

# contents.



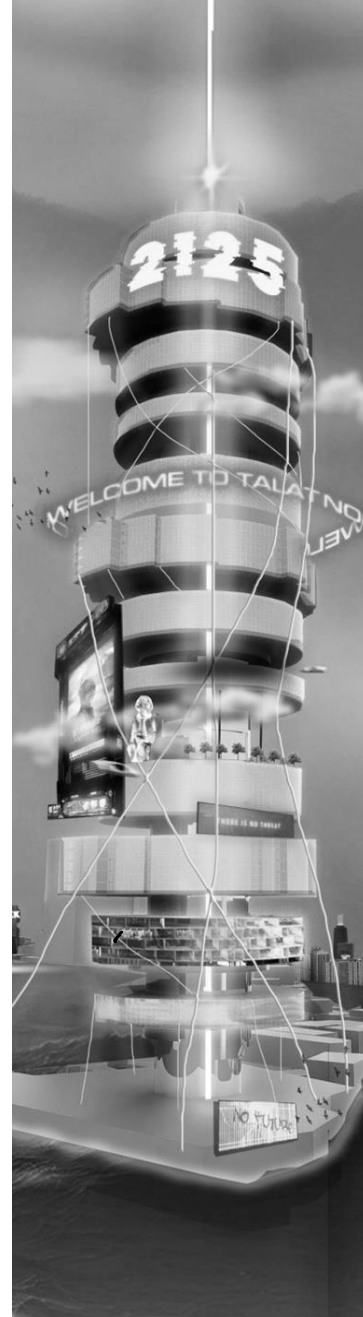
**01**  
Background  
& Context



**02**  
Identify Issues &  
Proposal



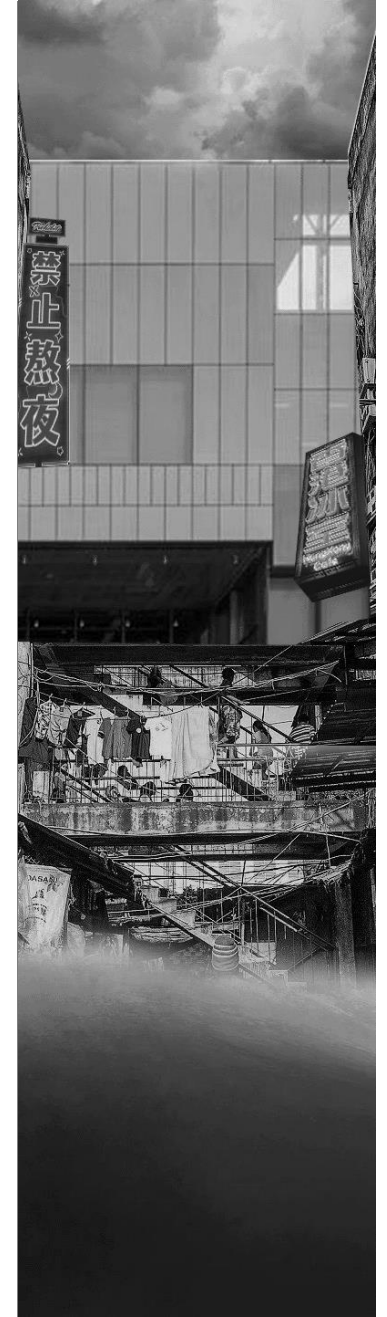
**03**  
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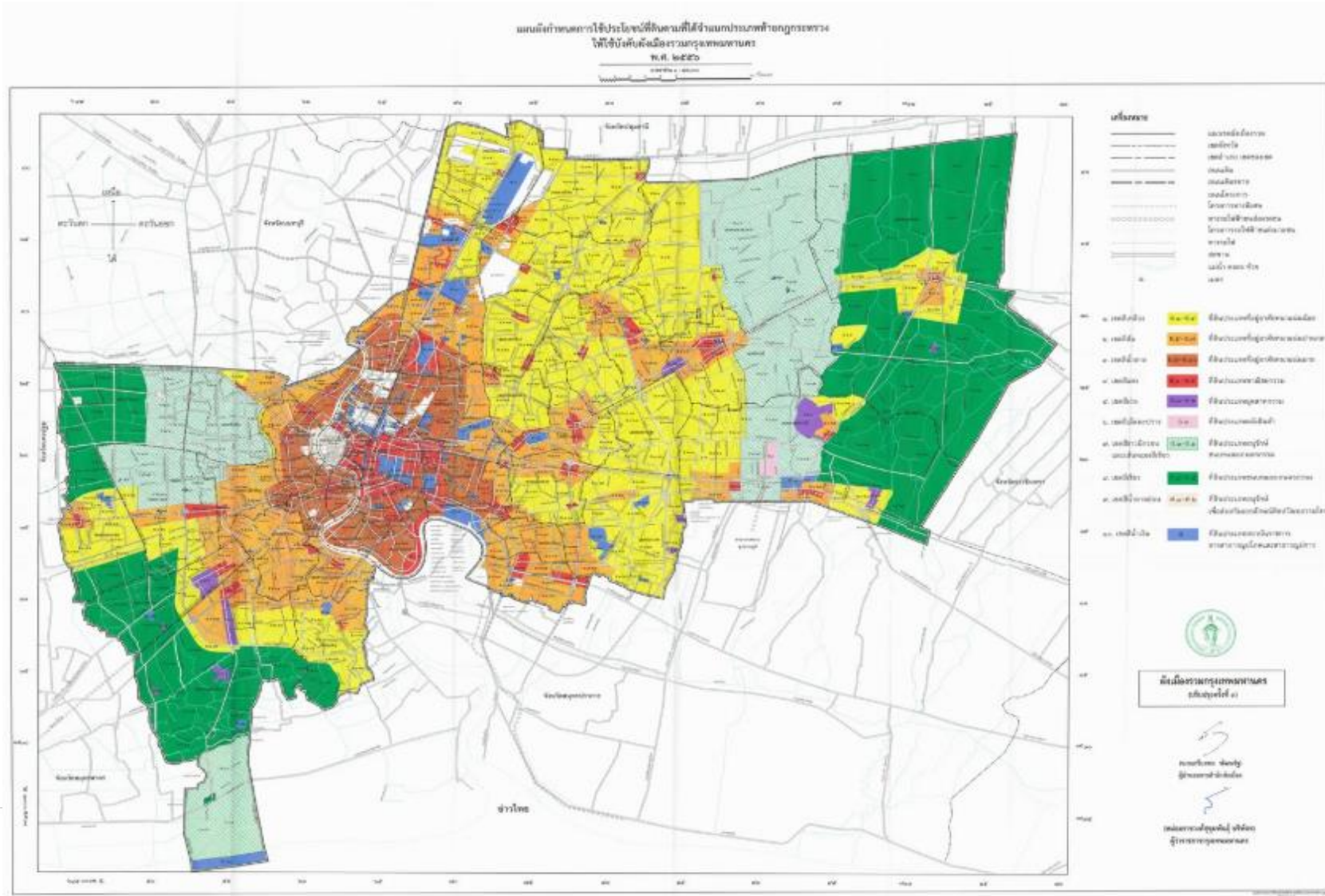
# 01



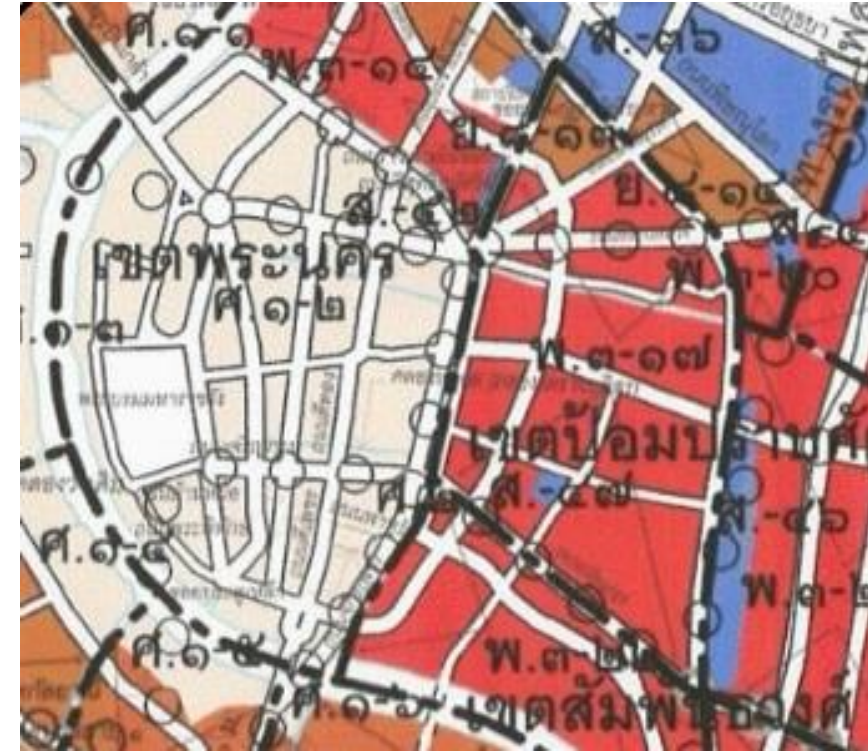
## Background & Context

- Brief History of the Area
- Existing Conditions & Context

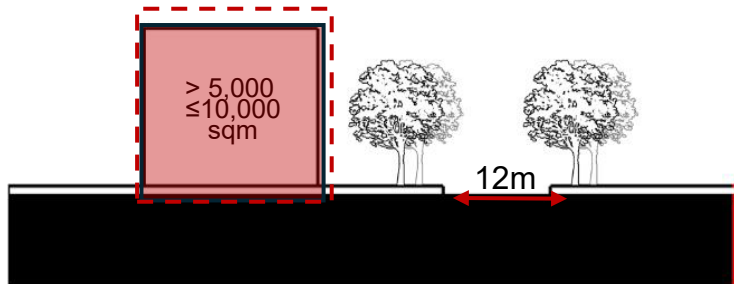
# 01 background & context



# existing condition & context

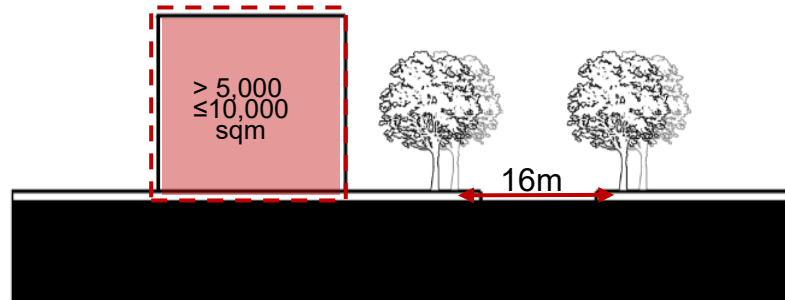


Type of Land use	Red commercial
Multi-unit residential Building > 5,000 ≤ 10,000 sqm	1c,2
Commercial Area > 5,000 ≤ 10,000 sqm	1b,2



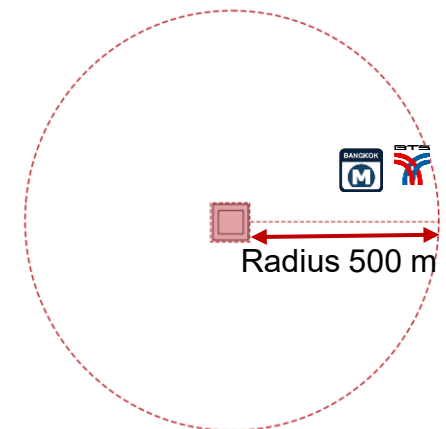
**1b**

Must located on the road with more than 12m, right of width



**1c**

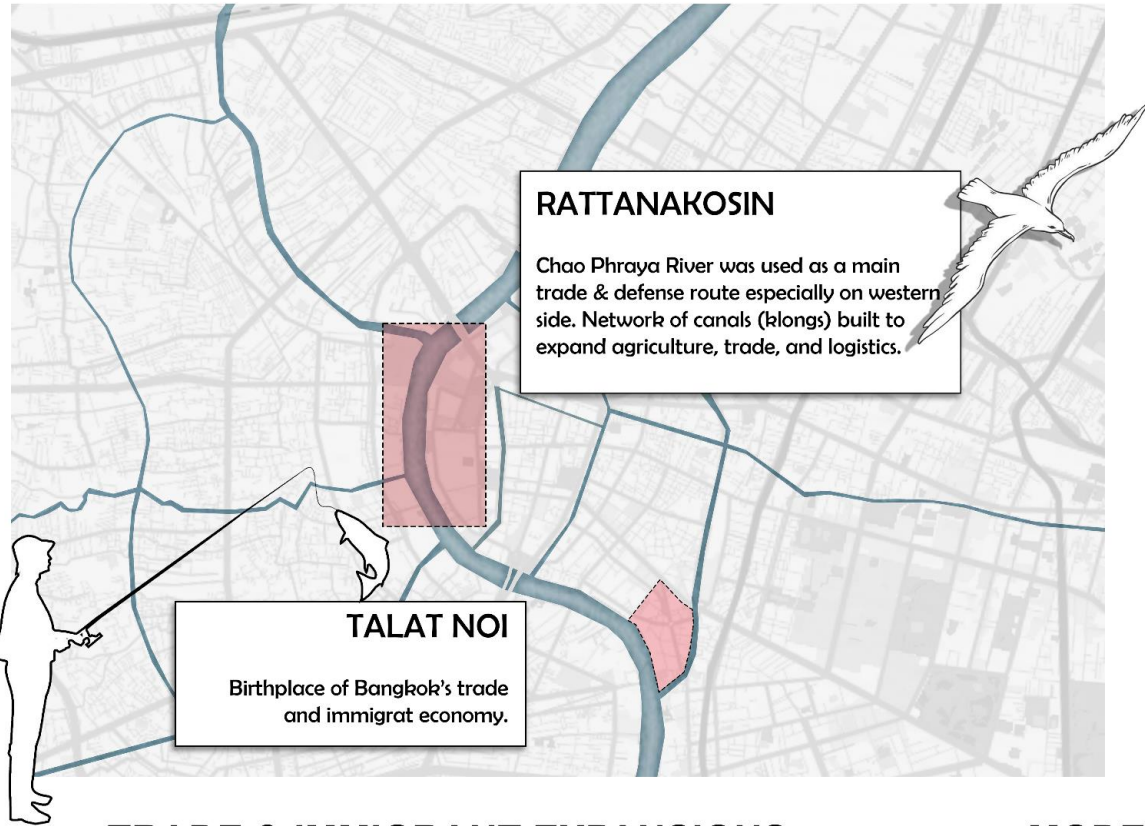
Must located on the road with more than 16m, right of width



**2**

Must located within 500 from Mass Train Station

# CHAO PHRAYA RIVER



FOUNDATION

EXPANSION

CULTURE

## TRADE & IMMIGRANT EXPANSIONS

## MODERNIZATION OF BANGKOK

## URBAN SPRAWL AND DECLINE OF RIVER LIFESTYLE

Talat Noi was historically a warehouse and trading zone since many Chinese immigrants settled there, building godowns, shophouses, and piers. Communities lived in stilt houses along the riverbanks and canals. People commuted, traded, bathed, fished along the river. Floating markets and water-based cultural events (e.g. Loy Krathong) can be seen.

Urbanization and land-based transportation turned people away from waterways, neglecting canals and riverside communities, which led to the despair of many piers. Water pollution is a major issue due to sewage and industrial runoff. Concrete embankments replace natural edges, obstructing community access.

Heavy land-based urbanization happened, waterfront homes, temples and structures started to get neglected. Chao Phraya becomes increasingly polluted; filled with industrial waste and plastic pollution in water. The river was rather viewed as "backside" of the city.



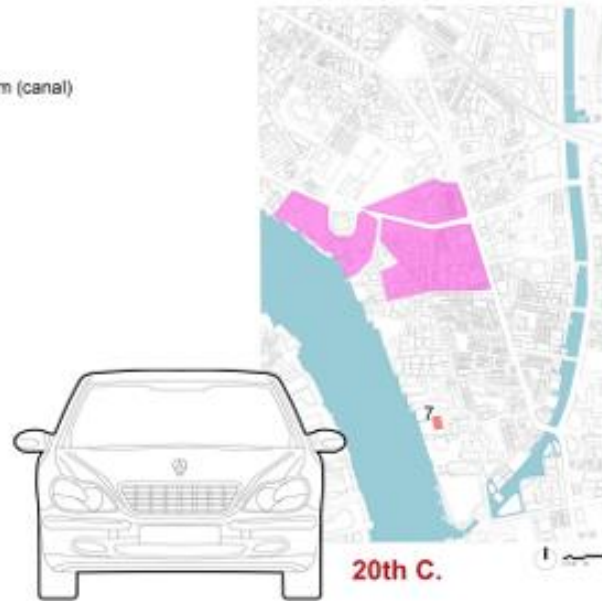
Chinese, Portuguese, Vietnamese, Indian, European communities      western influence      first modern road built      steamships replaced boats      water pollution worsened      loss of public river access for locals

ESTABLISHMENT OF BANGKOK (RATTANAKOSIN KINGDOM)      TALAT NOI      BEGINNING OF DECLINE OF KHLONG LIFESTYLE      WAREHOUSES EXPANDED      CRITICAL TURNING POINT      RIVERFRONT PRIVATIZED AND COMMERCIALIZED



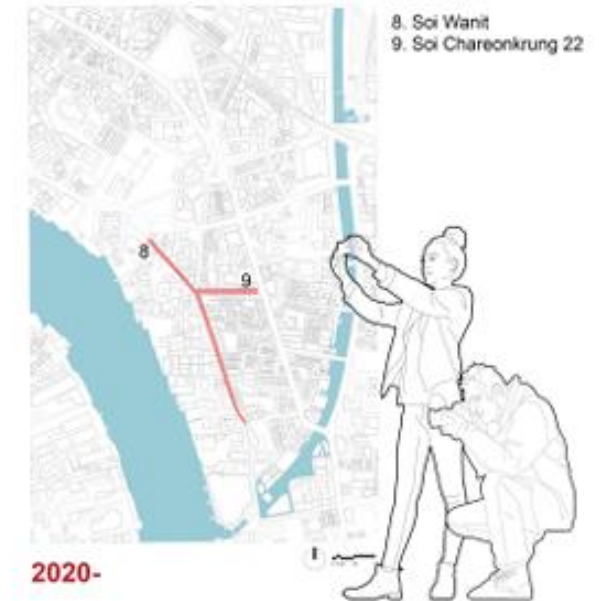
- 1. Sol Heng Tai Mansion
- 2. Holy Rosary Church
- 3. Charoen Krung Road
- 4. Khlong Phadung Krung Kasem (canal)
- 5. Chinatown Gate
- 6. Marine Department

19th C.



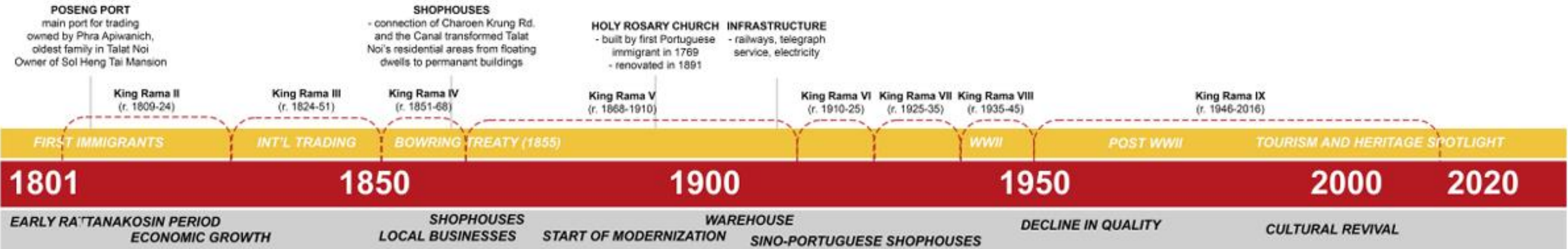
- 7. SCB
- Car Autoparts Industry

20th C.



- 8. Soi Wanit
- 9. Soi Chareonkrung 22

2020-



**POSENG PORT**  
main port for trading  
owned by Phra Apiwanich,  
oldest family in Talat Noi  
Owner of Sol Heng Tai Mansion

**SHOPHOUSES**  
- connection of Charoen Krung Rd.  
and the Canal transformed Talat  
Noi's residential areas from floating  
dwells to permanent buildings

**HOLY ROSARY CHURCH**  
- built by first Portuguese  
immigrant in 1769  
- renovated in 1891

**INFRASTRUCTURE**  
- railways, telegraph  
service, electricity

**Chao Phraya River**  
in 18th Century  
-entrance for immigrants  
-first immigrant was Portuguese  
from Ayutthaya (Later, Chinese,  
Vietnamese, Khmer)  
- a node for trade and transport

**Khlong Phadung Krung Kasem**  
(c. 1851)  
- built to transport goods from  
Talat noi to Bangkok  
- fortifications were built  
(only 1 remains)



**Charoen Krung Avenue**  
(c.1862-64), in 1894  
- caused economic decline in trading  
- caused more residential area along the canal



Rise of metal  
workshops, printing  
presses, and auto part  
recyclers



**SCB (c.1908)**  
- provides commercial loans to  
Chinese-Thai traders  
- Modern economic growth in  
Bangkok's riverfront districts



**Urban Decaying**  
- decline in population due  
to urban decay



**Street art**  
- transforms alleyways into  
open-air galleries  
- balancing heritage  
with tourism;

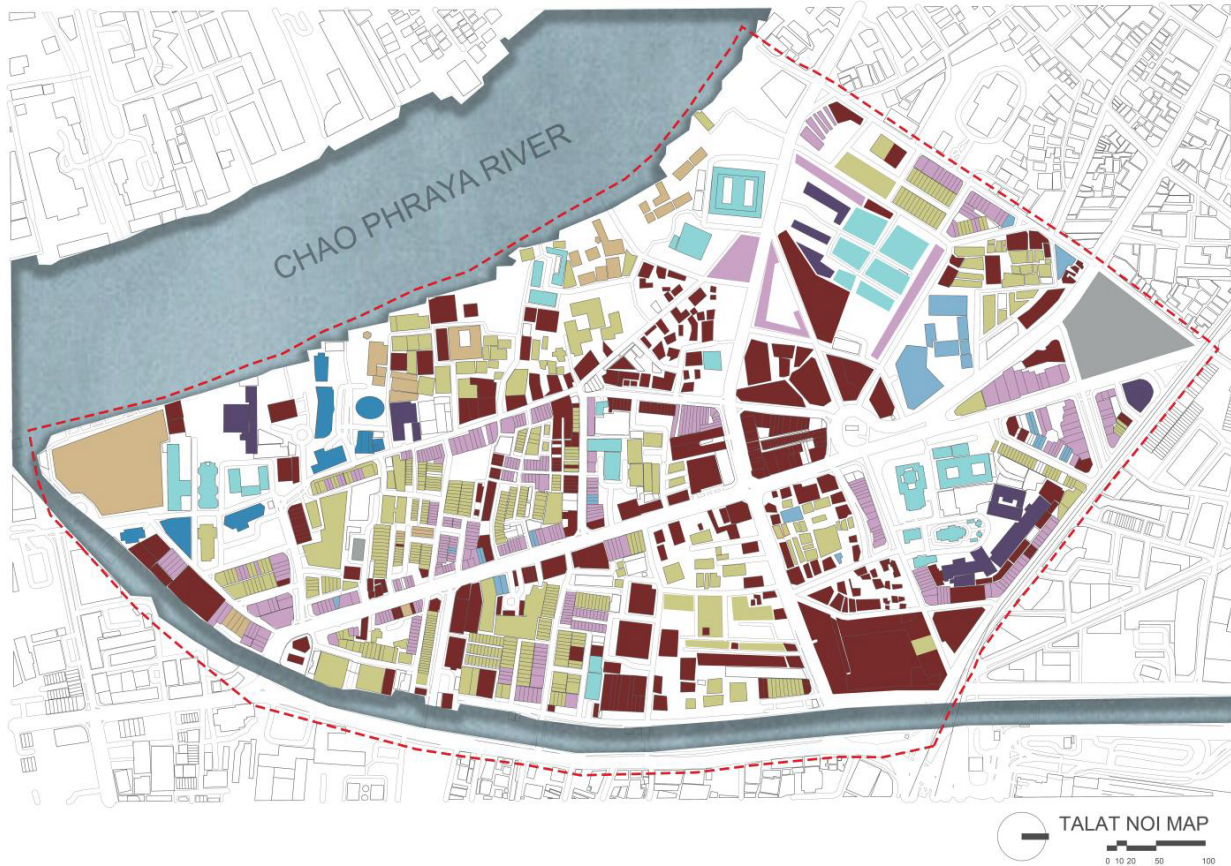


Early 19th C.

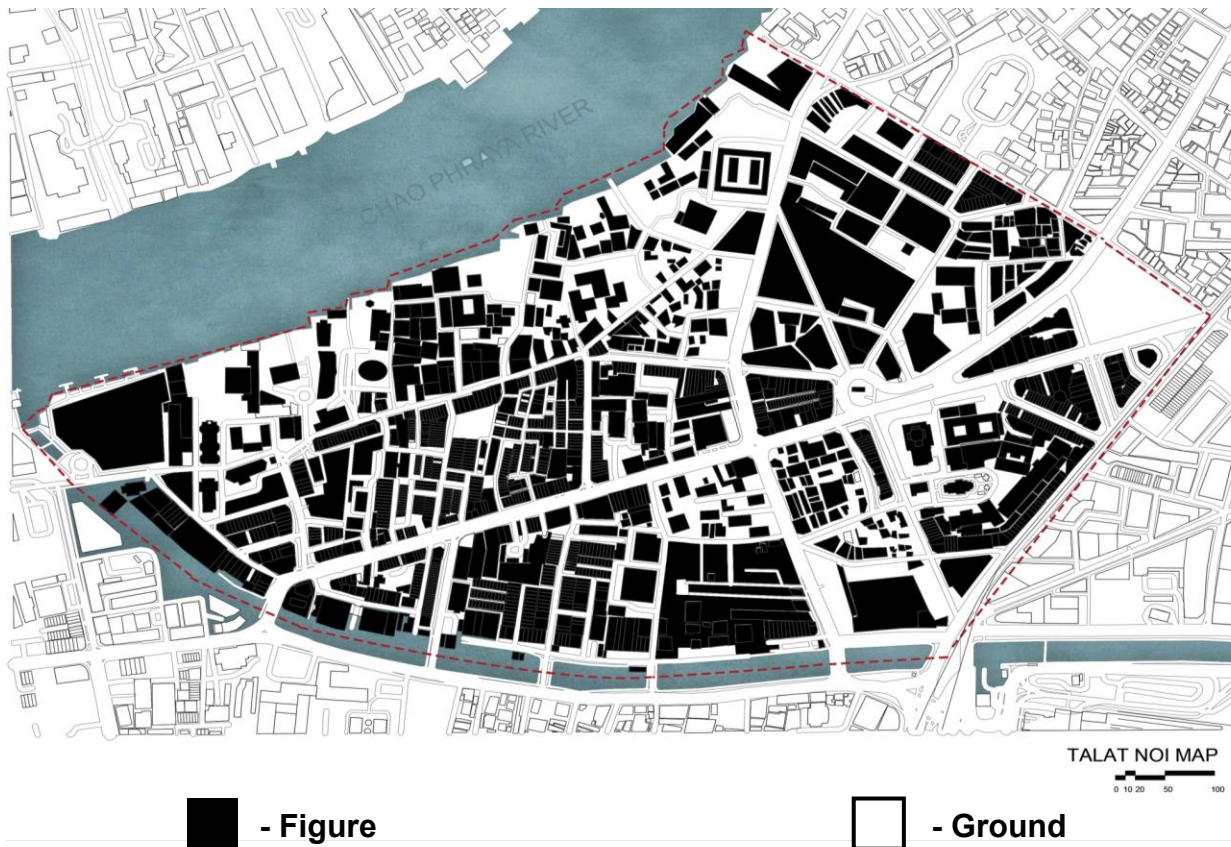
Late 19th C.

