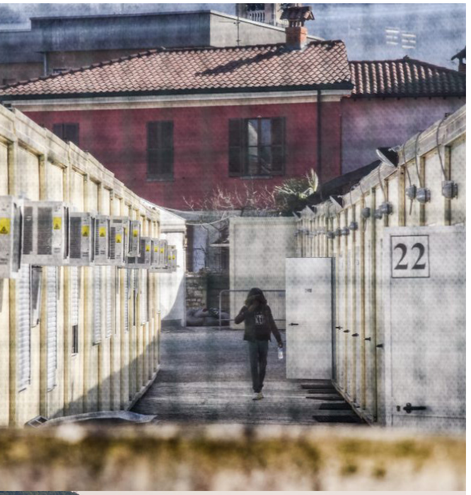
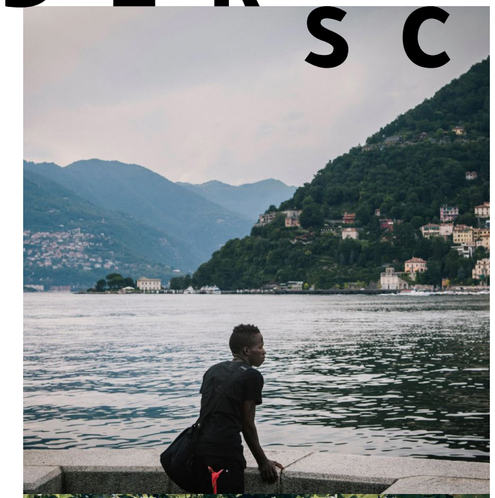
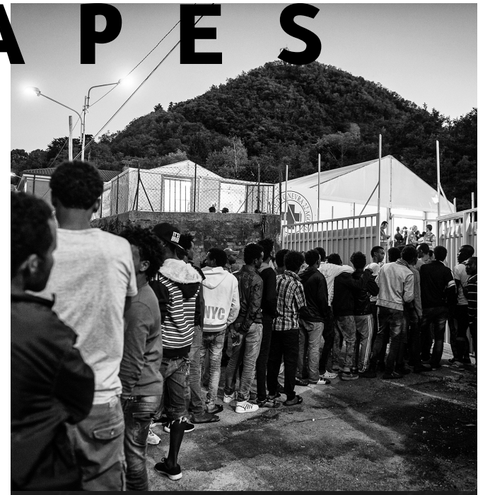
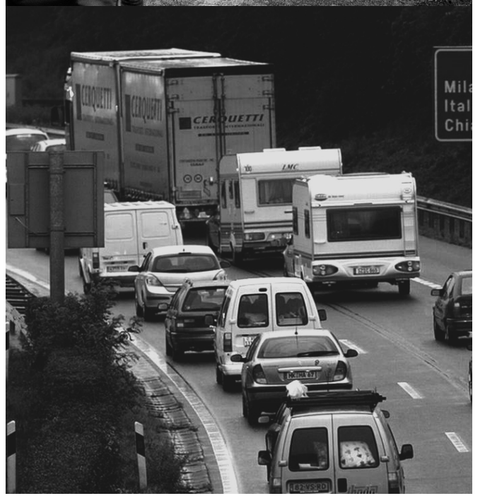
# BORDER SCAPES









**Graduation presentation**
MSc Architecture, Urbanism
and Building Sciences
Urbanism Track
Studio: Design of the Urban Fabric
Coordinator: Birgit Hausleitner

**Laura Thomas**
First mentor: Rients Dijkstra
Second mentor: René van der Velde
Delegate: Andy van den Dobbelsteen

28.01.2021

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**PONTE-CHIASSO**

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**DESIGN AMBITIONS**

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The Refugee Community and the Customs Park

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**IMAGE SOURCE:** By Gianni Cipriano. Retrieved from: <https://www.giannicipriano.com/portfolio/les-debarques/>

**IMAGE SOURCE:** By Harm Luiting. Retrieved from: < https://www.flickr.com/photos/106931939@N03/36674558815/in/photostream/>

# The Swiss-Italian Border

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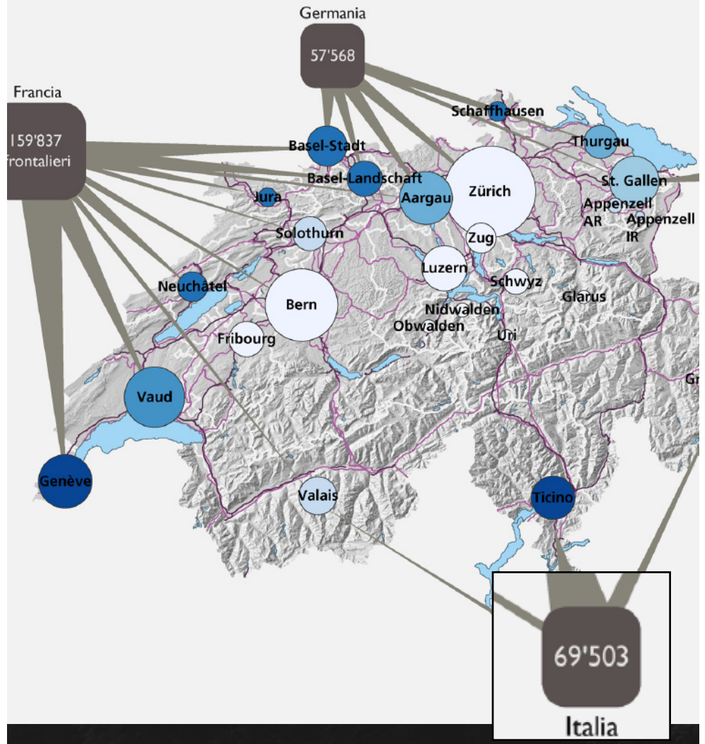
Chiasso - Como crossing



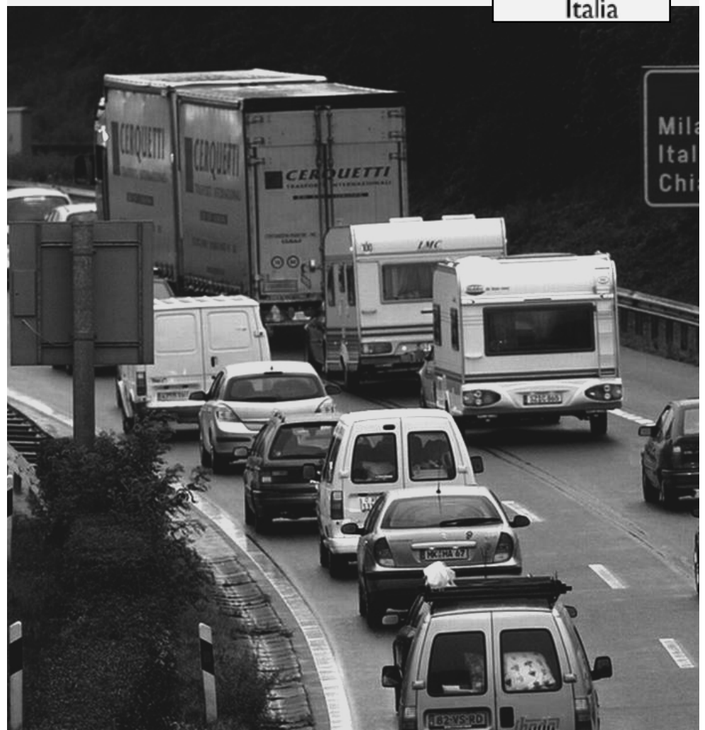




**IMAGE SOURCE:** By Keystone. Retrieved from: < https://www.rsi.ch/news/svizzera/Fondo-stradale-da-cambiare-1139224.html >

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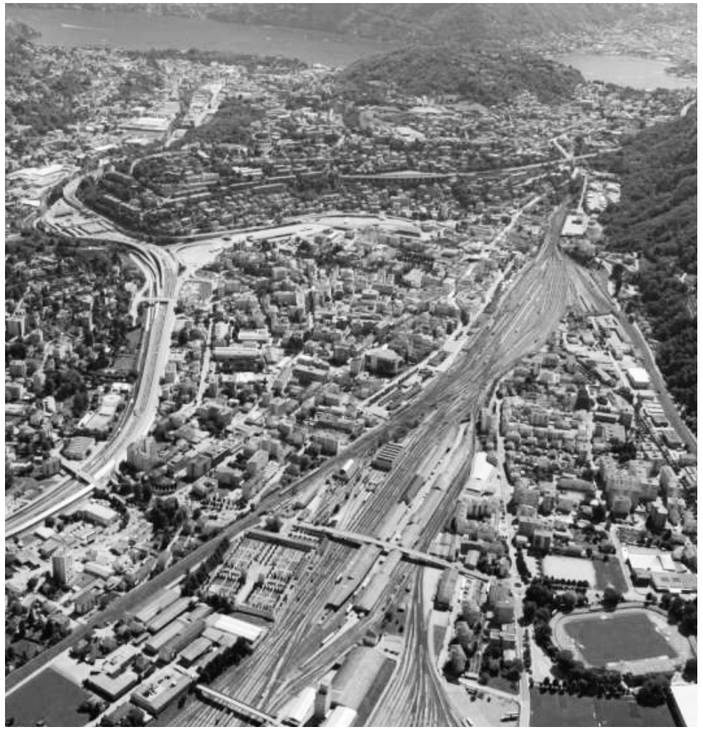


