



**POLITECNICO**  
MILANO 1863

Politecnico di Milano

Scuola di Architettura Urbanistica  
Ingegneria delle Costruzioni

## **REGENERATION PROCESSES IN CHINESE MEGA-CITIES**

### **SHENZHEN AND BAISHIZHOU VILLAGE**

Supervisor  
Prof. Sandro rolla  
Prof. Sara Protasoni

Candidate  
Litian Cheng

Academic year  
2020/2021

**INTRO OF THE PROJECT TOPIC**

**KEYWORDS:**

Urban Regeneration  
Chinese Mega-City  
Urban Village

**PART I  
BACKGROUND STUDY**

- BACKGROUND & URBAN DEVELOPMENT
- THEMATIC STUDY OF URBAN VILLAGE
- INTERPRETATION & PROJECT APPROACH

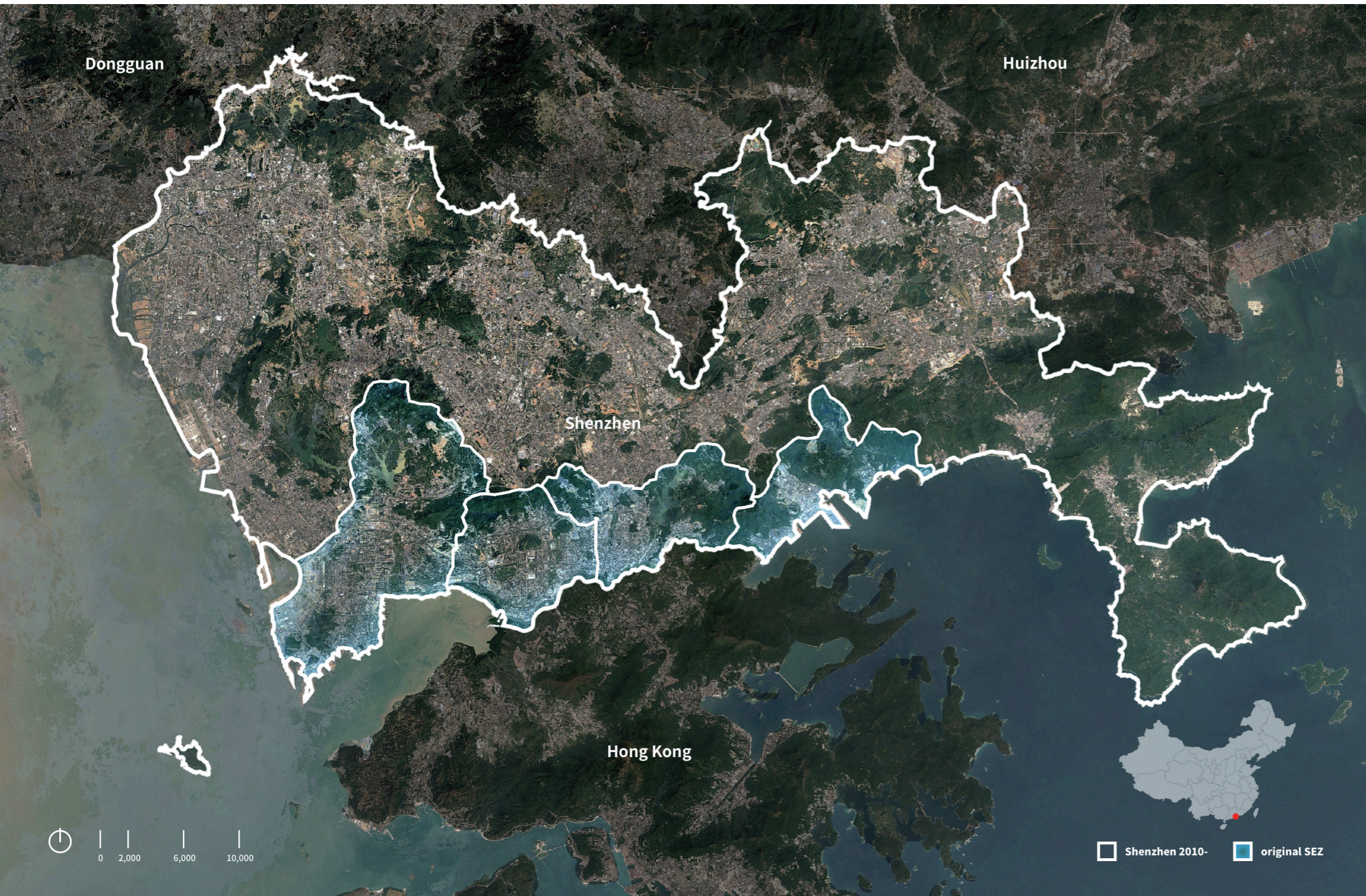
This thesis mainly studies and discusses the possibility of urban regeneration processes of Chinese mega-cities. The phenomenon of "urban village" has been a crucial issue during rapid urbanization, especially in Shenzhen, a newborn modern city on the southern coast of China. During the city development, urban land use, city structure, and other issues are continuously iterating. By researching more profound the topic, the author aims to discuss the possibilities for the future city's strategies and architectural design approach.

**PART II  
SITE READING & DESIGN STRATEGY**

- SITE READING
- GENERAL STRATEGY
- MASTERPLAN

**PART III  
PROJECT DESIGN**

- FOCUS AREA DESIGN:  
SHENNAN AVE. COMPLEX + SUPER COMMUNITY UNIT



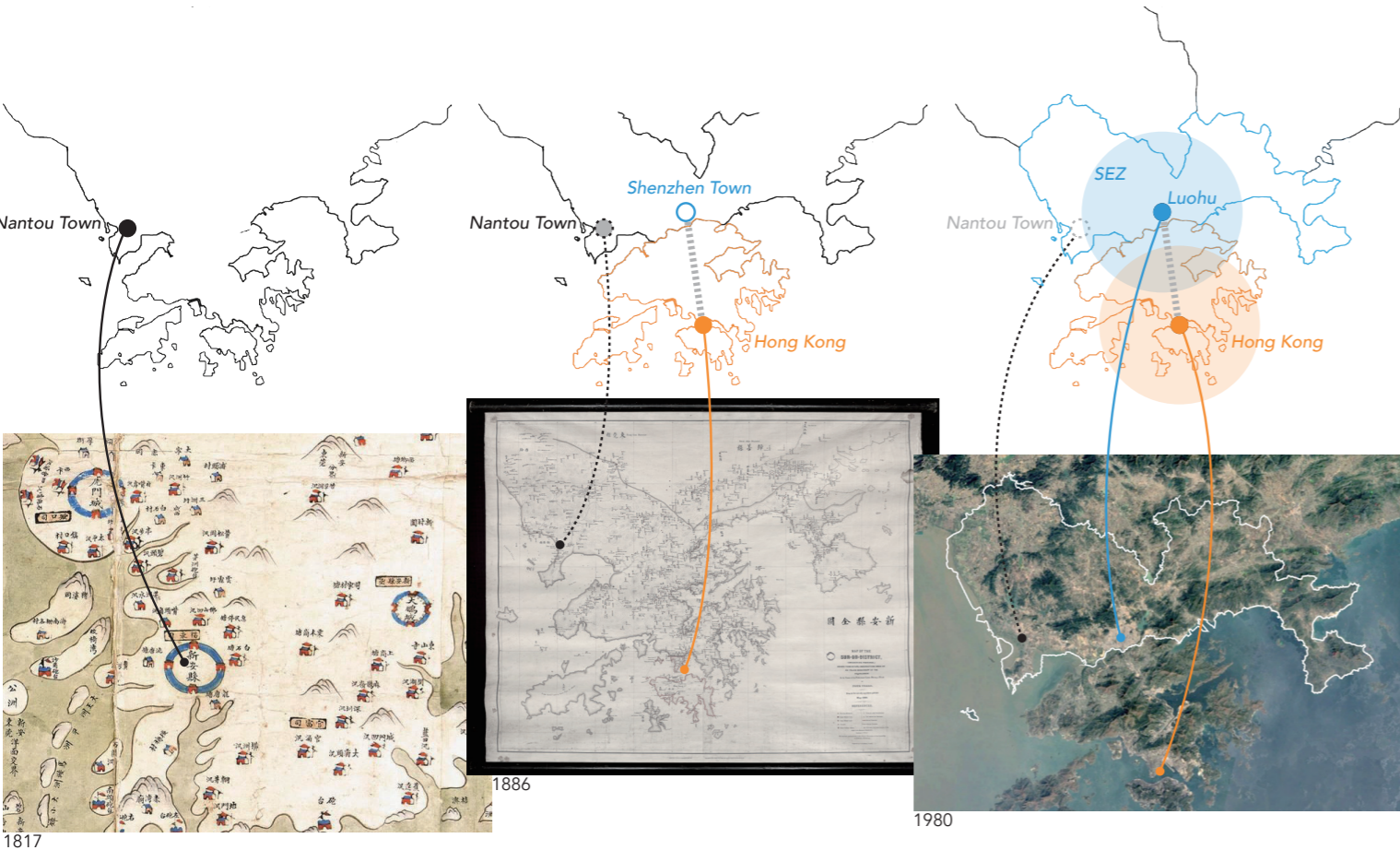
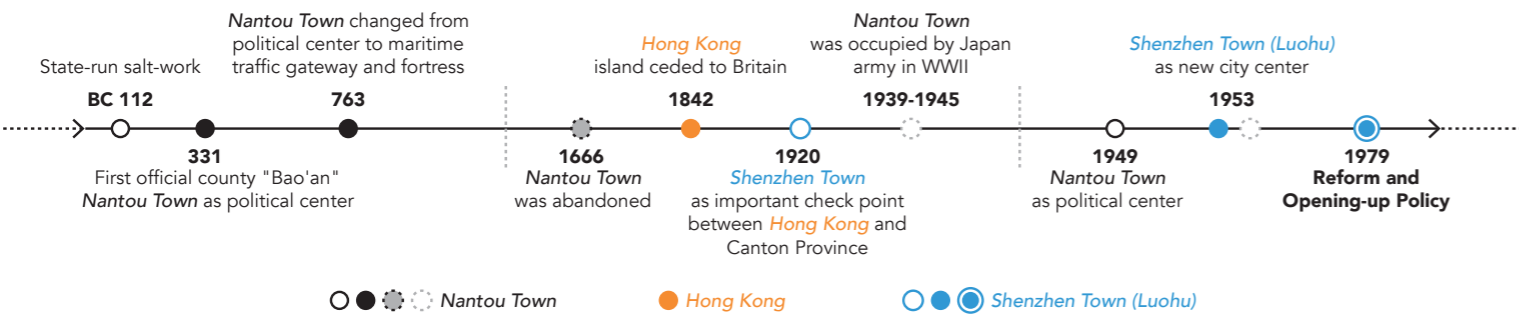
Shenzhen lies along the coast of the South China Sea, in Guangdong Province and immediately north of Hong Kong.

As a pre-planned modern city, Shenzhen has many phenomena worth studying. Grew up in Shenzhen, it's still hard for the designer to make a clear definition of this megacity.

After the reform and opening policy in 1979, Shenzhen turned from a little-known village into a pioneering urban experimental field overnight. For just 40 years, Shenzhen has become one of the mega cities in China with 13.43 million of population. It is often described as a city with "no history". But to truly understand the story, one must start from the ancient times.

The part I combs the historical evolution of Shenzhen from ancient times to the present, so as to have a more comprehensive understanding of the context and characteristics of the city.