20th C.

present



**FIGURE AND GROUND ANALYSIS**

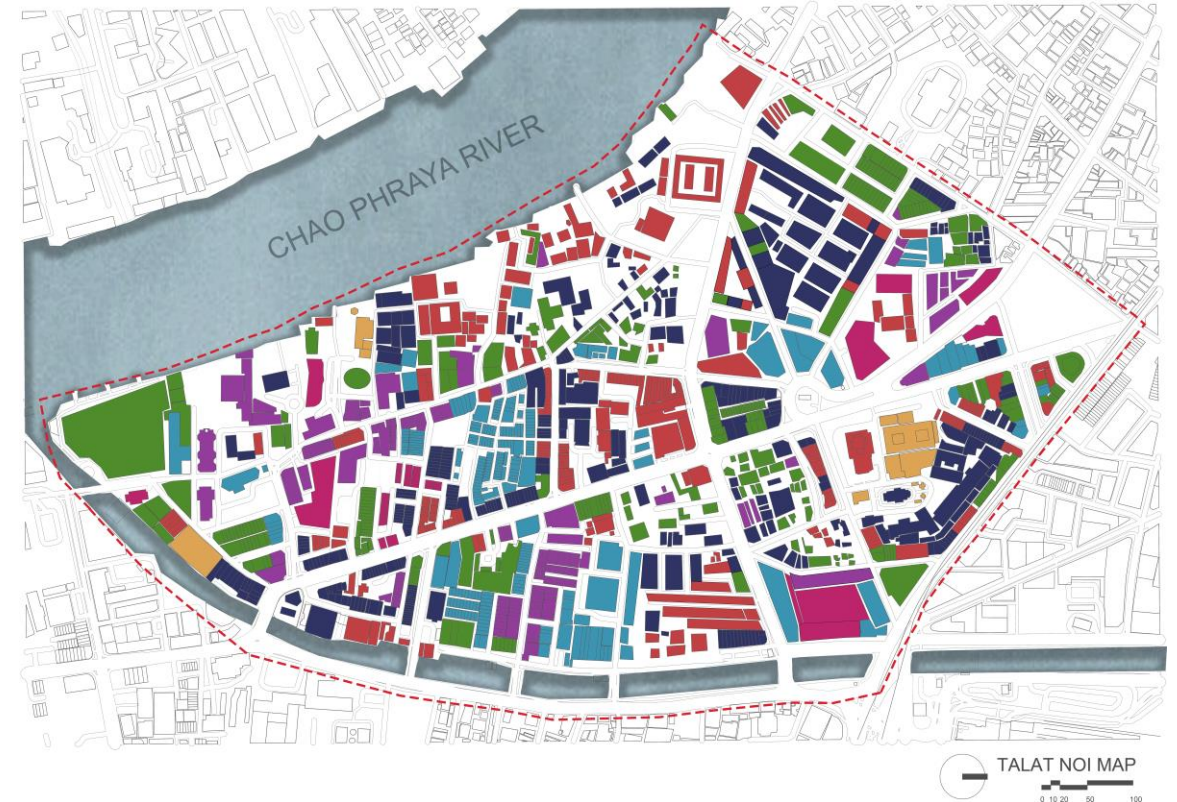


**LAND USE MAP**  
Zoning of Building Types

- Commercial
- Educational
- Residential
- Mixed-Use
- Religious
- Medical
- Cultural
- Government
- Car Park

**BUILDING HEIGHT**

- 1 storey
- 2 storey
- 3 storey
- 4 storey
- 5 storey
- 6 storey
- ≥7 storey



# 01 background & context

# transportation network (land)

● Station Point   
 — BTS   
 — Railway   
 — MRT

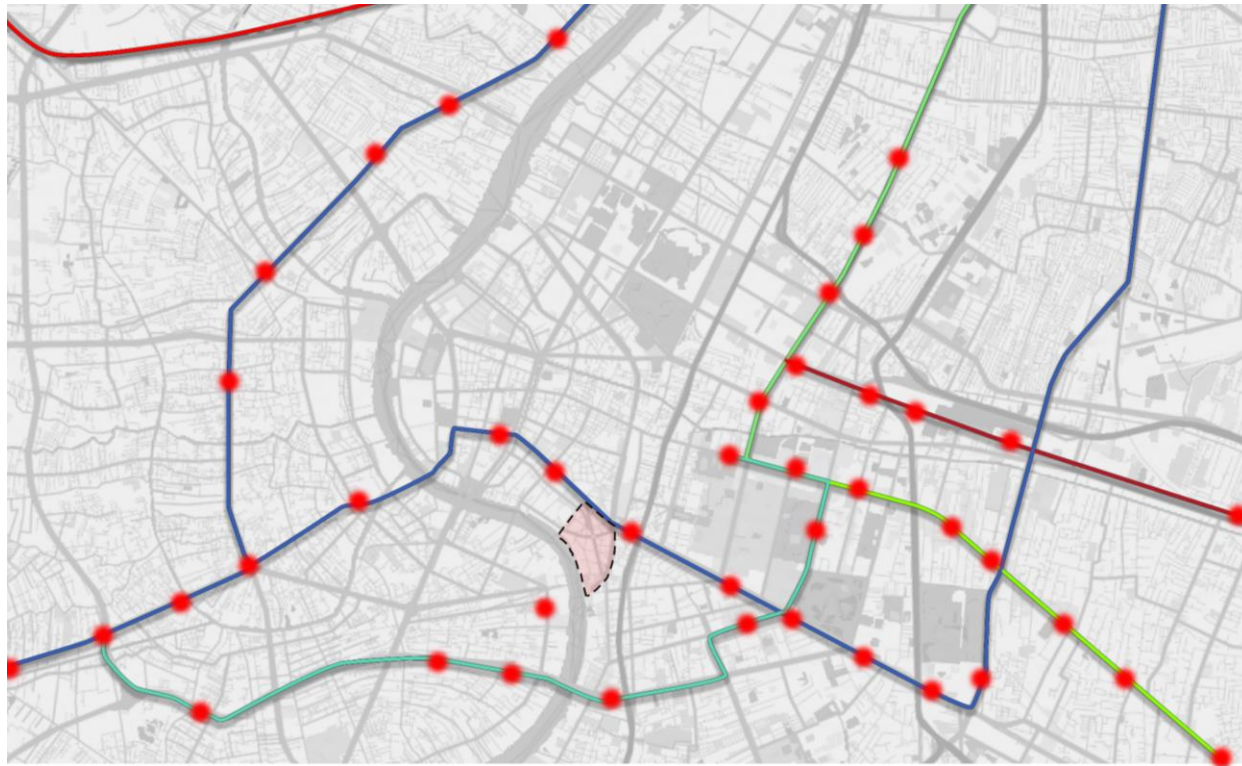


Fig. transportation network (macro view)

- - - Site Boundary   
 — One-way Road   
 — Two-way Road

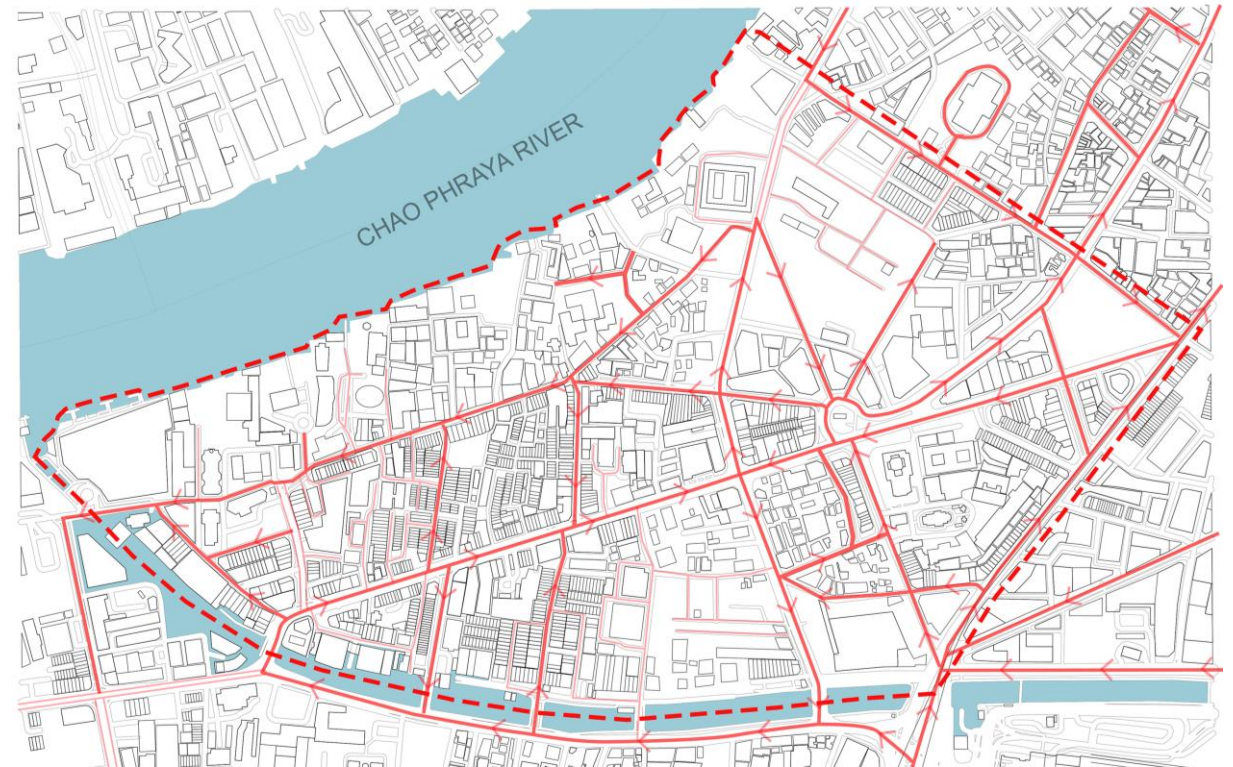


Fig. roadway system (micro view)

— MRT Station   
 — Collector   
 — Locals

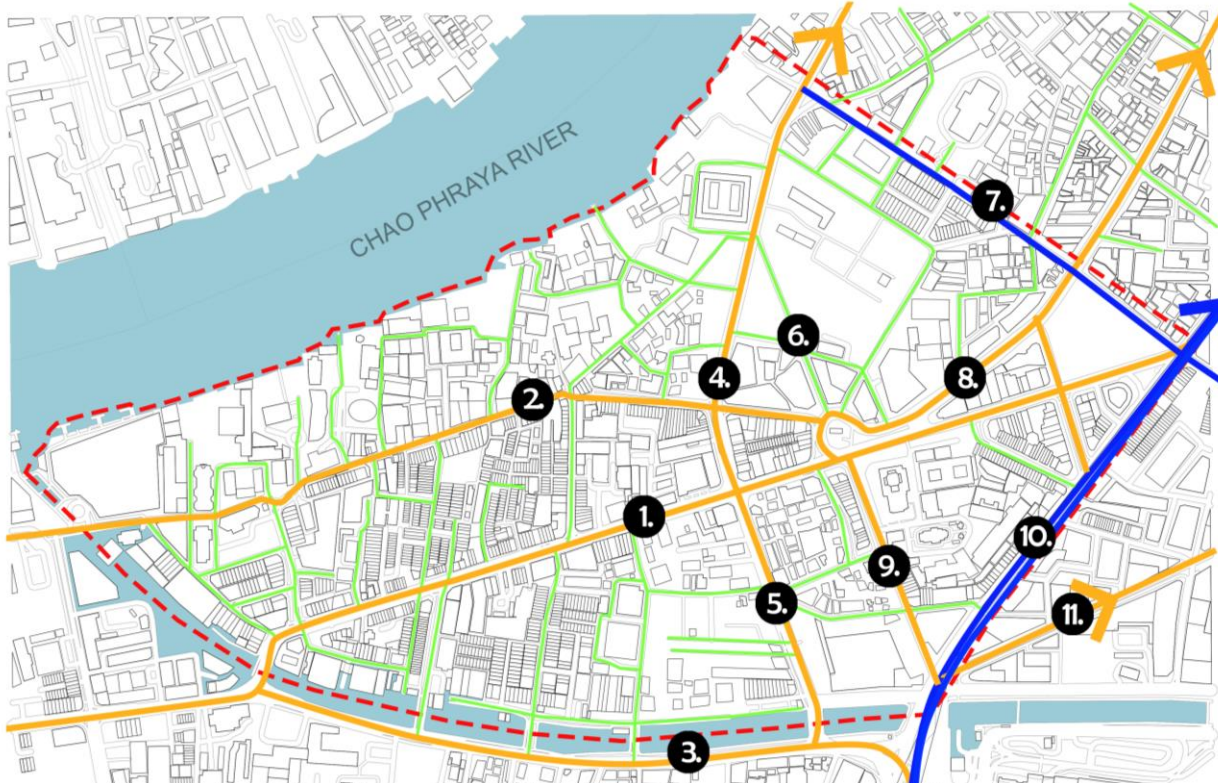


Fig. transportation network (micro view)

1. Charoenkrung Road
2. Soi Wanit 2
3. Maha Phruettharam
4. Song Wat Road
5. Khao Lam Road
6. Tri Mit Road
7. Song Sawat Road
8. Yaowarat Road
9. Thanon Mittaphap
10. Rama VI Road
11. Maitri Chit Road

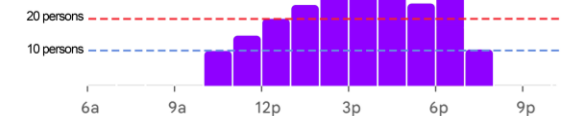
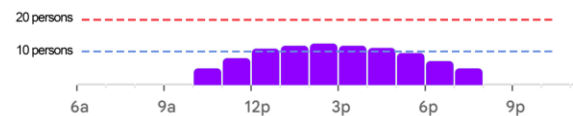


Fig. pedestrian circulation (micro view)

# 01 background & context

# transportation network (water)

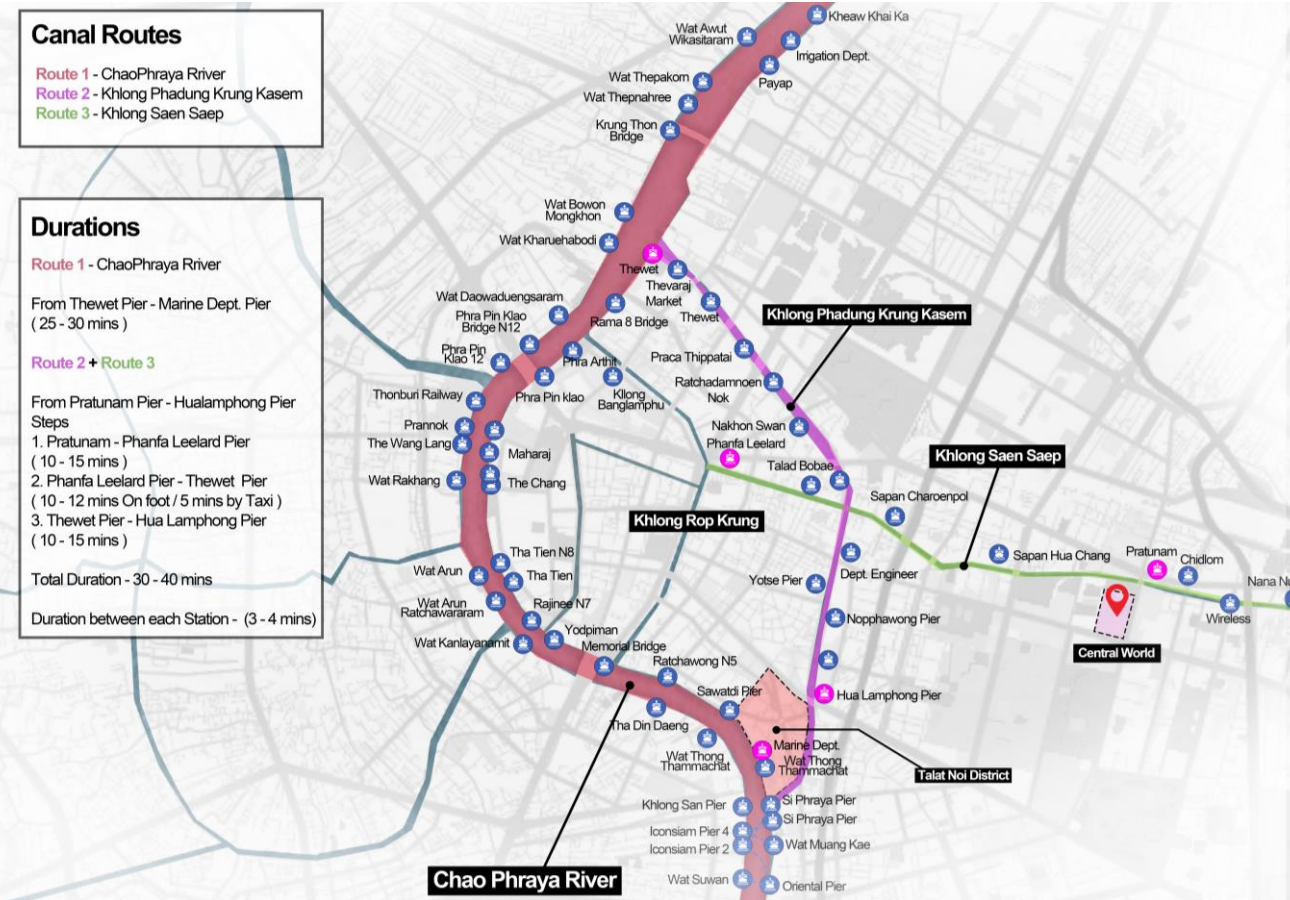


Fig. water transportation network (macro view)

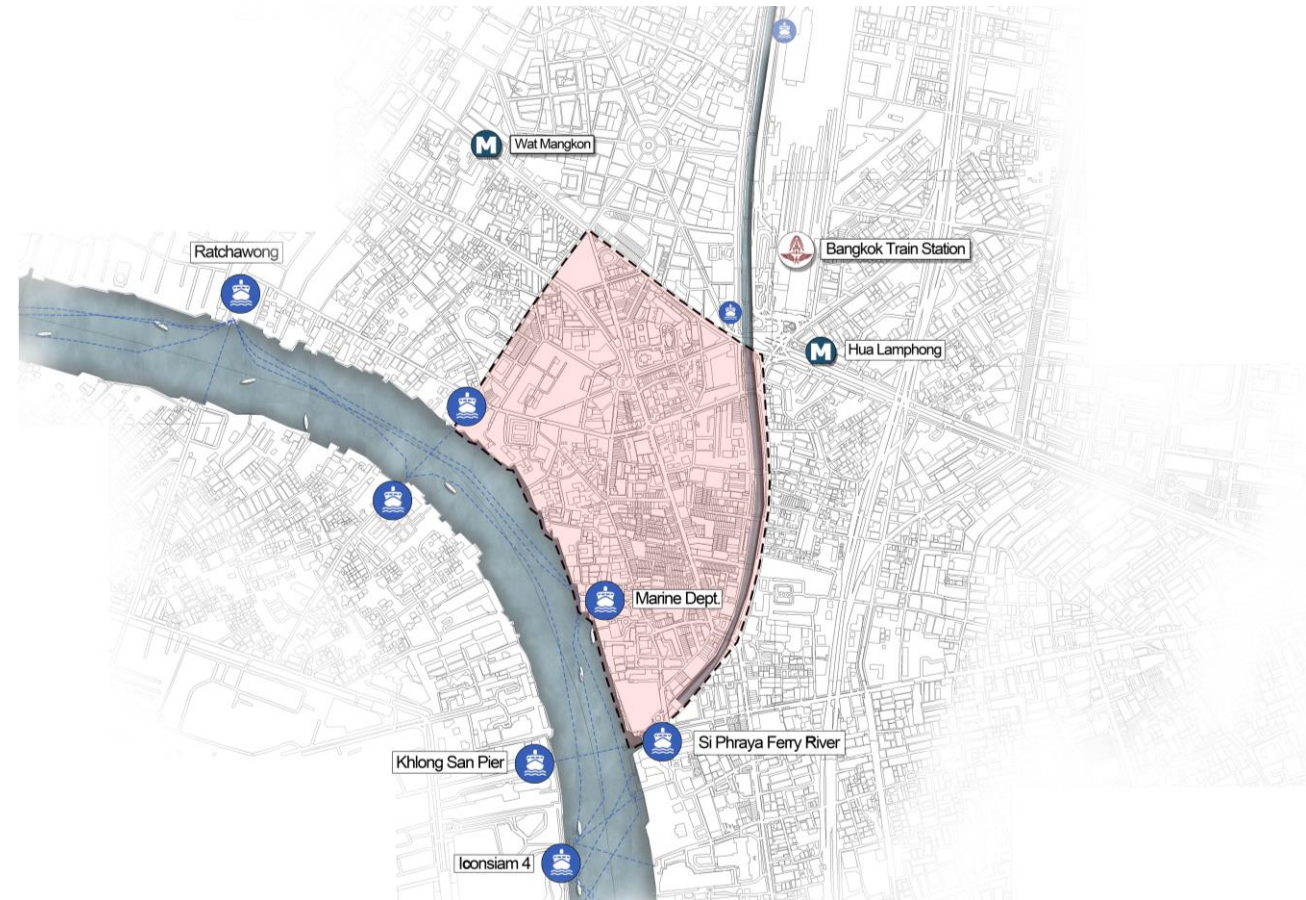


Fig. water transportation network (micro view)



Fig. water-related activities (macro view)

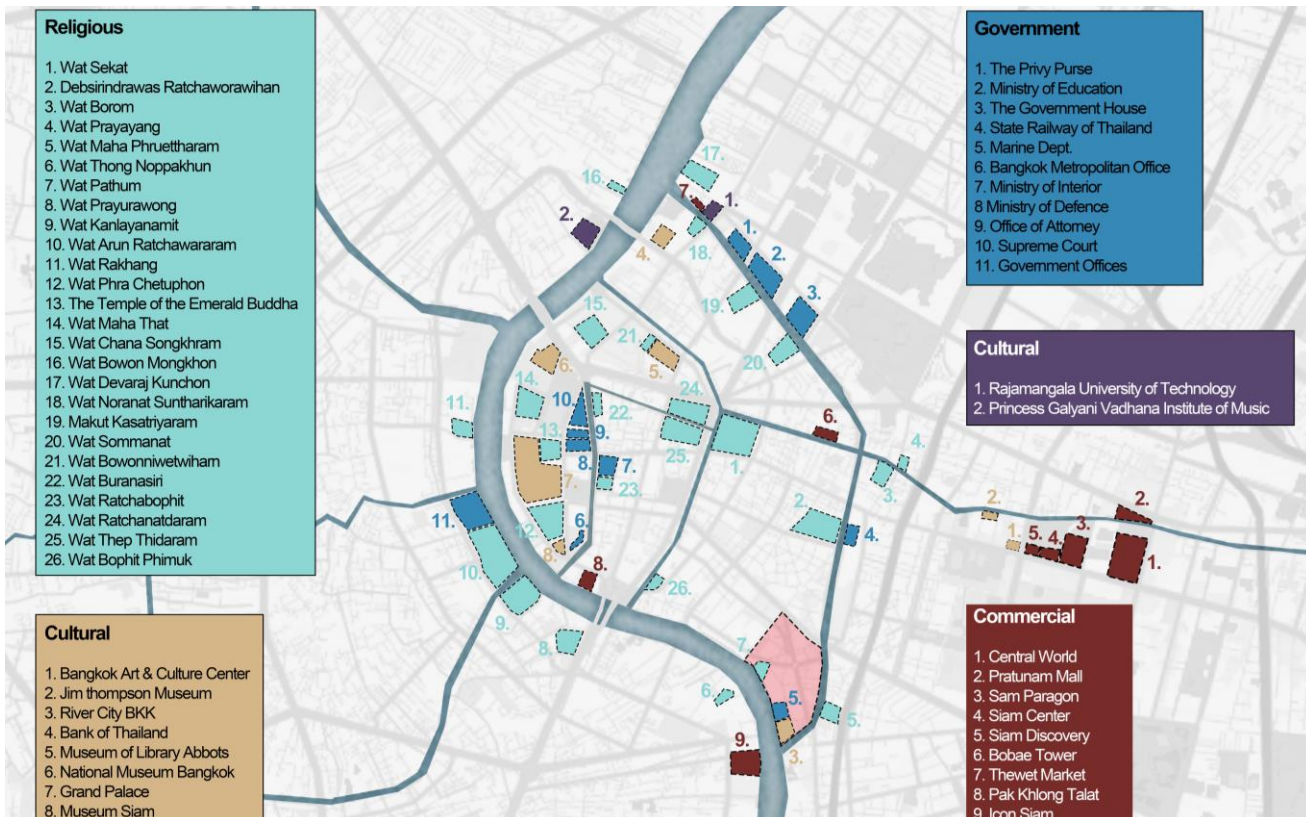


Fig. programs along waterway (macro view)

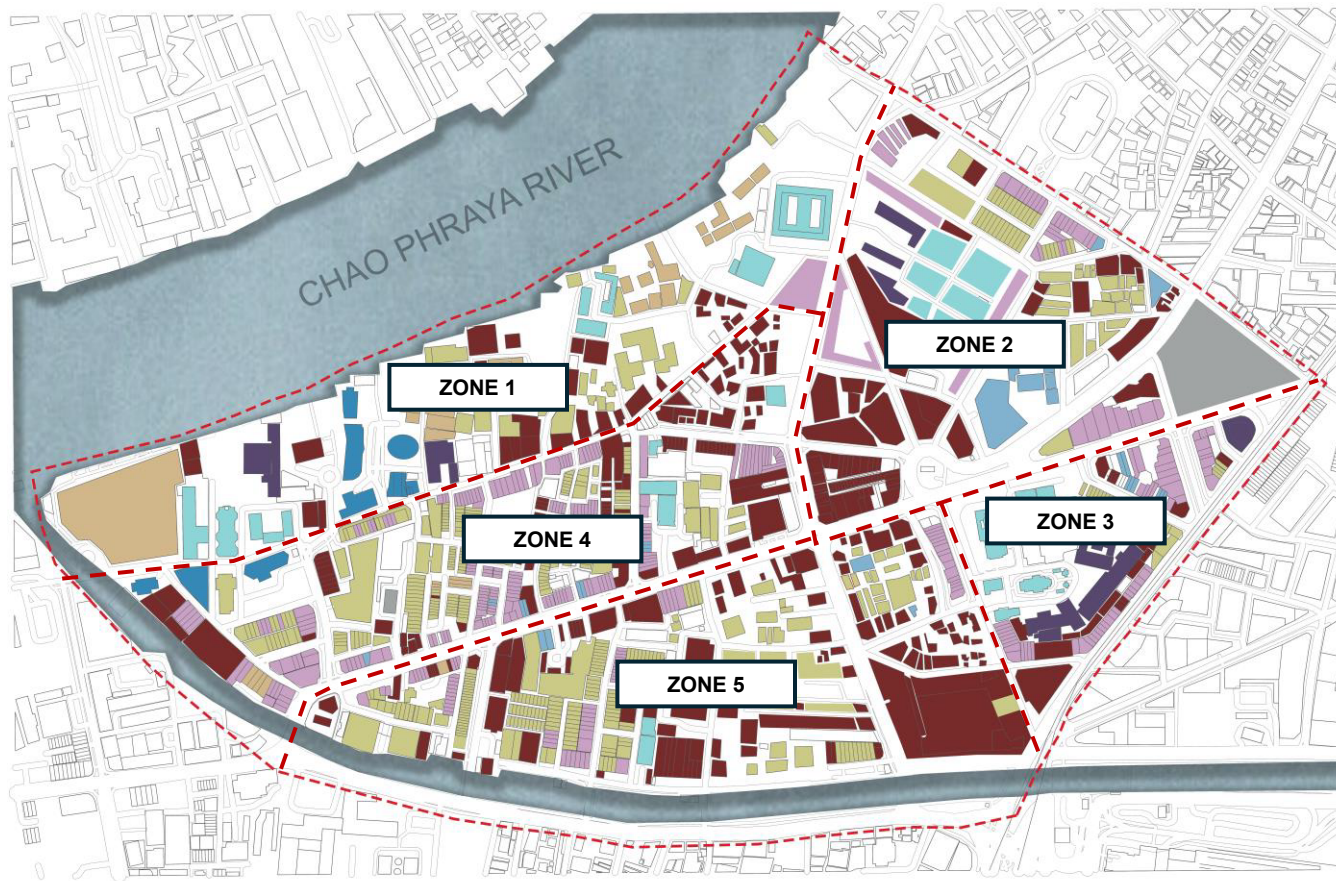


Fig. zoning of talat noi

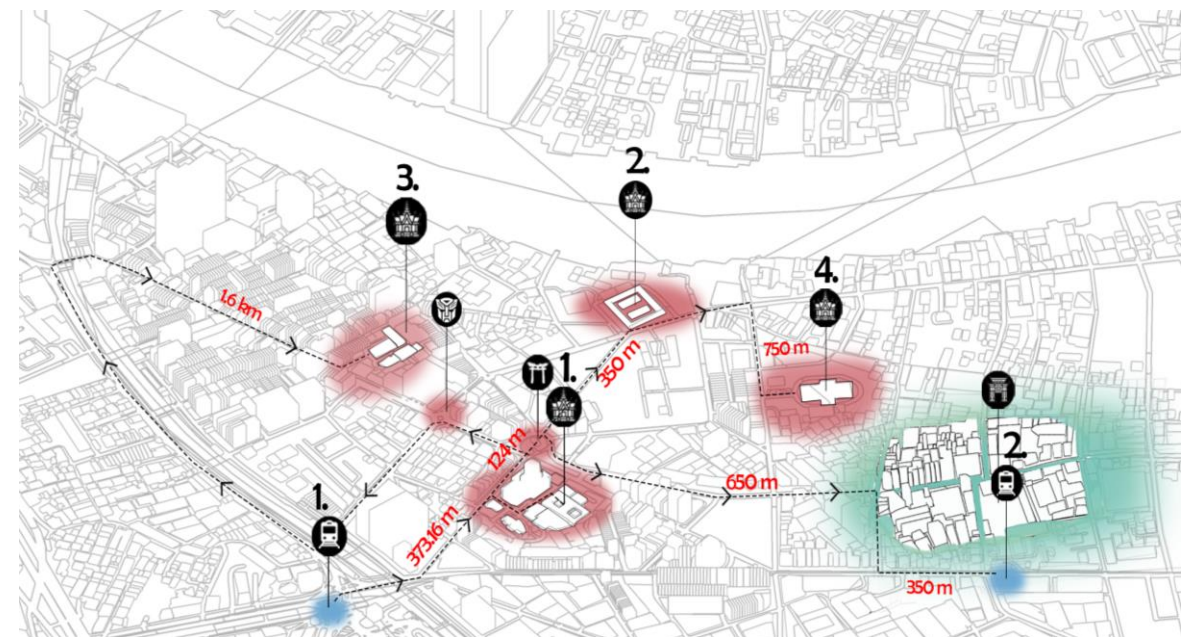
TALAT NOI MAP

ZONING AND CHARACTERISTICS

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
- Mixture of Residential and Commercial - Scattered Significant, Cultural and Religious Buildings	- Medical Facilities, Dominate with Religious Buildings - Educational Programs - Low-rise Residential & Commercial	- More Religious and Cultural Institutions - Educational & Mix-used Program	- Economic Heart of the Area - Commercial Activity Blended with Residential	- Market Related or Light Industrial Uses - Mixture of Residential & Commercial Buildings