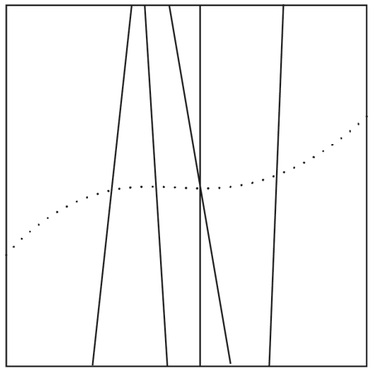
# The Swiss-Italian Border

Chiasso - Como crossing

ENTRANCE INTO ITALY

'SQUARE' NEXT TO CHURCH

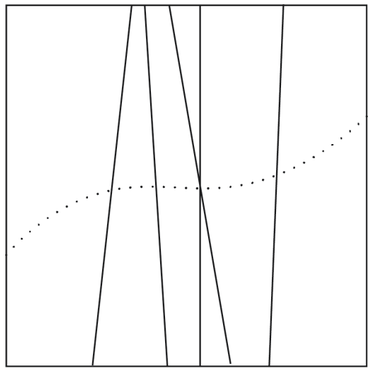
PARKING REPLACES SCHOOLYARD



**SMOOTH BORDER**

- crossing time is minimized
- places to stay are non-existent

By Patrik_Tschudin. Retrieved from: < https://commons.wikimedia.org/wiki/File:Como_-_frazione_Ponte_Chiasso_-_autostrada_A9.jpg >



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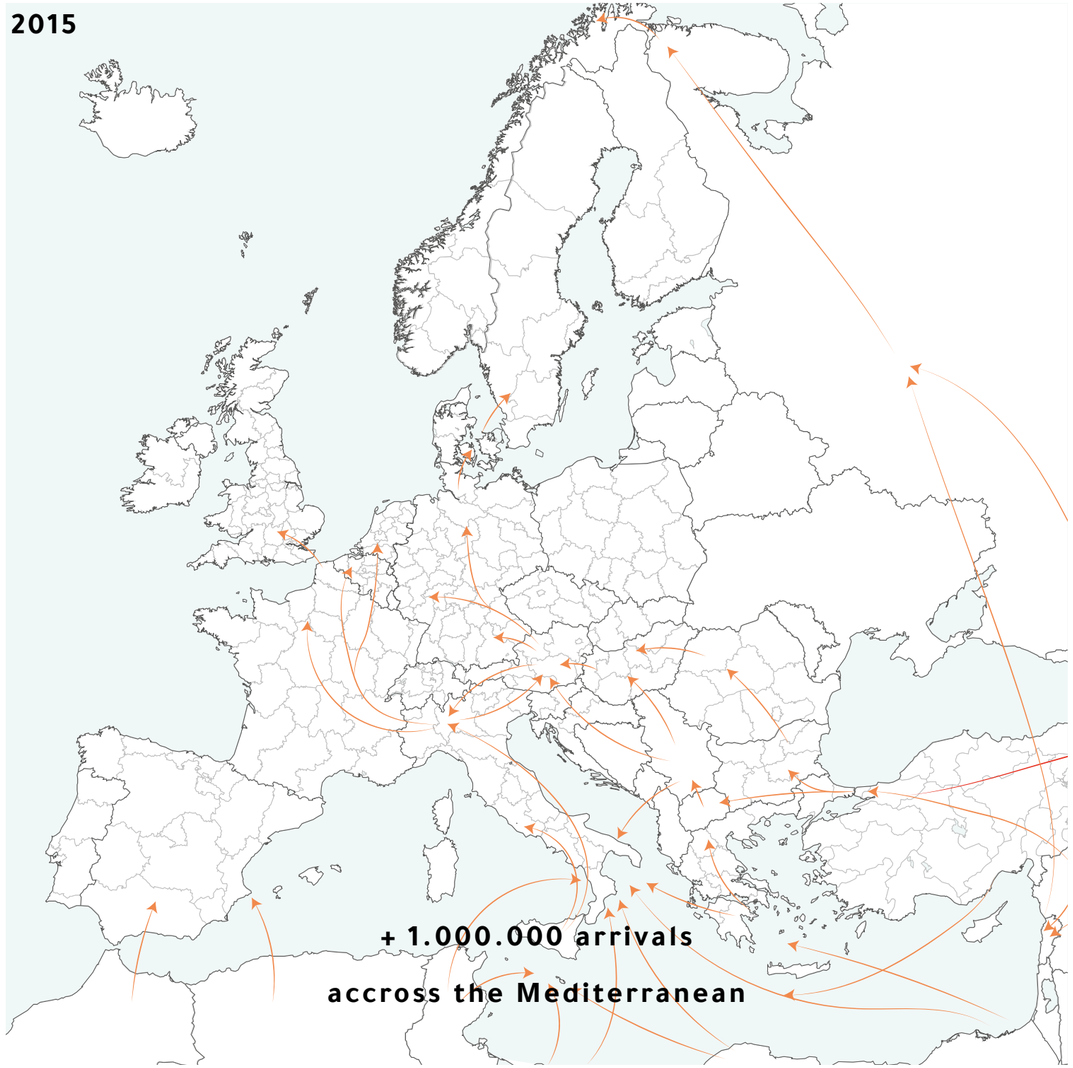
# Mobility Paradox

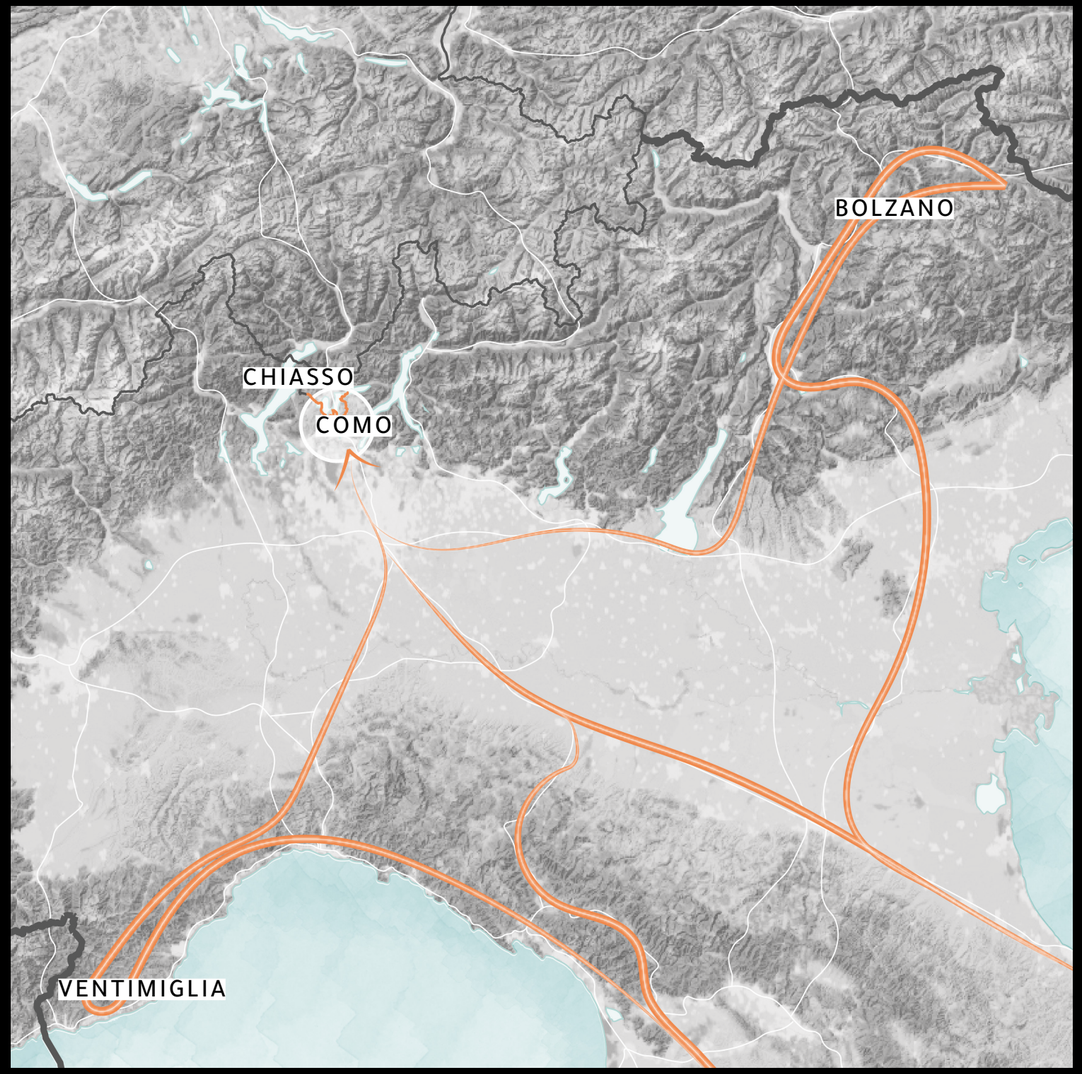
# Refugee "crisis"



# Closing Borders

# The Swiss-Italian Border Area

Como - Chiasso crossing



# The Swiss-Italian Border Area

Como - Chiasso crossing

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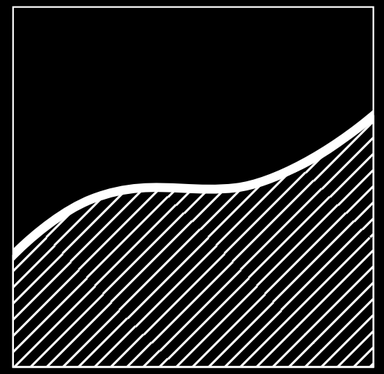
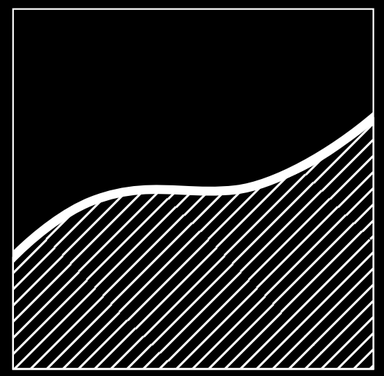
Como - Chiasso crossing