## Background & Urban Development



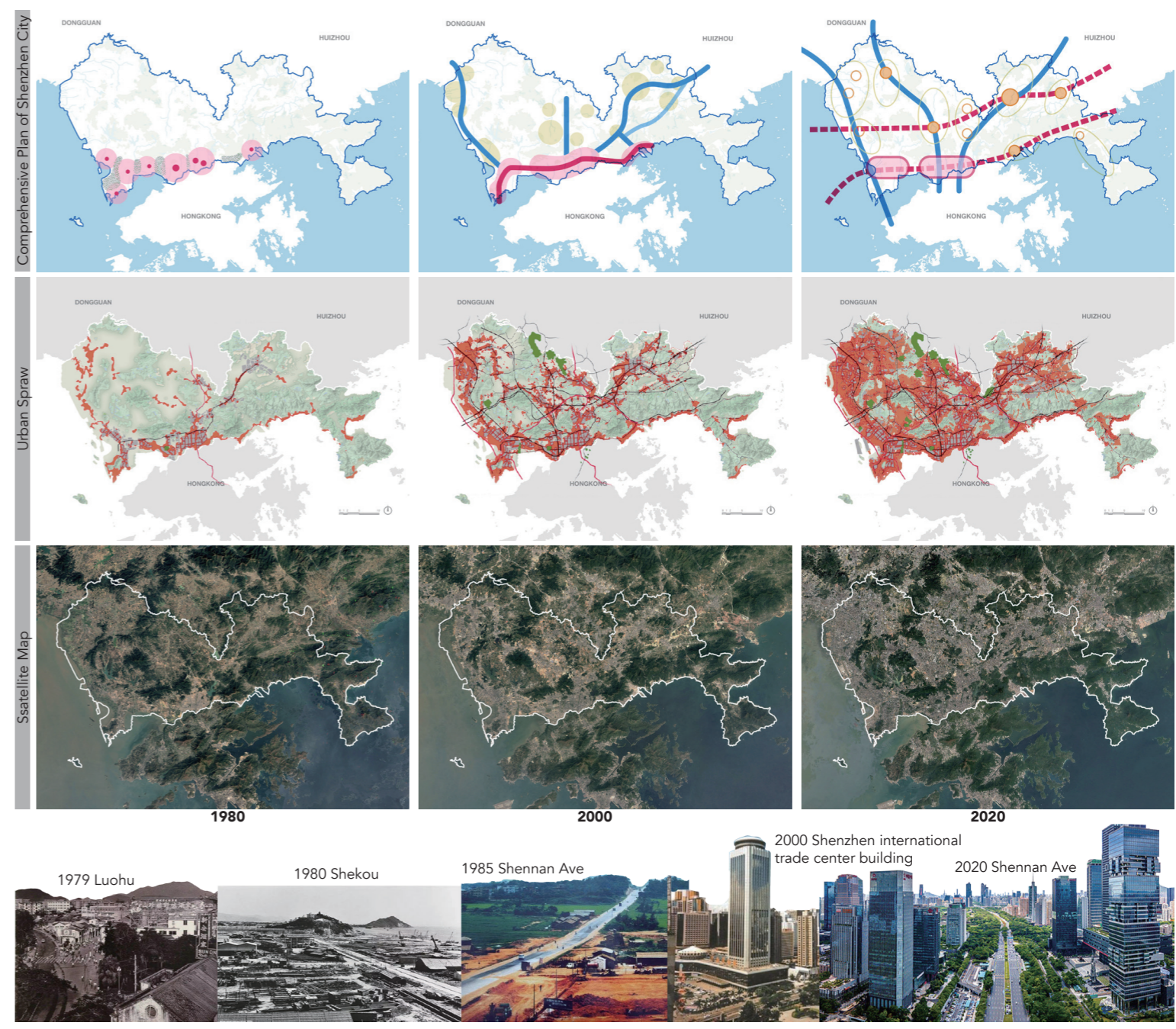
Around BC 221, Nantou Town was set as a state-run salt-work. In 331 Dongguan County was established in the same location, the jurisdiction covered Hong Kong, Huizhou and Dongguan. During the Tang Dynasty (736 years), government set up a military organization. From then until the Ming Dynasty, Nantou Town was transformed from an administrative center into a maritime traffic gateway and military fortress.

During the Qing Dynasty, export ban was issued and Nantou Town as Xin'an County back then was abolished. In 1842, Hong Kong island was occupied by the British, it gradually became the center of the region. Meanwhile, in 1920, Shenzhen Town (now Luohu) has become an important check point between Hong Kong and Canton Province. During the WWII, the Japanese army occupied Nantou

Town, whose structure got severely damaged. In 1953, due to the fact that Shenzhen Town (now Luohu) was connected to the Guangzhou-Kowloon Railway, the population was concentrated, as well as the industry and commerce were prosperous, the government decided to move the city center from Nantou Town to Shenzhen Town, ending the 1600-year history of Nantou as the county center.

Since 1979, thanks to the Reform and Opening-up Policy, "Shenzhen (SEZ, Shenzhen Special Economic Zone)" is known as the name of the city.

## Background & Urban Development



Over the past 40 years since Reform and Opening-up Policy, Shenzhen has organized and compiled 3 rounds of comprehensive city plans. Shenzhen's rapid development cannot be separated from these urban plannings.

During the first round, from 1986 to 1996, labour intensive industries supported by opening-up and institutional reforms was mainly developed. Buffer zones were established to avoid excessive concentration of resources. The main development is located from east to west, close to the Hong Kong border.

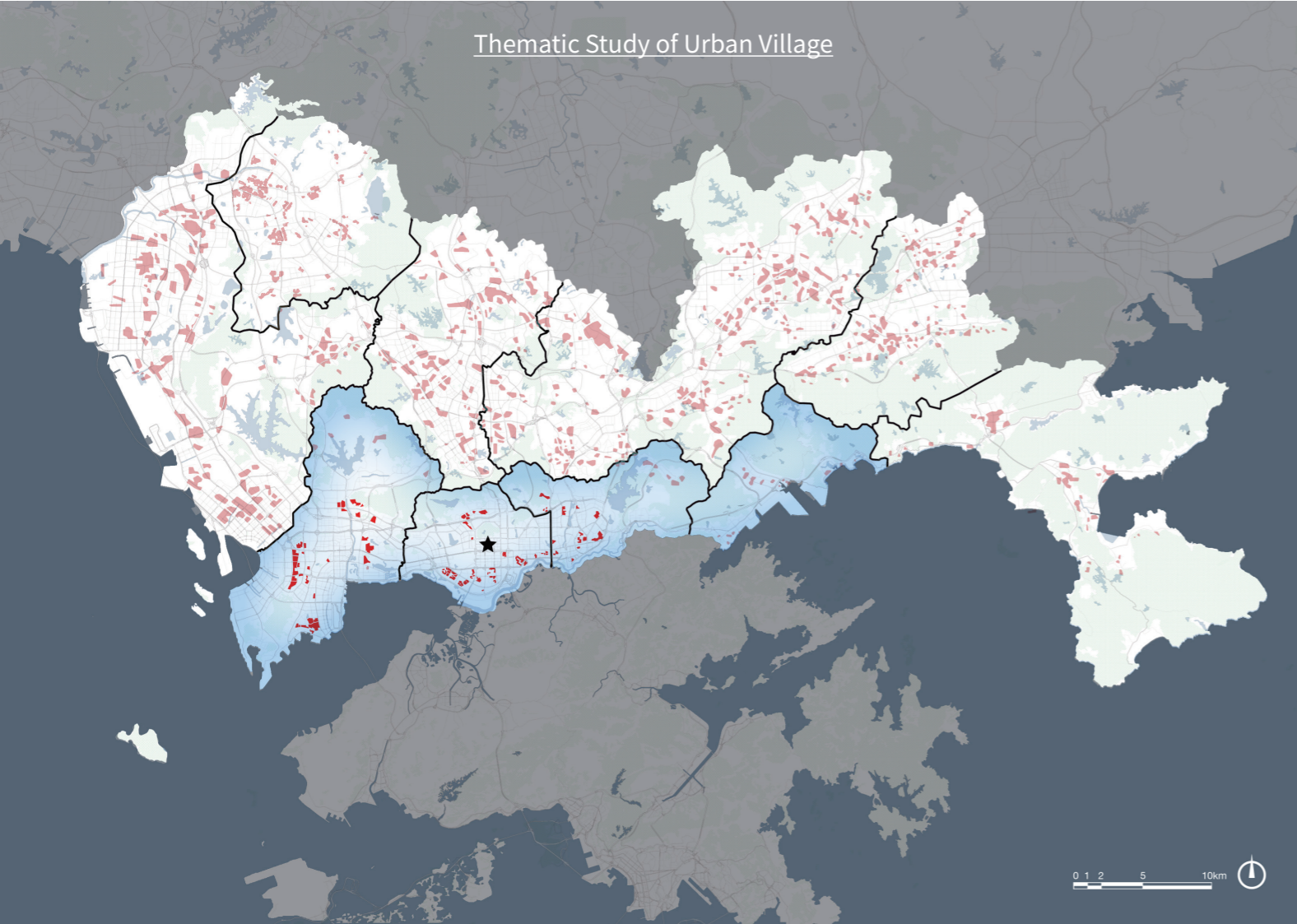
During the second round, from 1996 to 2010, Shenzhen attracted foreign direct investment and accelerated the transfer of electronic and information industries. In the urban planning, the connection between south and north

direction has been strengthened because of the migration of manufacturing. At the same time the city centers is more focused on technology and creative industries.

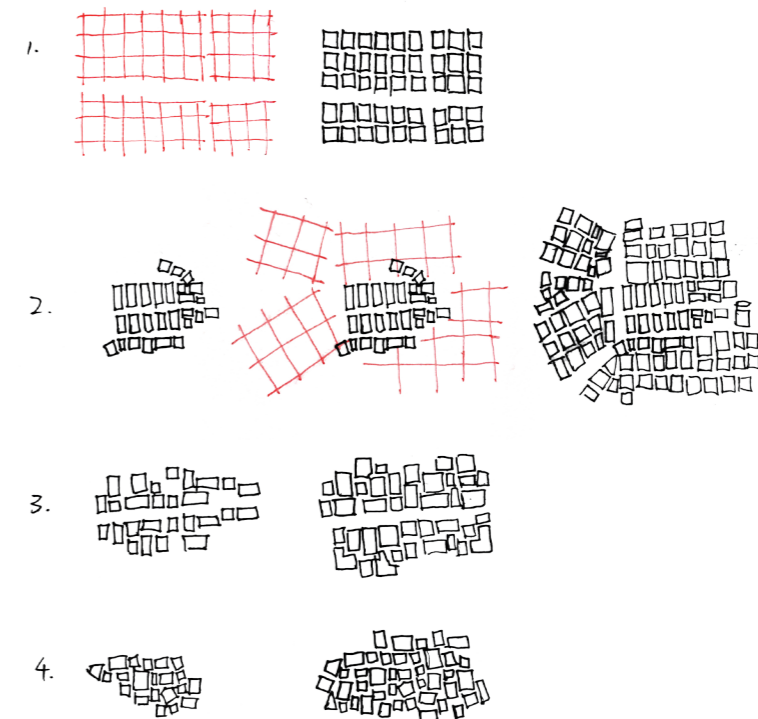
In the third round of comprehensive planing, from 2010 to 2020, more connection were planned, and started to spread out of the city border. Shenzhen successfully reached innovation-driven development. Closely connected with surrounding cities: Hong Kong, Dongguan, Huizhou, etc.

With the dramatic city growth in a limited land, the demand for urban renewal and renovation is increasing.

## Thematic Study of Urban Village



## Thematic Study of Urban Village



1. Futian village



2. Baishizhou



3. Nantou old town



4. Nanyuan village



With the rapid development of Shenzhen's urban construction, there is a challenge to the urban structure.

The small villages scattered on the original land are surrounded by a strong grid of top-down urban planning. Farmland has become public urban land to be developed, and villagers have built extra houses in the remaining limited blocks. As a result, more and more dense urban villages were formed, gradually becoming a new type of settlement surrounded by highrise buildings.

Urban village is a phenomenon in city development and is a part of the urbanization of Shenzhen. Urban village is not the countryside in the modern city, and it is also distinguished from the old town in our traditional sense.

