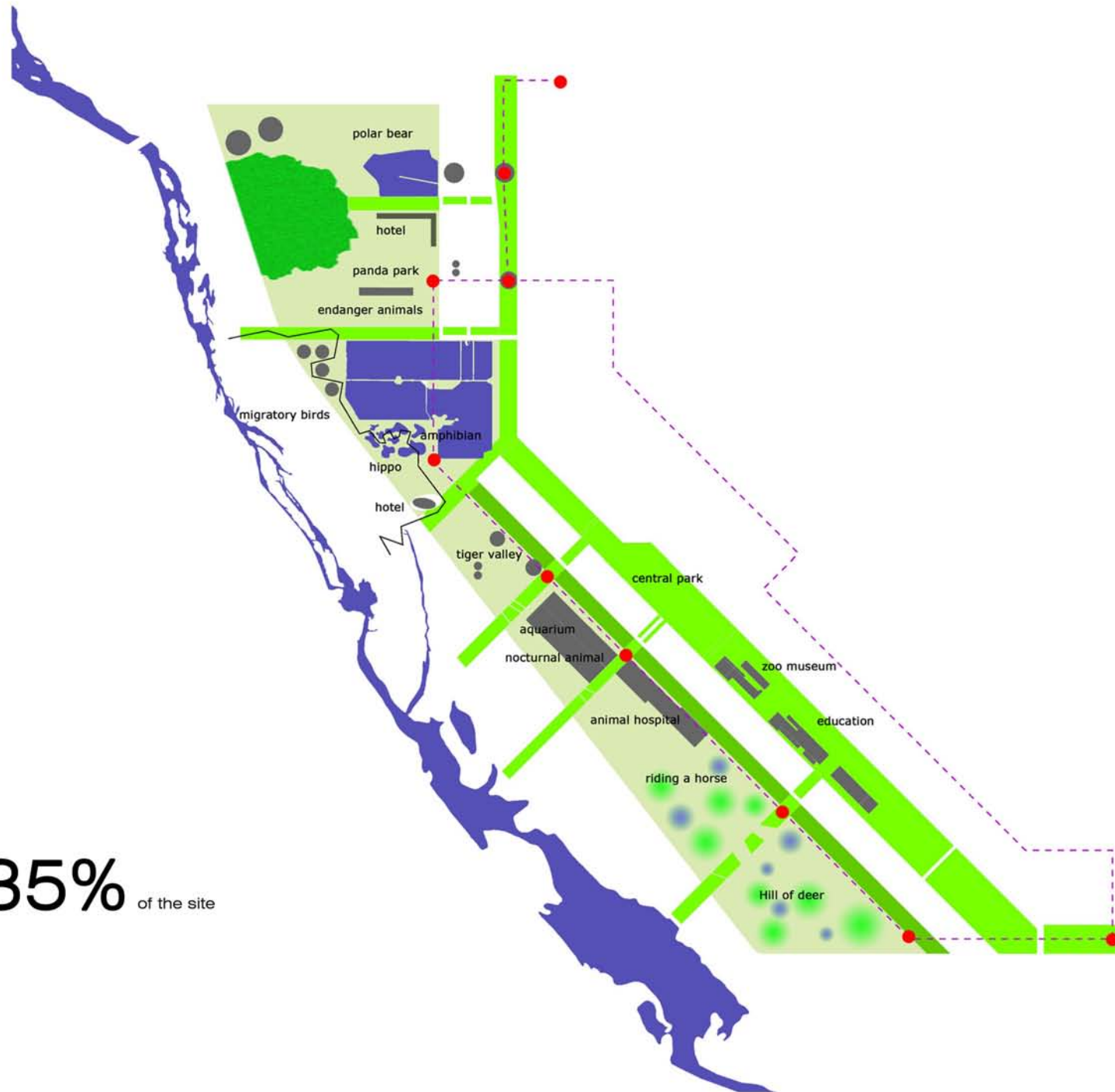


ZOO

- "urban safari"