**HARD BORDER**

- crossing is impossible
- places to stay are isolated



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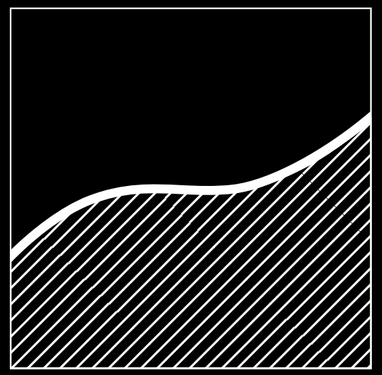
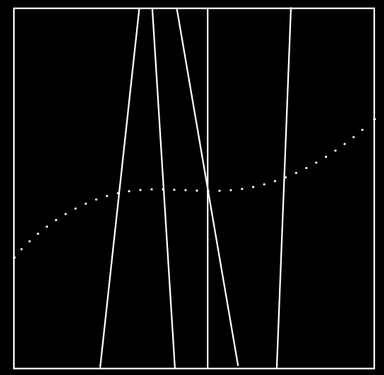


## HARD BORDER

- networks end at the border
- crossing is impossible
- there are no opportunities
- places to stay are isolated
- people are unmoved and unmixed



## SMOOTH BORDER

- networks run parallel and efficient
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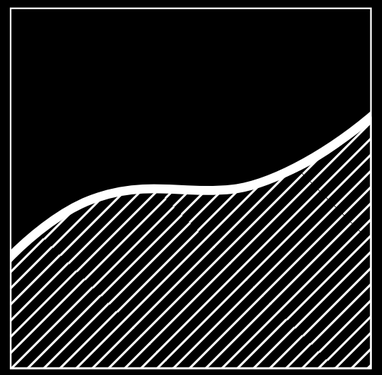
- opportunities accessible by crossing
- places to stay are non-existent
- people move swiftly past each other



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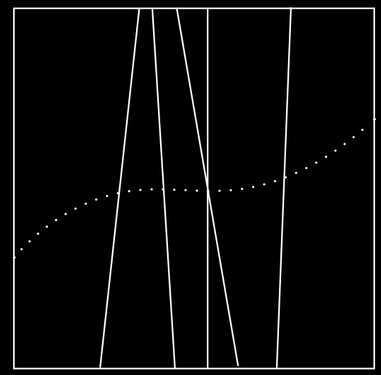

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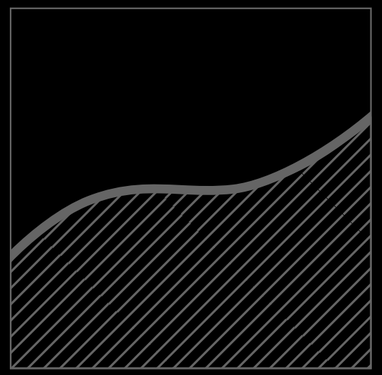
# Ambition



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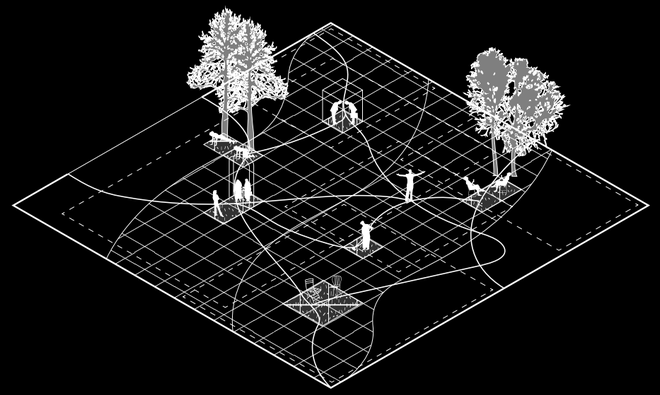
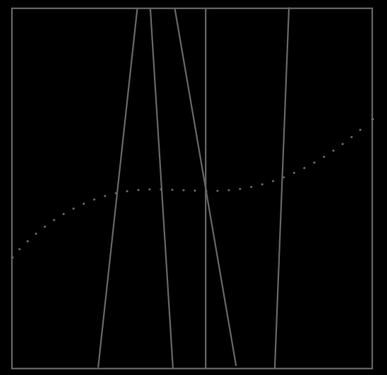


## BORDER SPACE

- networks cross and overlap
- crossing time is interrupted
- opportunities are fairly distributed
- places to stay are diverse
- people meet and exchange



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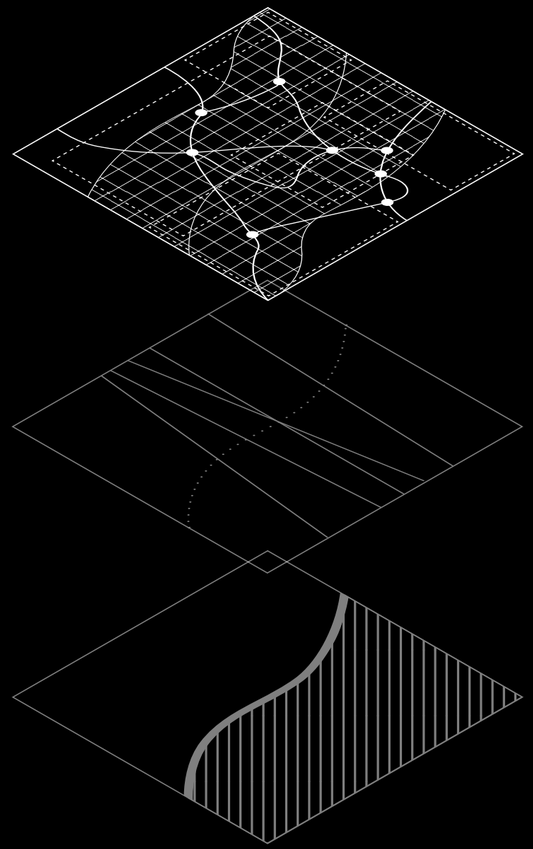
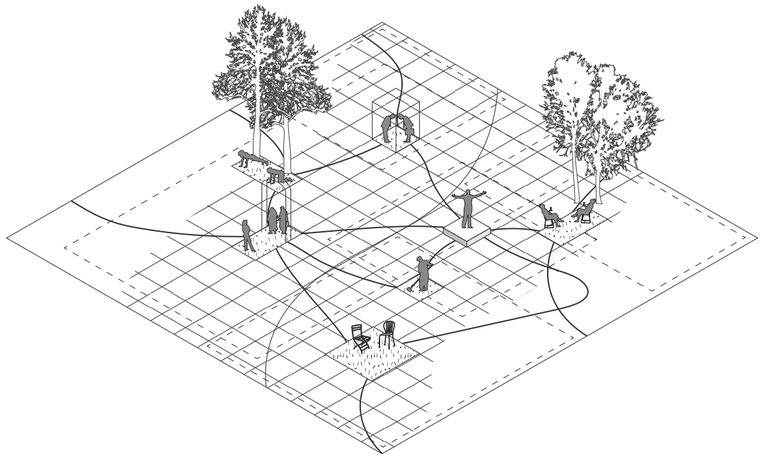
# COMPLEMENTARY LAYERS



# Research Question

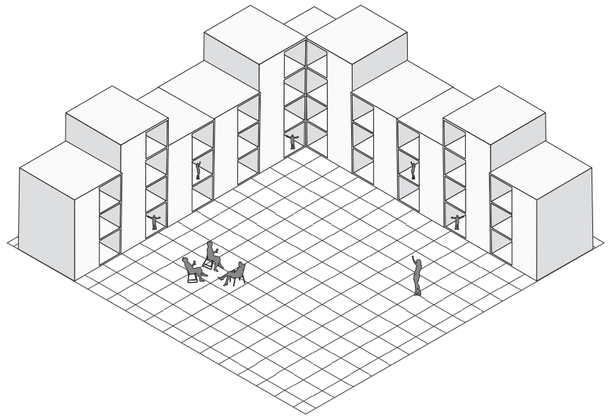
How to design **border space** that provides **access to (social and economic) opportunities** for all inhabitants, and that functions as an attractive **integrative edge** for people from different backgrounds?



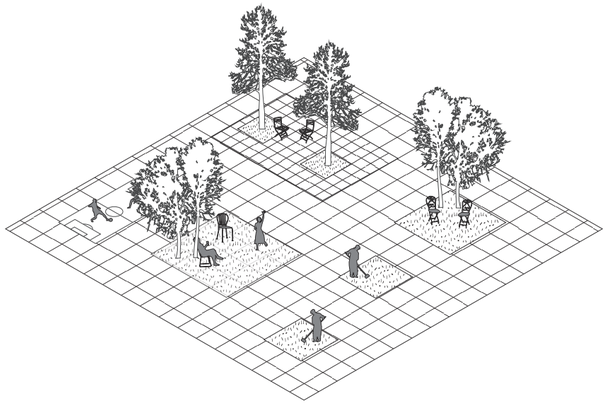
## BORDER SPACE AS A HIGH QUALITY LIVING ENVIRONMENT

- networks cross and overlap
- opportunities are fairly distributed
- places to stay are diverse
- people meet and exchange