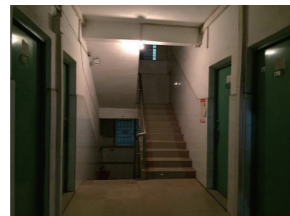
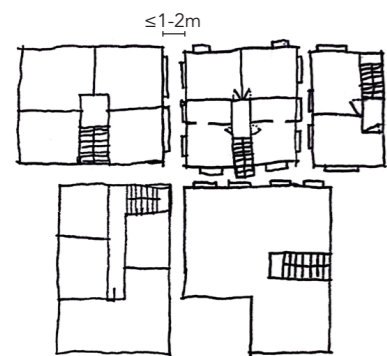
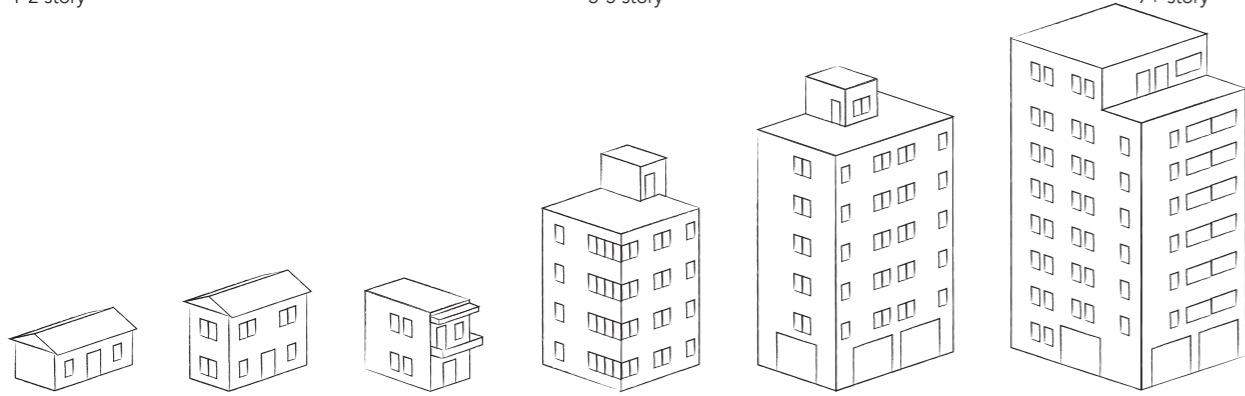
In the management of top-down urban planning, urban villages have reconstructed the rigid needs of low-income living spaces in modern cities.

# Thematic Study of Urban Village

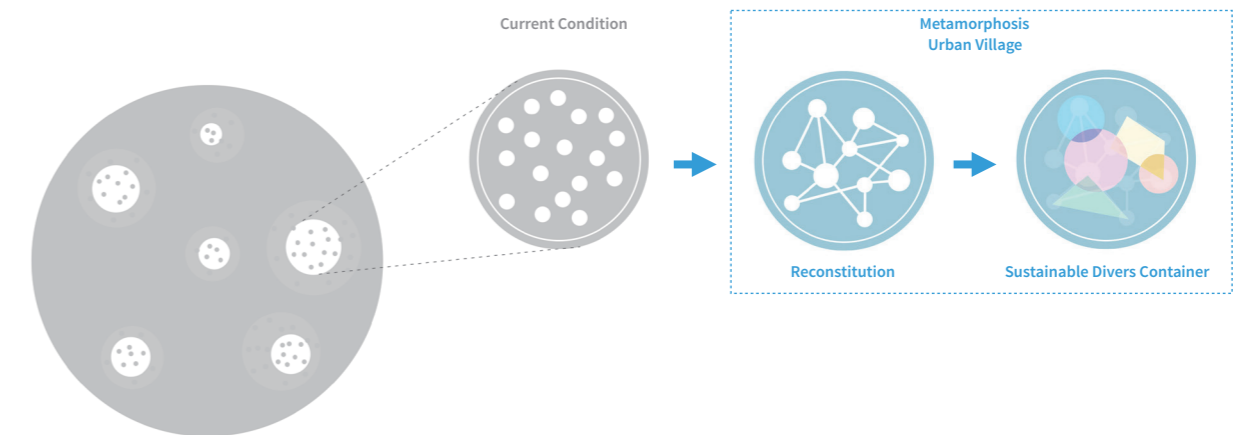
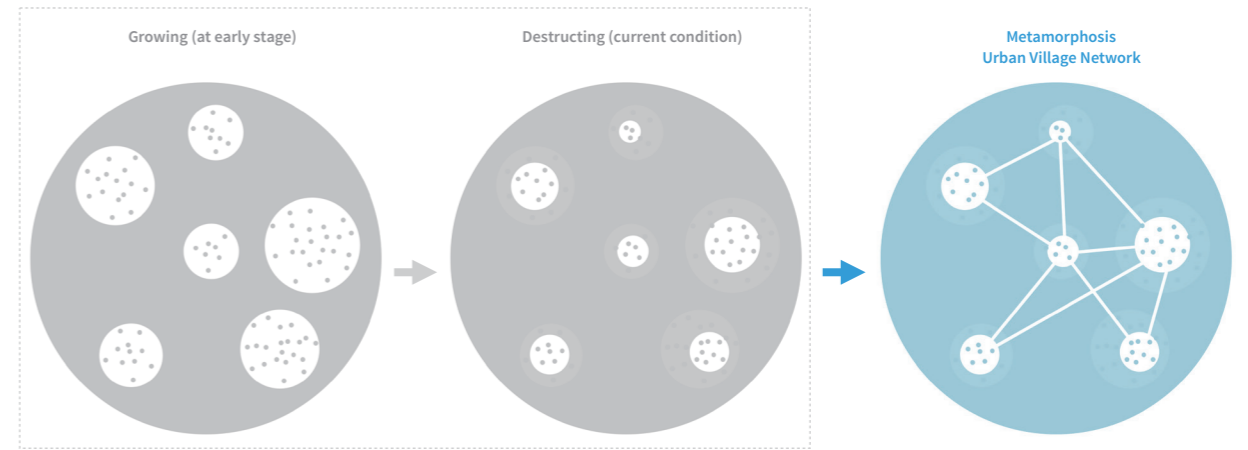
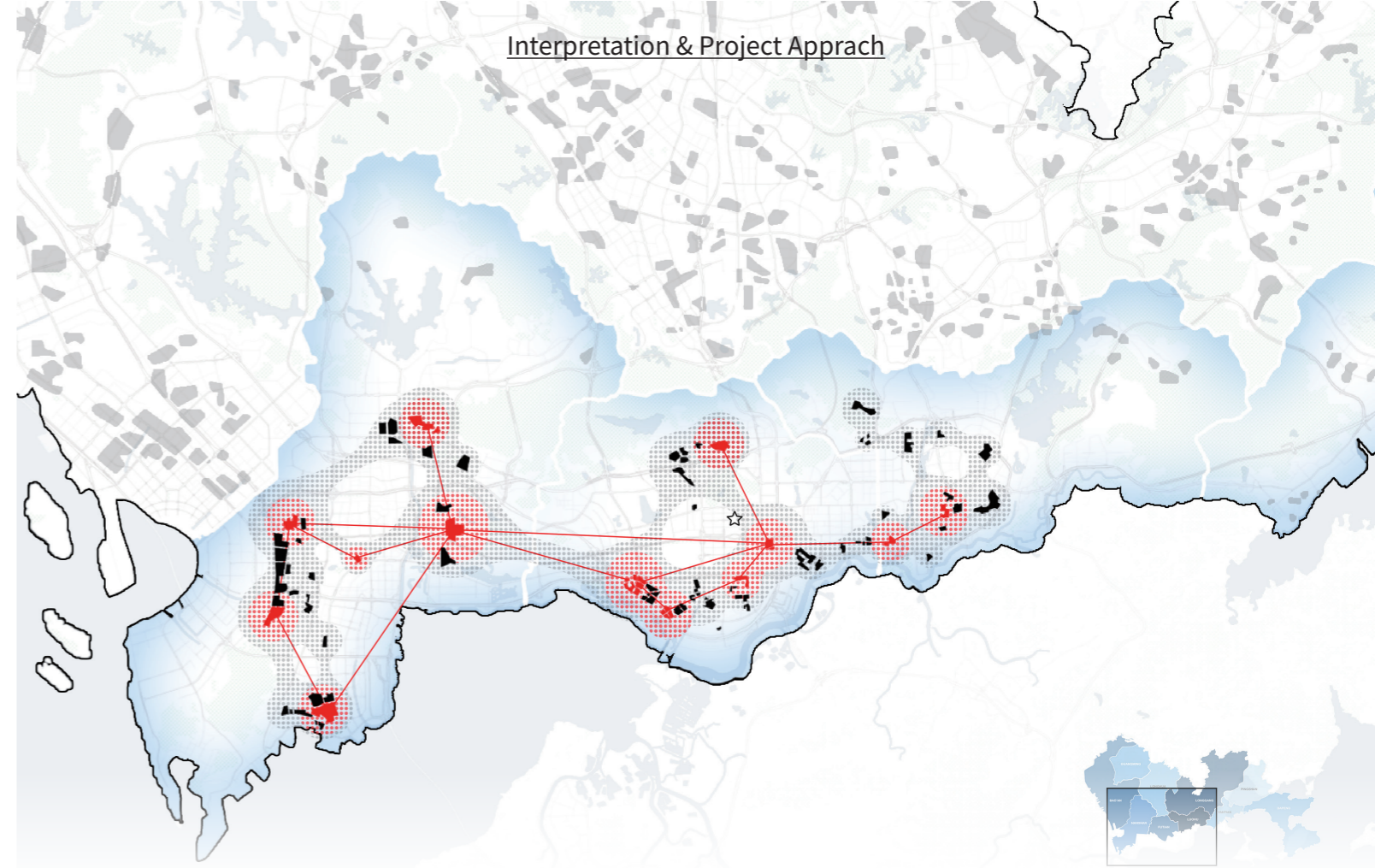
1970's and before  
stones and loess  
1-2 story

1980's  
brick-concrete structure  
3-5 story

1990's  
RC structure  
7+ story



# Interpretation & Project Approach



Building Type

Street Scale

Typical Plan of Neighbourhood

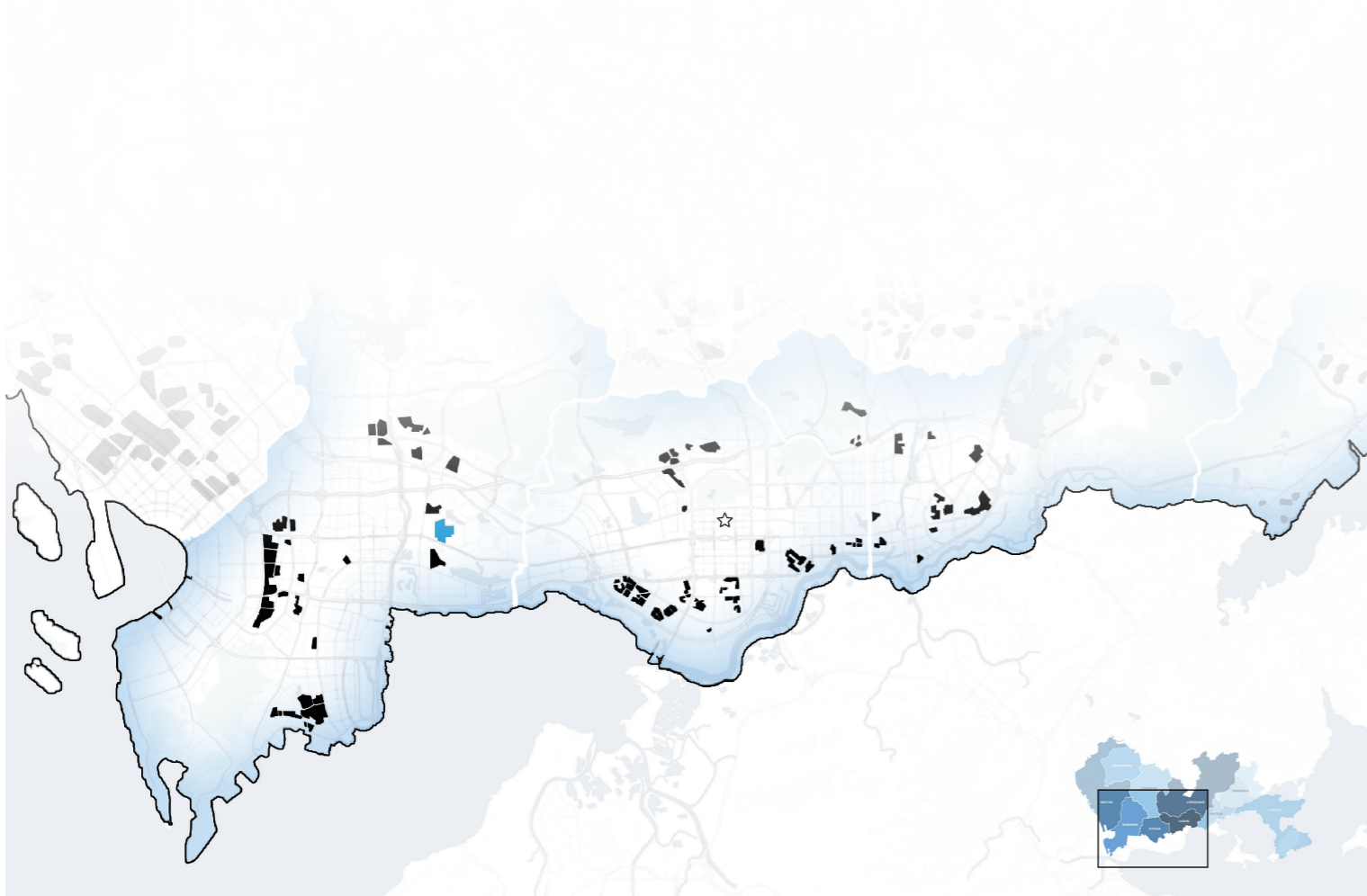


As a major type of "old traces" in Shenzhen, urban villages have been at the center of discussion and practice in recent decades, especially in areas located in the central districts. Due to the large demand for large-scale development of land, Tabula Rasa approaches were adopted in renewal of these urban villages. What followed was the gentrification and the reduction of affordable housing, which triggered social controversy.