Fig. characteristics collage of talat noi zones



	MRT 1. HUA LAMPHONG 2. WAT MANGKON		1. WAT TRAI MIT WITTHAYARAM 2. WAT PATHUM 3. WAT UPHAI 4. WAT SAMPANTHAWONGSARAM		CHINATOWN MARKET		TRANSFORMER
					CHINATOWN GATE		

Fig. landmark and public transportation routes



## Identify Issues & Proposal

- Analysis of Existing Context
- Design Guideline 1: Ecology & Climate Change
- Design Guideline 2: Innovation & Circular Economy
- Design Guideline 3: City & Citizen

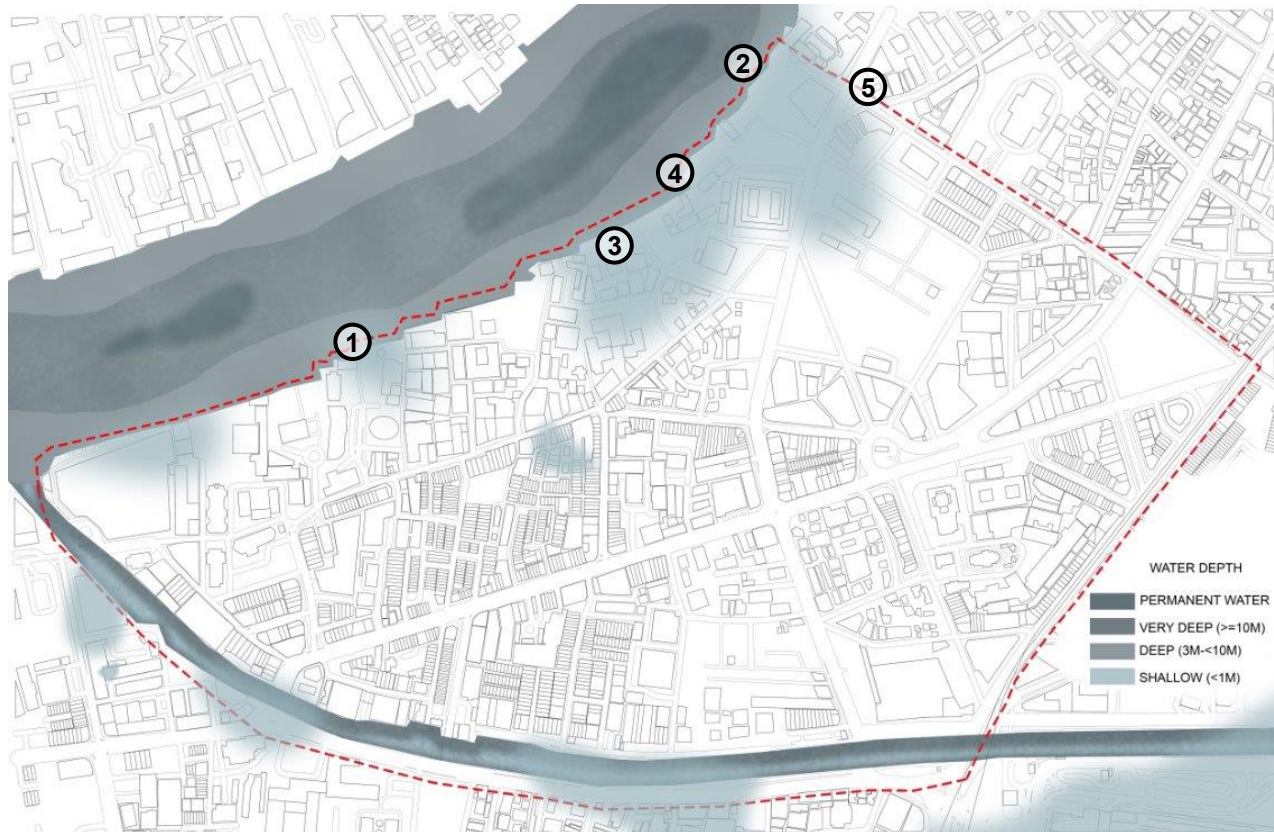


Fig. current flood analysis (2025)

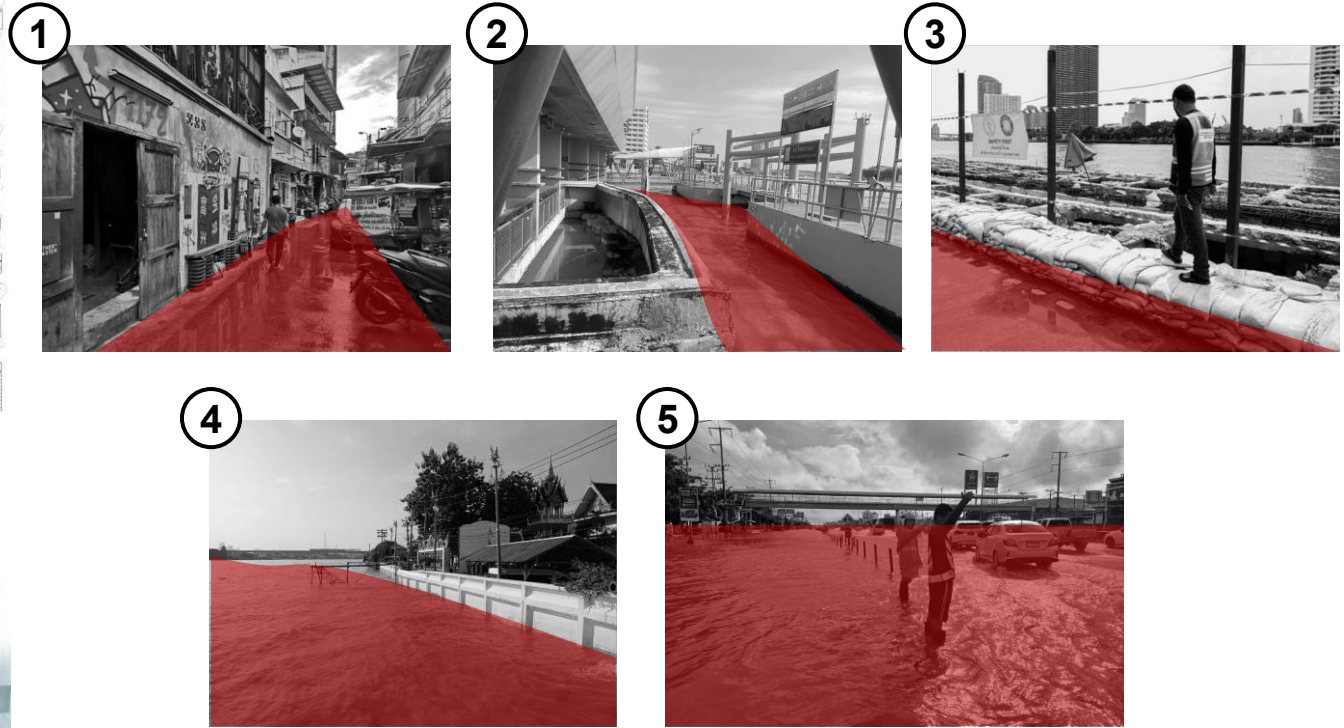


Fig. current flood evidence

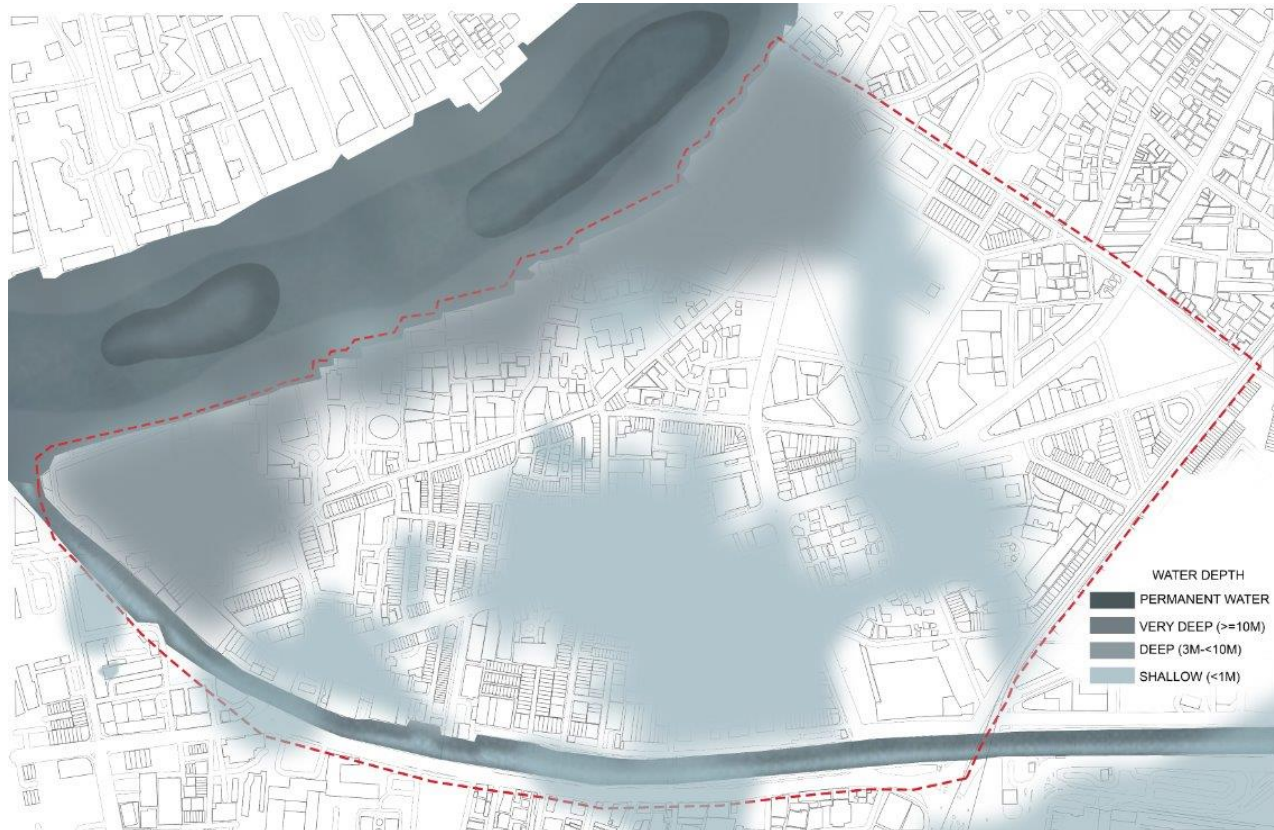
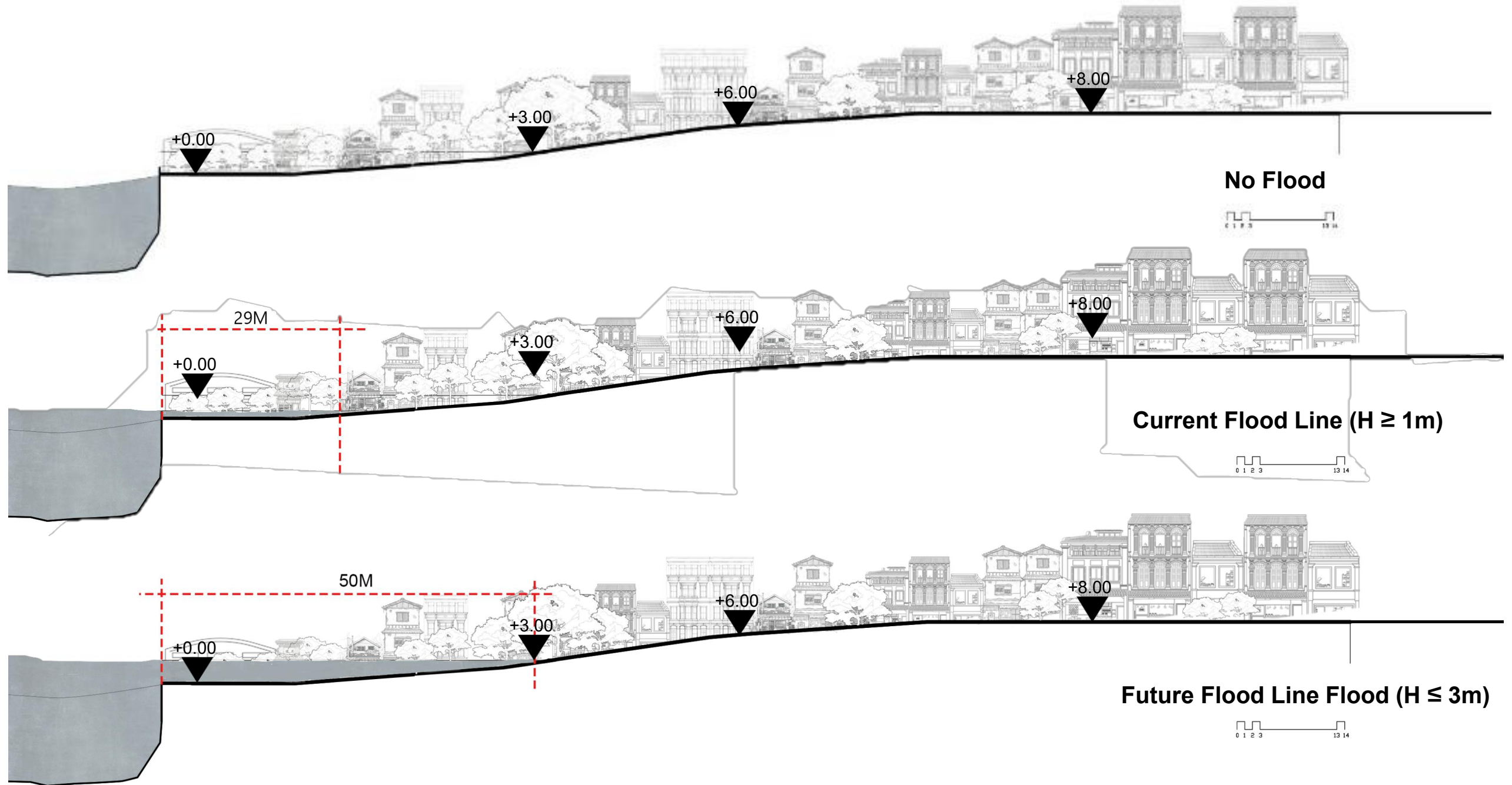


Fig. future flood line (2050)



Fig. topography of talat noi



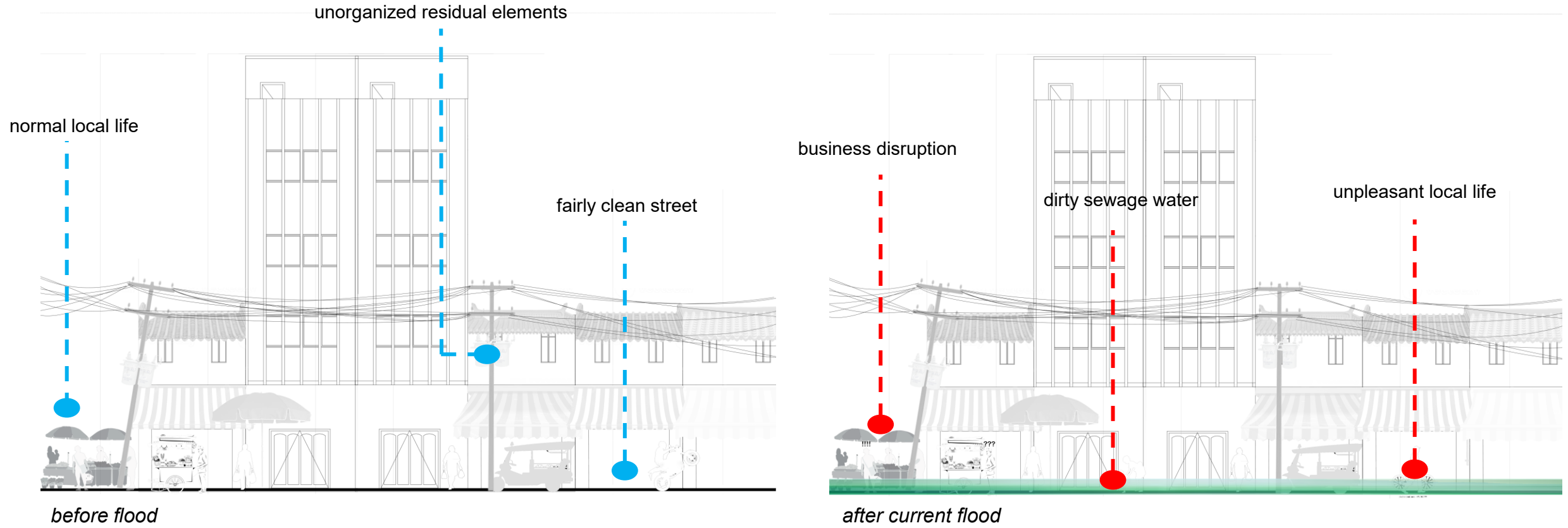


Fig. current flood elevation in soi wanit 2, talat noi

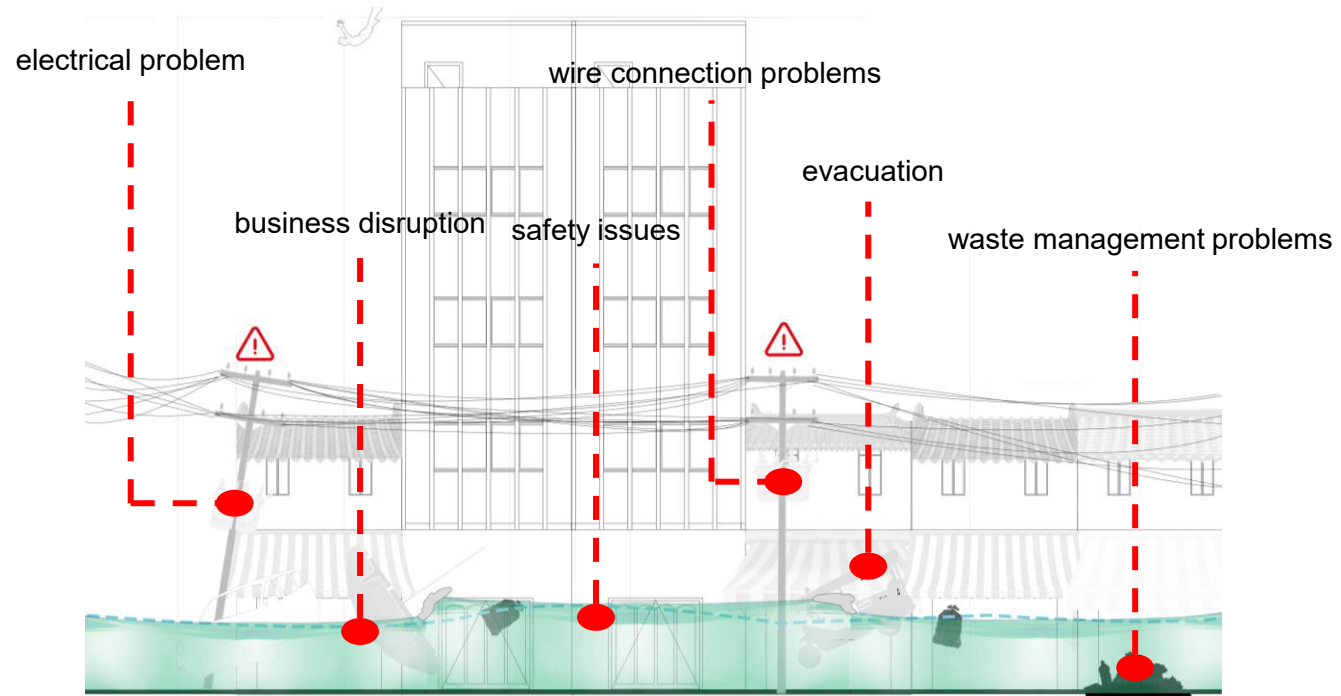


Fig. future flood elevation in soi wanit 2, talat noi

## SECTION 1



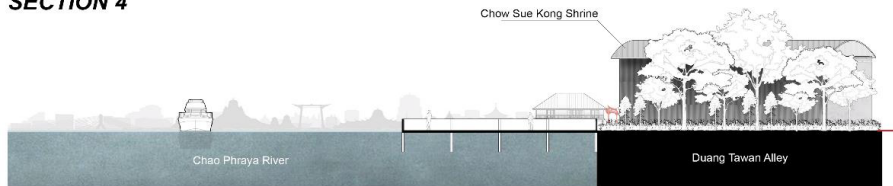
## SECTION 2



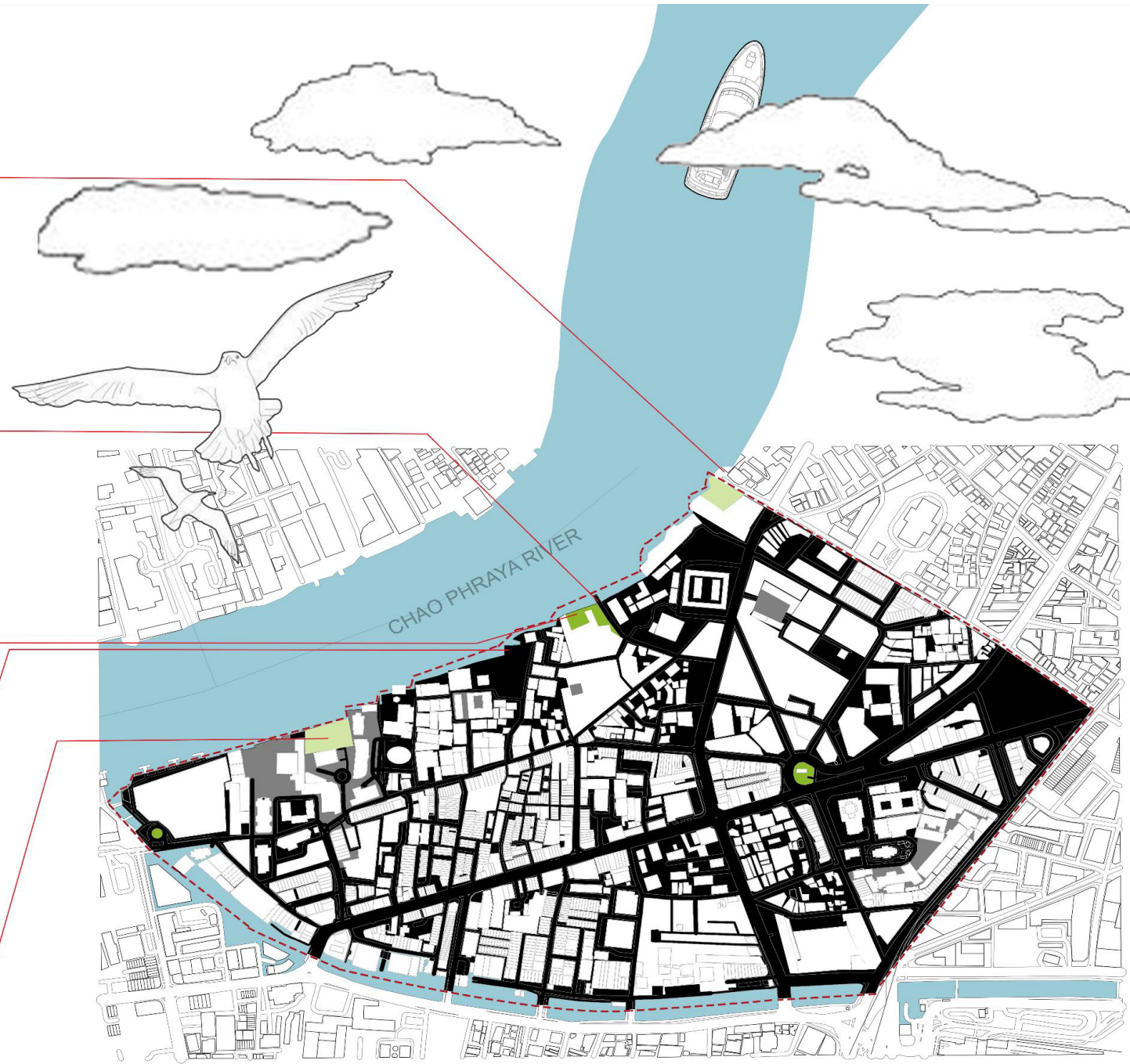
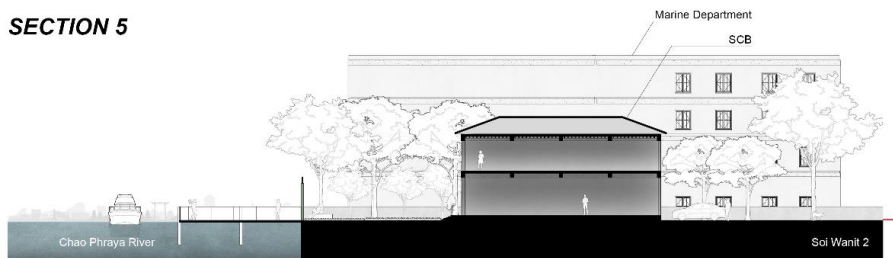
## SECTION 3



## SECTION 4



## SECTION 5



	PRIVATE GREEN SPACE		PUBLIC GREEN SPACE		WATER BODIES
	PRIVATE OPEN SPACE		PUBLIC OPEN SPACE		BUILDINGS/ COVERED SPACE

TALAT NOI MAP

0 10 20 50 100

1.



2.



3.



4.



5.