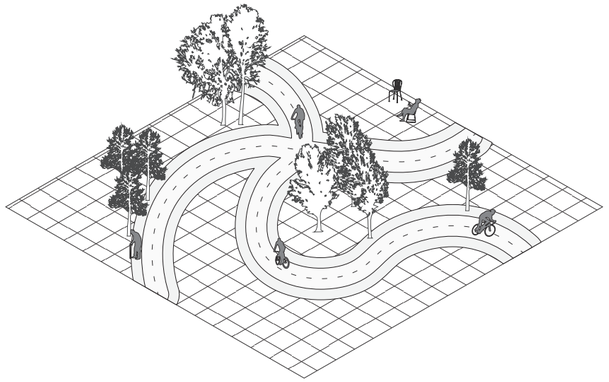
# Design Ambitions



Affordable housing



Diverse places to stay

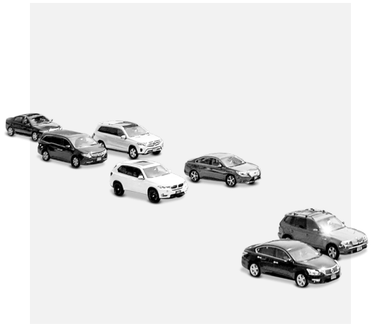


Slow traffic networks

# TOWARDS A BORDER SPACE DESIGN

# Target Groups

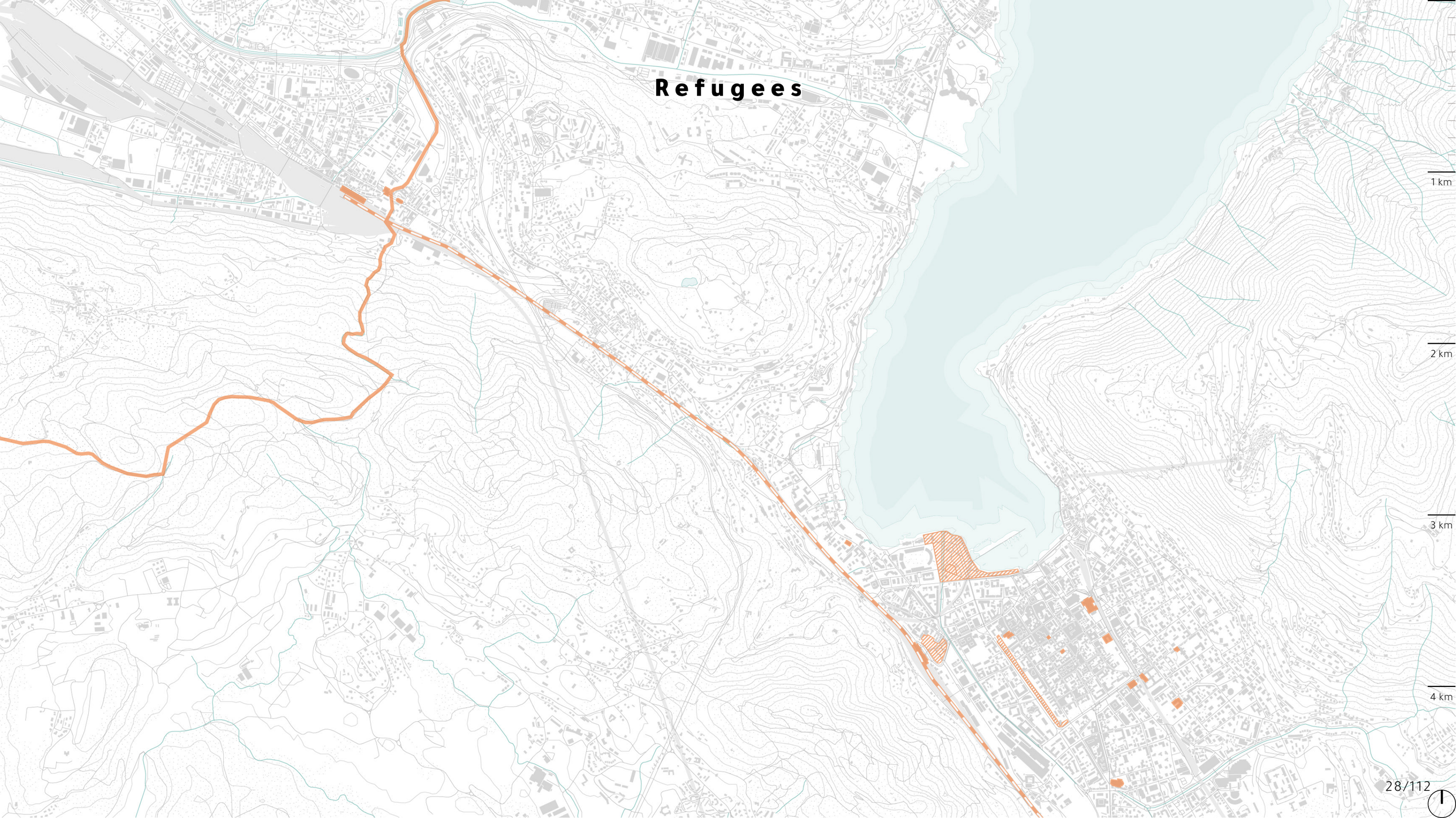
REFUGEES

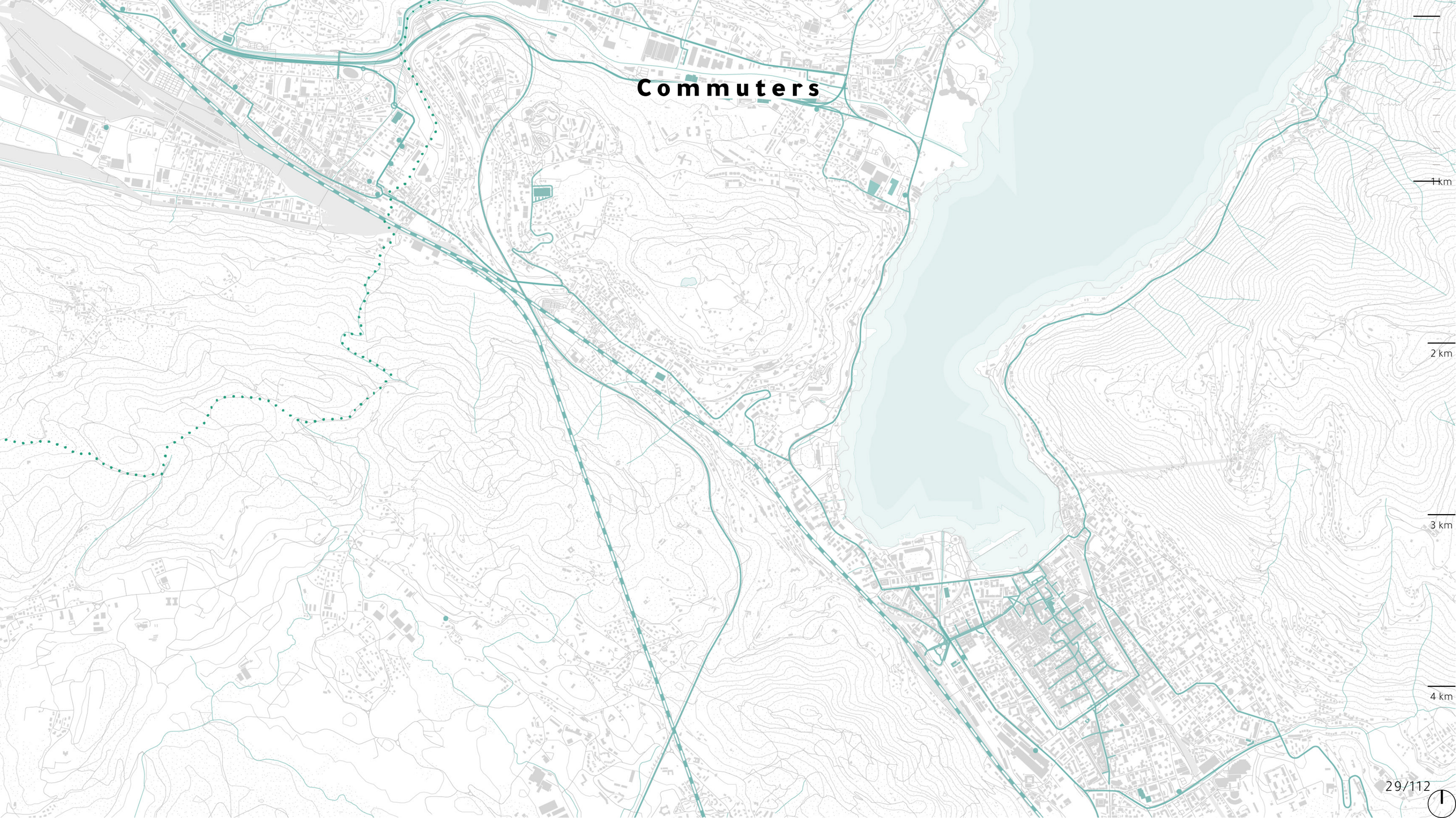