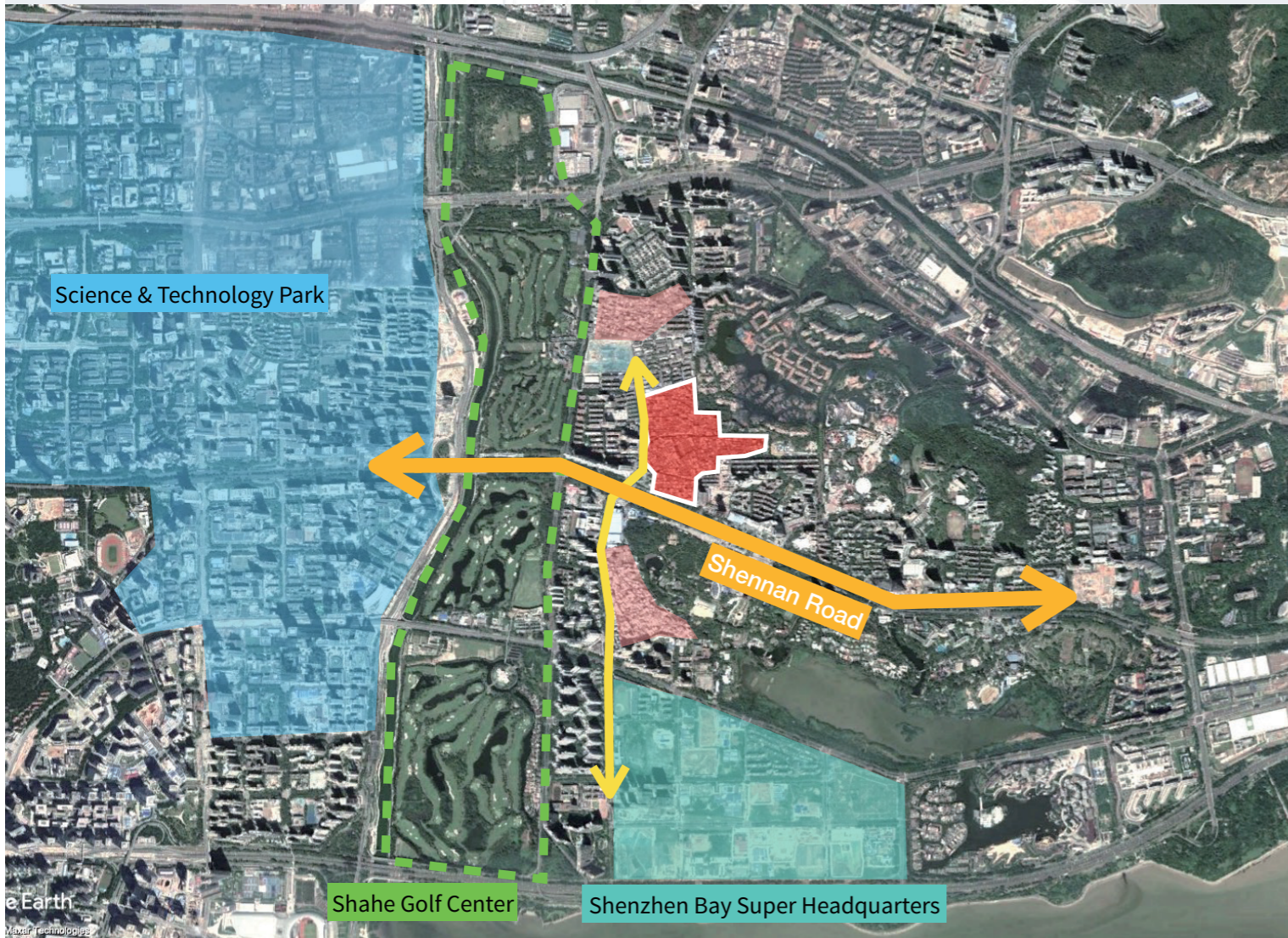
Baishizhou, one of the biggest urban villages in Shenzhen central area is facing the destiny of demolition. Its death sentence seems doomed, but this is a great opportunity to brainstorm about the future of Baishizhou.

In this part, we will delve into Baishizhou village and explore the potential and possibility of urban village regeneration. Finally, a series of targeted strategies and a masterplan will be presented which will further strengthen the idea.

Site Reading



Site Reading





## Site Reading

Urban Texture



Accessibility

- MAIN ROAD
- LANE (SURROUNDING)
- LANE (BAISHIZHOU)
- PATHWAY



Building Height

- 1
  - 3
  - 5
  - 7
  - 8
  - 10
  - 15
  - 20
  - 25
  - 30+
- Number of Floors

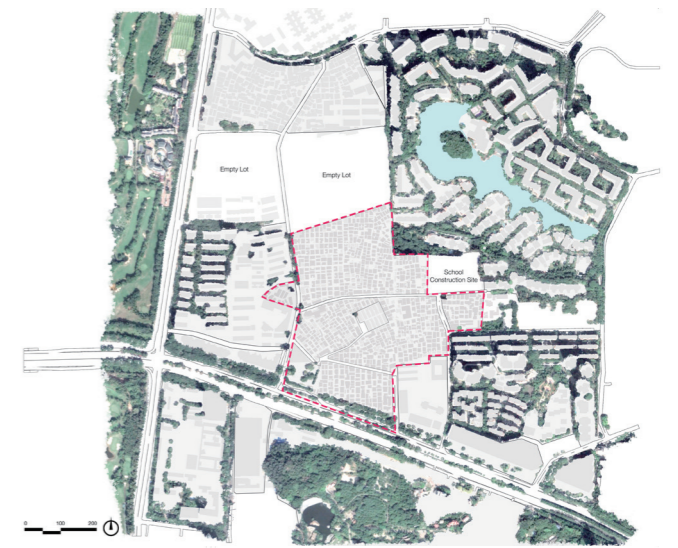


Program

- Dwelling
- Commercial & Mix-use
- Community Service
- Hospital / School
- Power Supply Facility
- Fire Station



Vegetation & Water

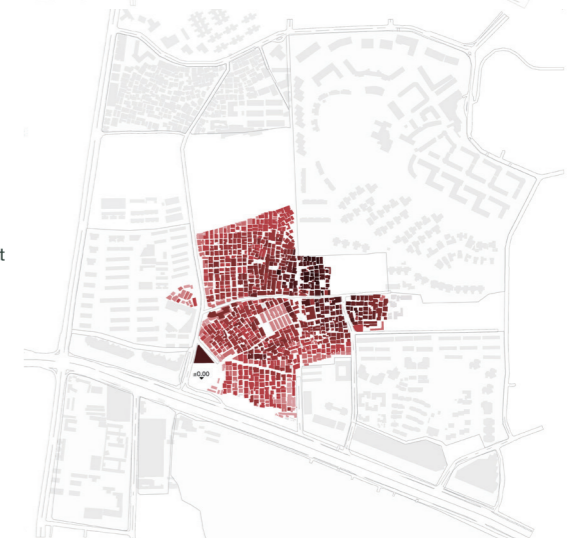


Contour



Rooftop Relative Height

- 5
  - 10
  - 15
  - 20
  - 25
  - 30
  - 35
  - 40
  - 45
  - 50M
- Rooftop Relative Height

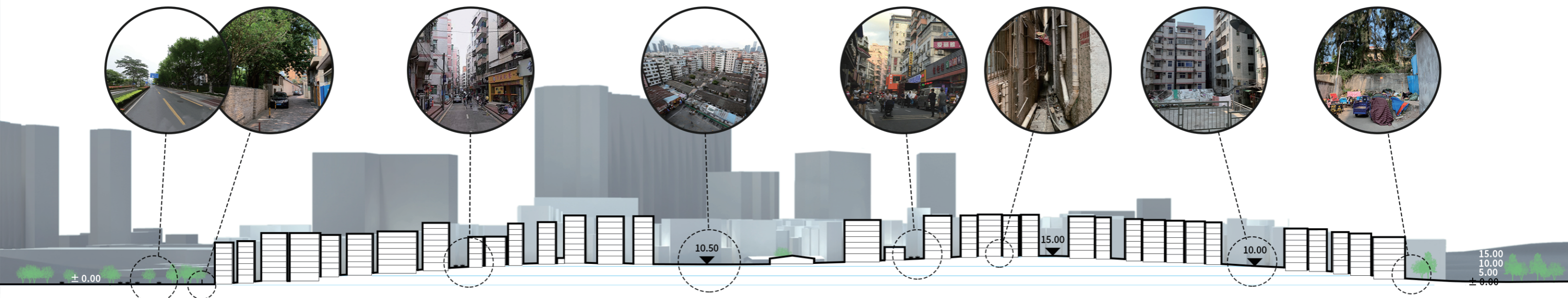
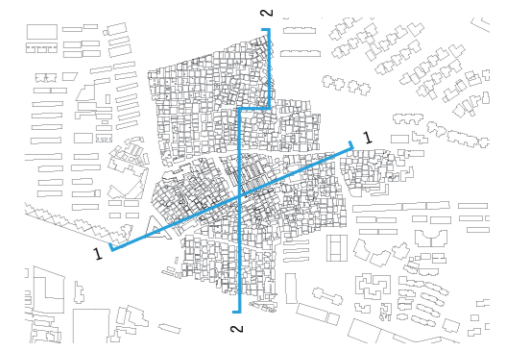
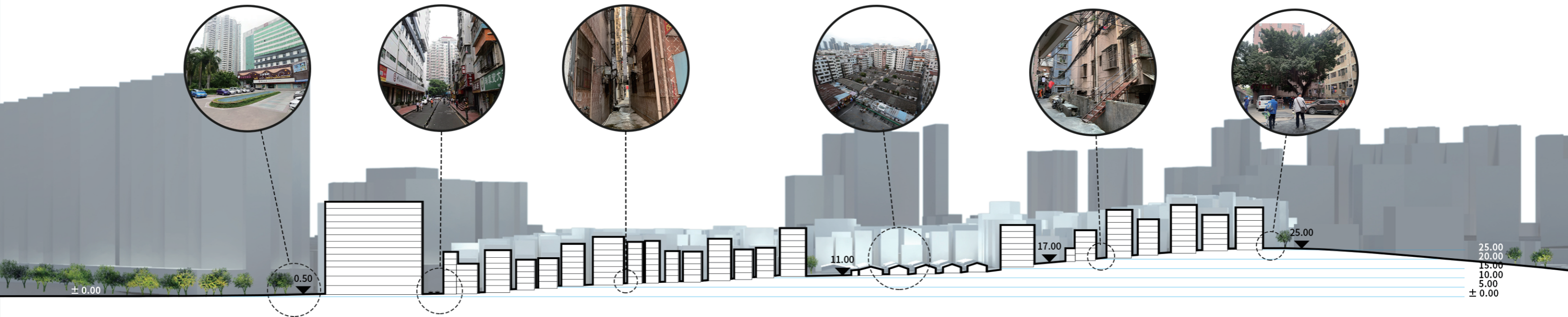