## 02 identifying issues & solutions

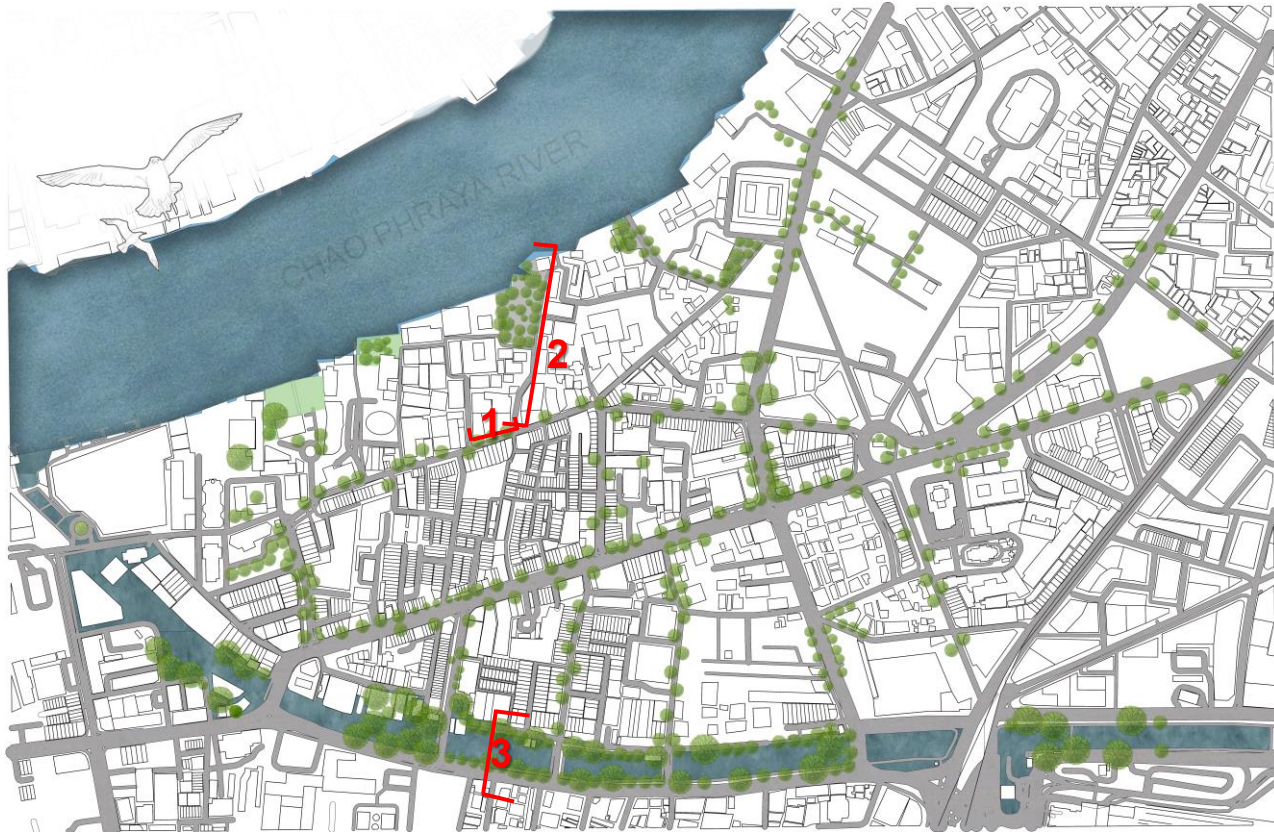


Fig. existing green corridor



Fig. existing green spaces

## analysis ii: green spaces and squares

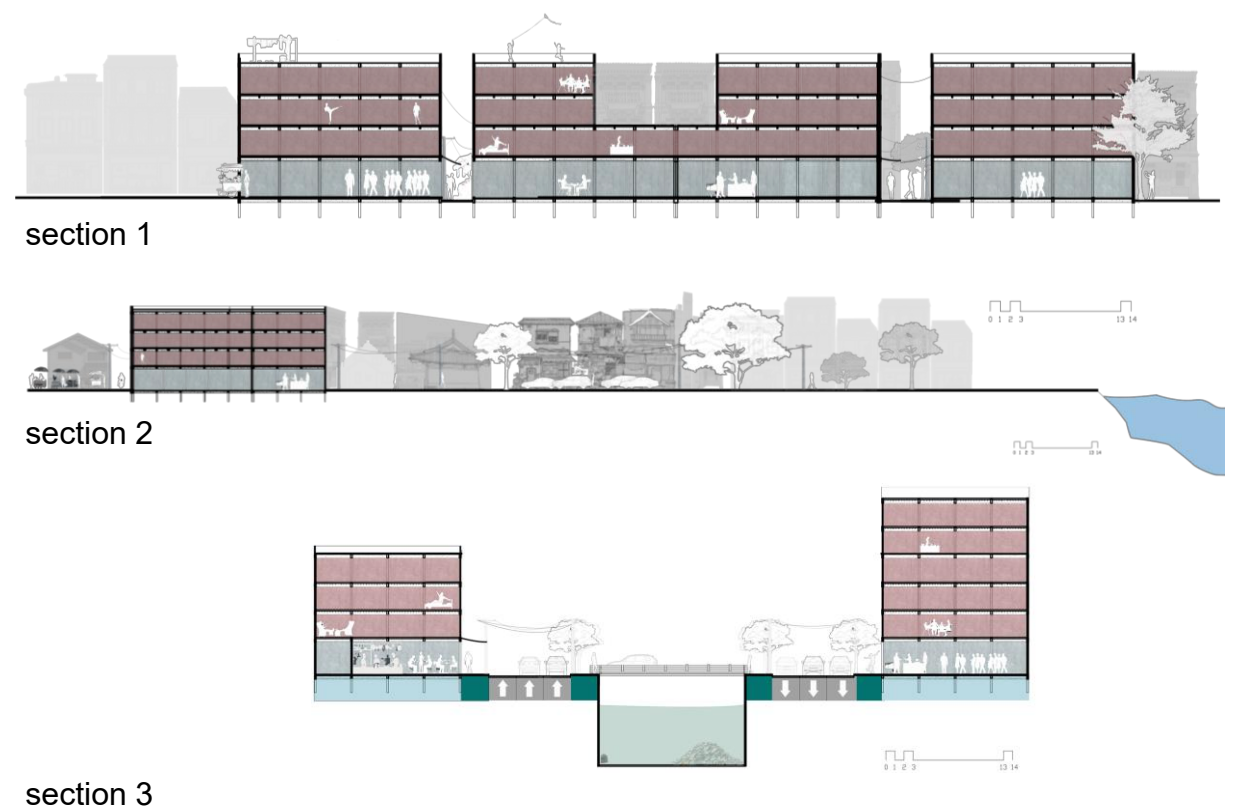
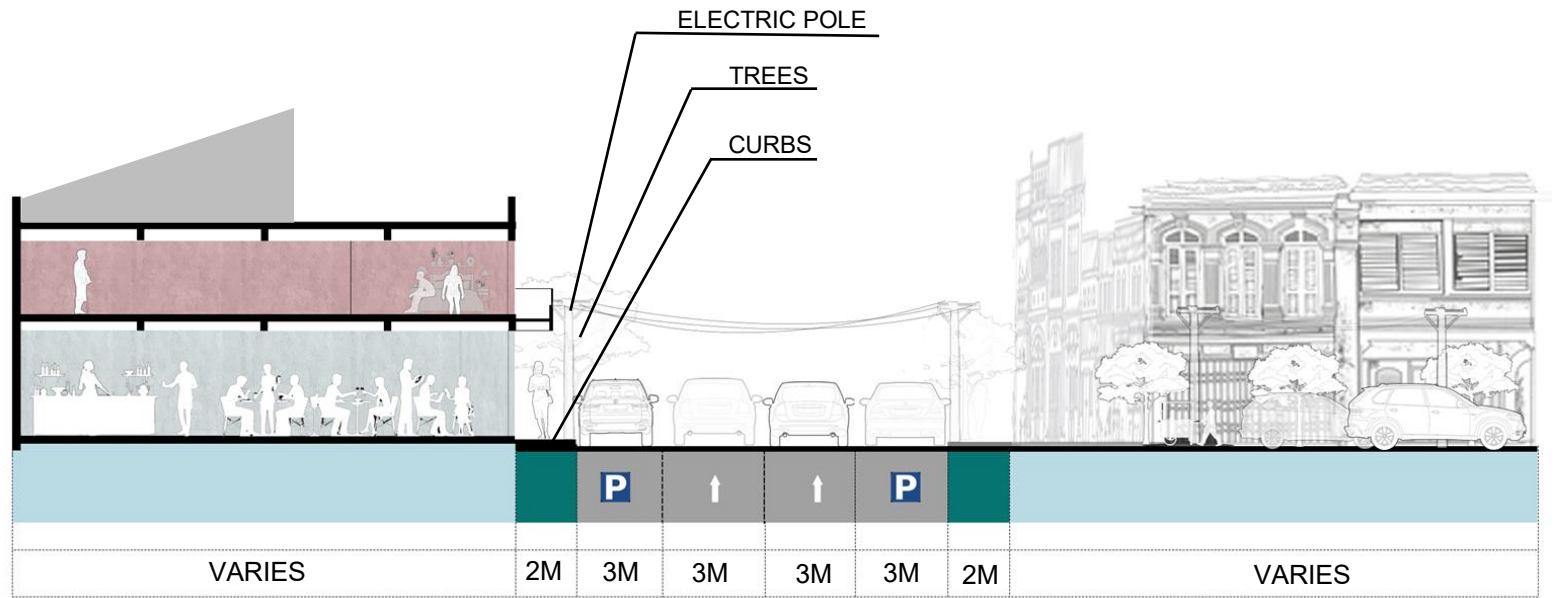
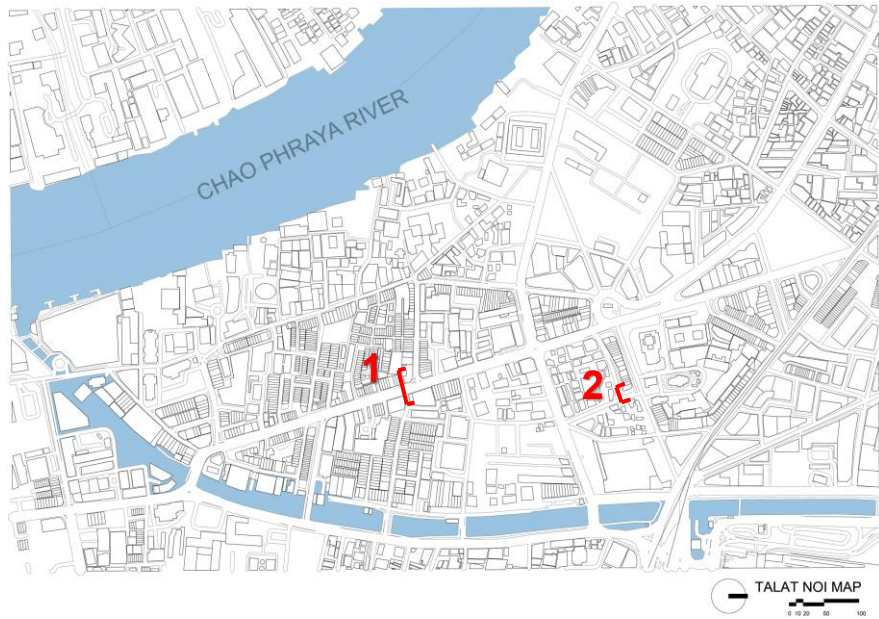


Fig. green corridor (street sections)



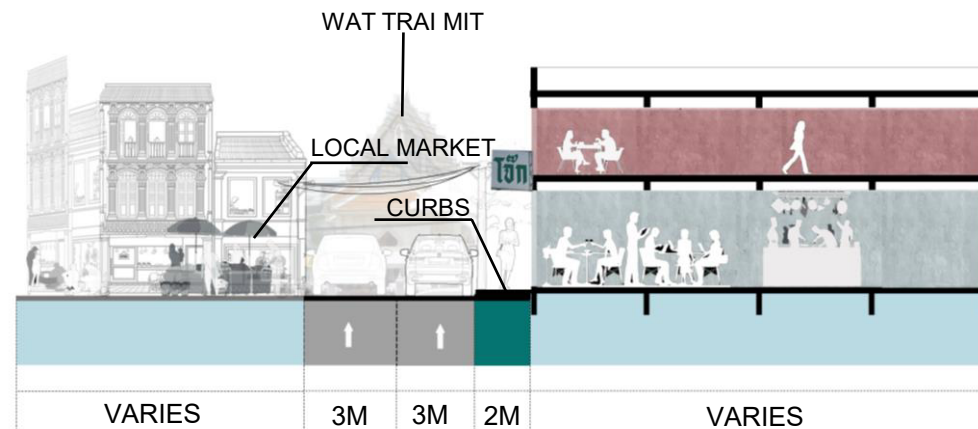
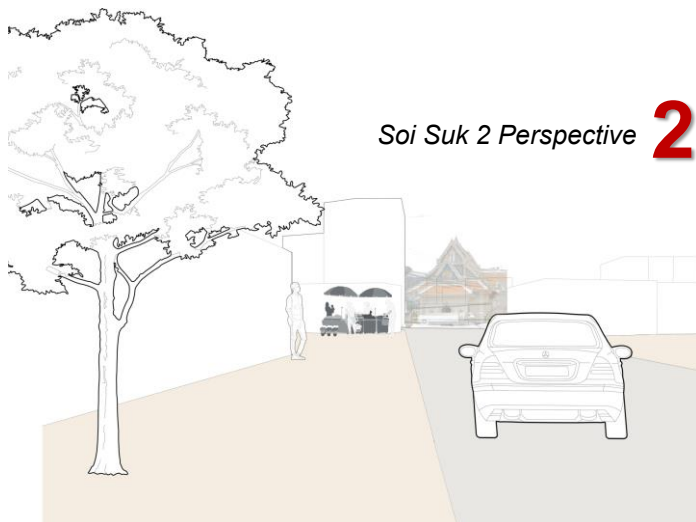
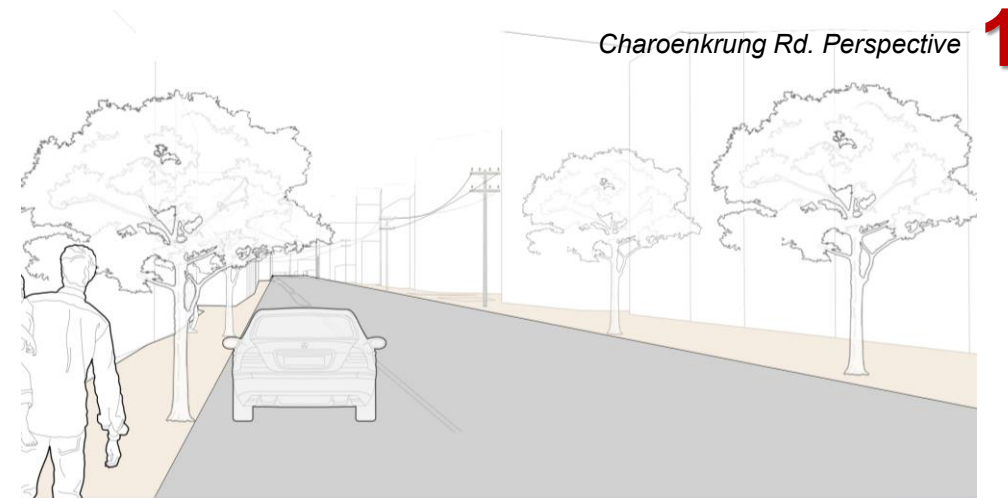
Fig. accessibility to green spaces



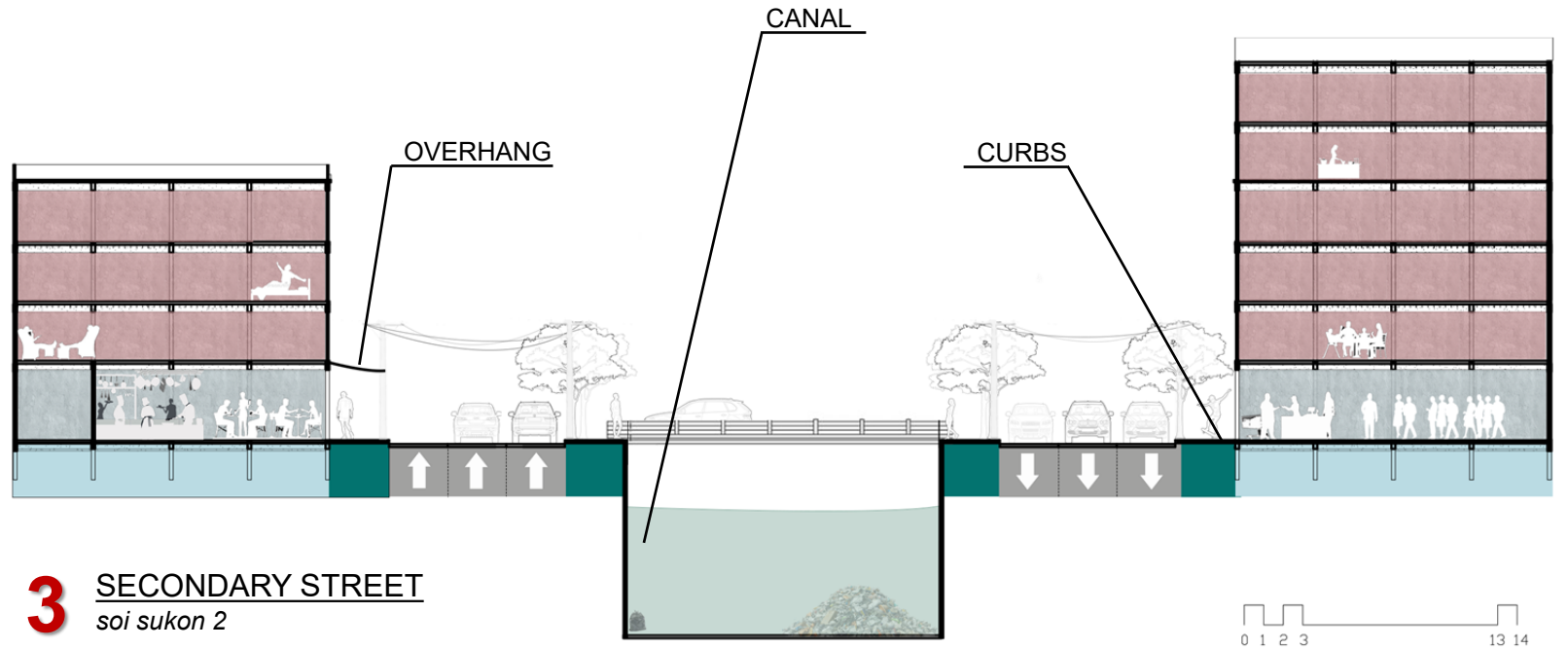
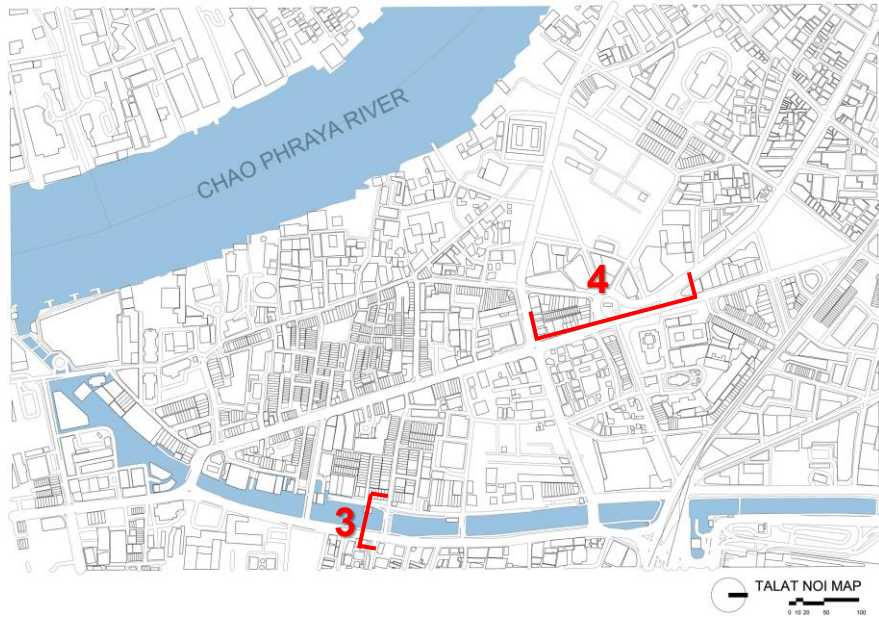
**1** PRIMARY STREET  
charoenkrung rd.

LEGENDS

- PRIVATE
- PUBLIC
- SECTION CUT
- P PARKING LANE
- LANE DIRECTION



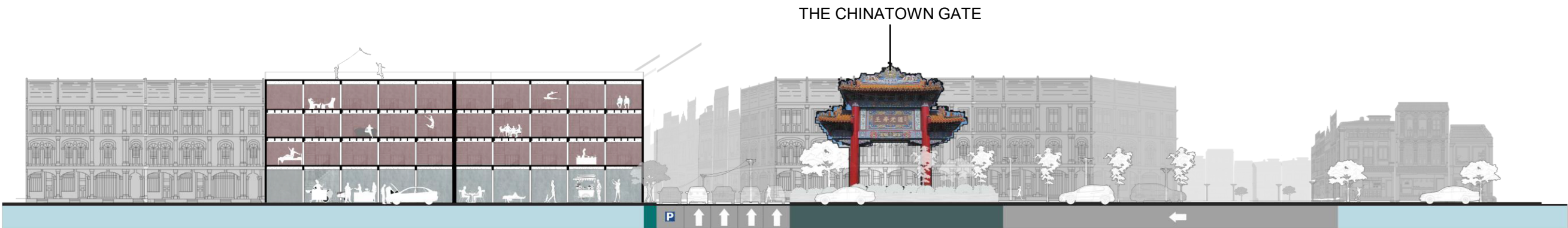
**2** SECONDARY STREET  
soi suk 2



**3** SECONDARY STREET  
*soi sukon 2*

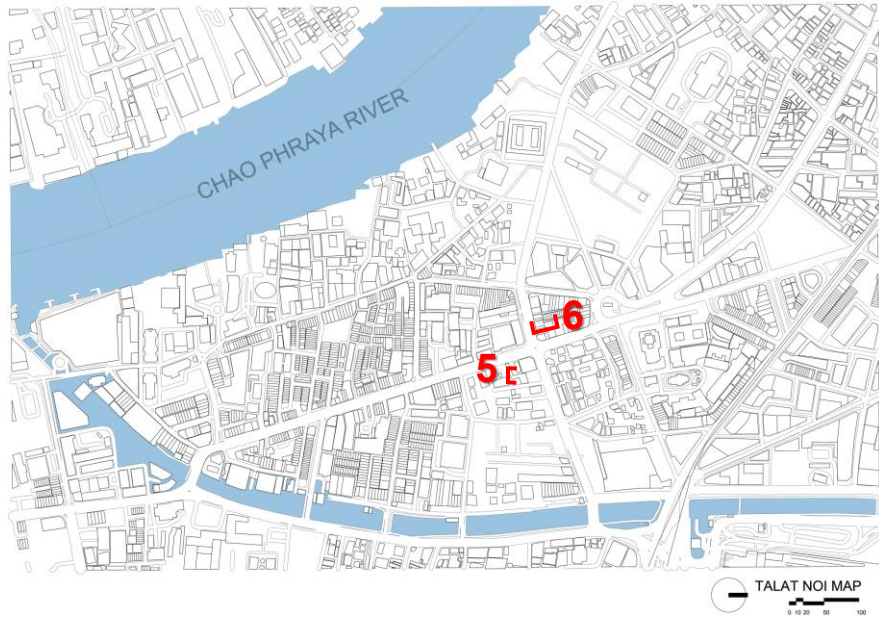
LEGENDS

- PRIVATE
- PUBLIC
- SECTION CUT
- P PARKING LANE
- LANE DIRECTION



**4** the chinatown gate roundabout

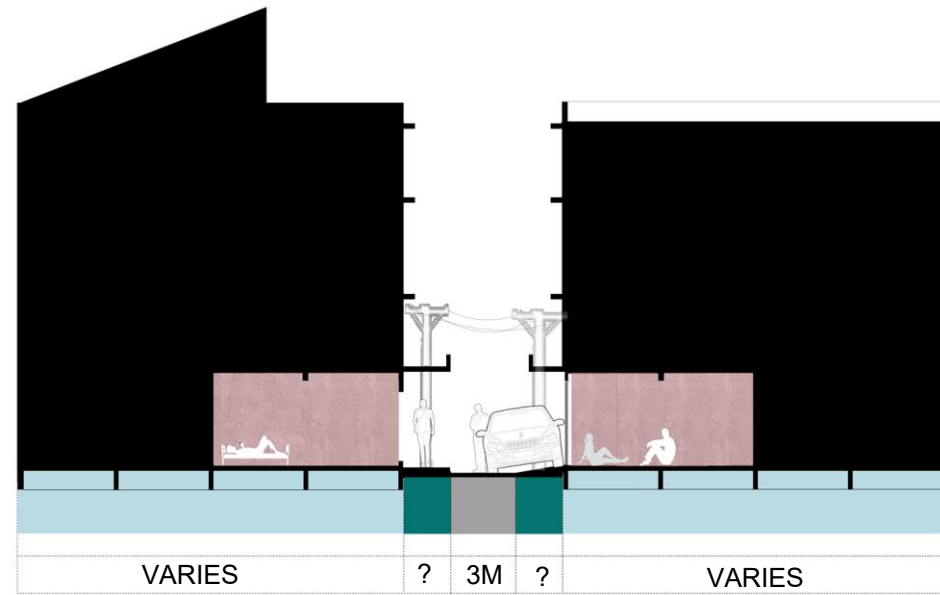
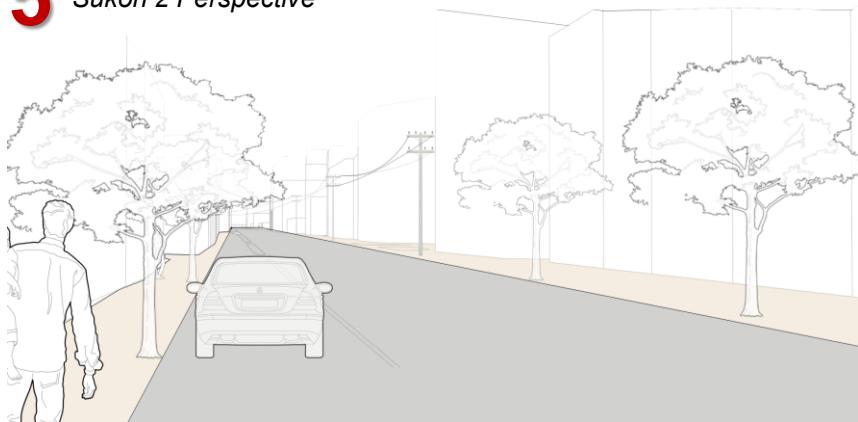




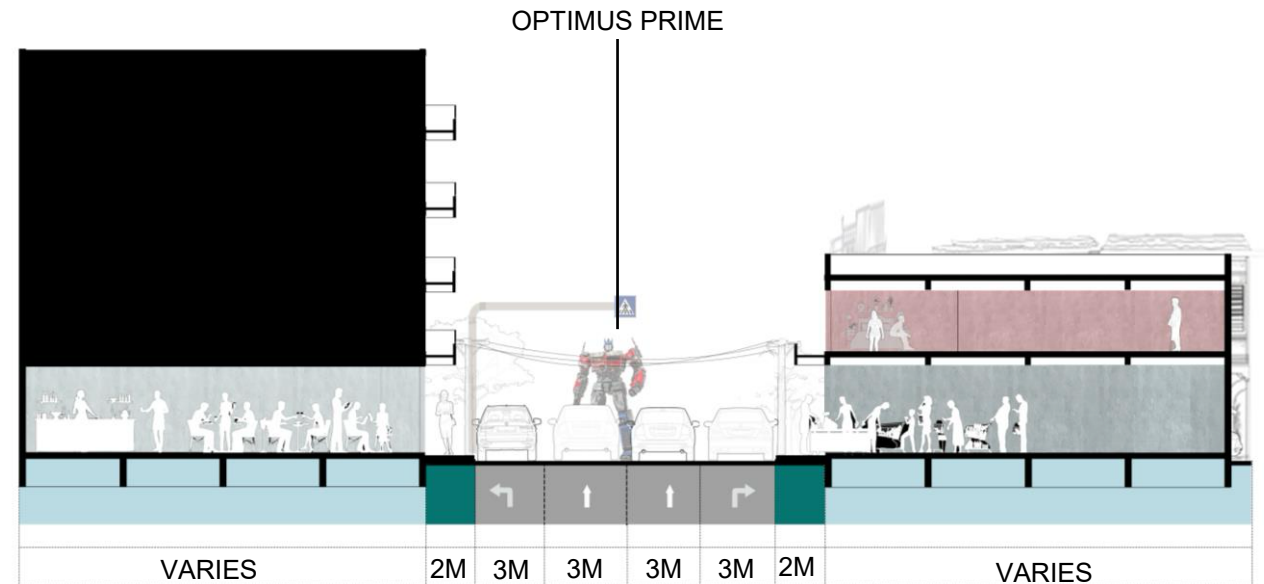
**LEGENDS**

- PRIVATE
- PARKING LANE
- PUBLIC
- LANE DIRECTION
- SECTION CUT

5 Sukon 2 Perspective

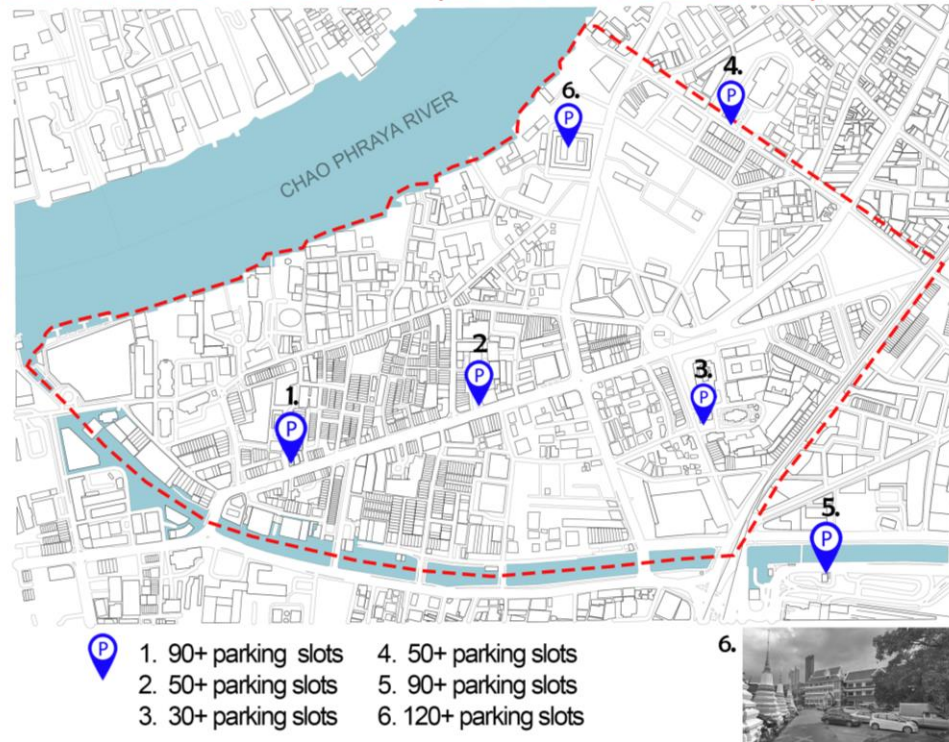


5 ALLEY  
soi sukon 2

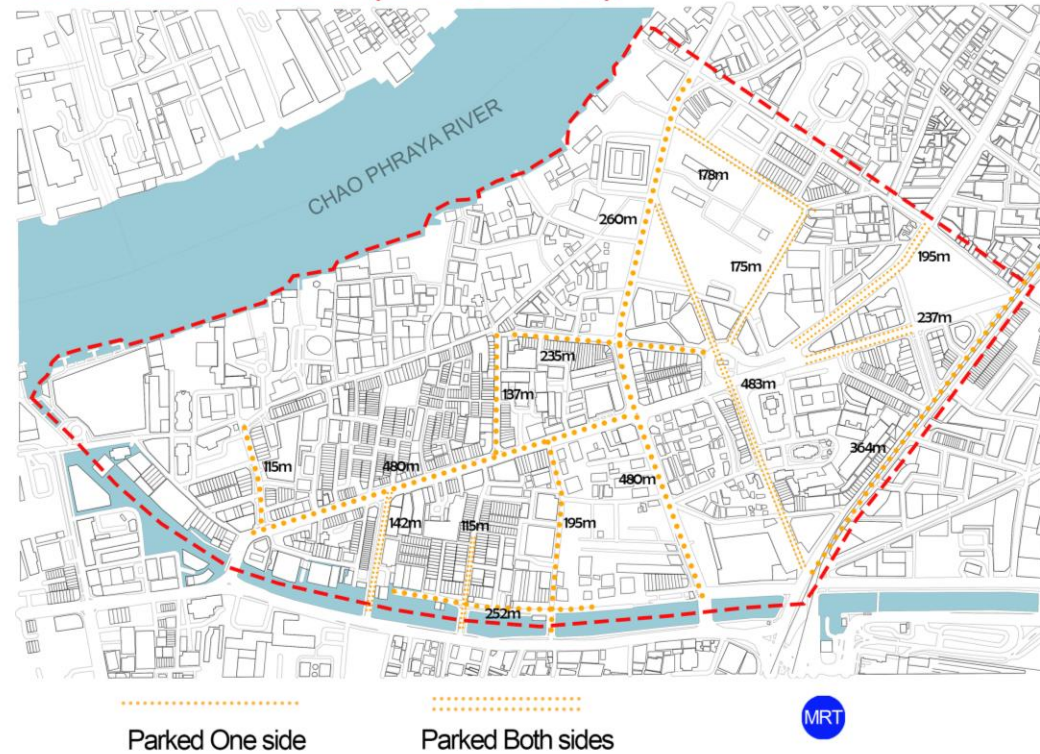


6 ALLEY  
optimus prime intersection

PARKING SYSTEM (EXISTING ZONE)