COMMUTERS

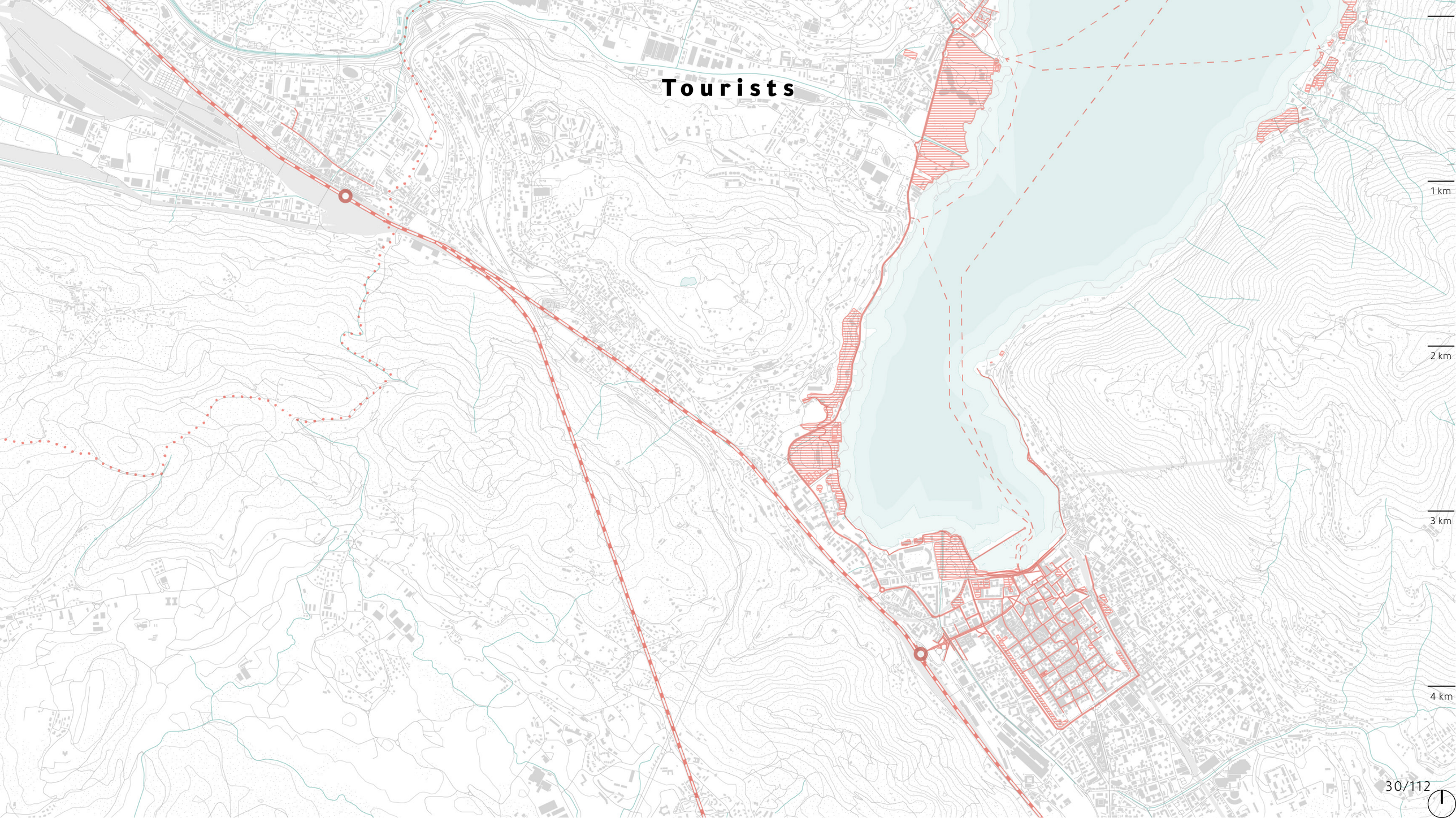
TOURISTS

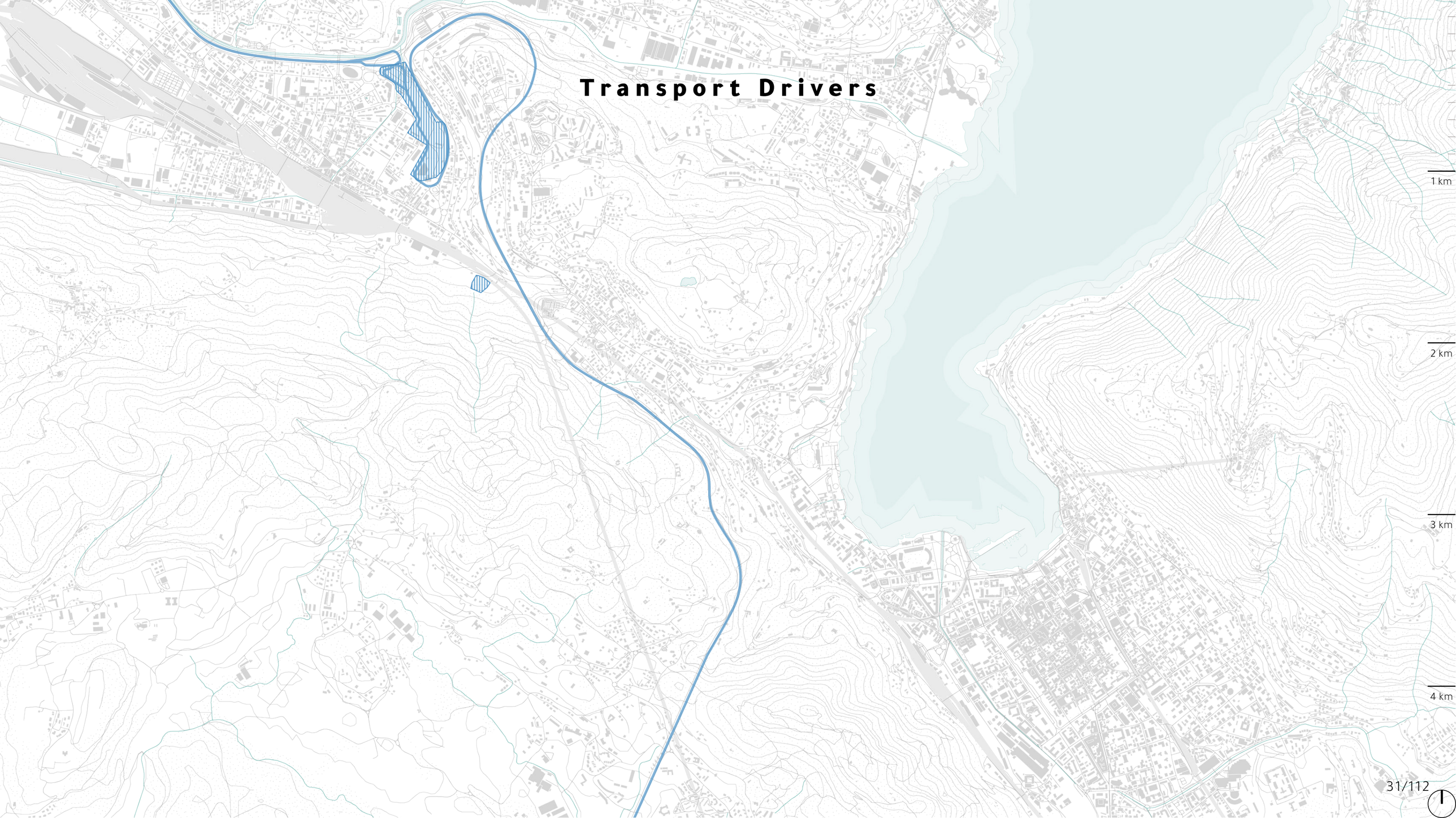
TRANSPORT DRIVERS

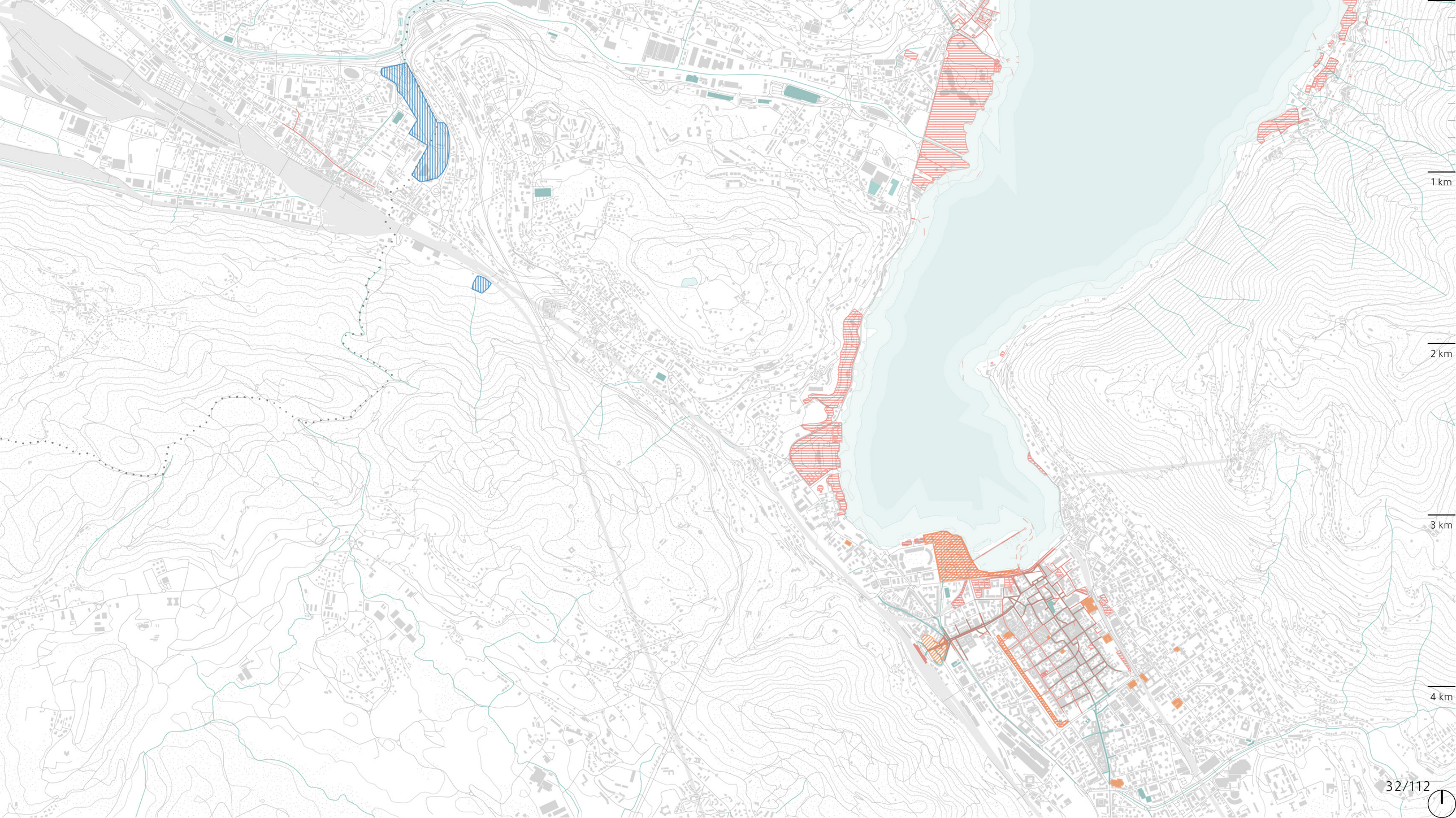

Refugees
1 km
2 km
3 km
4 km

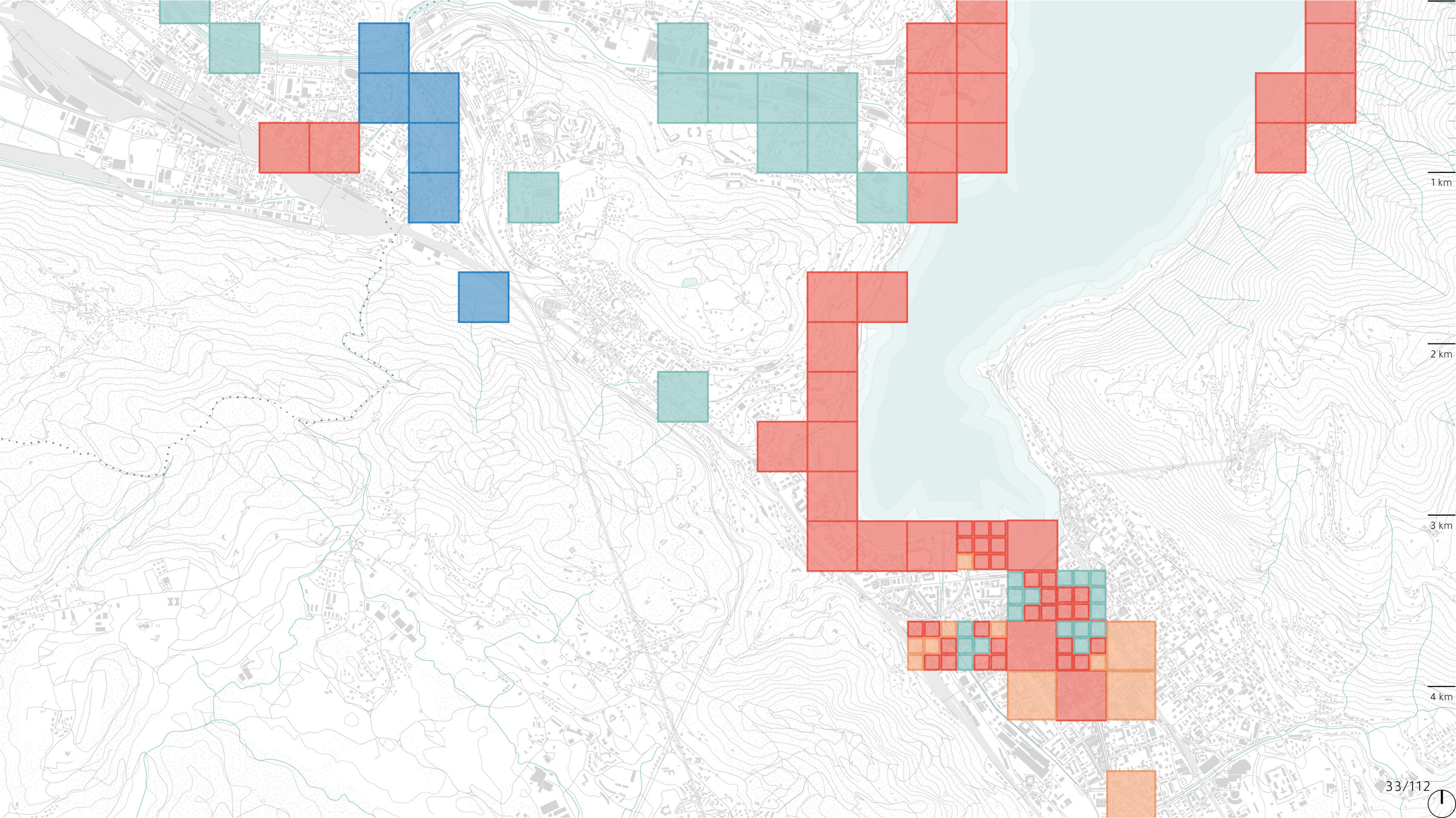

Commuters
1 km
2 km
3 km
4 km

# Tourists

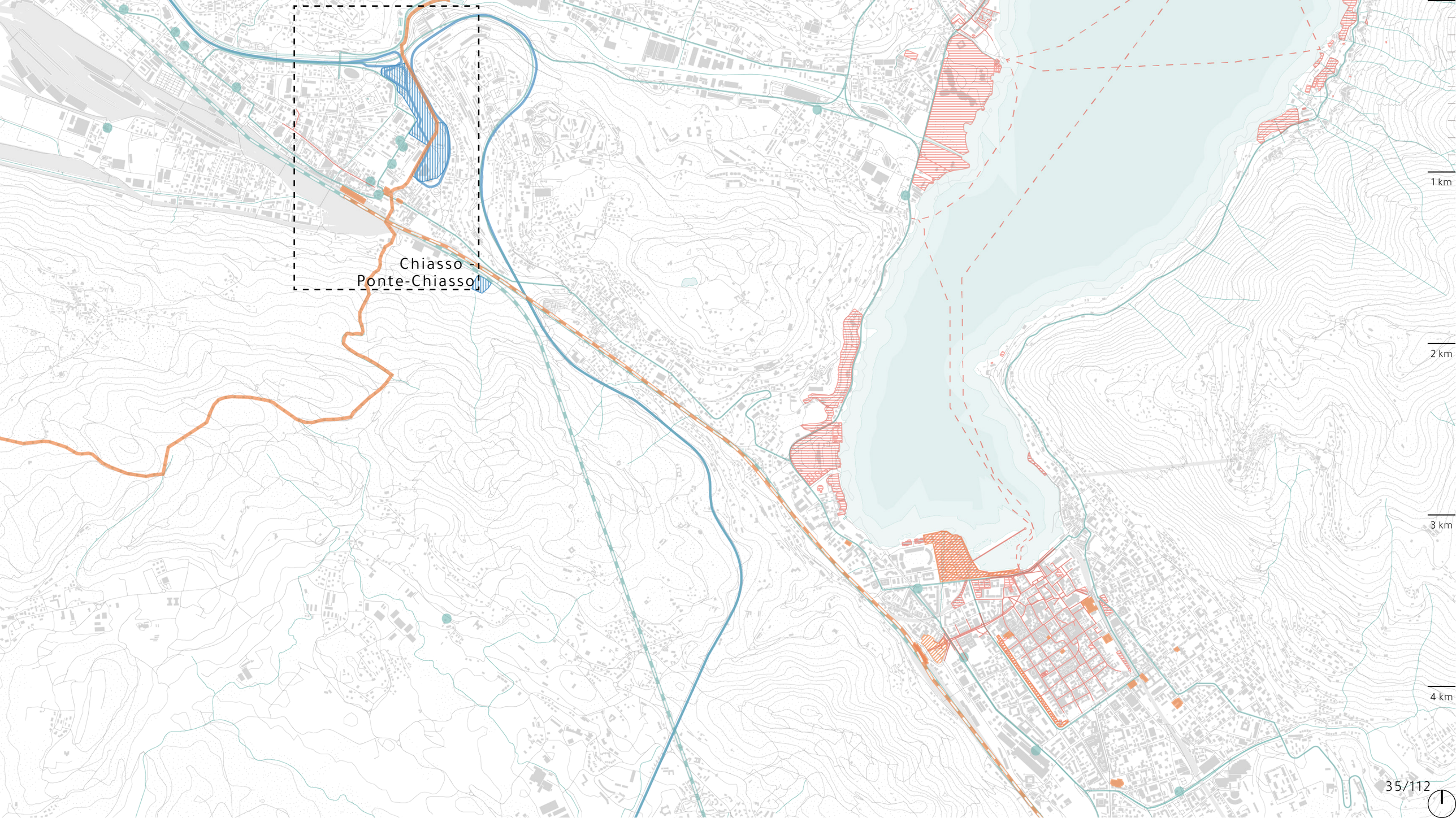