Distance In Between Buildings

- 5M+
- 2-5M
- 0.5-2M



Site Reading



Site Reading



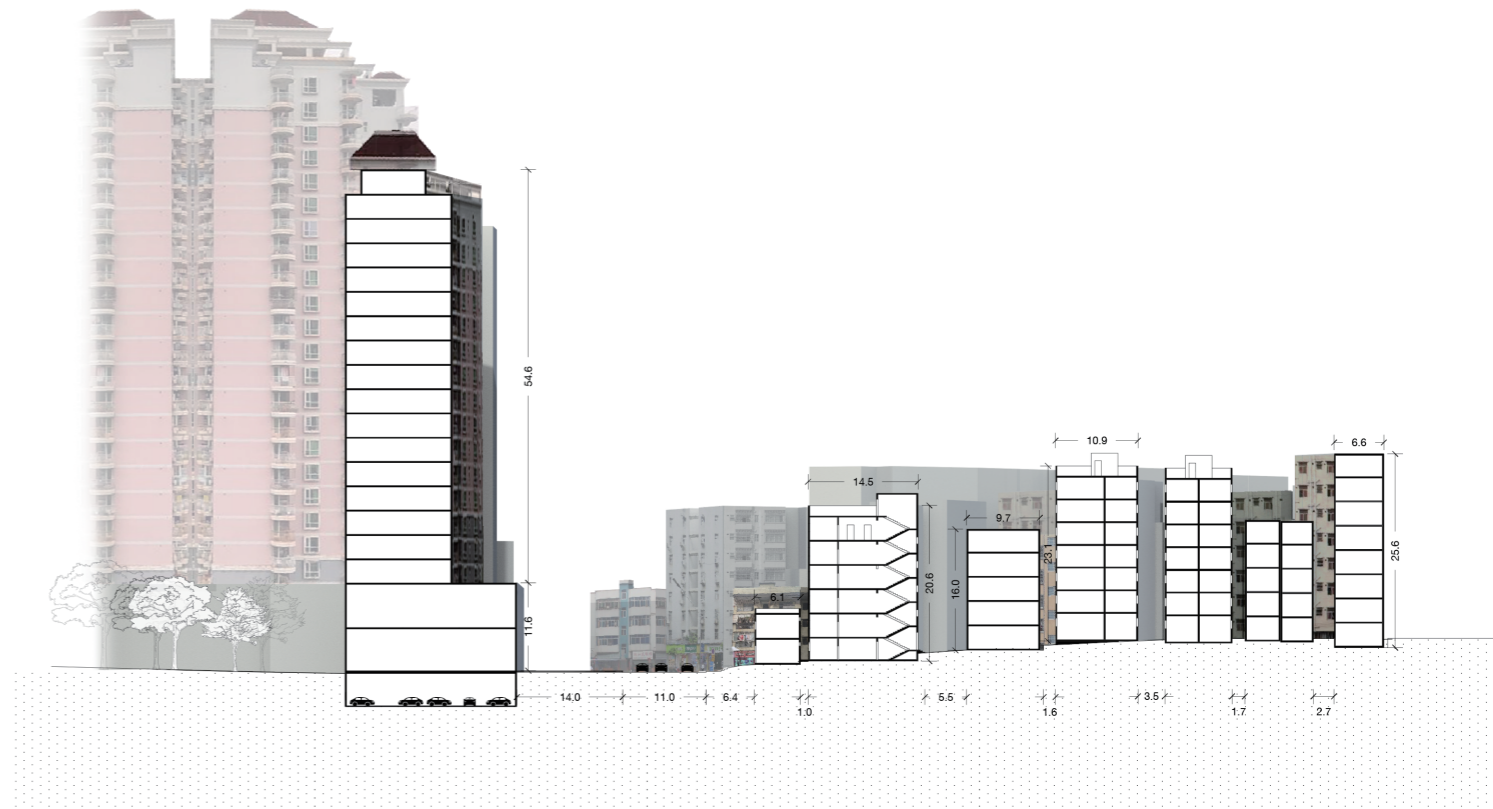
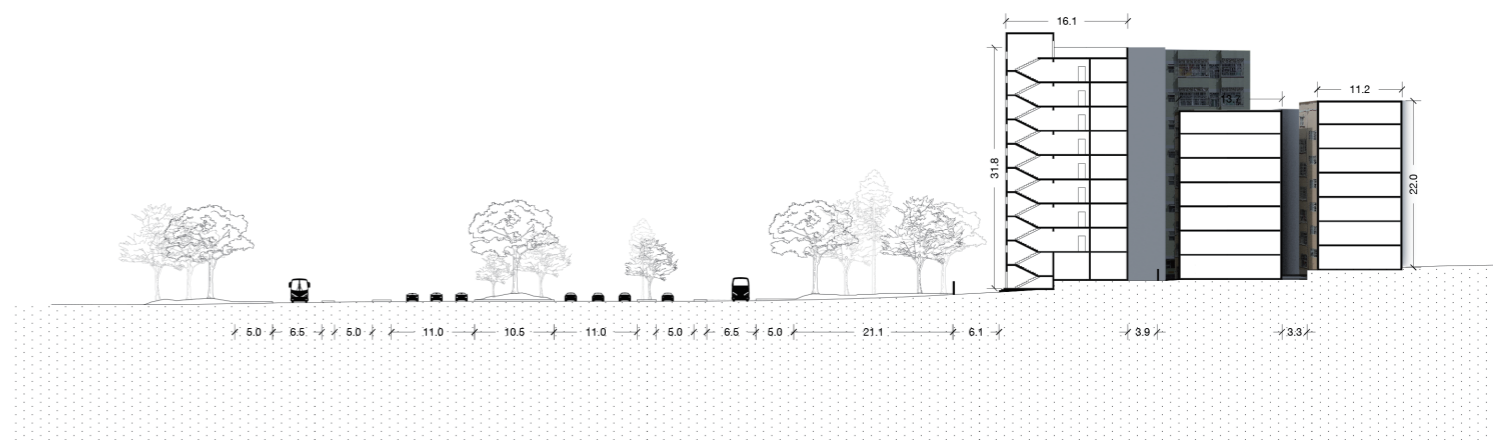
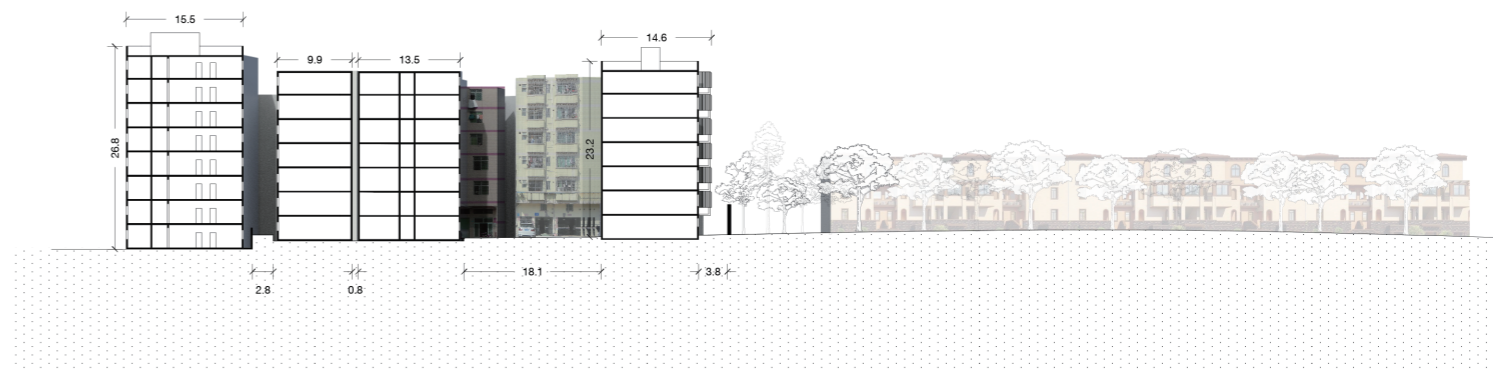
1