SIDE PARKING (EXISTING)



After dividing the all of the Lanes' length by 6m equal to 943 spaces. (Approximately 1000 parkingspaces )

So, Total existing parking spaces = +1500 spaces approximately

Parking Requirements According to Thai Law

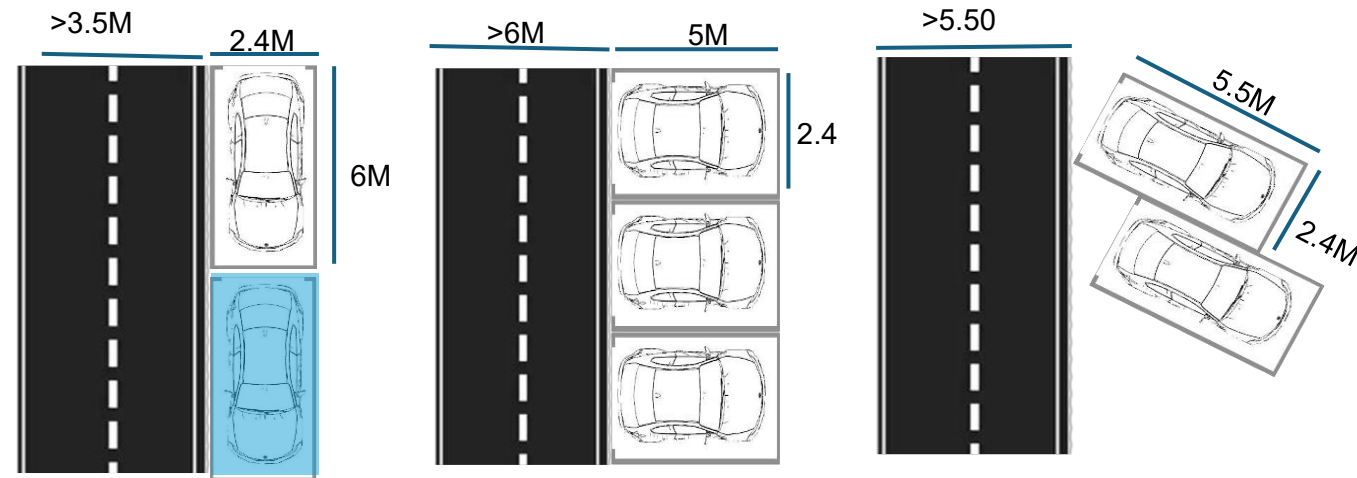
Under Ministerial Regulation No. 55 (B.E. 2543, 2000) and subsequent updates, parking requirements for buildings in Bangkok are as follows:

- Residential Buildings: 1 parking space per 100–120 sq.m. of usable area (depending on zone density).
- Commercial/Office Buildings: 1 parking space per 60–80 sq.m. of usable area.
- Retail/Shops: 1 parking space per 50–70 sq.m. of usable area.
- Public Parking Standards: At least 1 space per 200 sq.m. of land area in high-density zones

Estimated Required Parking for Talat Noi:

Total Area of Talat Noi: ~0.5 km<sup>2</sup> (500,000 sq.m.)  
Assuming 70% is built-up area (350,000 sq.m.):

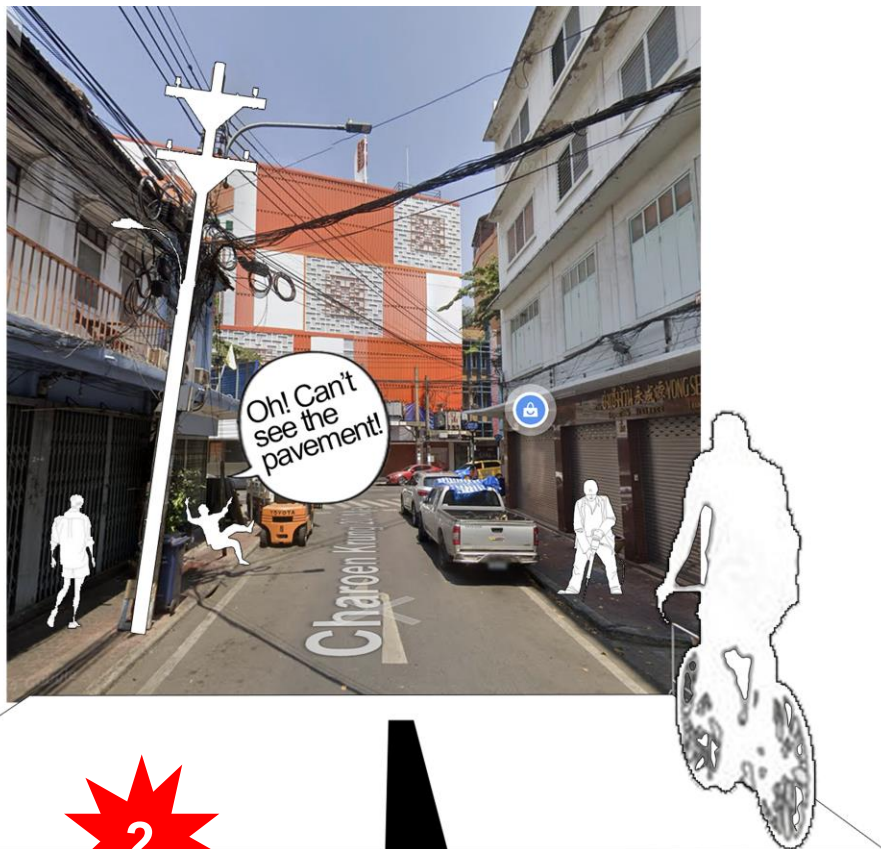
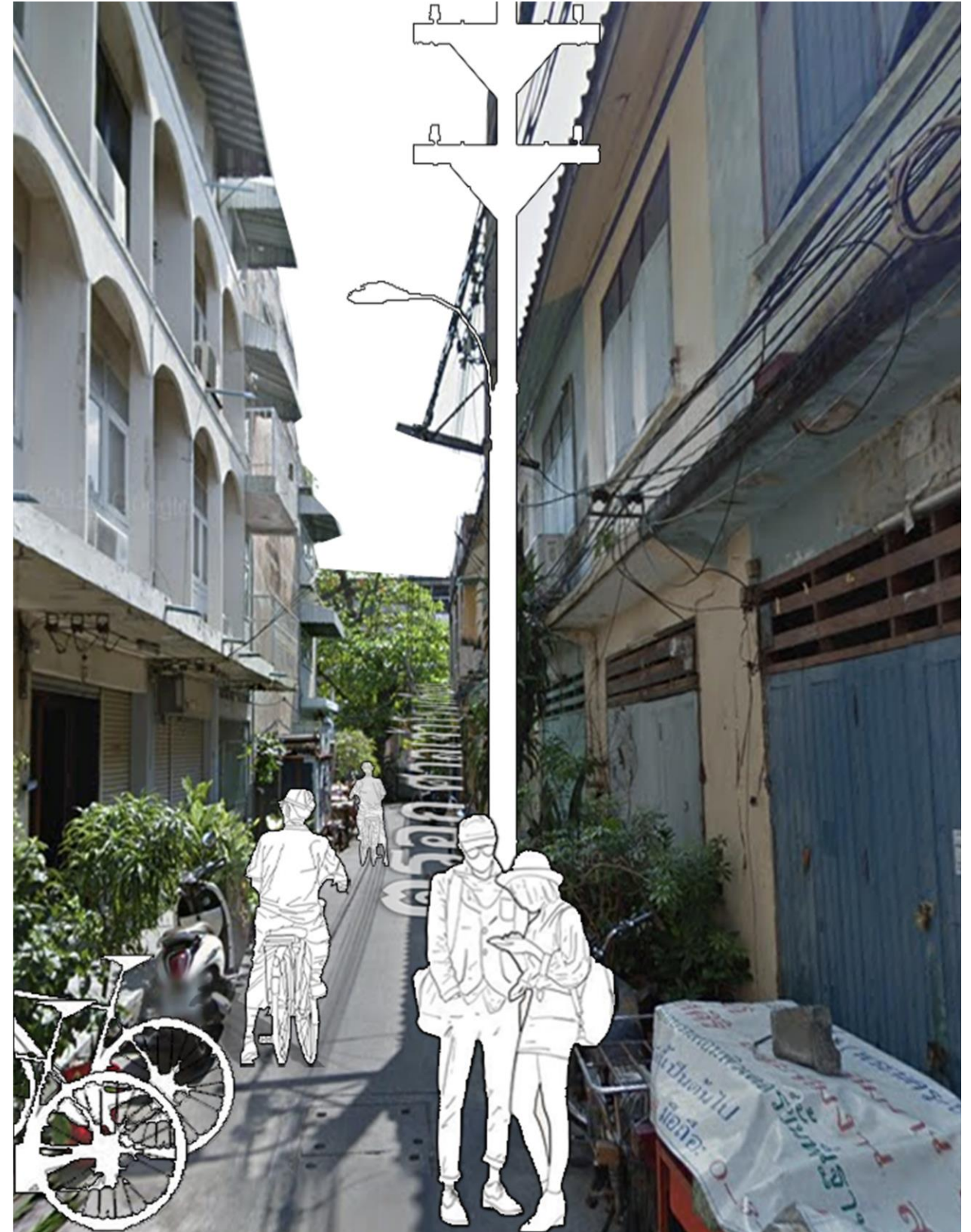
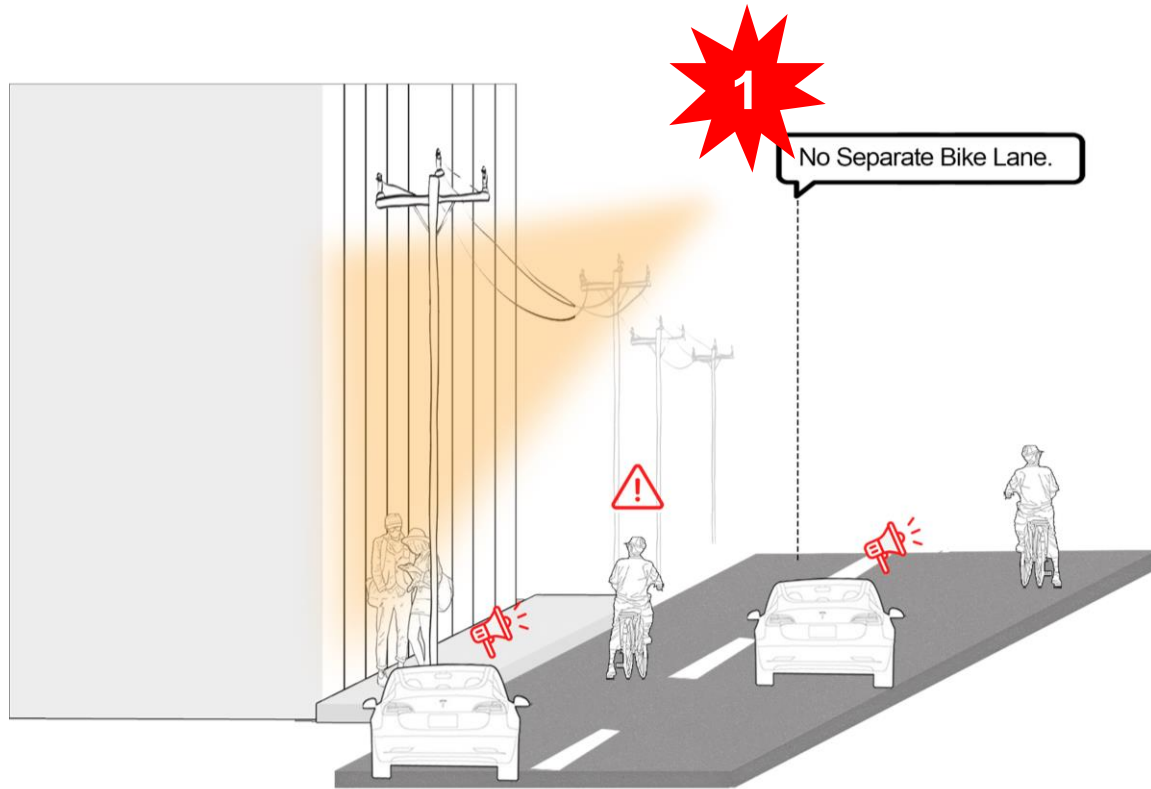
Land Use	Area (sq.m.)	Parking Standard	Calculation	Required Spaces
Residential	175,000	1 space per 120 sq.m.	175,000/120	1,458 spaces
Commercial	175,000	1 space per 80 sq.m.	175,000/80	2,188 spaces
Public Parking	500,000	1 space per 200 sq.m.	175,000/200	2,500 spaces
<b>Total Required spaces</b>				<b>6,146 spaces</b>



EVERY PARKING SPACES MUST HAVE MAKINGS AND BOUNDARY ON THE GROUND

PARKING SPACES PERPENDICULAR TO THE ROAD MUST BE AT LEAST 2.40M X 5.00M THERE MUST NOT BE A SINGLE-LANE ENTRY / EXIT FOR CARS

PARKING SPACE PARALLEL TO THE ROAD OR AT AN ANGLE LESS THAN 30 DEGREES TO THE ROAD MUST BE AT LEAST 2.40M X 6.00M  
  
PARKING SPACE AT AN ANGLE GREATER THAN 30 DEGREES TO THE ROAD MUST BE AT LEAST 2.40M X 5.50M



No proper side walks

Fig. a typical alleyway in talat noi

LOCATION PLAN



bypass system

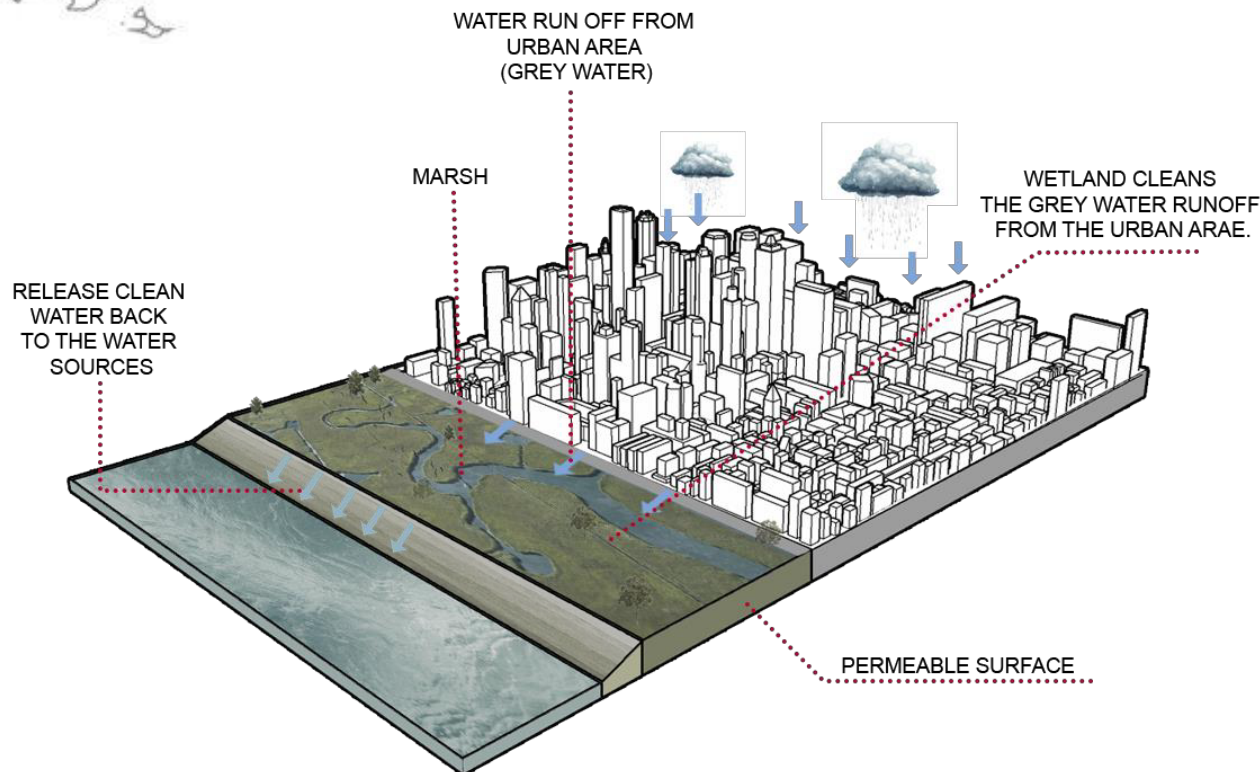


Fig. wetland system

Helps slow water flow and prevent floods

Provides open space and enhances the overall green space of the area.

Filters sediments, pollutants & nutrients.

Sponge-like quality allows water to be returned to the ground during dry periods.

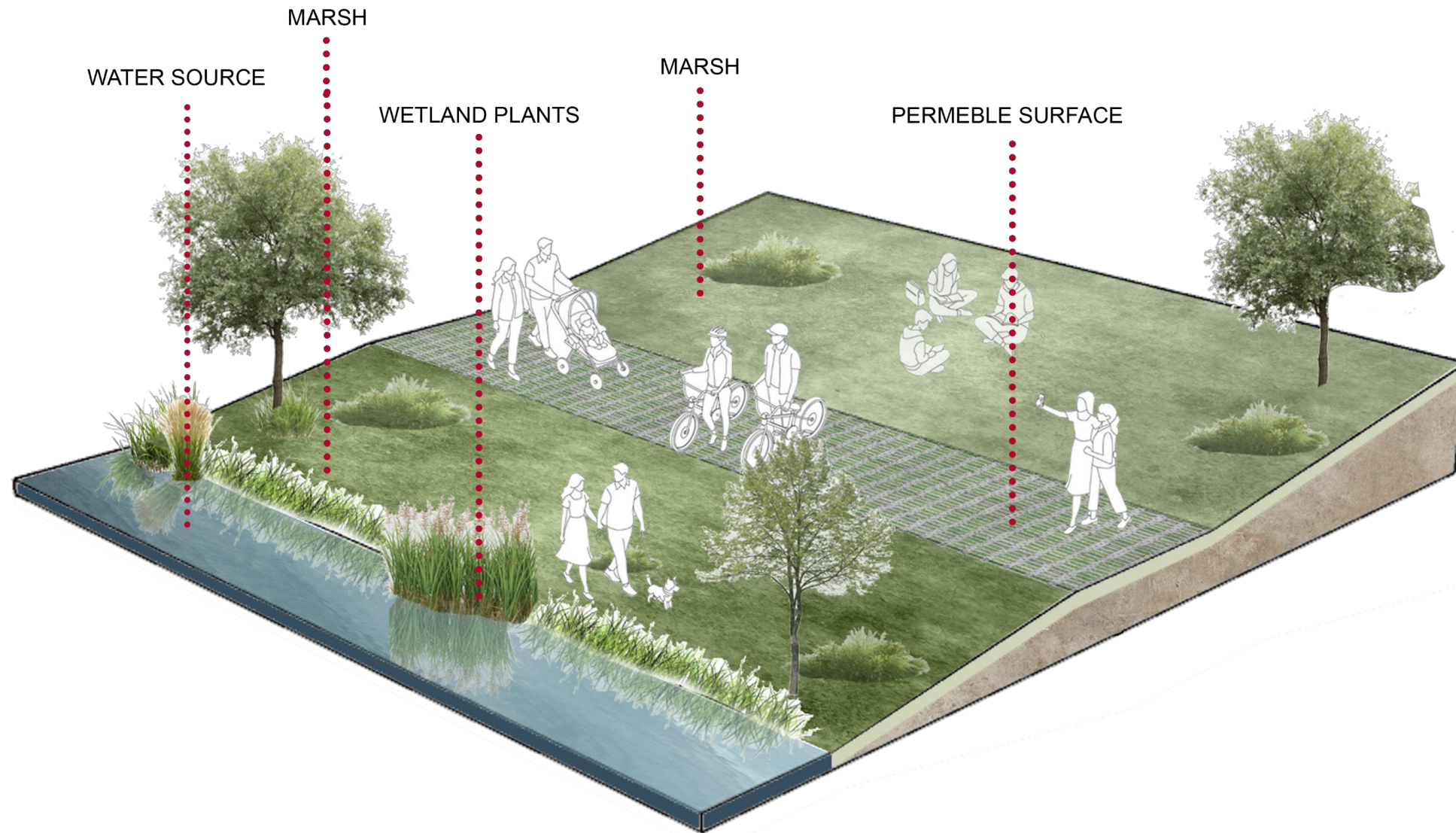


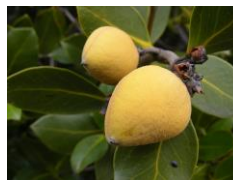
Fig. wetland diagram (isometric)



Nelumbo  
Nucifera



Rhizophora  
Mucronata



Avicennia  
Marina



Melaleuca  
Cajuputi



Sonneratia  
Caseolaris



Pandanus  
Spp

Fig. wetland plantations

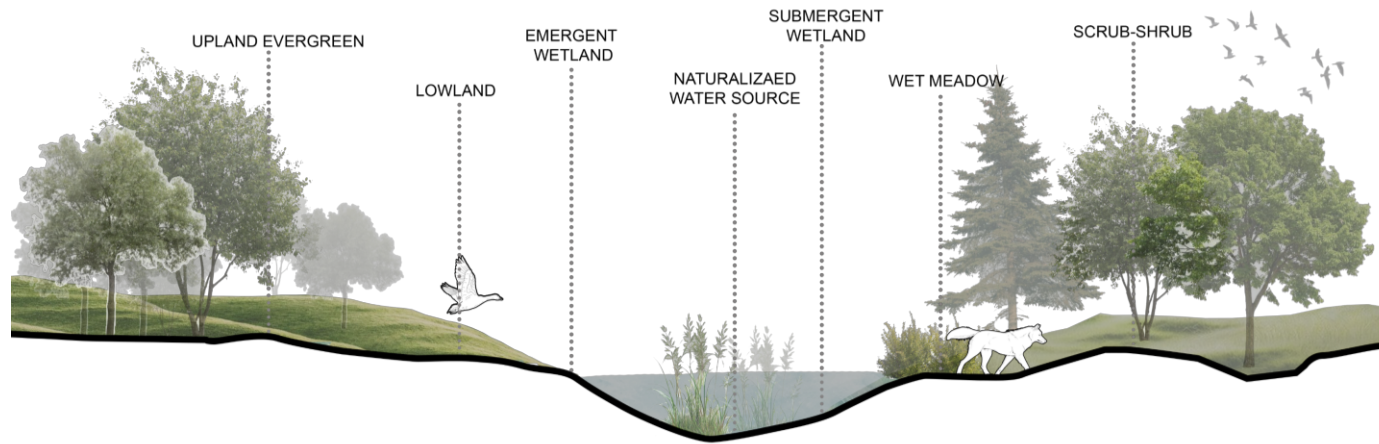


Fig. natural wetland diagram

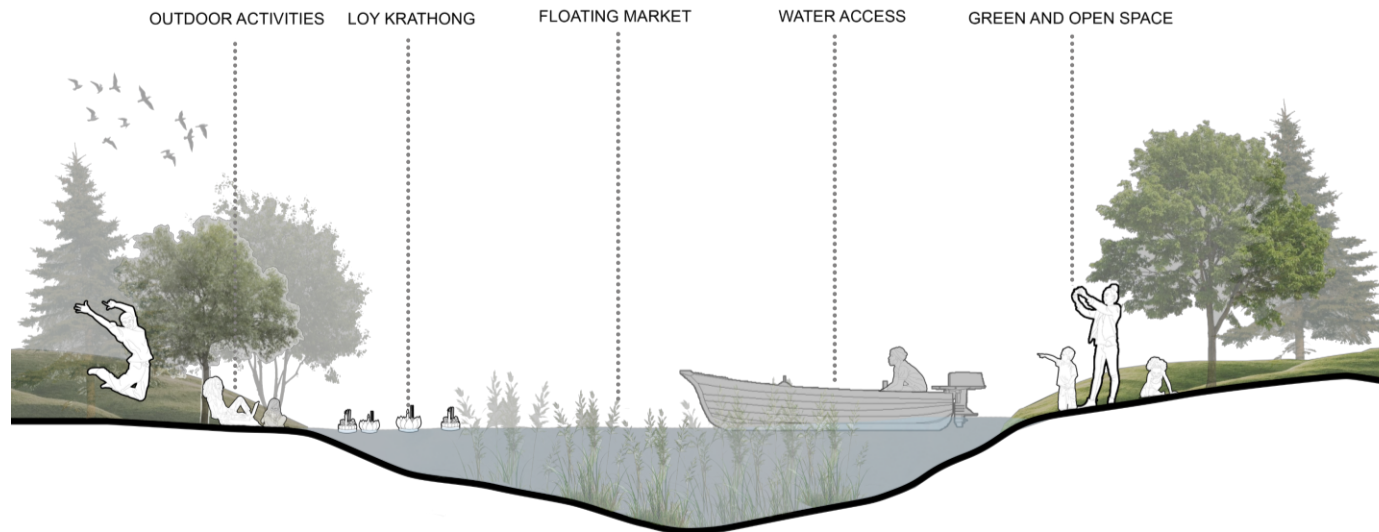


Fig. human activities with wetland

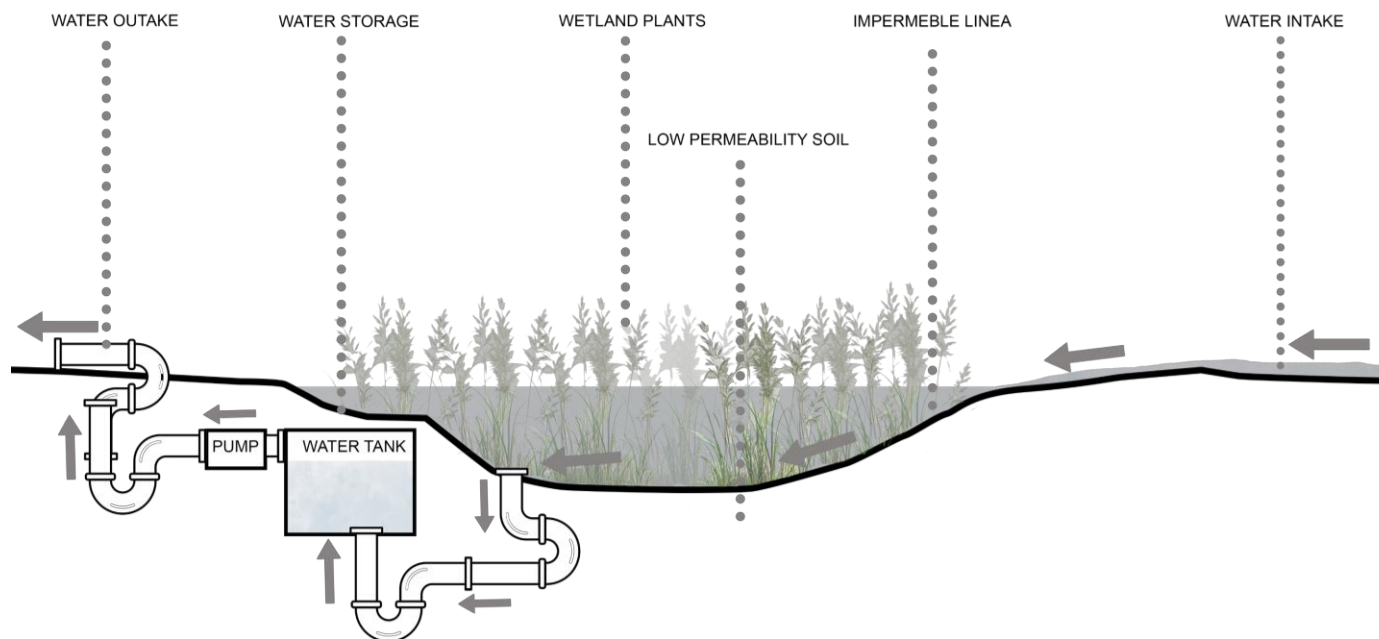
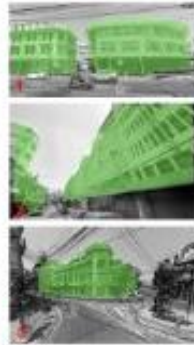
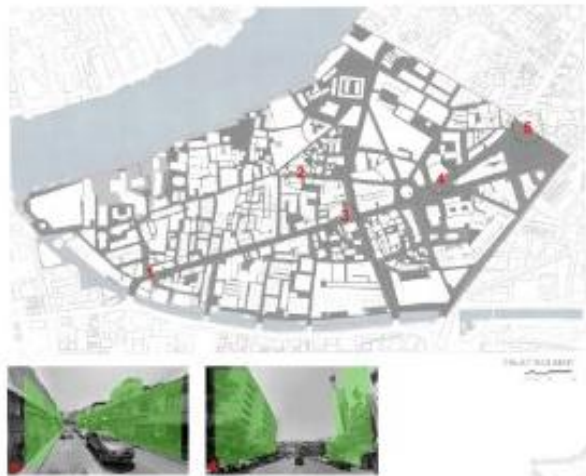
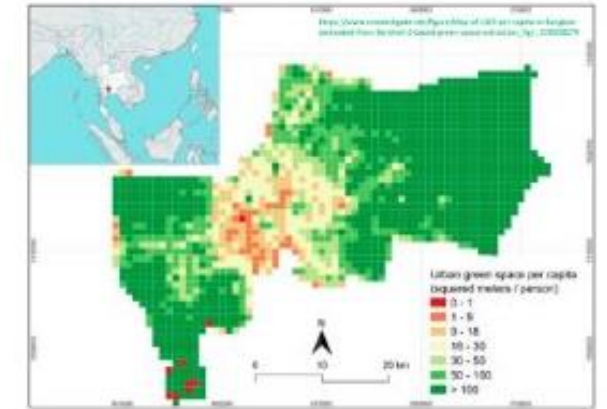
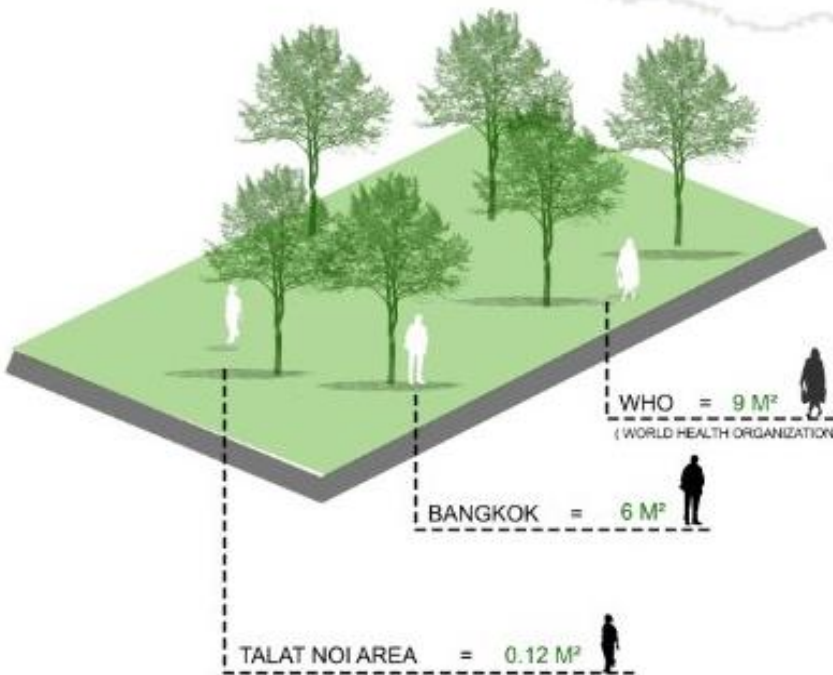