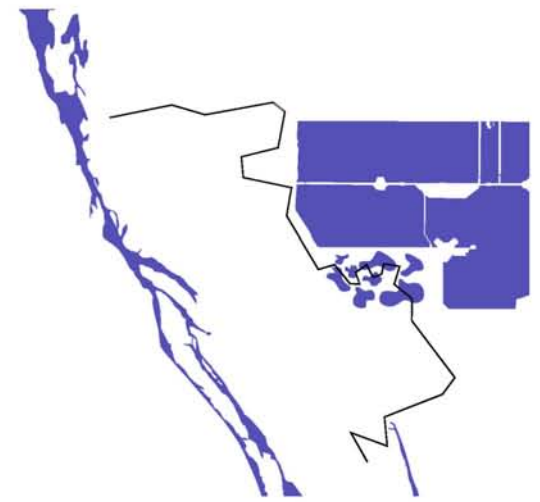
ZOO

35% of the site



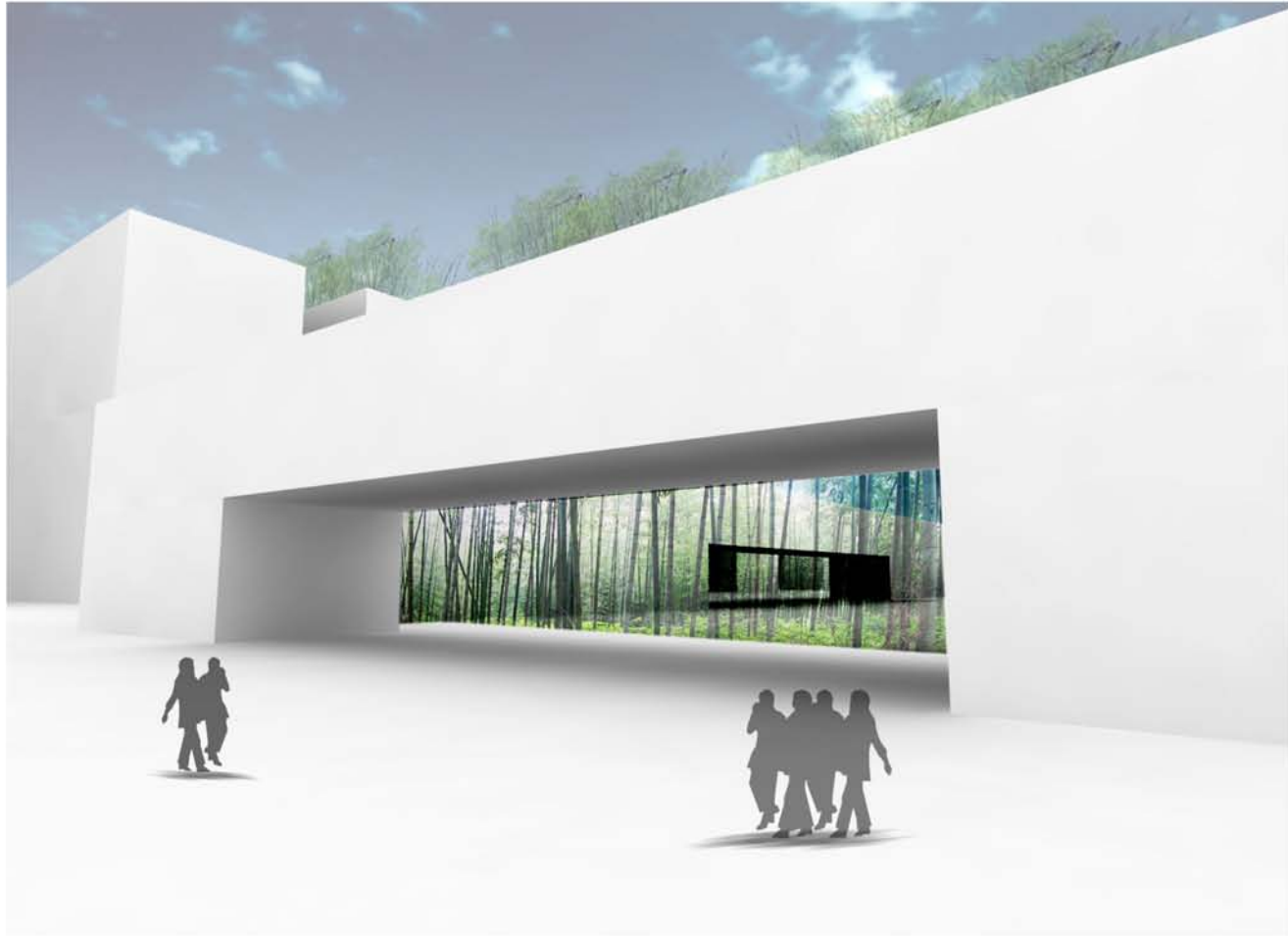


marsh



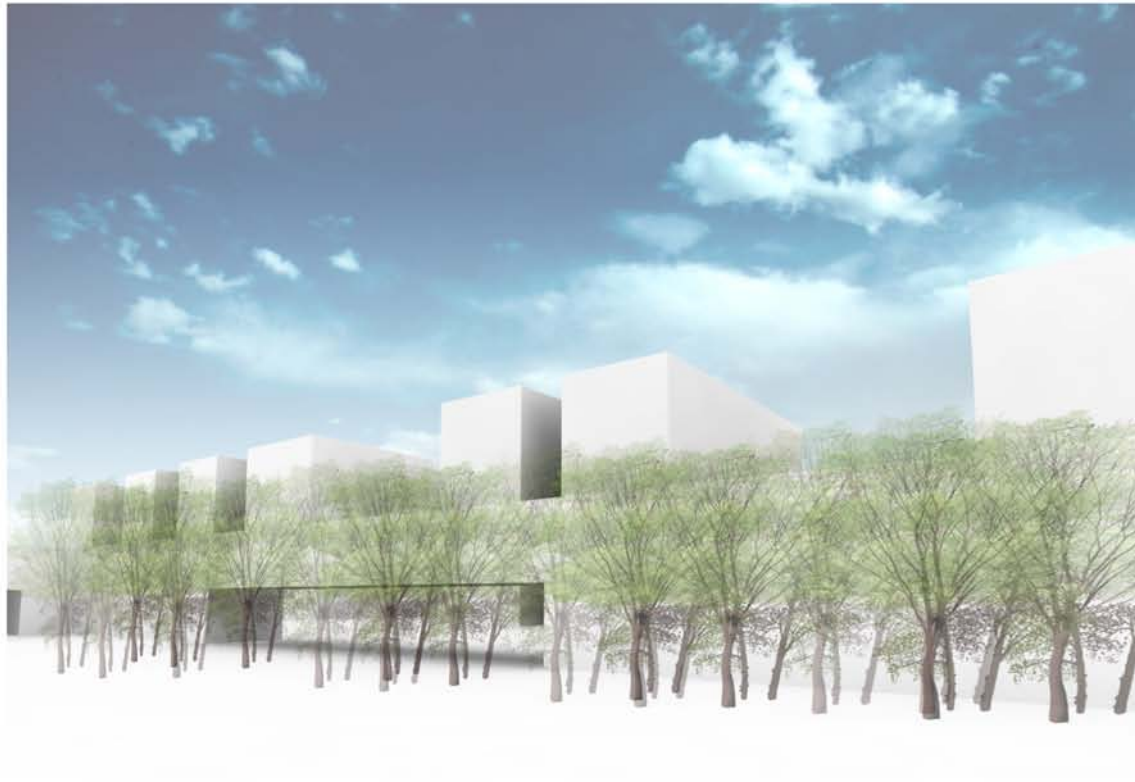


hotel "bamboo"



hotel "bamboo"