2

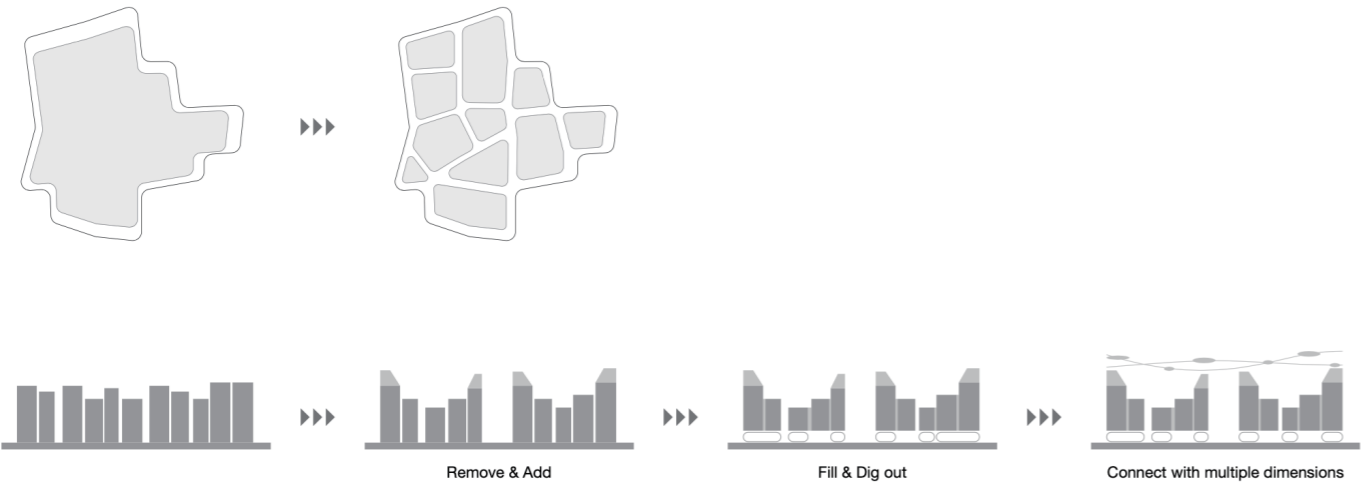


3

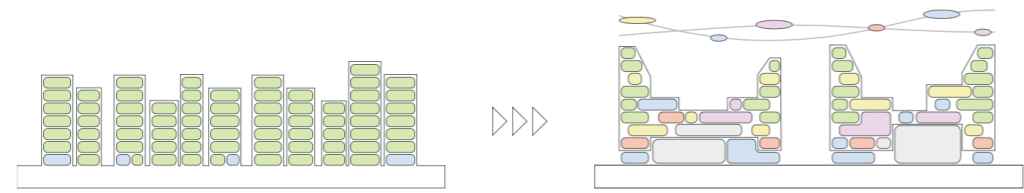


# General Strategy

## 1. Reconstitute structure



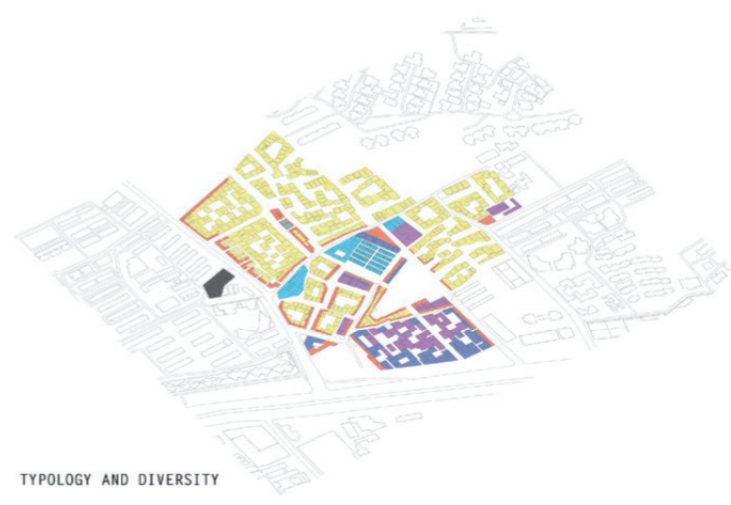
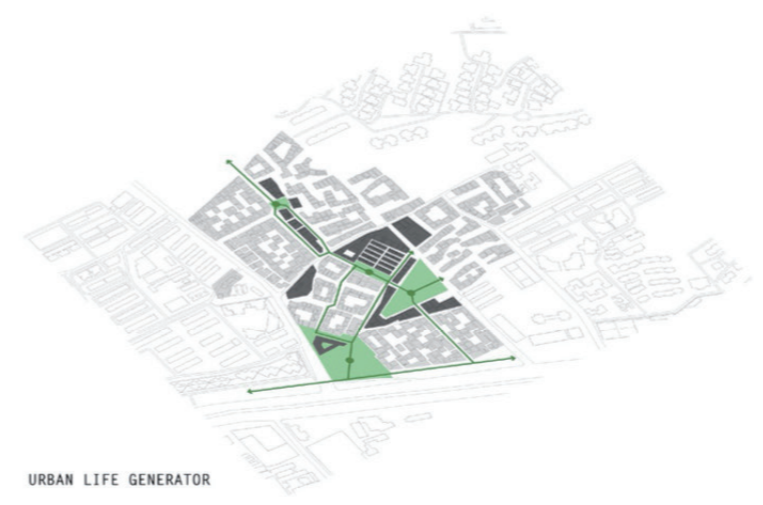
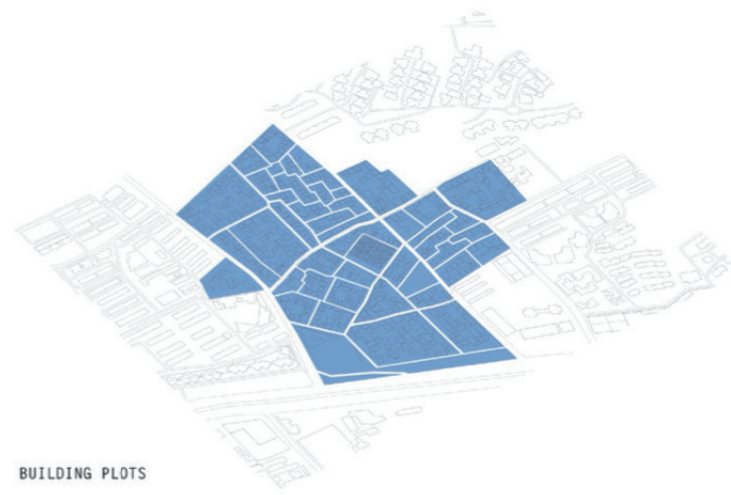
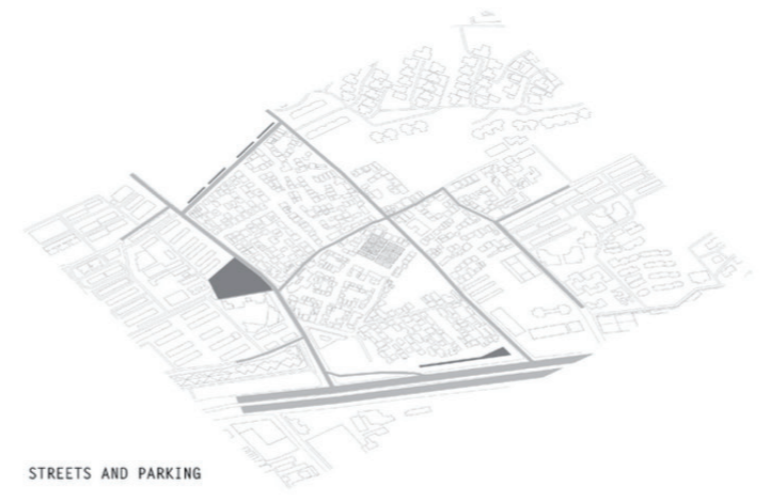
## 2. Rearrange program