Fig. hybrid constructed wetland



GREEN SPACE PER INHABITANT  
( m<sup>2</sup>/PERSON )



APPROXIMATELY 3% (~850 m<sup>2</sup>) OF  
TALAD NOI AREA IS GREEN SPACE

$$\text{GREEN SPACE PER INHABITANT} = \frac{\text{TOTAL GREEN SPACE AREA (m}^2\text{)}}{\text{TOTAL NUMBER OF HABITANTS}}$$

$$= \frac{850 \text{ m}^2}{6.865 \text{ PEOPLES}} = 0.12 \text{ m}^2/\text{PERSONS}$$



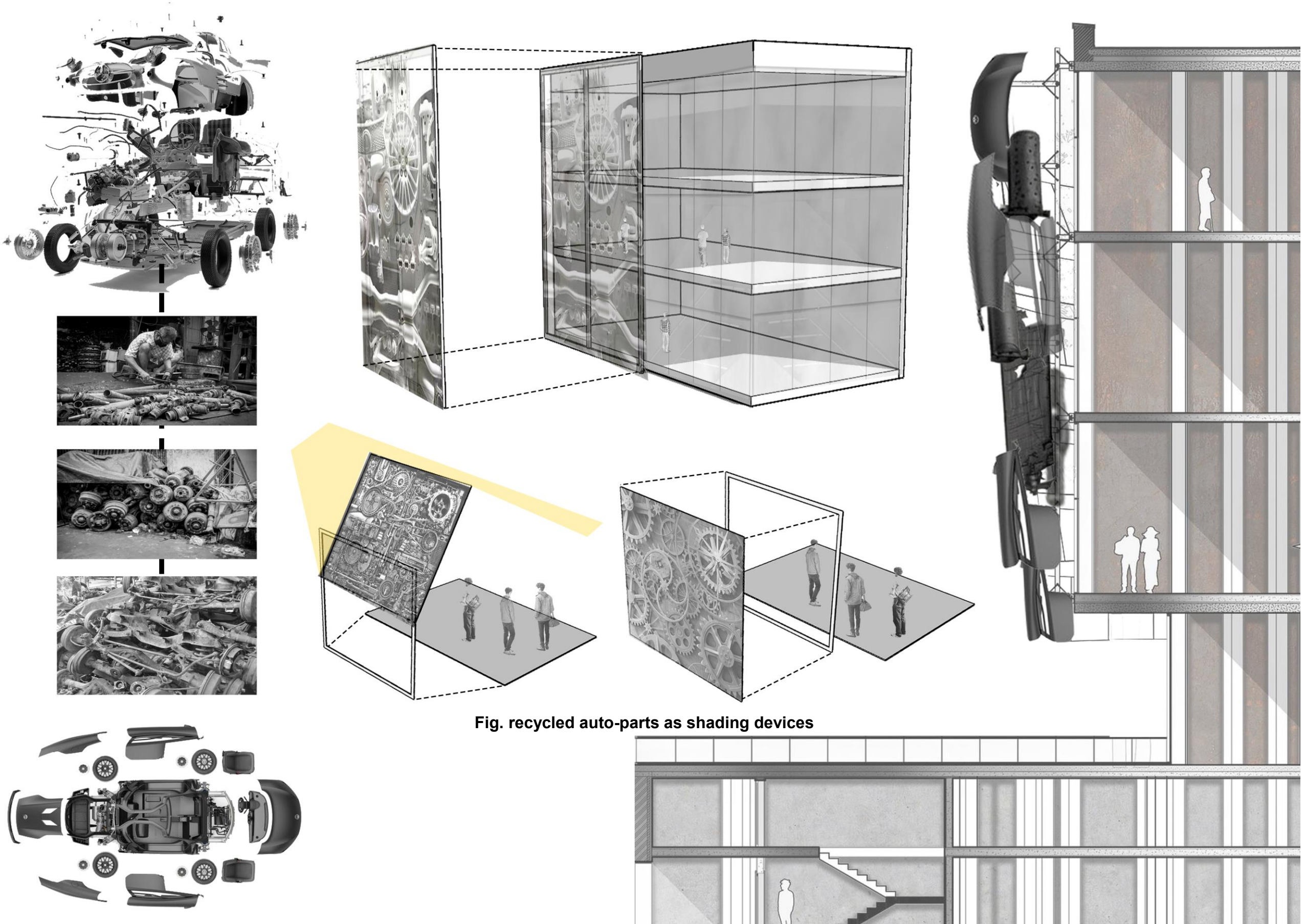
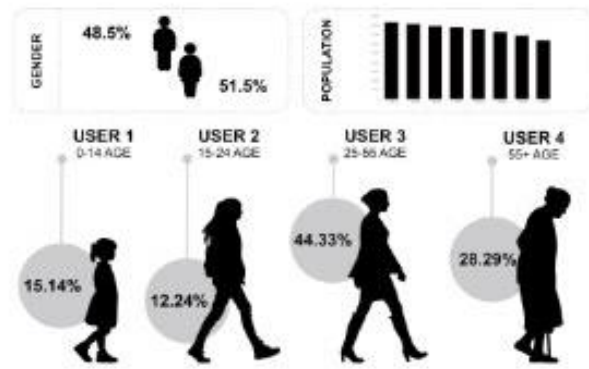


Fig. recycled auto-parts as shading devices

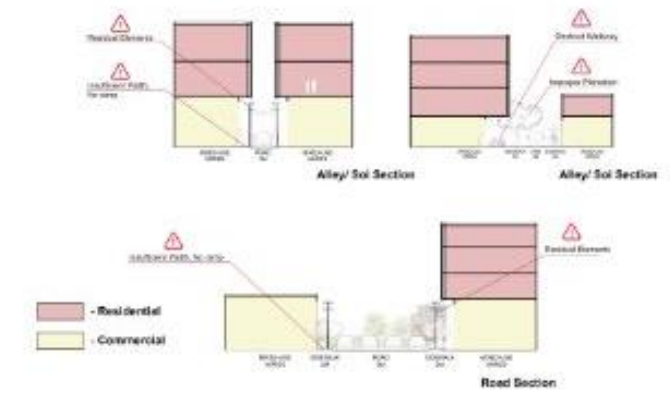
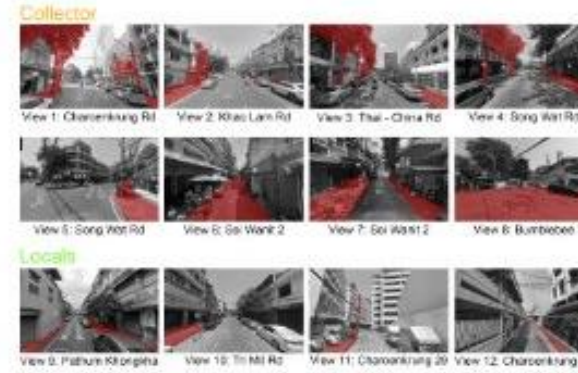
# 02 identifying issues & solutions

# design guideline iii: city & citizen

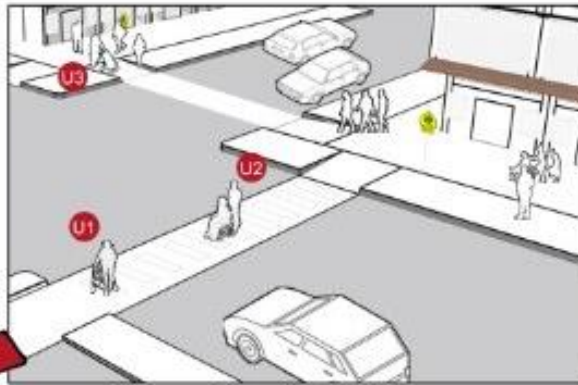
## DEMOGRAPHIC ANALYSIS



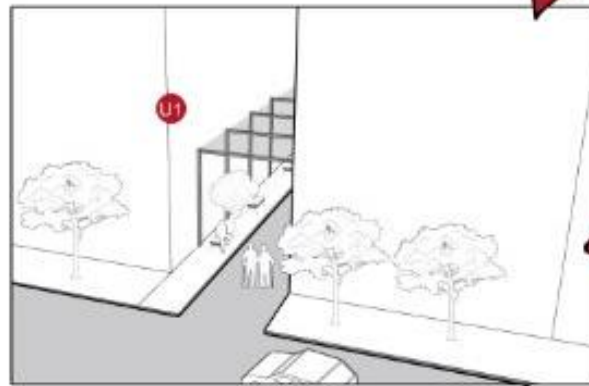
## OBSTRUCTS & INACCESSIBILITY ISSUES



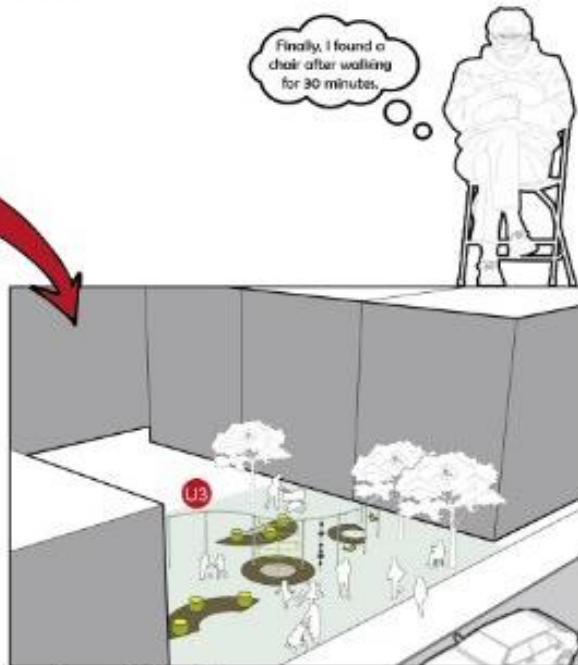
- U1 Elderly People:** Long walk with no shaded rest spots, not enough space or ramps which can be exhausting and risky for elderly users.
- U2 Handicapped People:** Low-slope ramps, widened walkways and non-slip surface paving are lacking which makes it inaccessible to some places for people with disabilities.
- U3 Families with Children:** Limited open space for pause, play, or rest, strollers have to be lifted or dragged through.



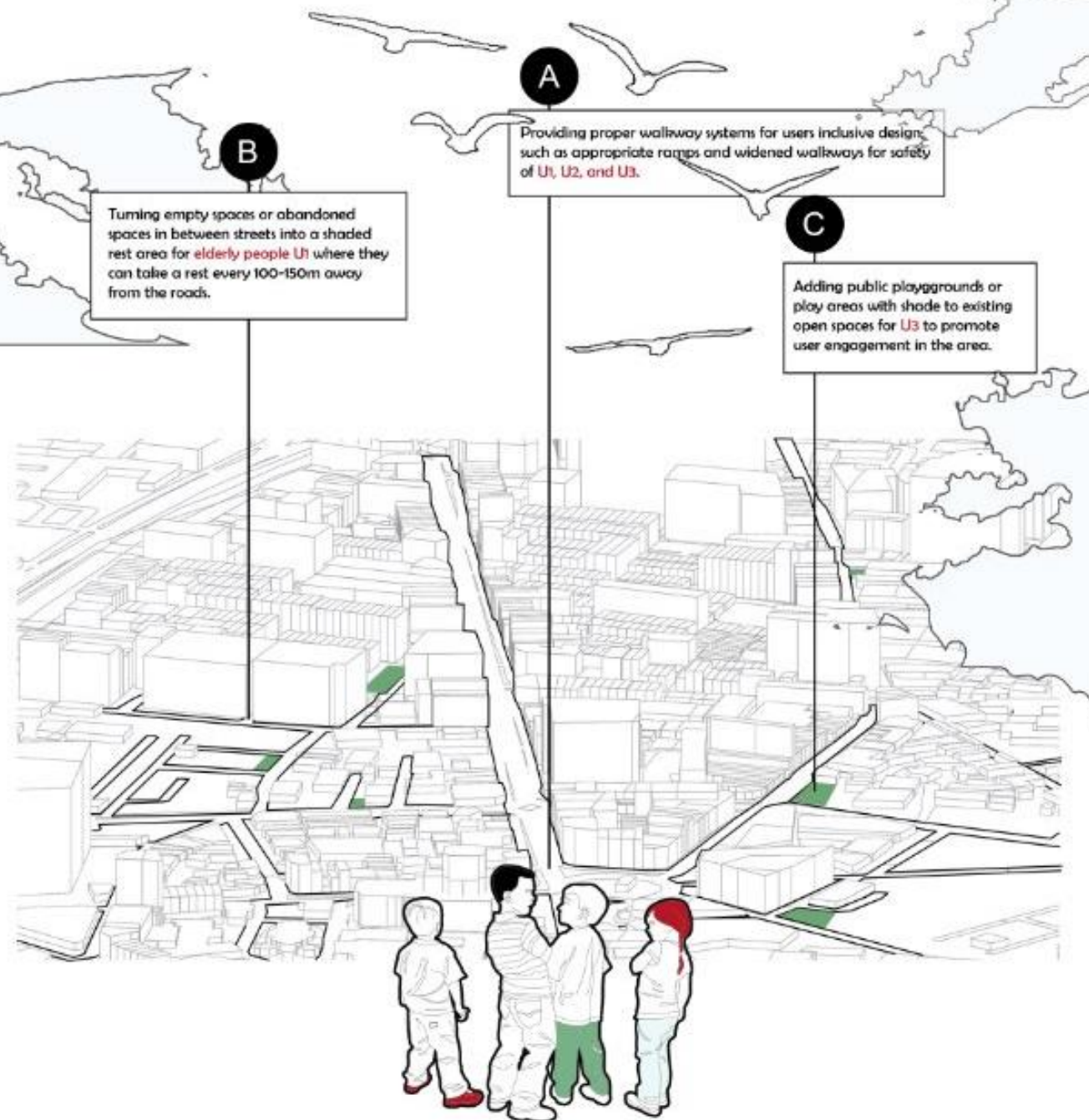
**Implementation A:** Proper crosswalk with low-slope ramps for safety and comfort. Removing obstacles on the curbs to create a spacious pedestrian walkway.



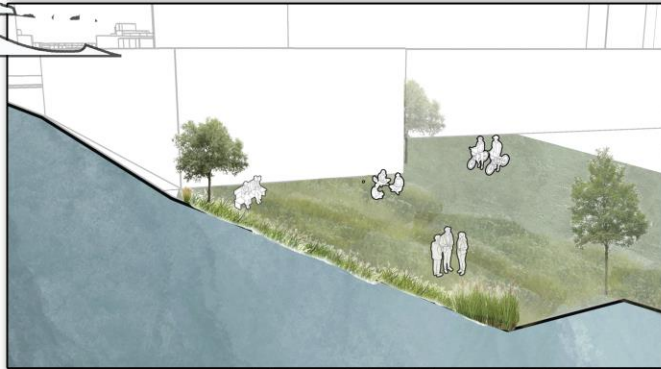
**Implementation B:** Adding shaded rest stops and sitting areas between small streets every 100-150m for comfort of elderly users.



**Implementation C:** Turning public open spaces into play areas for families with small children (U3) and providing shaded areas for rest, pause and play.



WETLAND SYSTEM



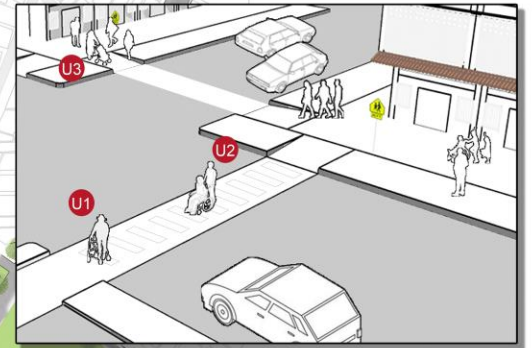
BYPASS SYSTEM



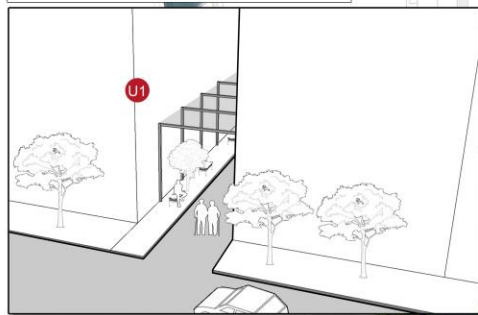
WETLAND SYSTEM



INCLUSIVE DESIGN



SHADING DEVICES

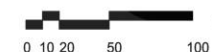


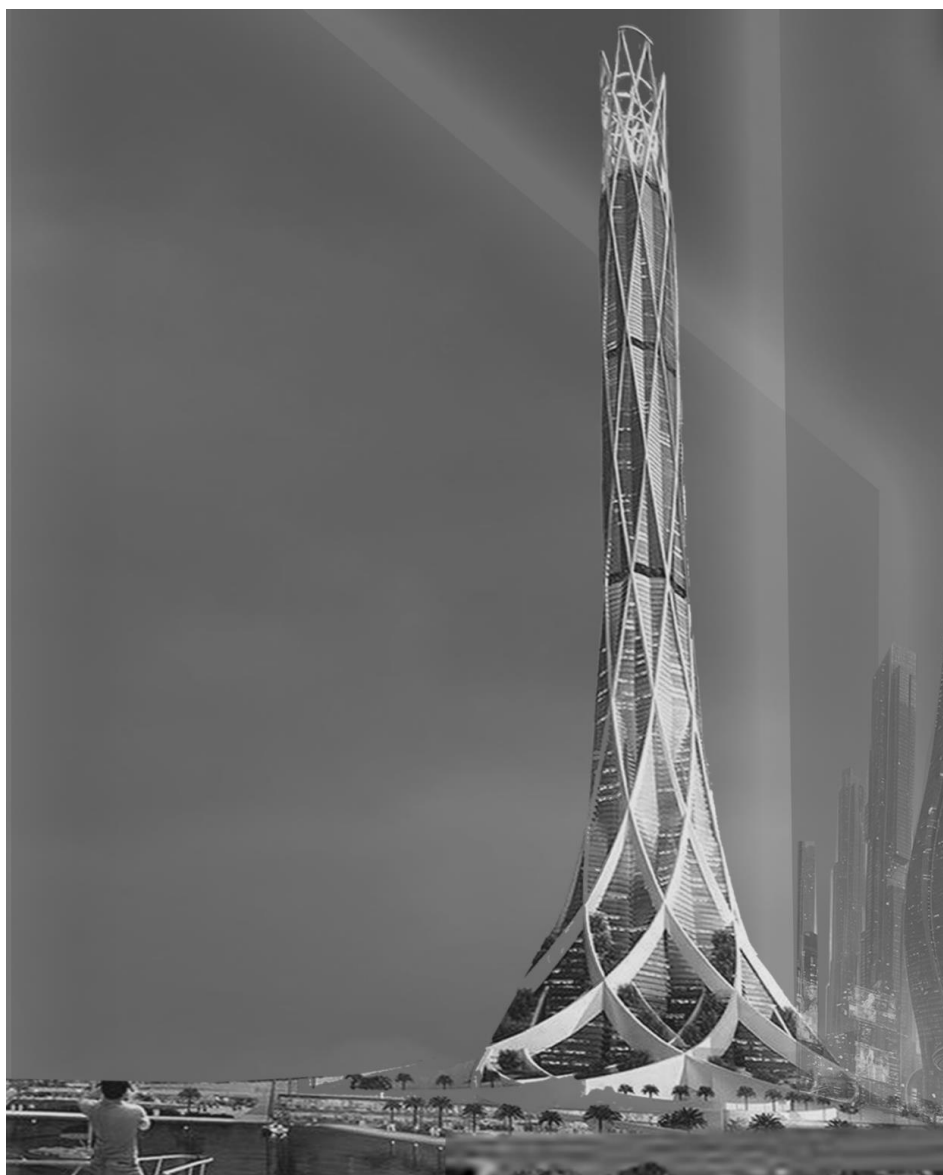
GREEN REVITALIZATION



KID ZONES

TALAT NOI MAP





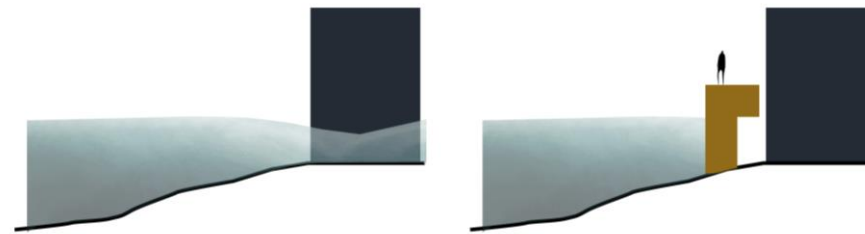
## Goal & Objectives

- Goal
- Objectives
- Urban Design Concept

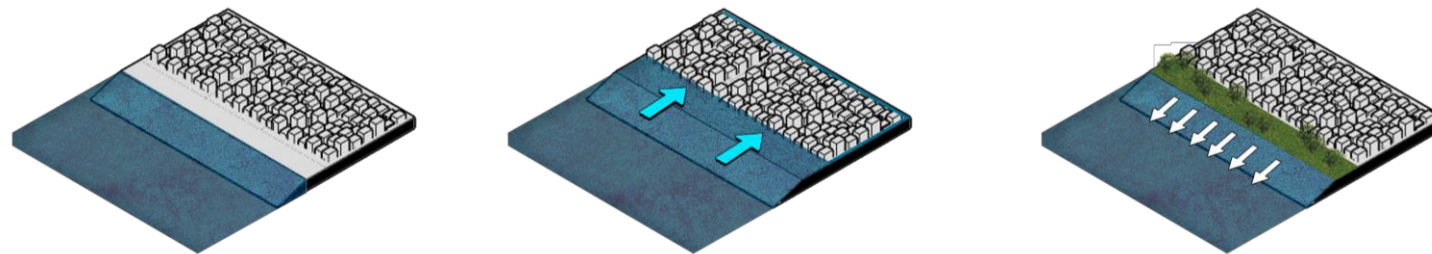
# GOAL

*To create a resilient and adaptive Talat Noi that safeguards heritage, enhances livability, and functions as a sponge city prepared for future floods.*

# OBJECTIVES



To integrate environmental protection



To apply climate change mitigation measures



To apply climate change adaptation measures

# RESILIENT CITY SPONGE CITY



## WHAT DOES OUR PROJECT NAME MEAN?

Our urban revitalization project for Talat Noi, Bangkok aims for adaptation, protection and mitigation against future issues that the district and the city might possibly face. In 50-100 years time, Bangkok will be under water, which poses challenges for the locals to have a livable city. Due to the growing population and limited space, the only way for the local to be safe is to ascend up. **'The Ascent'** is an urban revitalization vision for Talat Noi, Bangkok, designed to adapt, protect, and mitigate the district against the long-term impacts of climate change and rising sea levels. With projections indicating that much of Bangkok may be underwater within the next

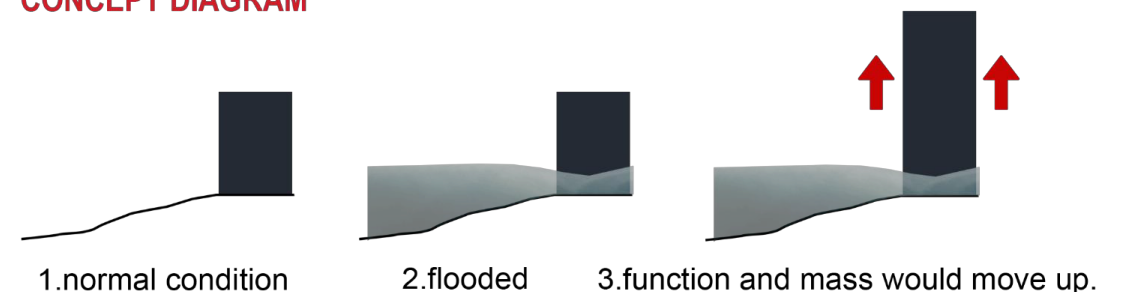
century, the community faces the urgent challenge of sustaining safe and livable environments for future generations. *The Ascent* reimagines the neighborhood by moving development vertically, allowing residents to rise above future flood levels while preserving the cultural and historical essence of the area. By building upward, we not only safeguard the local population but also create opportunities for shared public spaces, green infrastructure, and resilient housing that meet the demands of a growing population in limited land. *Ascent* is more than an architectural response; it is a cultural commitment to survival, continuity, and a thriving urban future.