central park



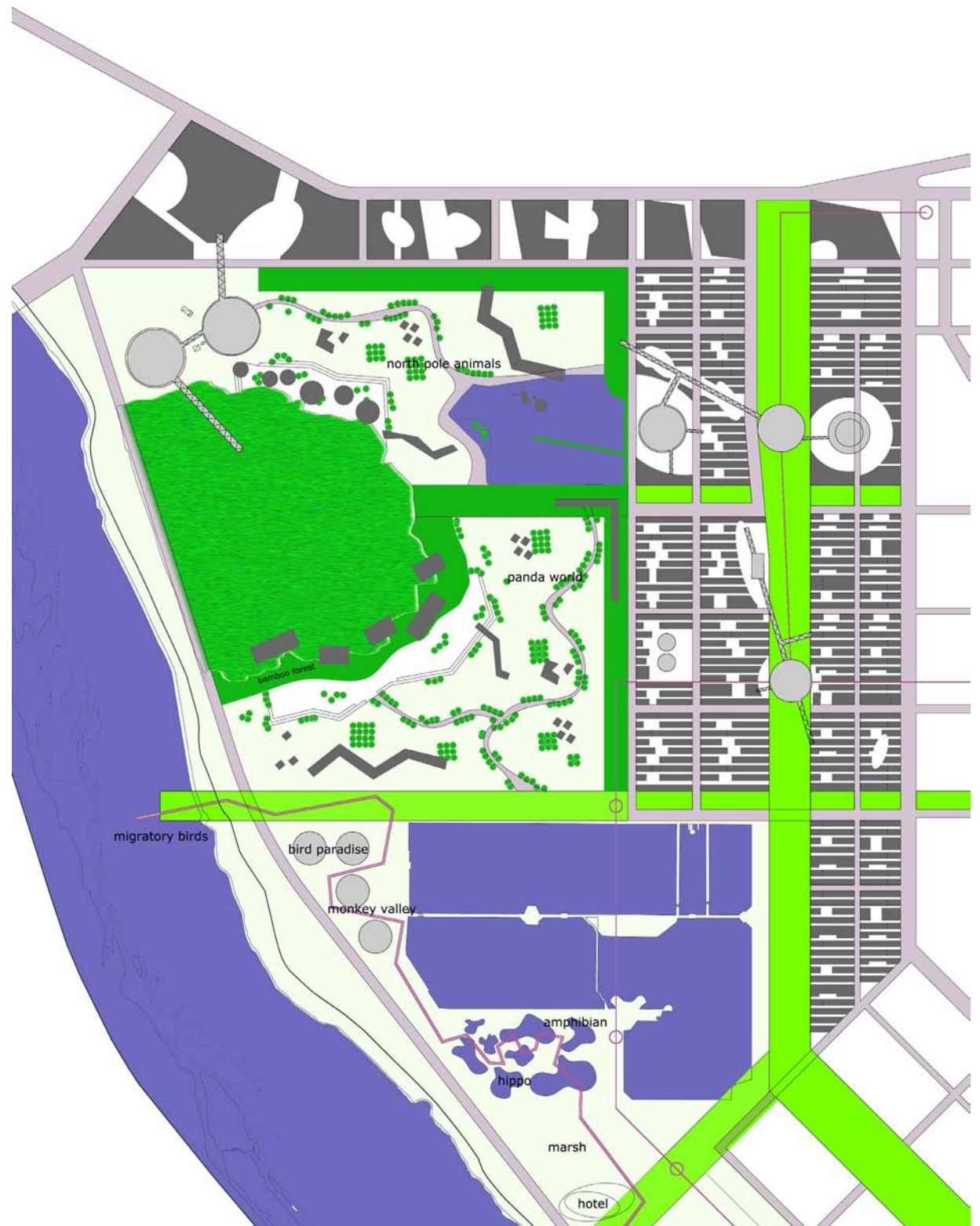


central park

Illustrative plan

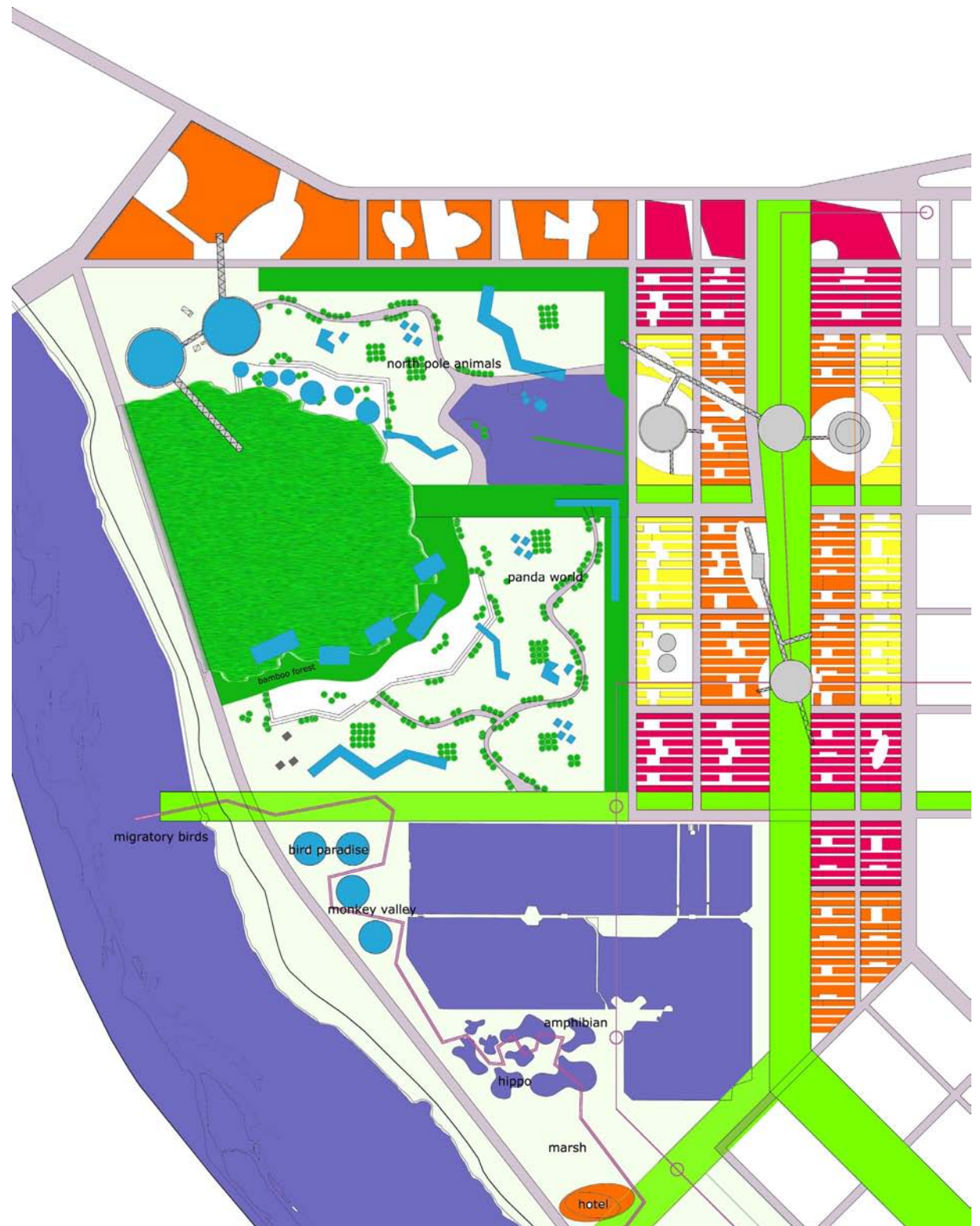
Illustrative plan:

Plan

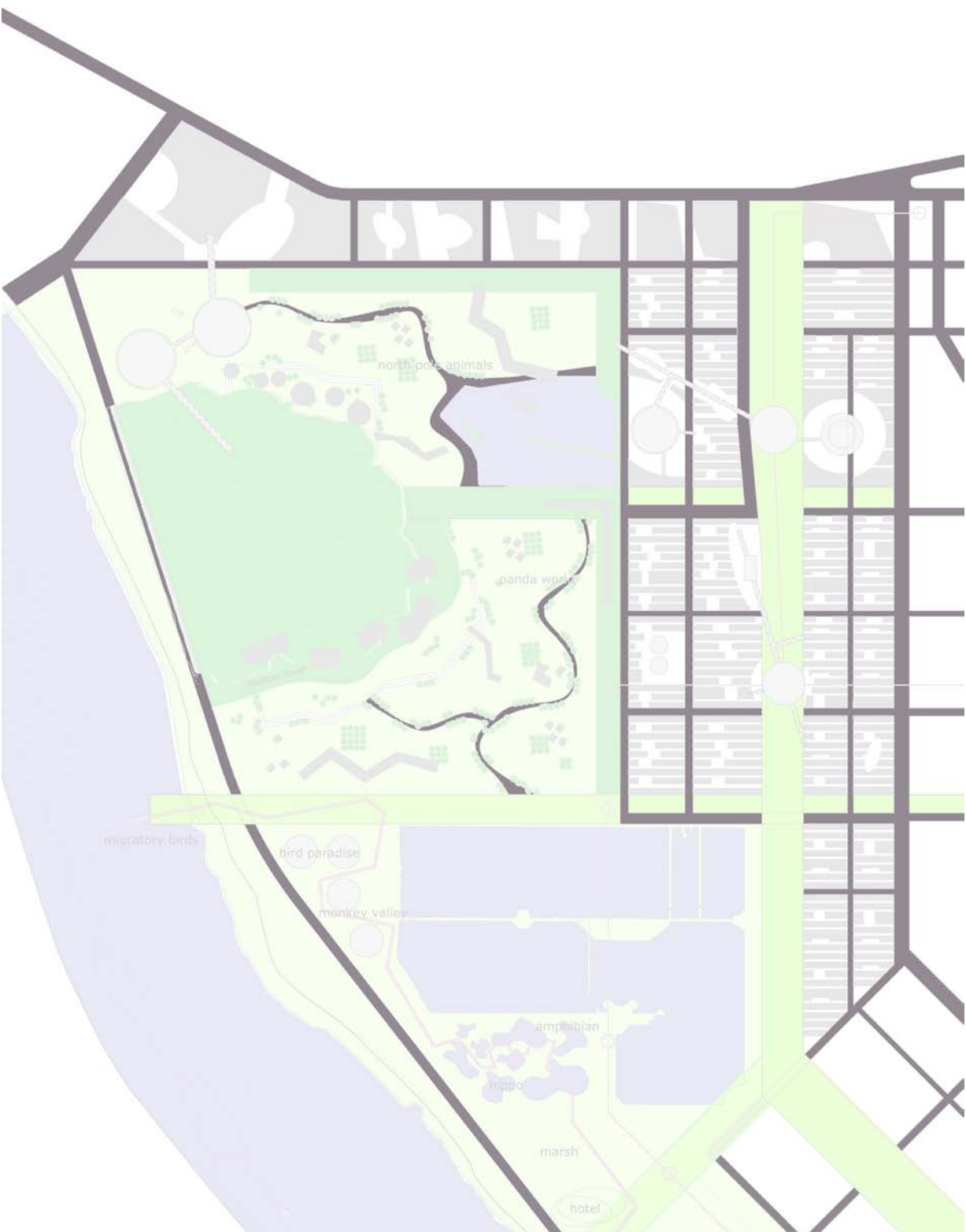


Illustrative plan:

Use



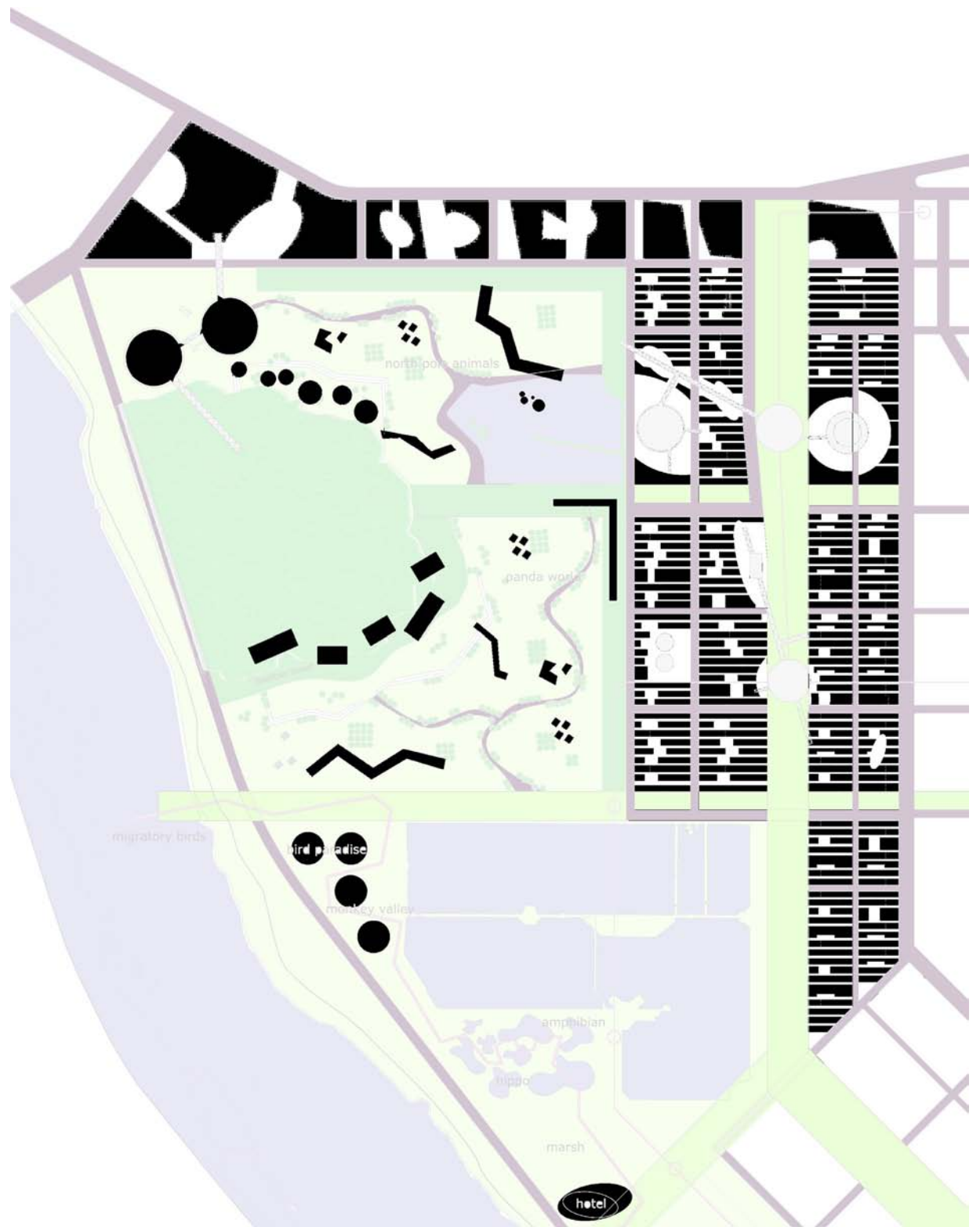
Road



Green



Path



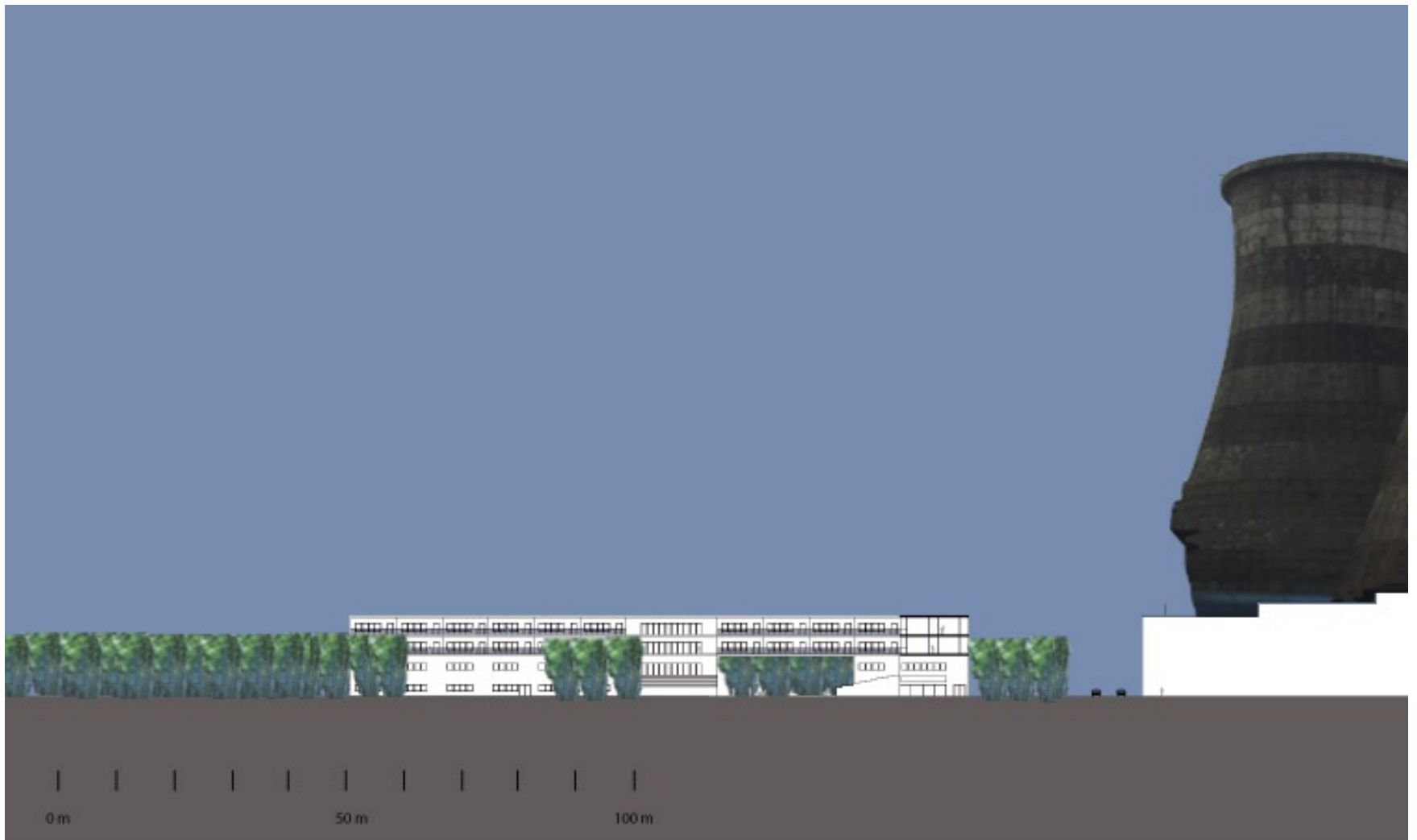
Details

Details: Panda Area

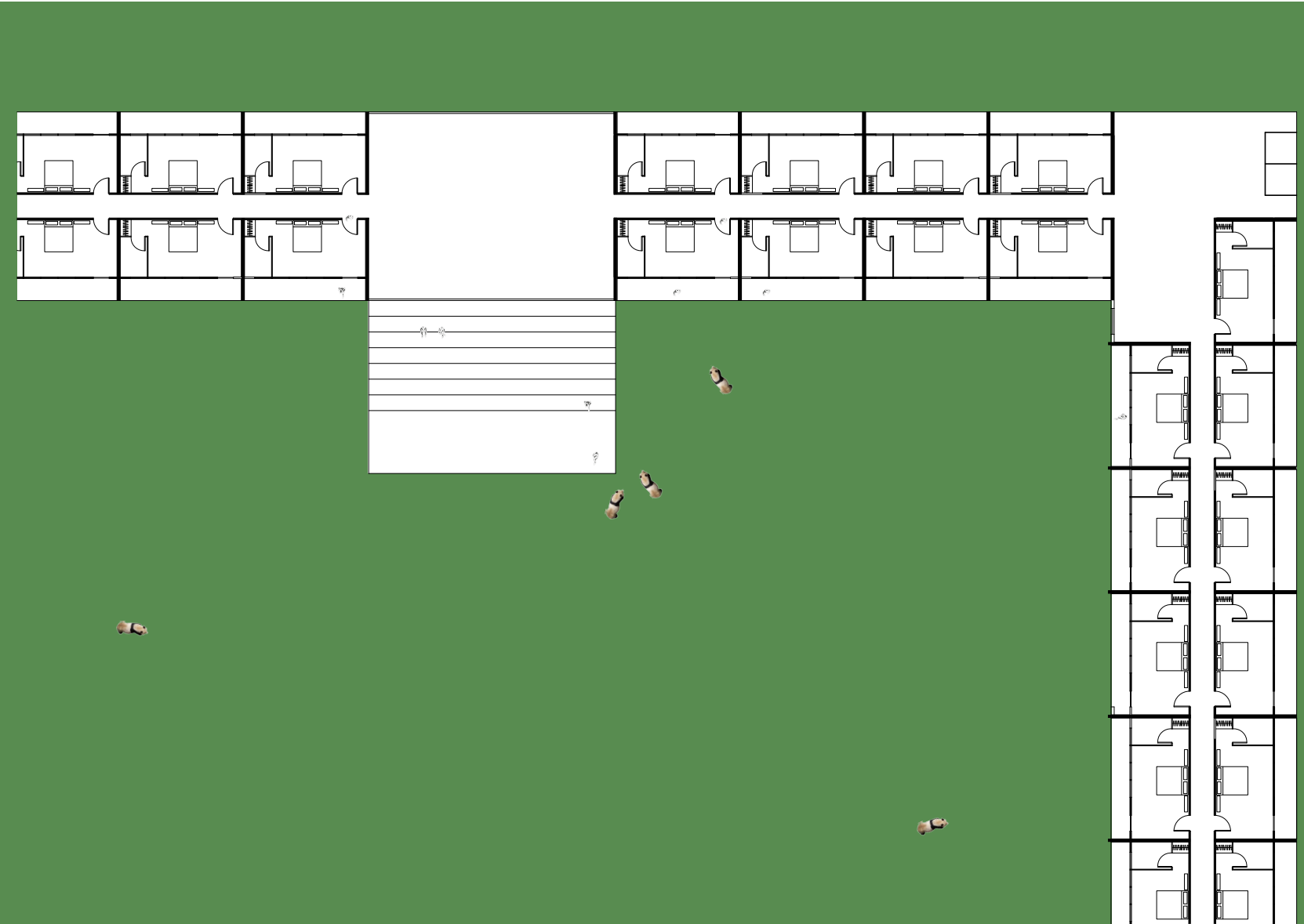
Plan



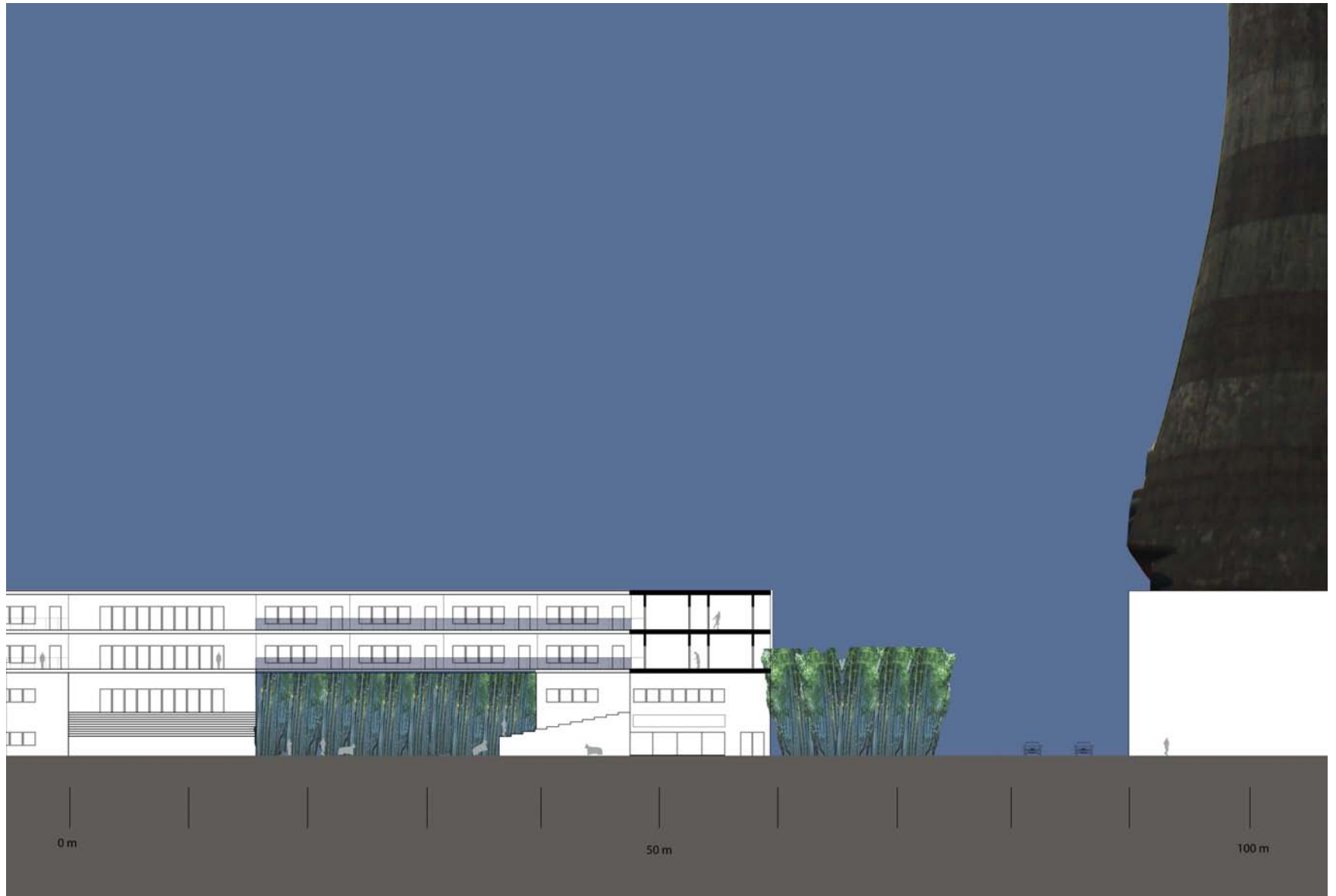
Section



Plan: hotel third floor

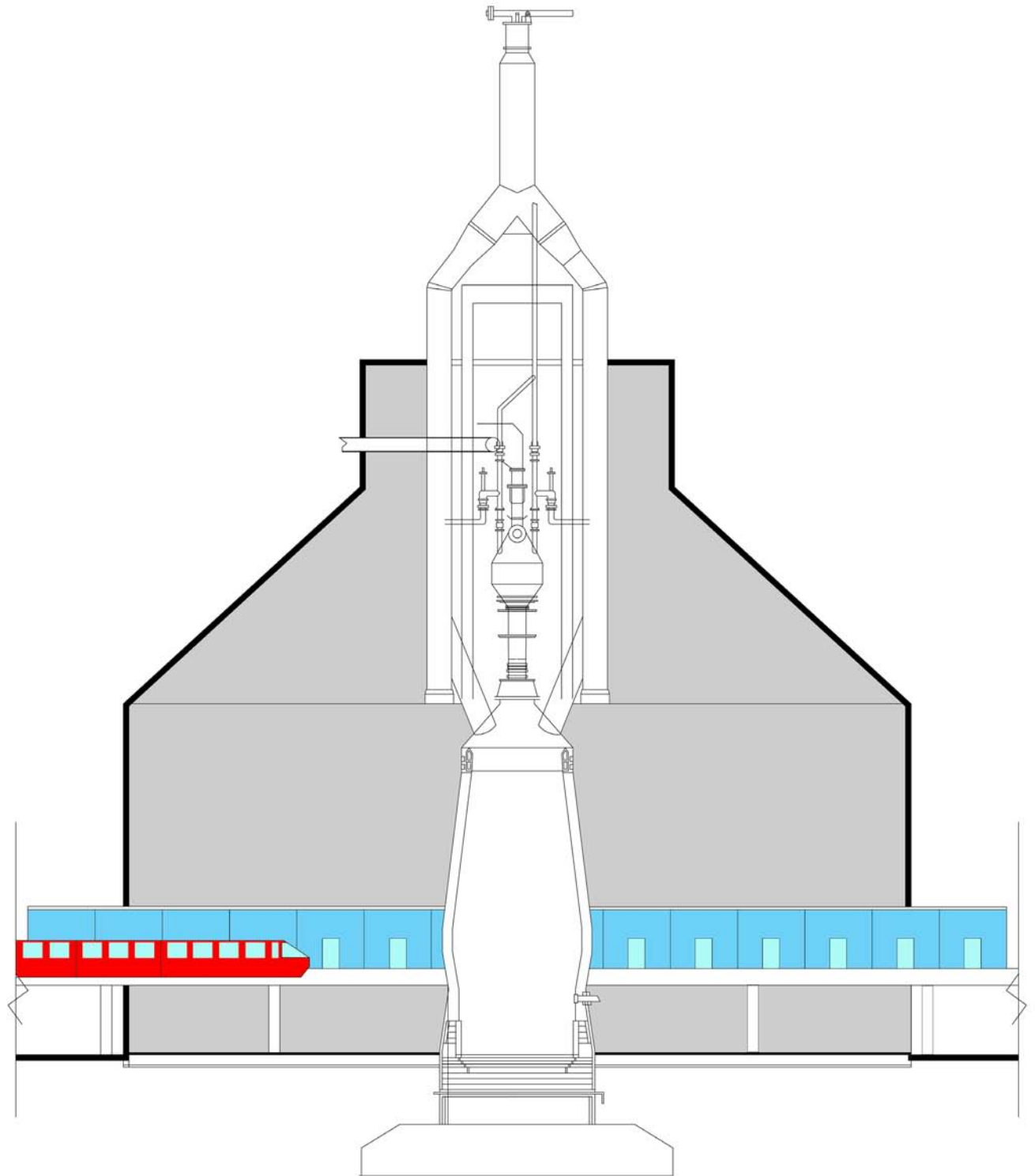


Section

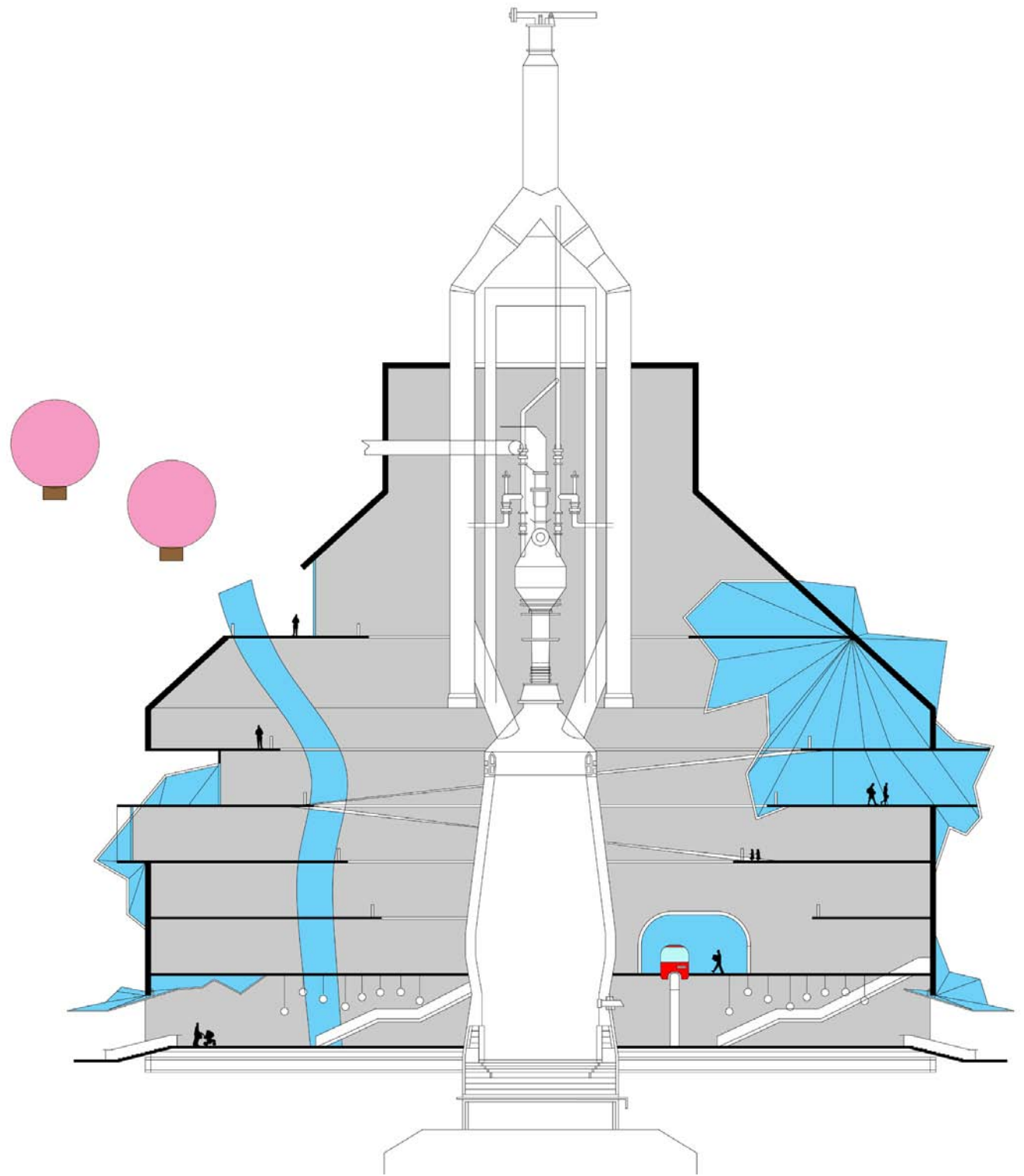