## 3. Energize the system



# General Strategy

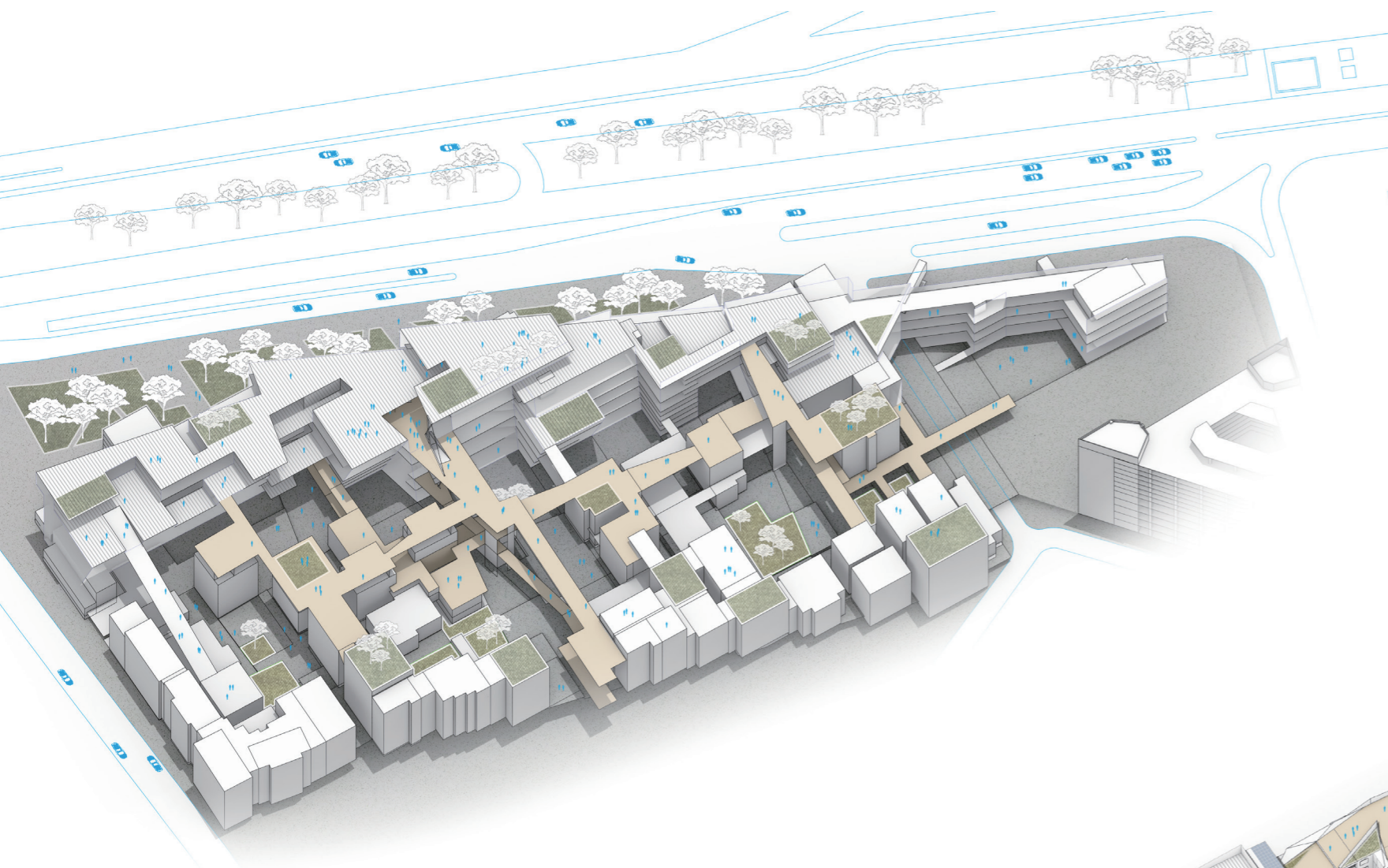


Masterplan



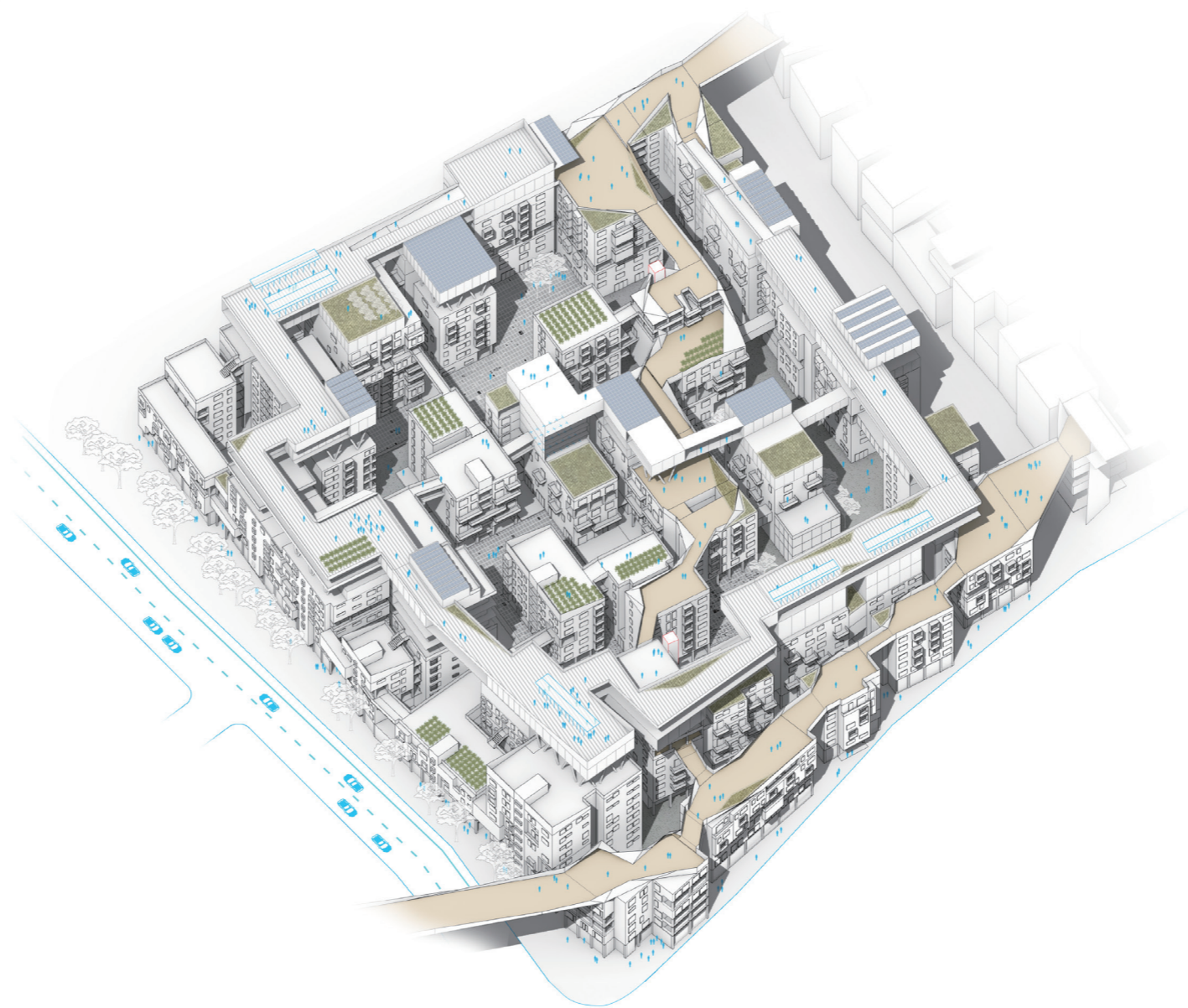
0 50 100 200  
1:2000 @ A2



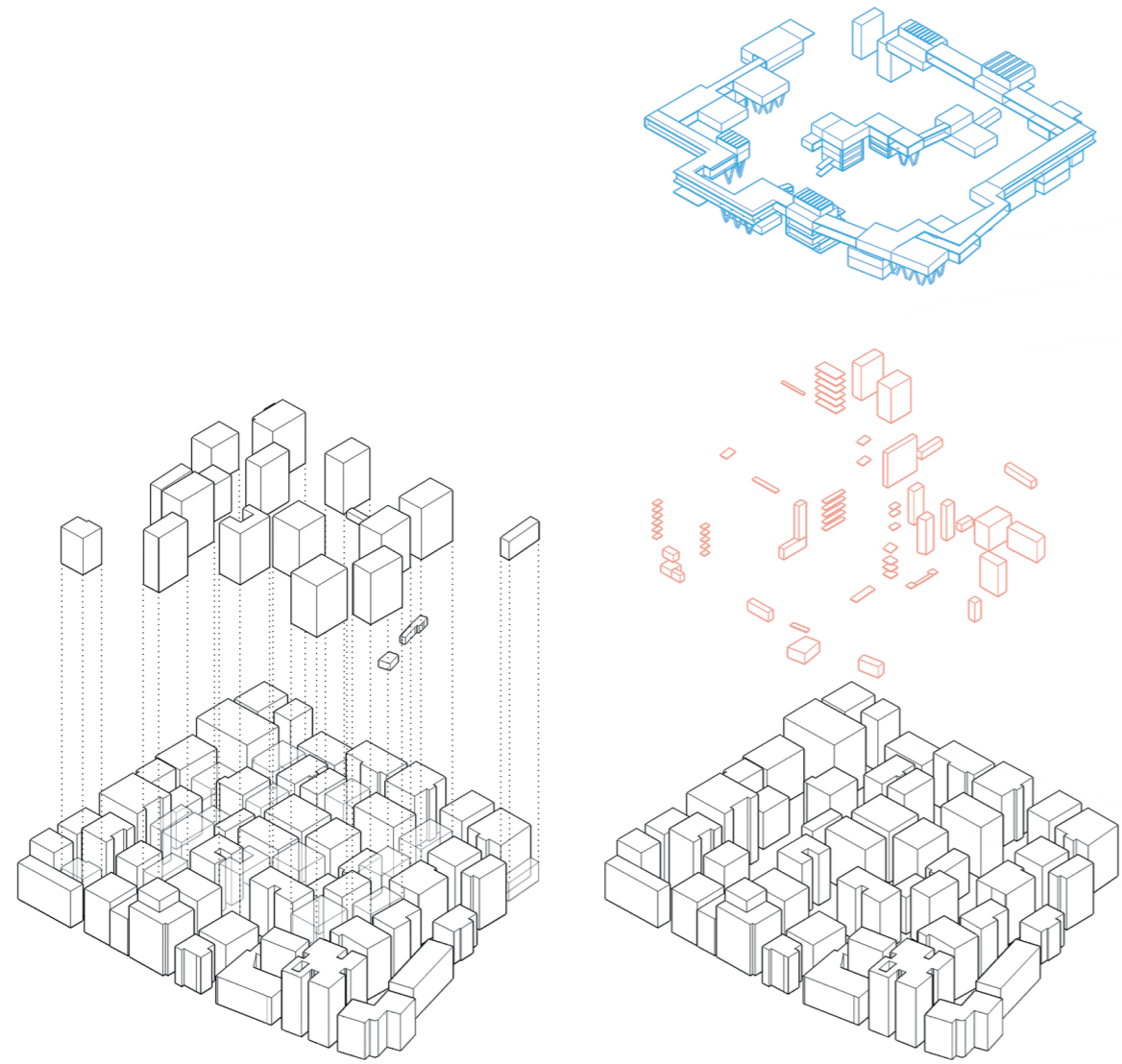


In part III, the content will focus on deepening the architectural scale design based on the methodology derived from the research results. It includes a comprehensive community unit and a complex along Shennan Avenue that integrates office, commercial and public activities.

The design will show the more detailed evolutionary logic of different types of buildings on the site and the imagination of urban life in the future.

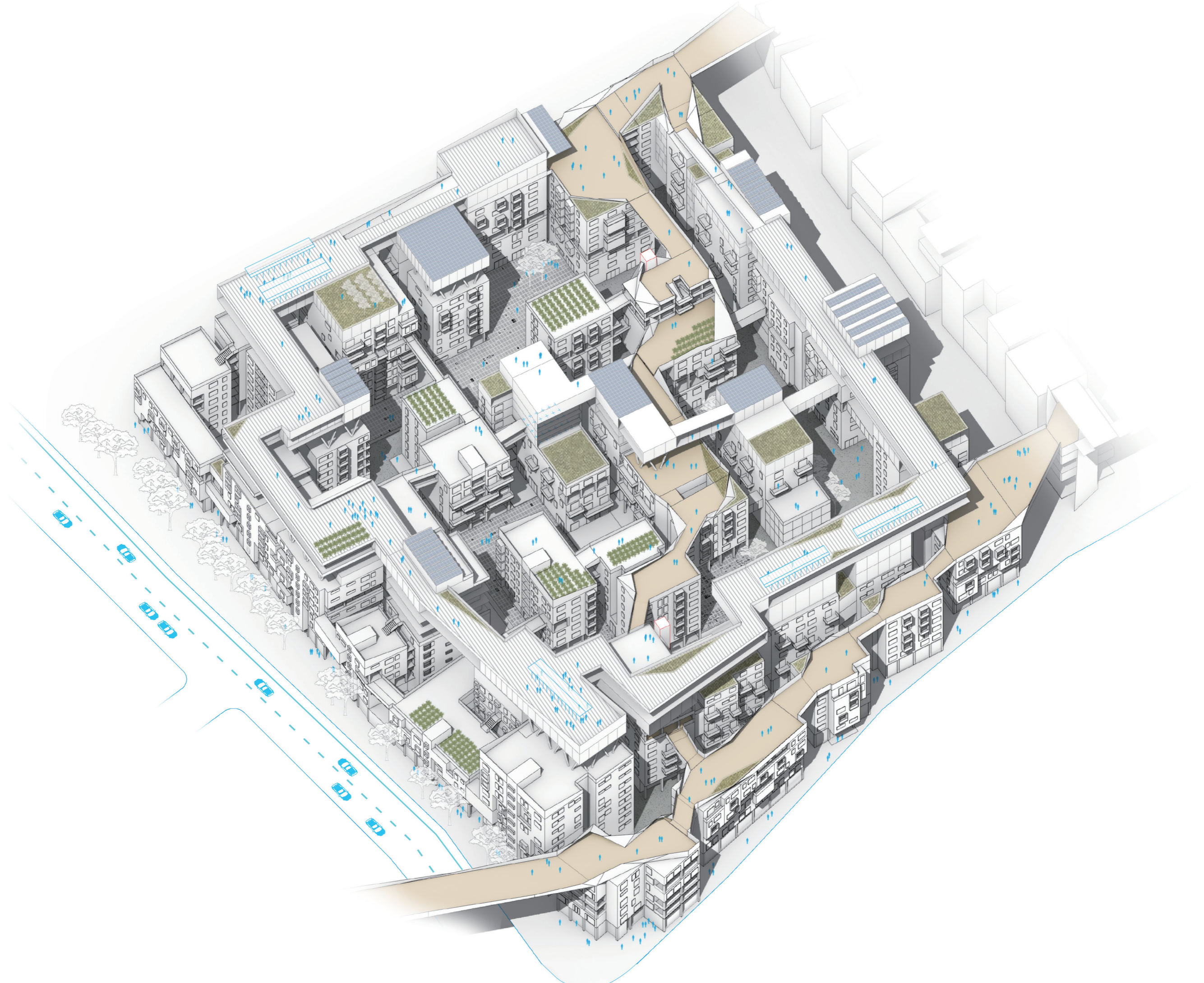


Super Community Unit

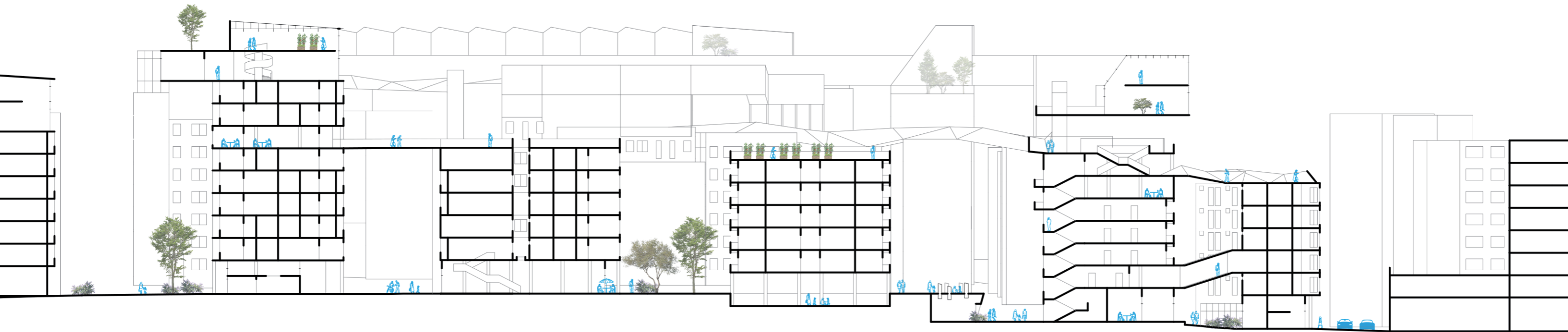
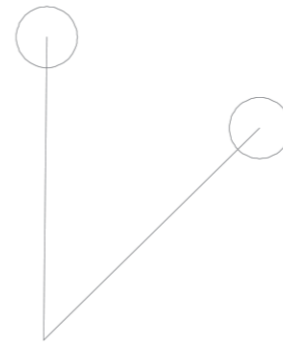