# THE ASCENT

ALAT NOI

### CONCEPT DIAGRAM



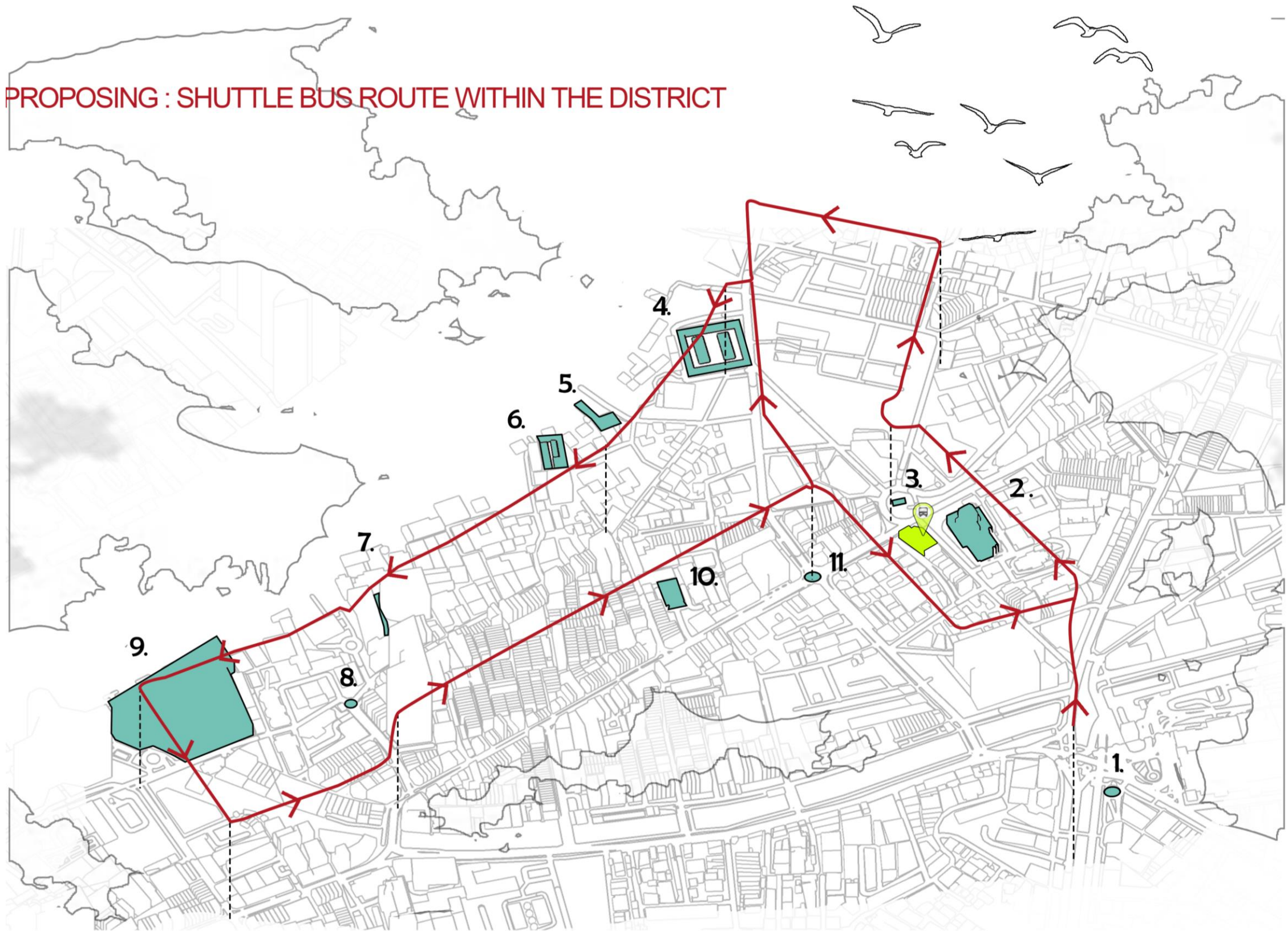


### Solutions & Practices

- TOD
- Wetland
- Horizontal implementations
- Vertical Implementations
- Elevated Sky Walk

***in the year 2050...***

PROPOSING : SHUTTLE BUS ROUTE WITHIN THE DISTRICT

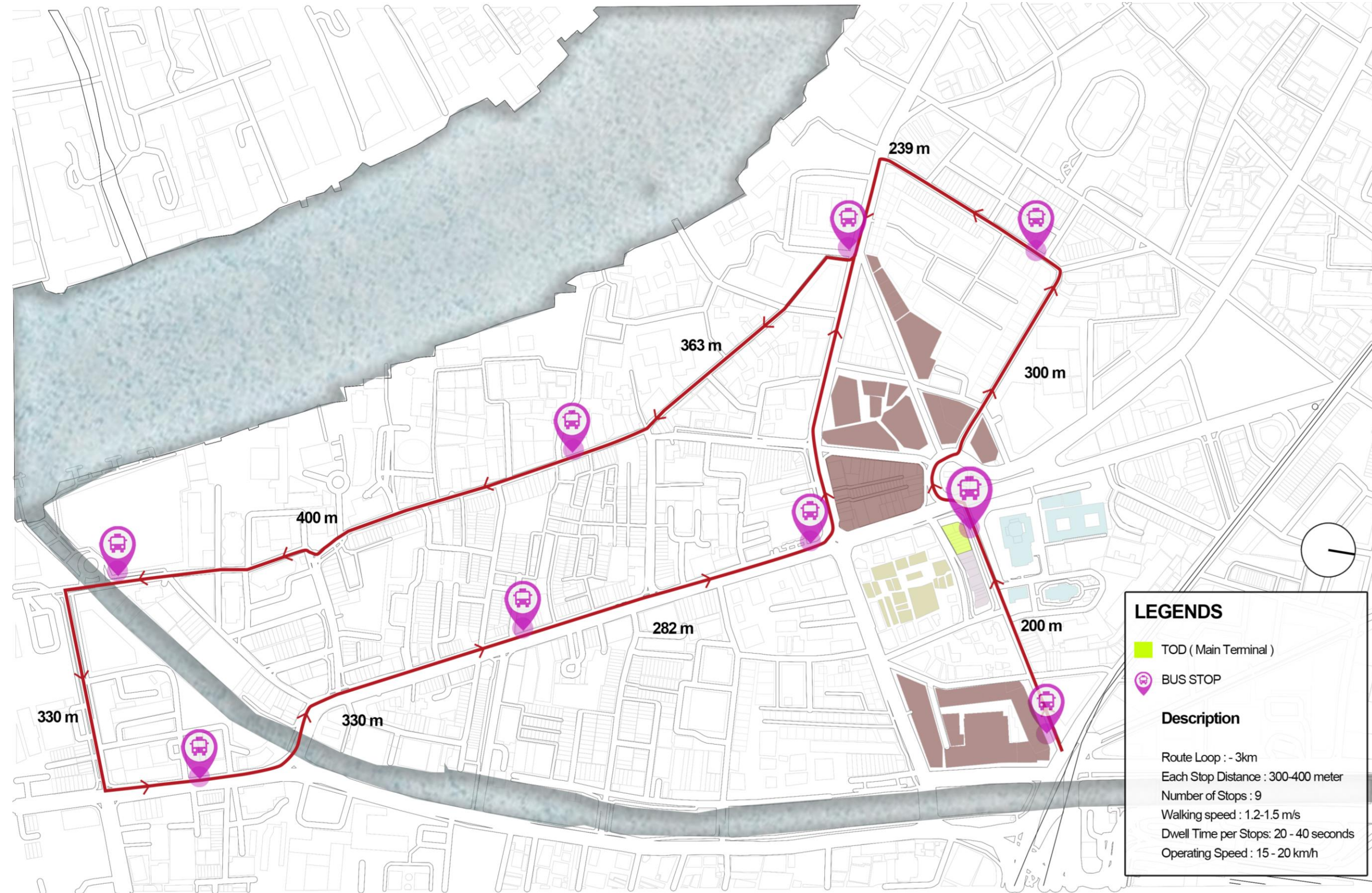


- 1. MRT (HUA LAMPHONG)
- 2. WAT TRAI MIT
- 3. CHINATOWN GATE

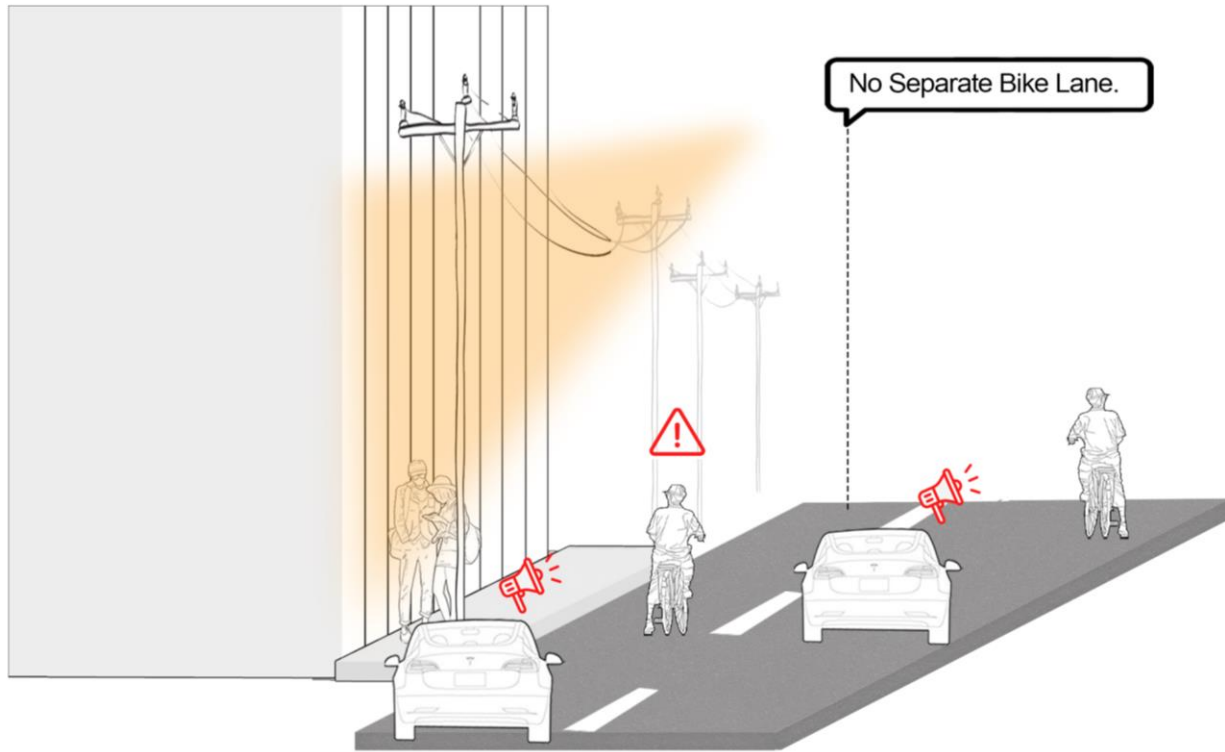
- 4. WAT PATHUM
- 5. TALAT NOI MUSEUM
- 6. CHOW SUW KONG SHRINE

- 7. STREET WALL ART
- 8. BUMBLE BEE
- 9. RIVEER CITY BKK

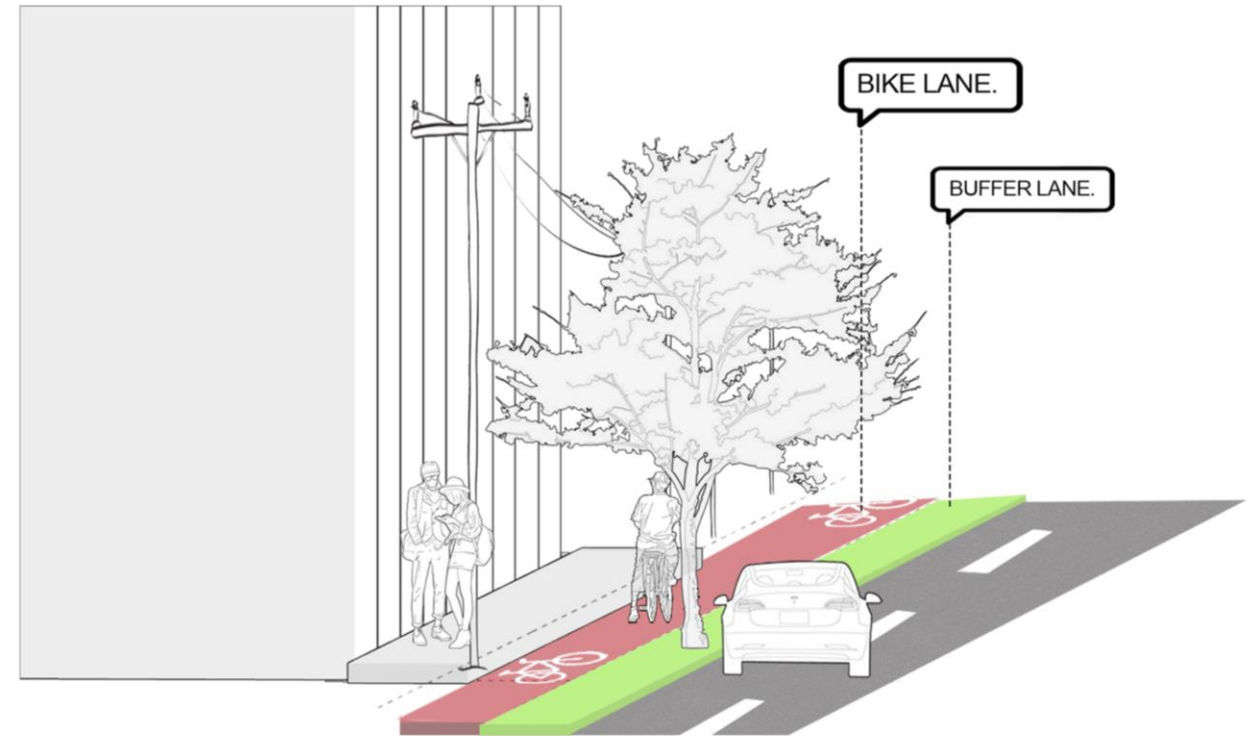
- 10. WAT UPHAI
- 11. OPTIMUS PRIME



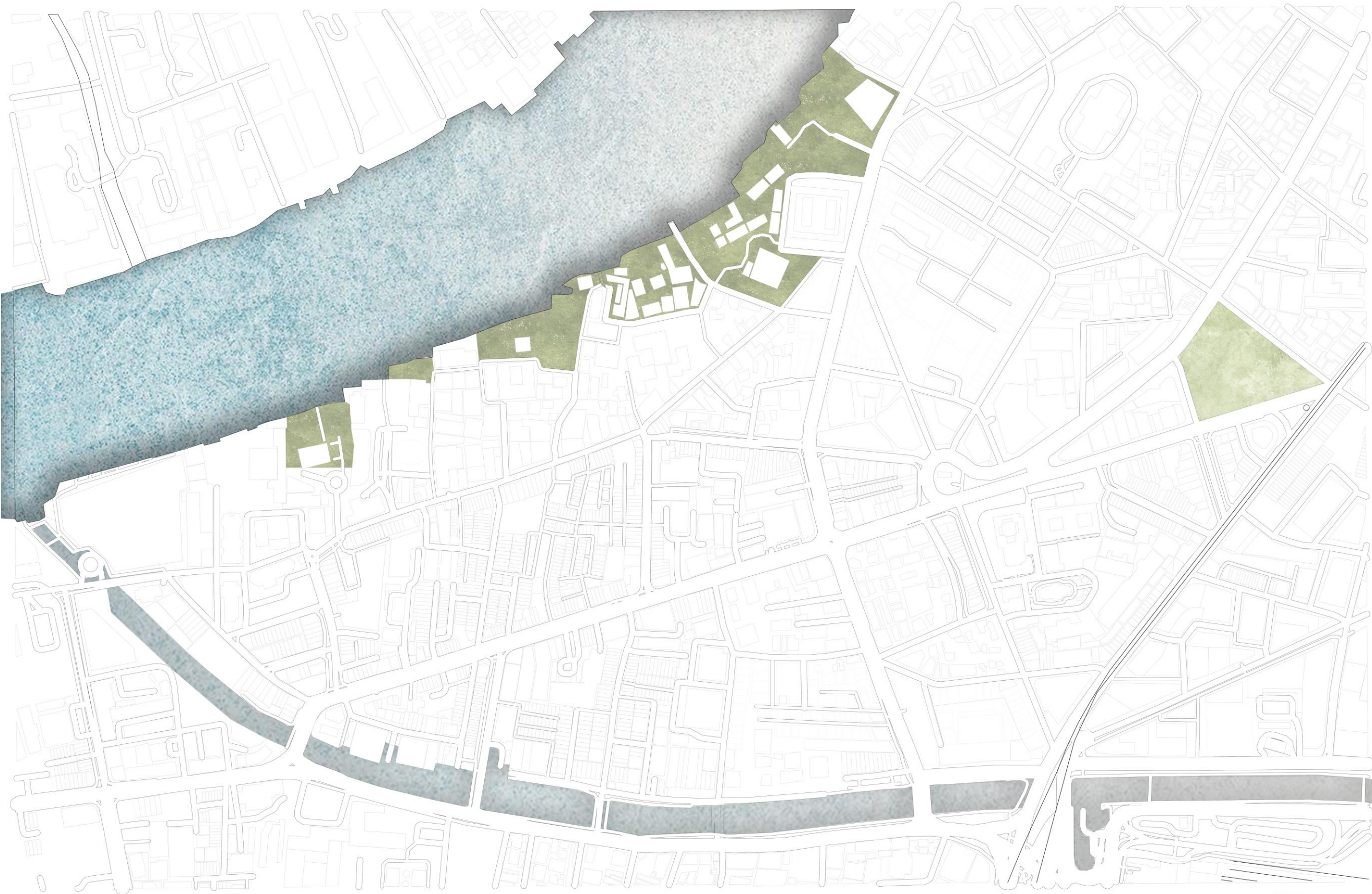


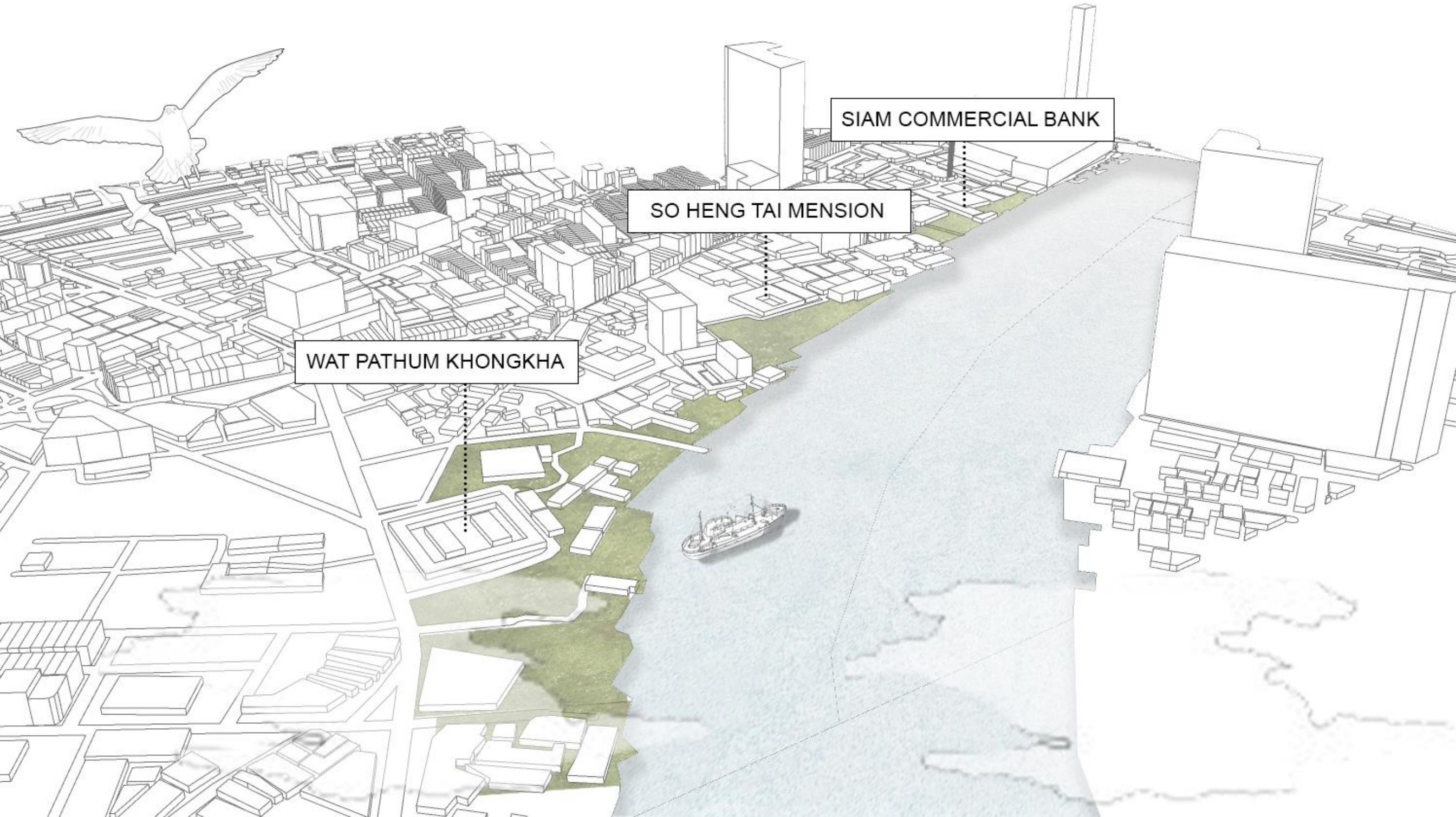


**BEFORE :**  
Issues : Traffic chaos .



**AFTER :**  
Proposing : Bike Lane + Buffer Lane





WAT PATHUM KHONGKHA



SO HENG TAI MENSION



SIAM COMMERCIAL BANK



*in the year 2075...*



Fig. flood hits building directly

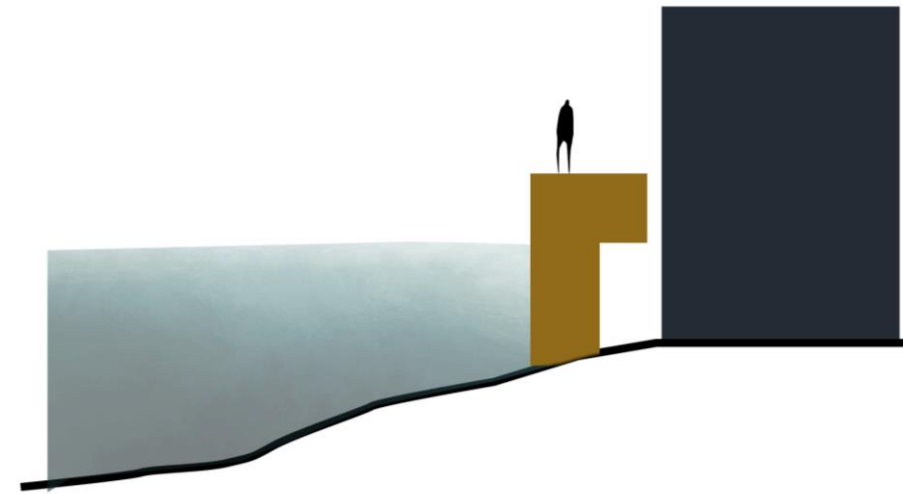


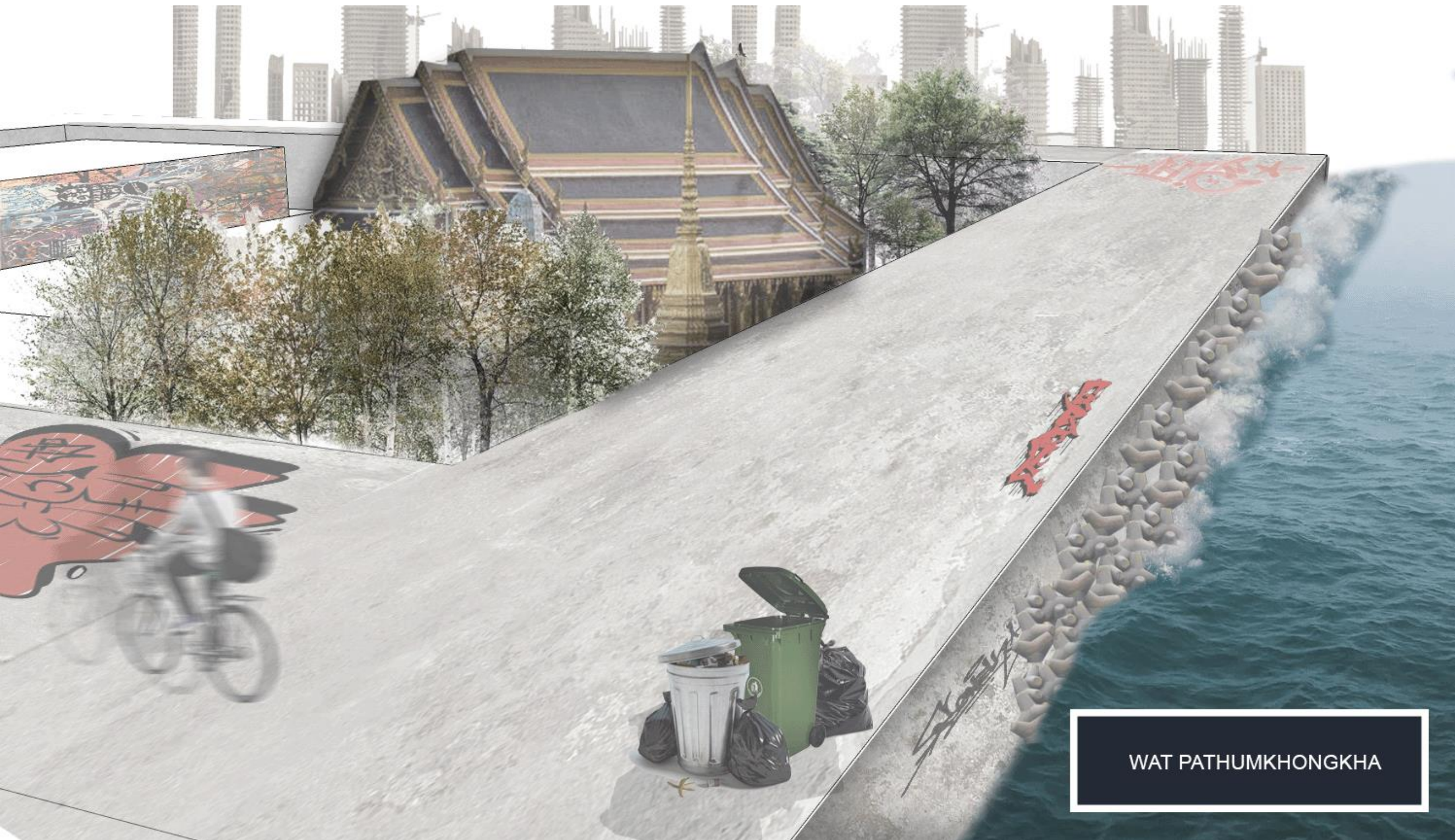
Fig. protection wall to prevent flood from affecting significant building while also providing public space