Transport Drivers
1 km
2 km
3 km
4 km

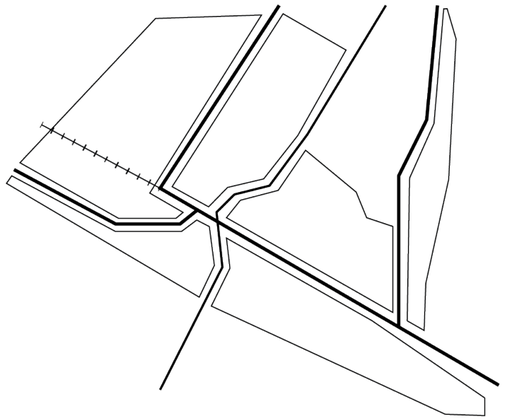

1 km
2 km
3 km
4 km


1 km
2 km
3 km
4 km

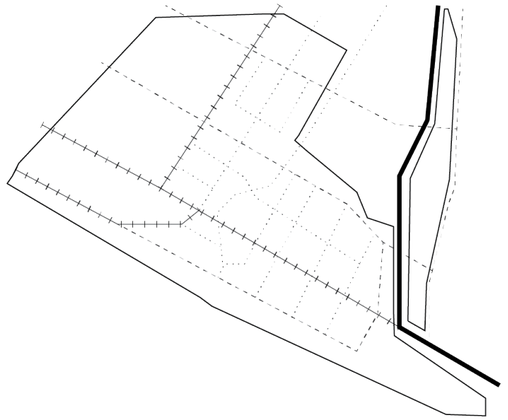
# Lack of Places to Stay

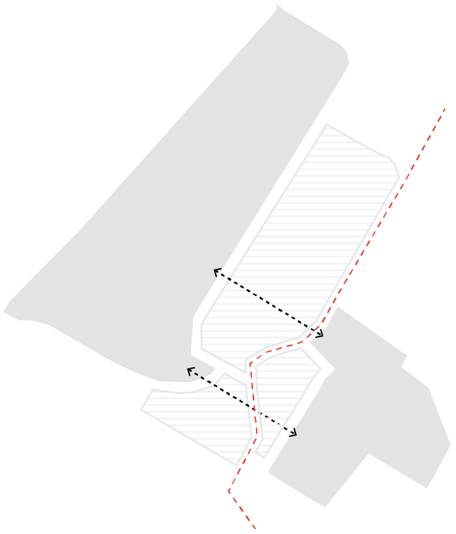

Chiasso -
Ponte-Chiasso
1 km
2 km
3 km
4 km