Details: Furnace 4

Section



Section



Perspective



Soil Remediation

Soil Remediation:

Source control treatment

External site & Internal site
场地内或场地外

Source treatment technologies

处理方法

- 1) evacuation & landfill;
- 2) air sparging;
- 3) soil vapour extraction;
- 4) low temperature thermal desorption;
- 5) incineration;
- 6) surface capping and containment;
- 7) natural attenuation;
- 8) bioremediation;
- 9) vitrification ;
- 10) dechlorination;
- 11) soil washing;
- 12) enhanced thermal conduction;
- 13) oxidation of cyanide;
- 14) thermal desorption (including excavation and pre treatment)

Solutions for each area:

多环芳烃Hydrocarbon:

- 1) BIOREMEDIATION
- 2) INCINERATION
- 3) VITRIFICATION

挥发性有机物Volatile organic compound:

- 1) BIOREMEDIATION
- 2) SOIL VAPOR EXTRACTION
- 3) THERMAL DESORPTION
- 4) VITRIFICATION

苯系物Benzene:

- 1) BIOREMEDIATION
- 2) INCINERATION
- 3) SOIL VAPOR EXTRACTION

重金属Heavy metal:

- 1) VITRIFICATION
- 2) SOIL WASHING

氰化物Cyanide:

- 1) SOIL WASHING



Thanks
谢谢