RIVER CITY BANGKOK

WAT PATHUM KHONGKHA

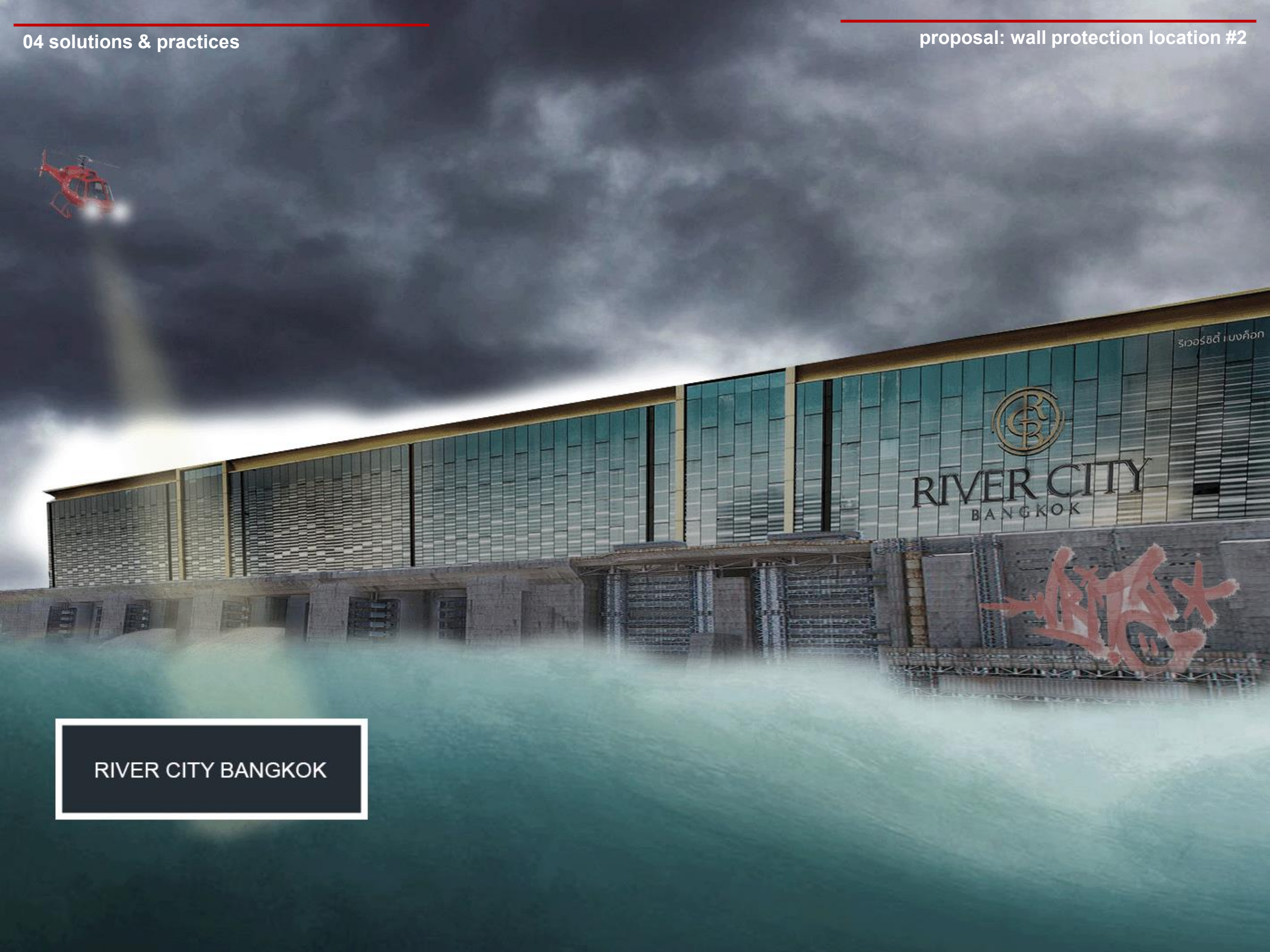
HOLY ROSARY CHURCH



WAT PATHUMKHONGKHA

WAT PATHUMKHONGKHA





ริเวอร์ซิตี | บางกอก  
RIVER CITY  
BANGKOK

RIVER CITY BANGKOK



Fig. typical shophouse

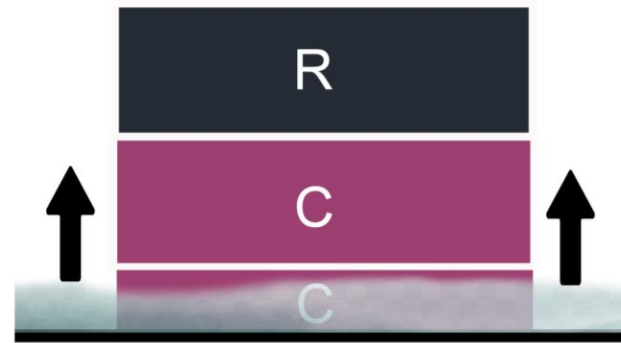


Fig. ground floor affected by flood forcing to move the program and function up

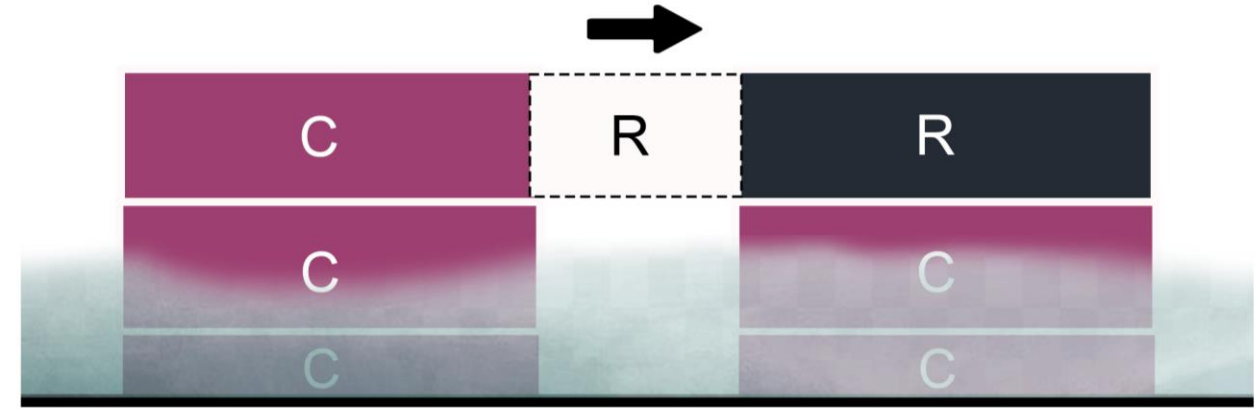
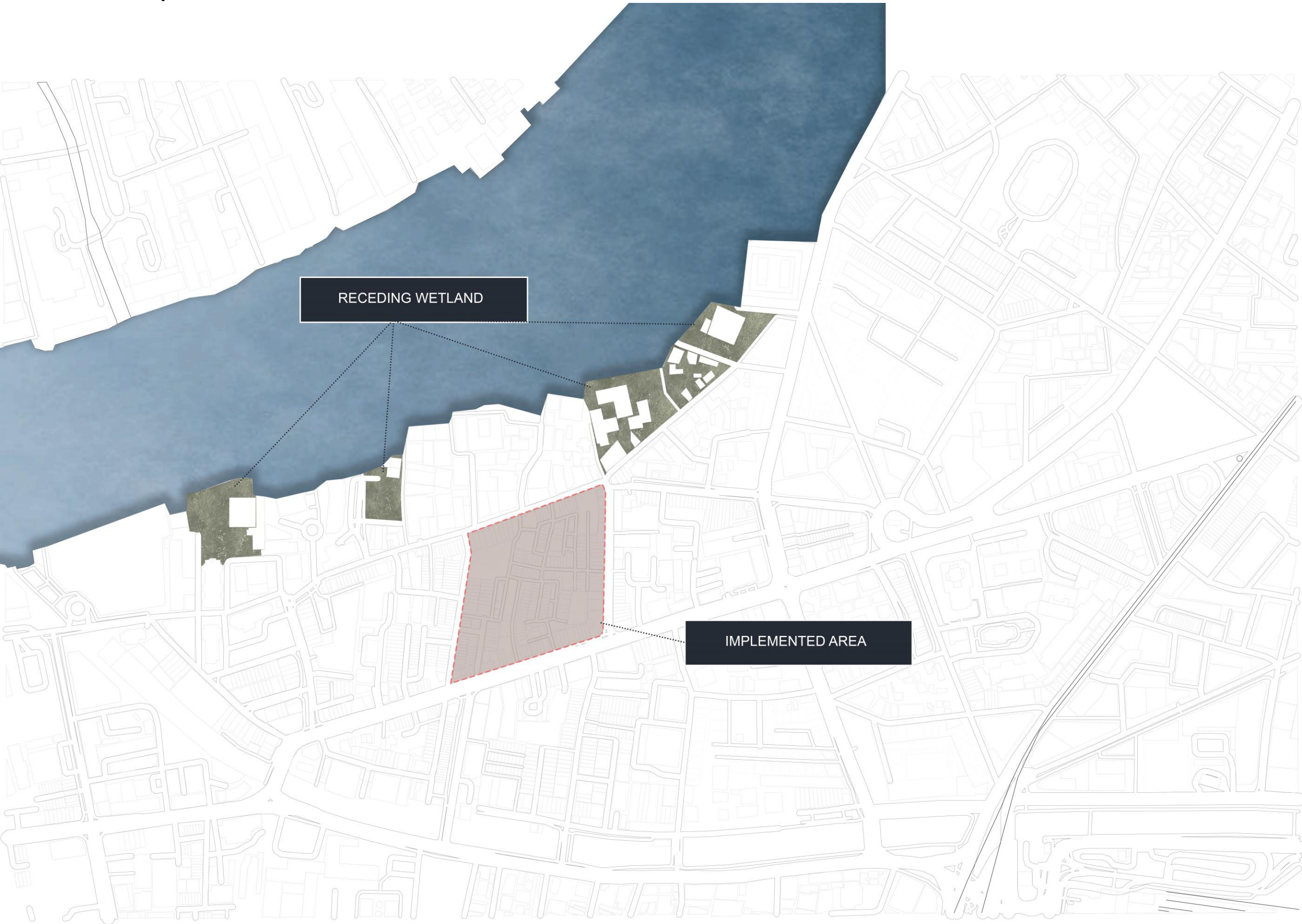


Fig. program and function would move horizontally due to the limited space of the existing shophouse



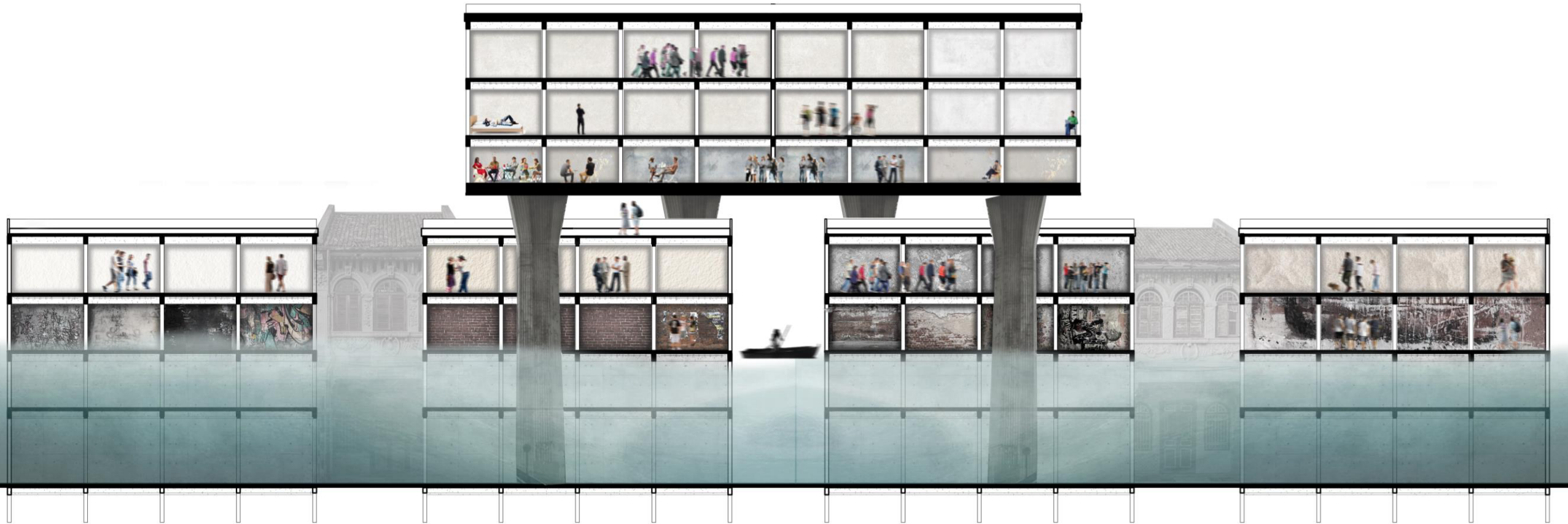
Fig. new mass would be built due to the lack of space



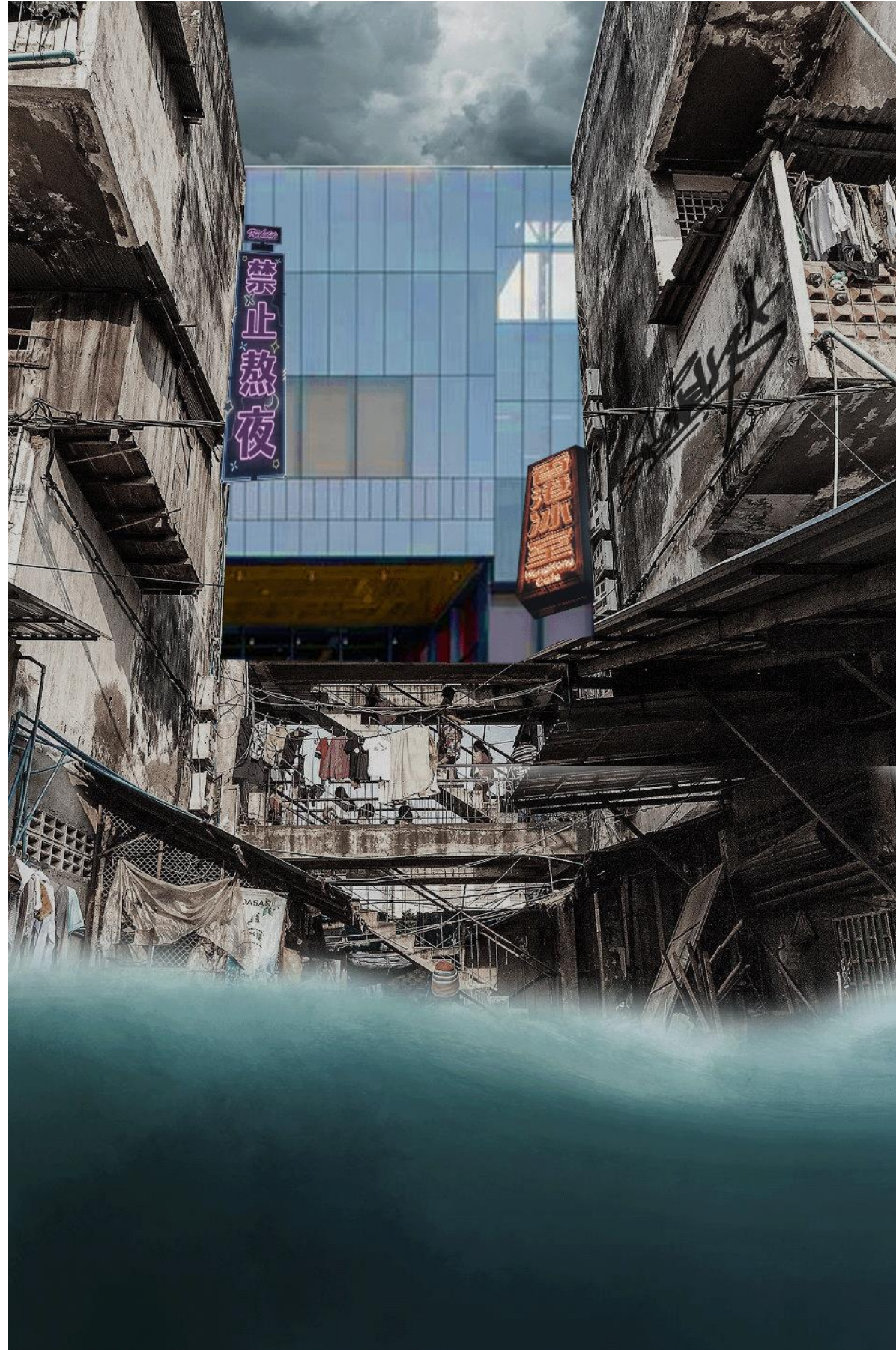
RECEDING WETLAND

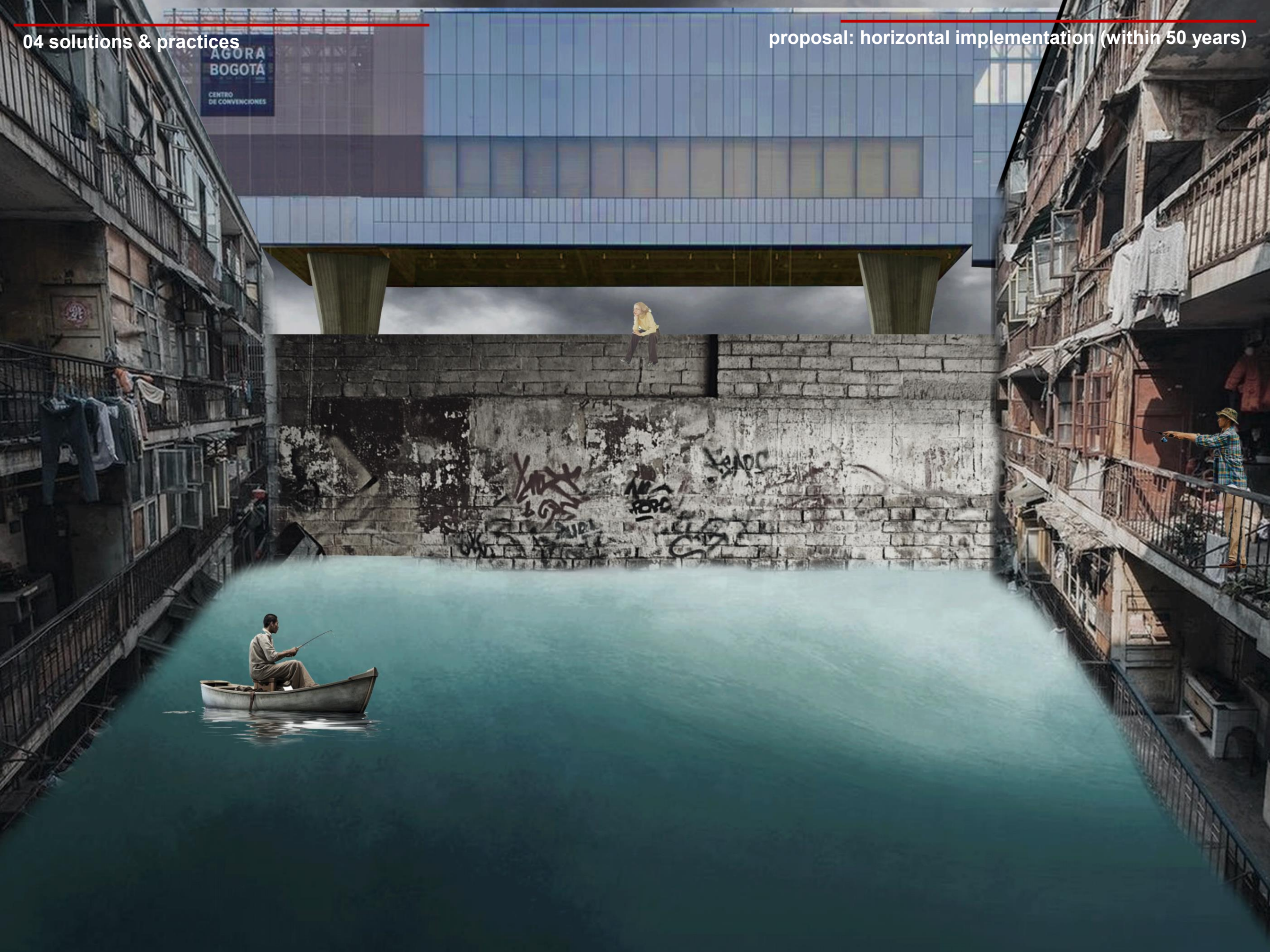
IMPLEMENTED AREA





SECTION VIEW

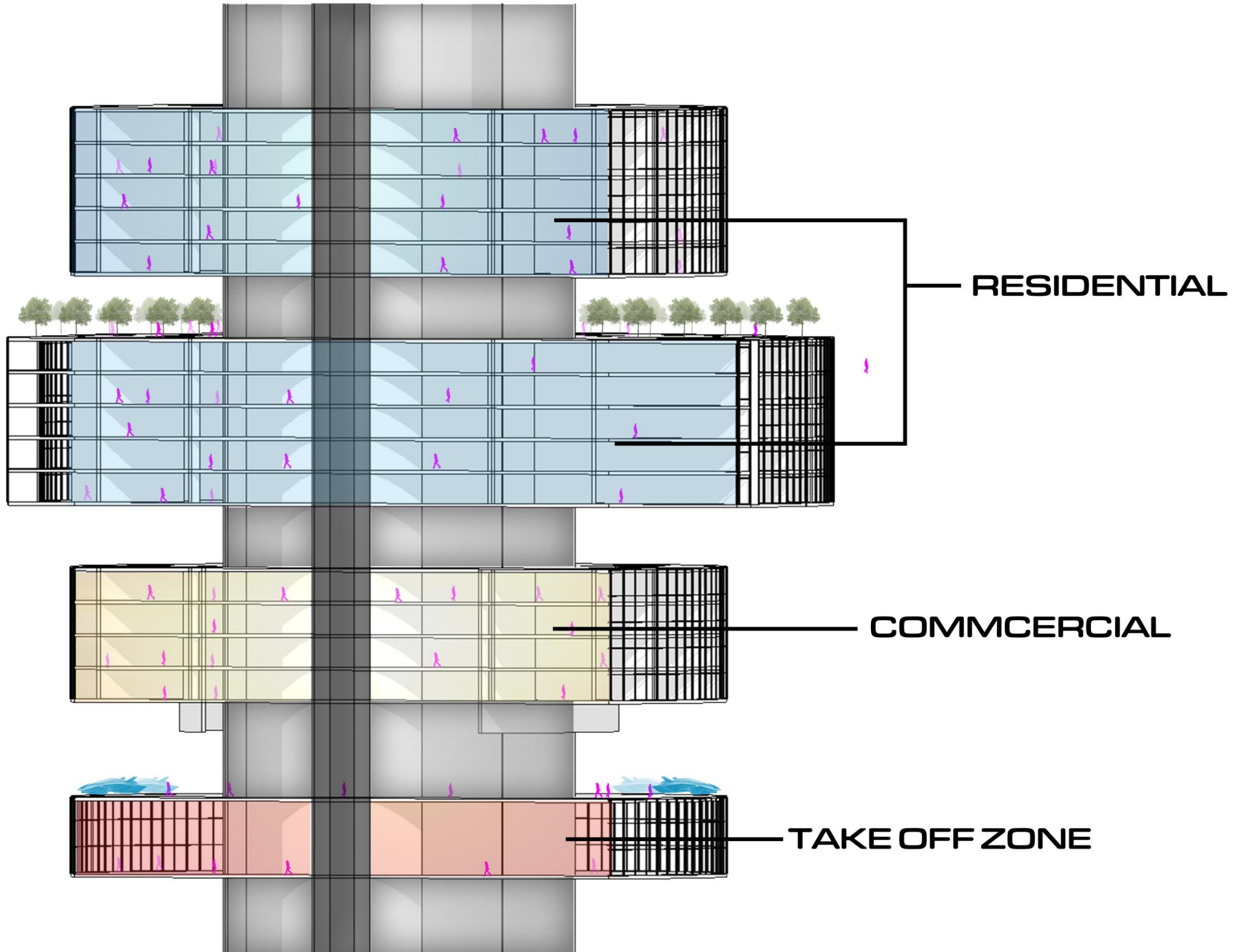




***in the year 2125...***









WELCOME TO TALAT NOI

TALAT NOI SKY PARK

## Conclusion

- Expected Impact & Future Vision
- Future Redevelopment Land Use



# SIAM COMMERCIAL BANK WETLAND

# SO HENG TAI WETLAND

# WAT PATHUM KHONGKHA WETLAND



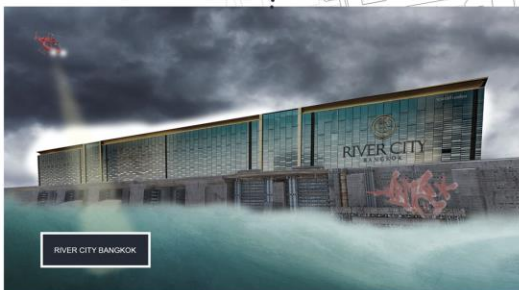
## VERTICAL LIVING



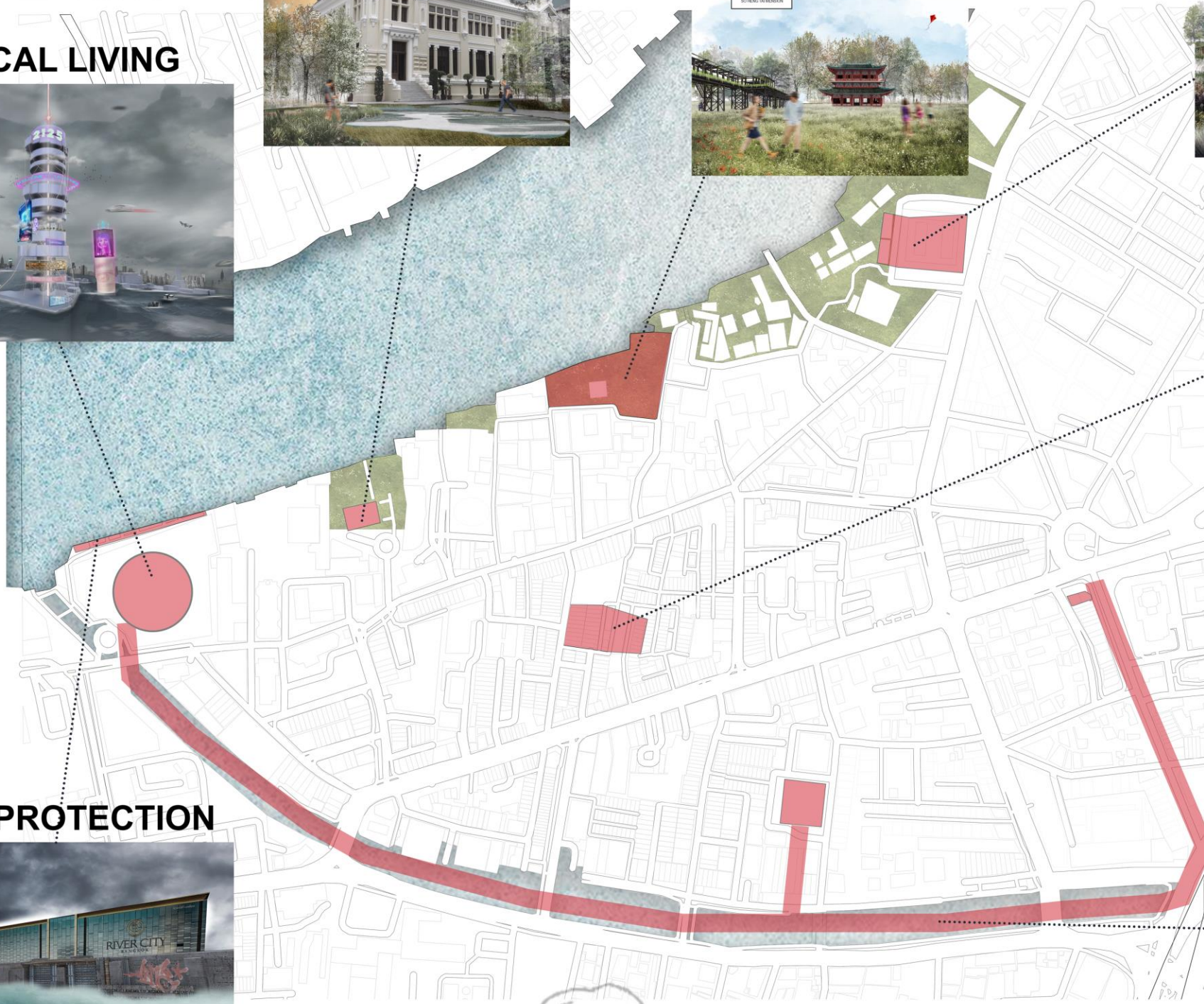
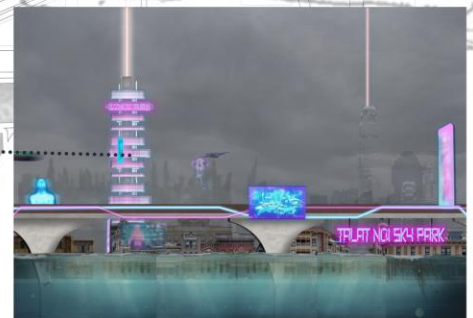
## HORIZONTAL LIVING



## WALL PROTECTION

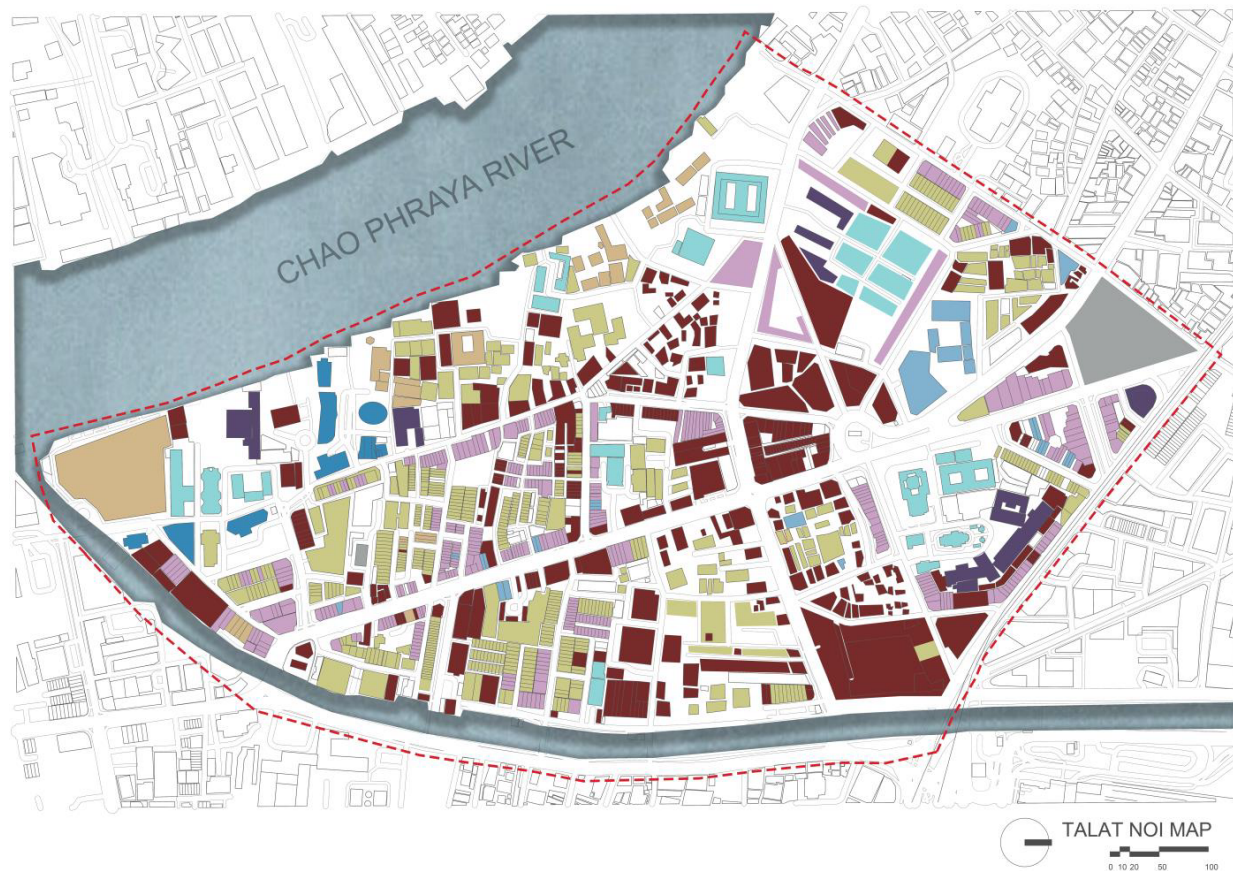


## SKYWALK/TOD





Current Land-Use Map



Future Redeveloped Land-Use Map



**LAND USE MAP**

Legends

- |   |  |   |
|---|--|---|
|  Commercial  |  Religious  |  Car Park                  |
|  Educational |  Medical    |  Wetland                   |
|  Residential |  Cultural   |  New Implemented Mixed-Use |
|  Mixed-Use   |  Government |  TOD                       |

Q&A



***ANY  
QUESTIONS?***