# Space Claim Lorries



# Border Space



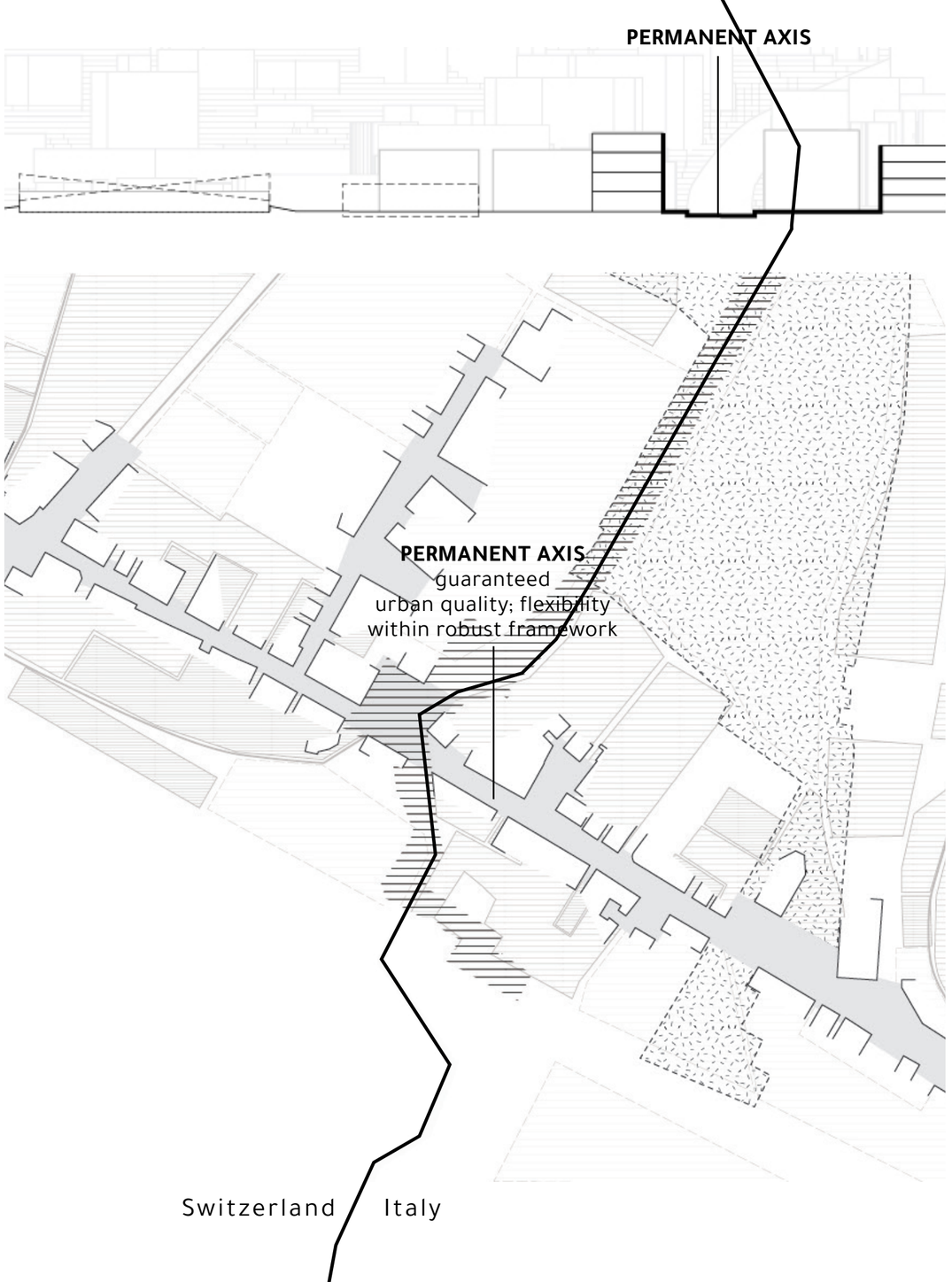


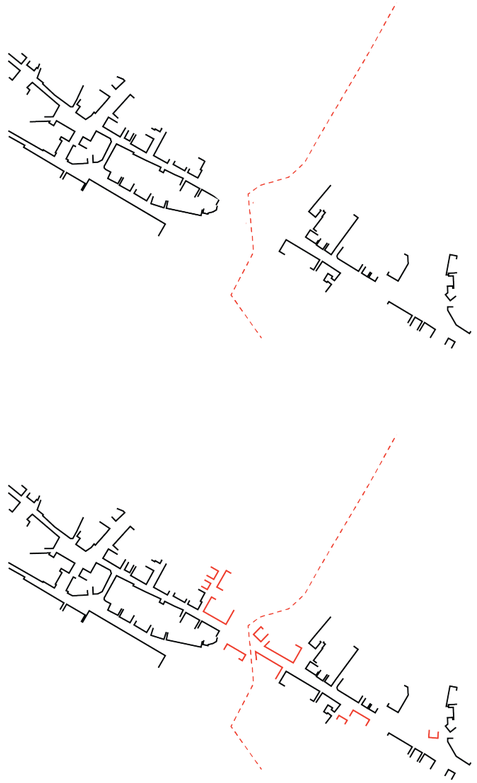
# Border Space

Why do urbanists always want to bridge gaps?

# Border Space

Why do urbanists always want to bridge gaps?


PERMANENT AXIS
PERMANENT AXIS
guaranteed
urban quality; flexibility
within robust framework
Switzerland
Italy