0 5 10 20 50  
1:500 @ A2



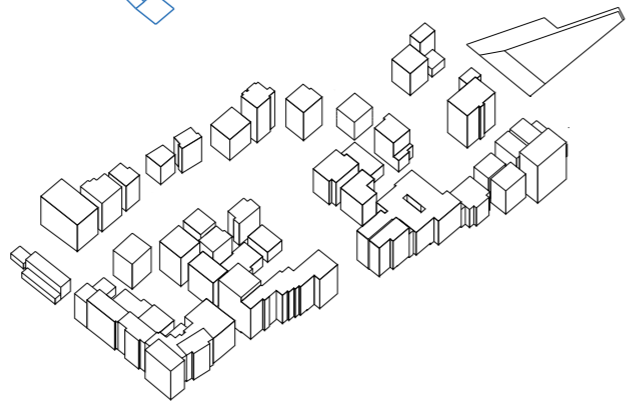
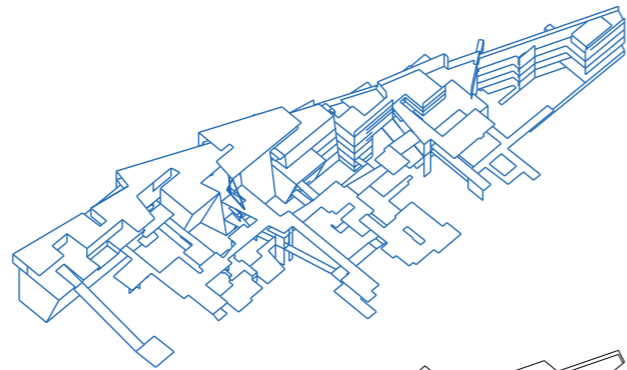
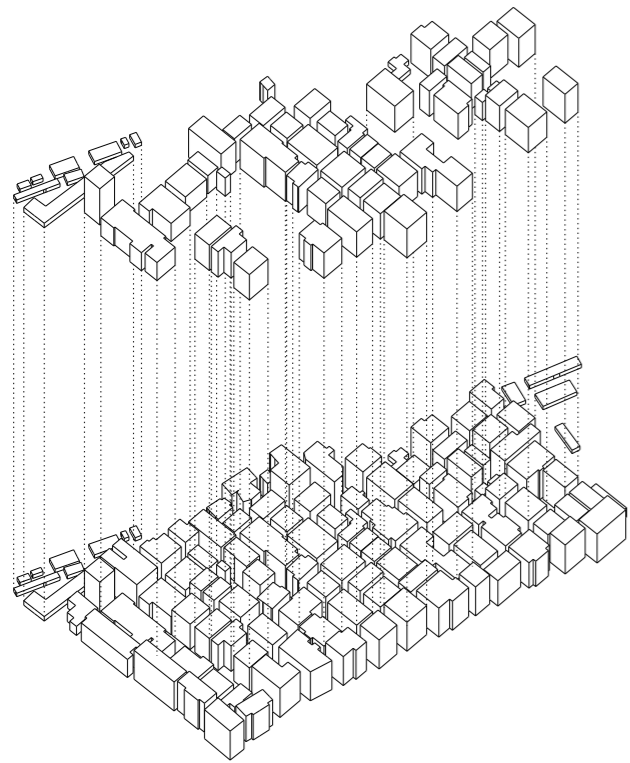
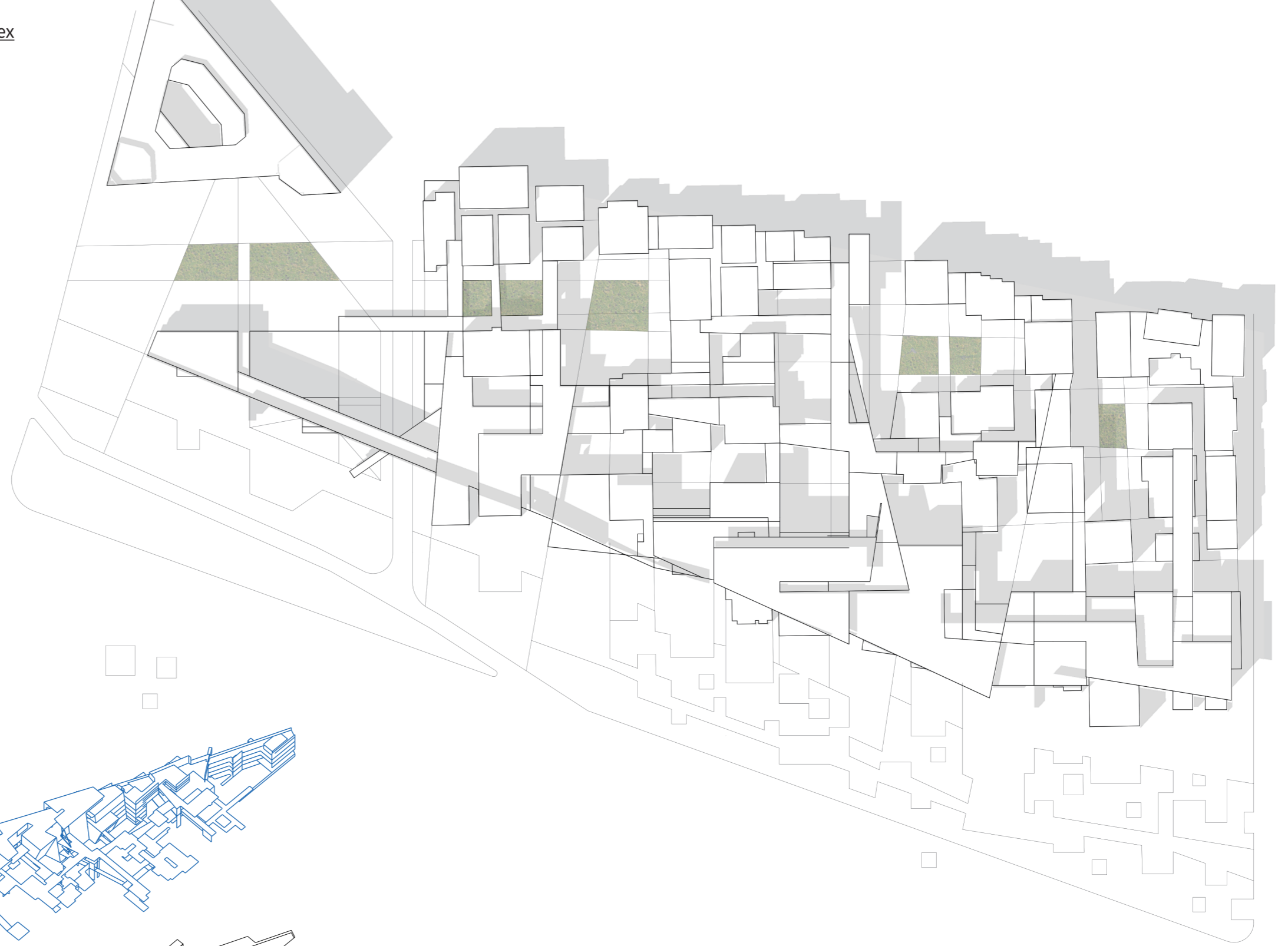


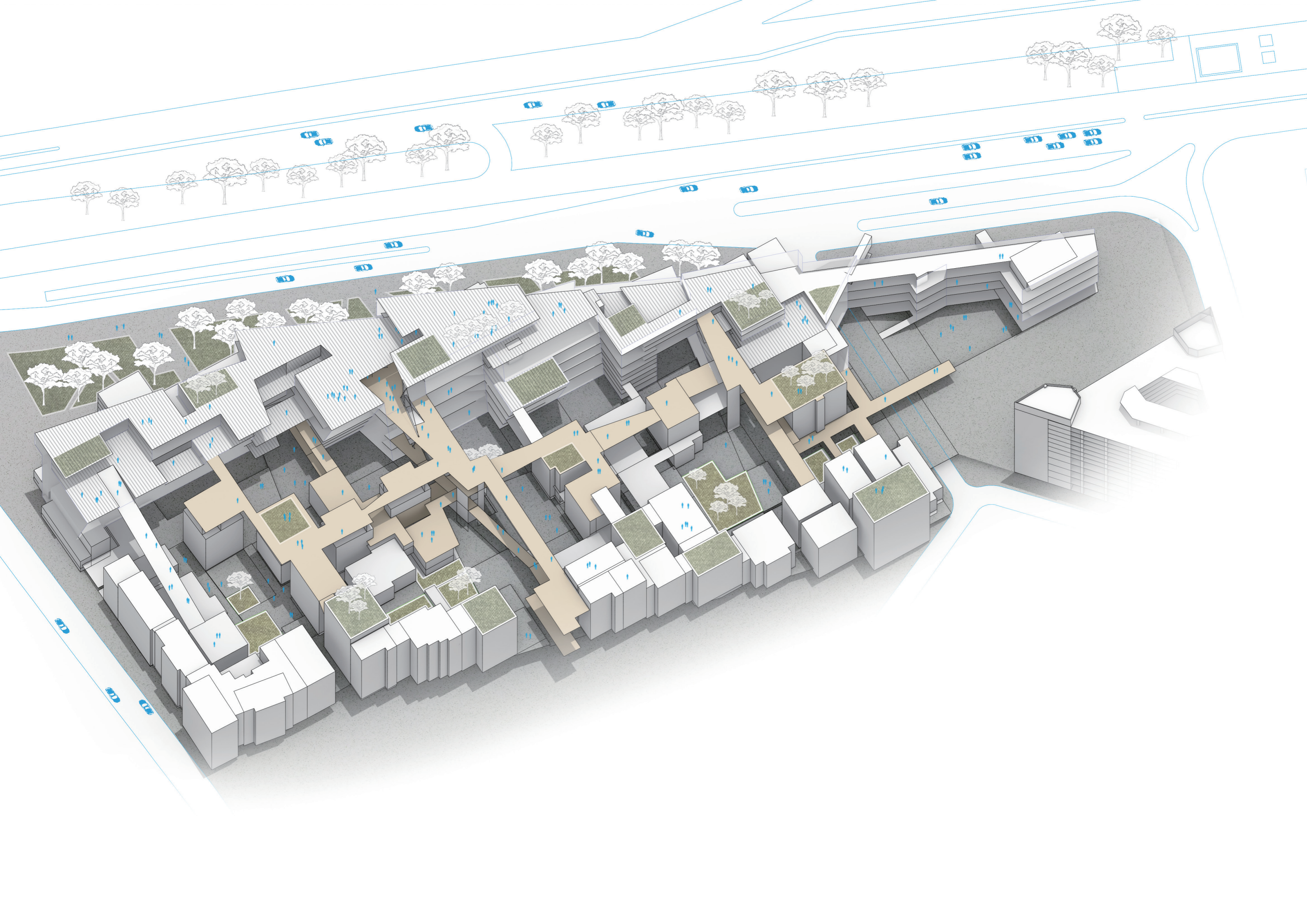


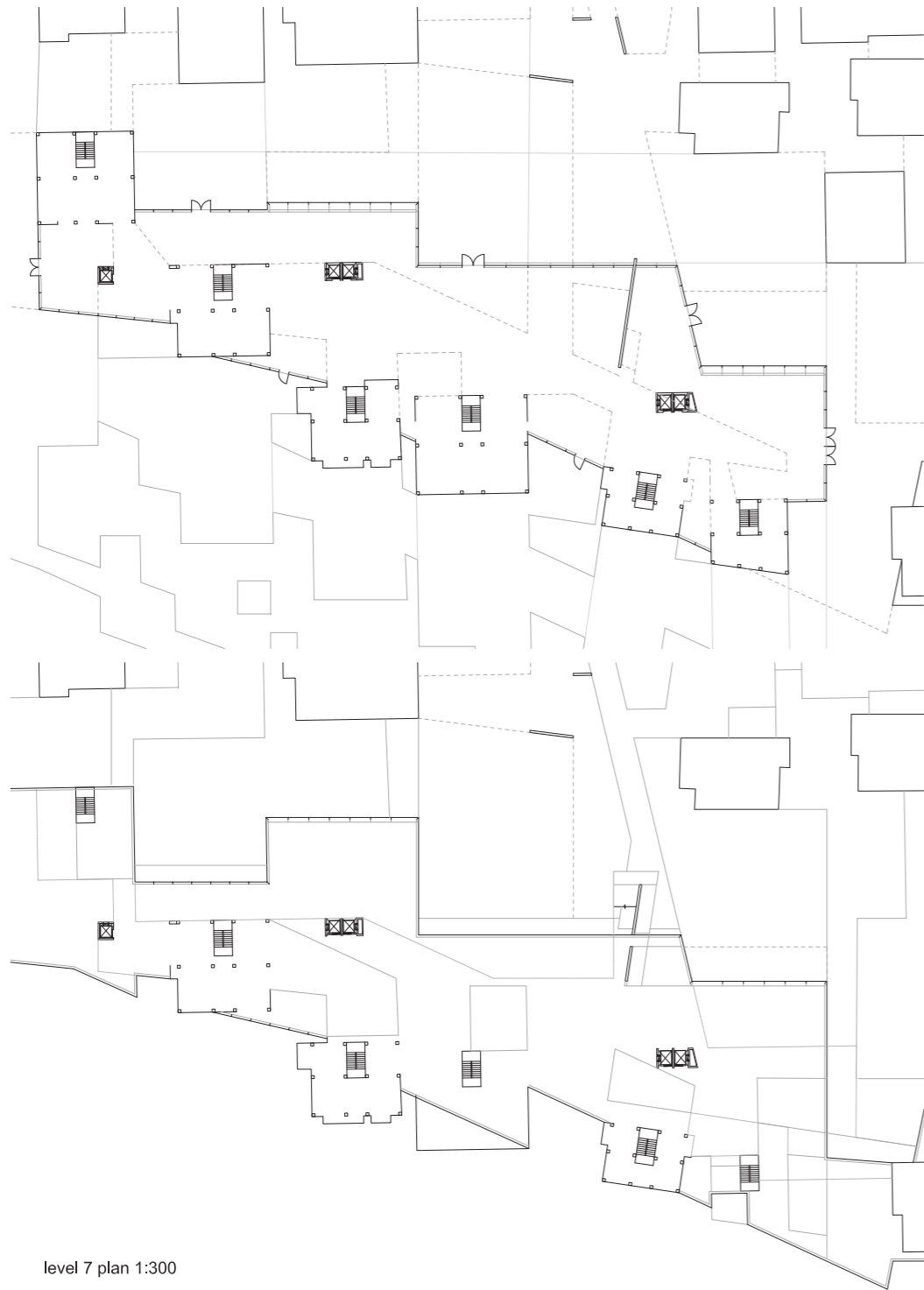


0 1 3 5 10 20  
1:500 @ A3

Shennan Ave. Complex







level 7 plan 1:300



level 11 plan 1:300