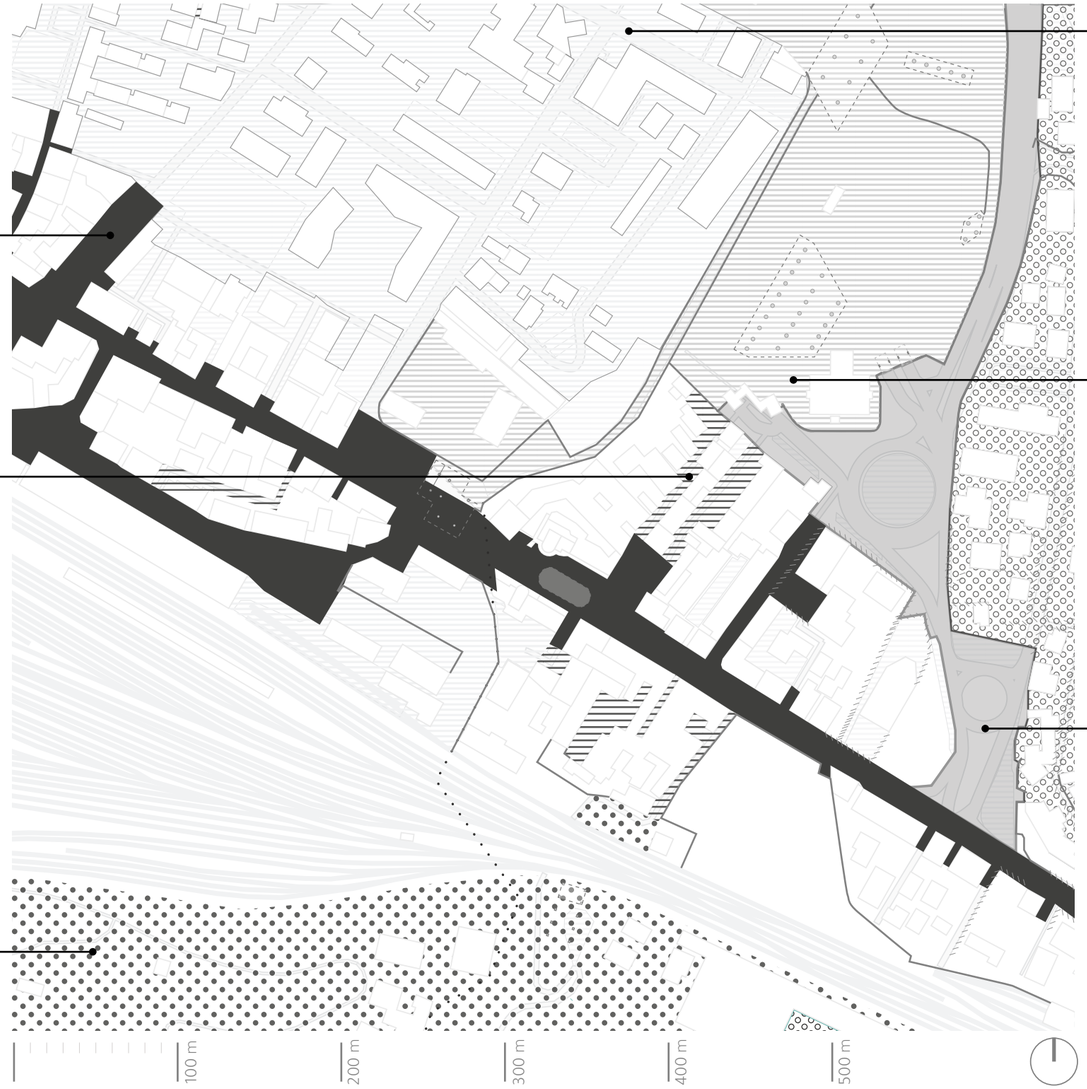


# Open Space Typologies

URBAN STREET

INTIMATE STREET

LANDSCAPE PARK

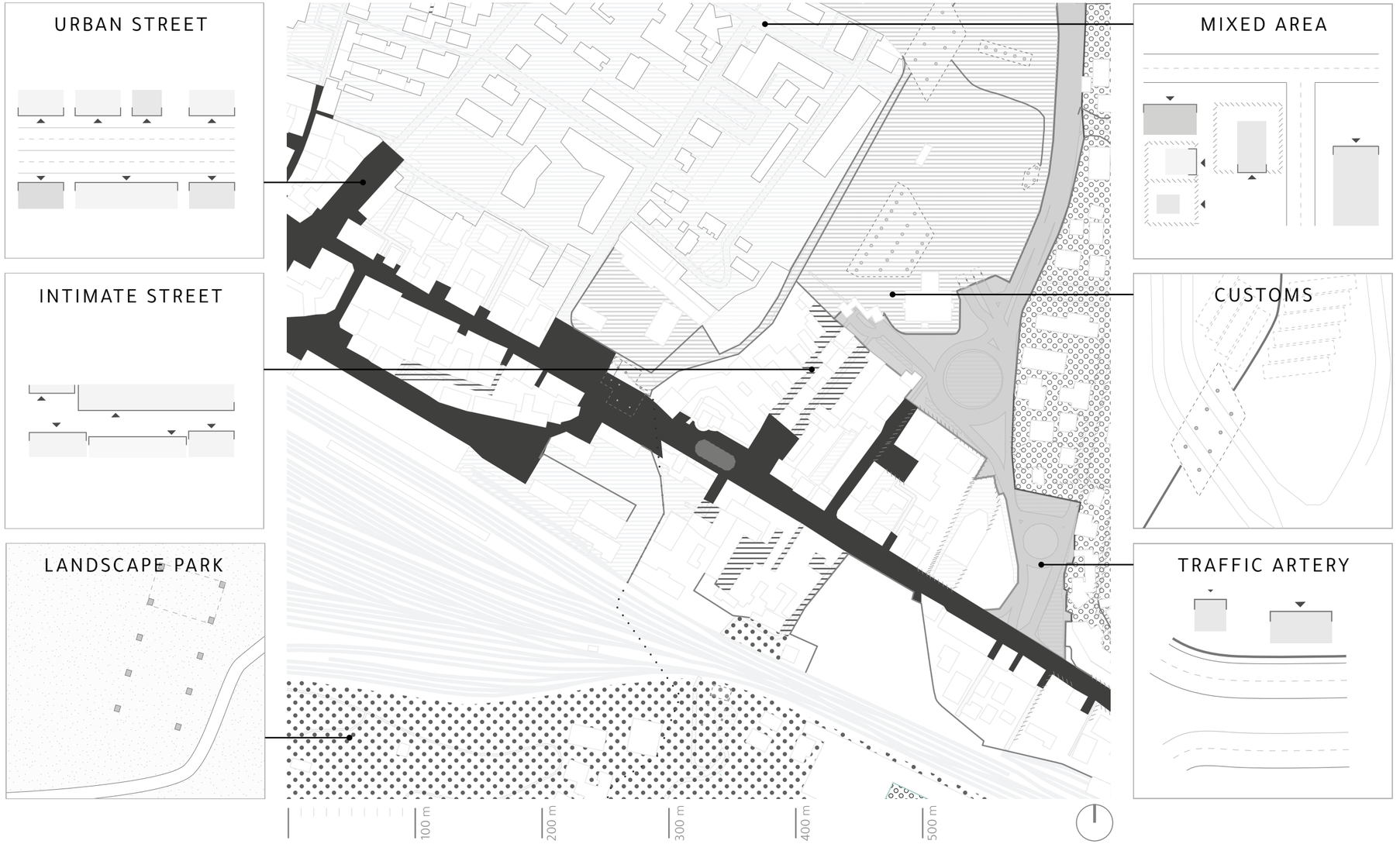



MIXED AREA

CUSTOMS

TRAFFIC ARTERY

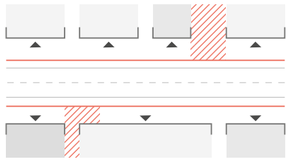
# Open Space Typologies



# Base Layer

Open space typologies

URBAN STREET



INTIMATE STREET

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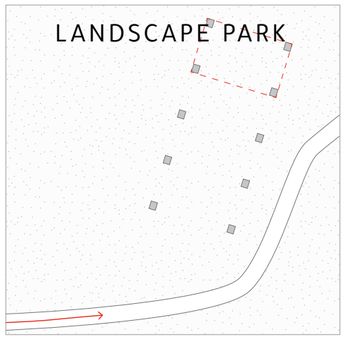

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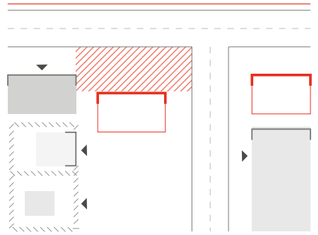
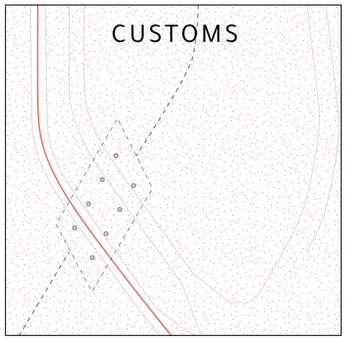
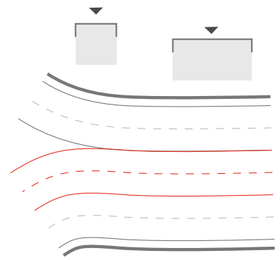


CUSTOMS



TRAFFIC ARTERY



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Open space typologies

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INTIMATE STREET



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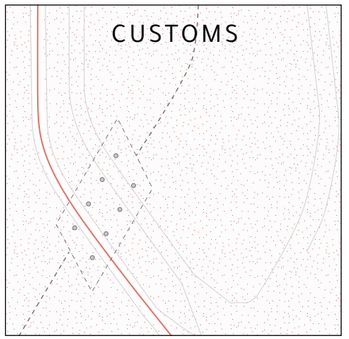
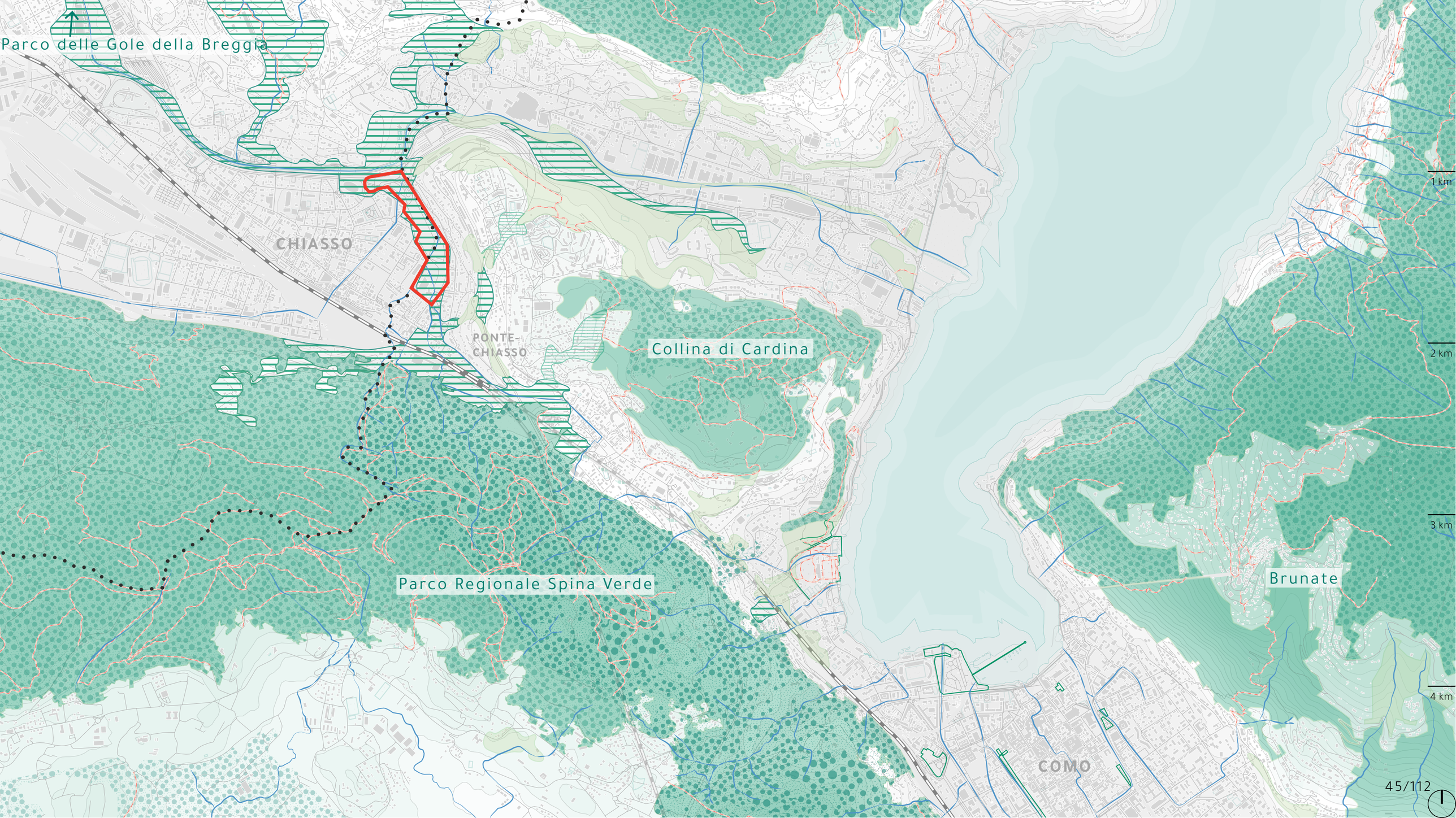
MIXED AREA



CUSTOMS



TRAFFIC ARTERY


Parco delle Gole della Breggia
CHIASSO
PONTE-
CHIASSO
Collina di Cardina
Parco Regionale Spina Verde
Brunate
COMO
1 km
2 km
3 km
4 km

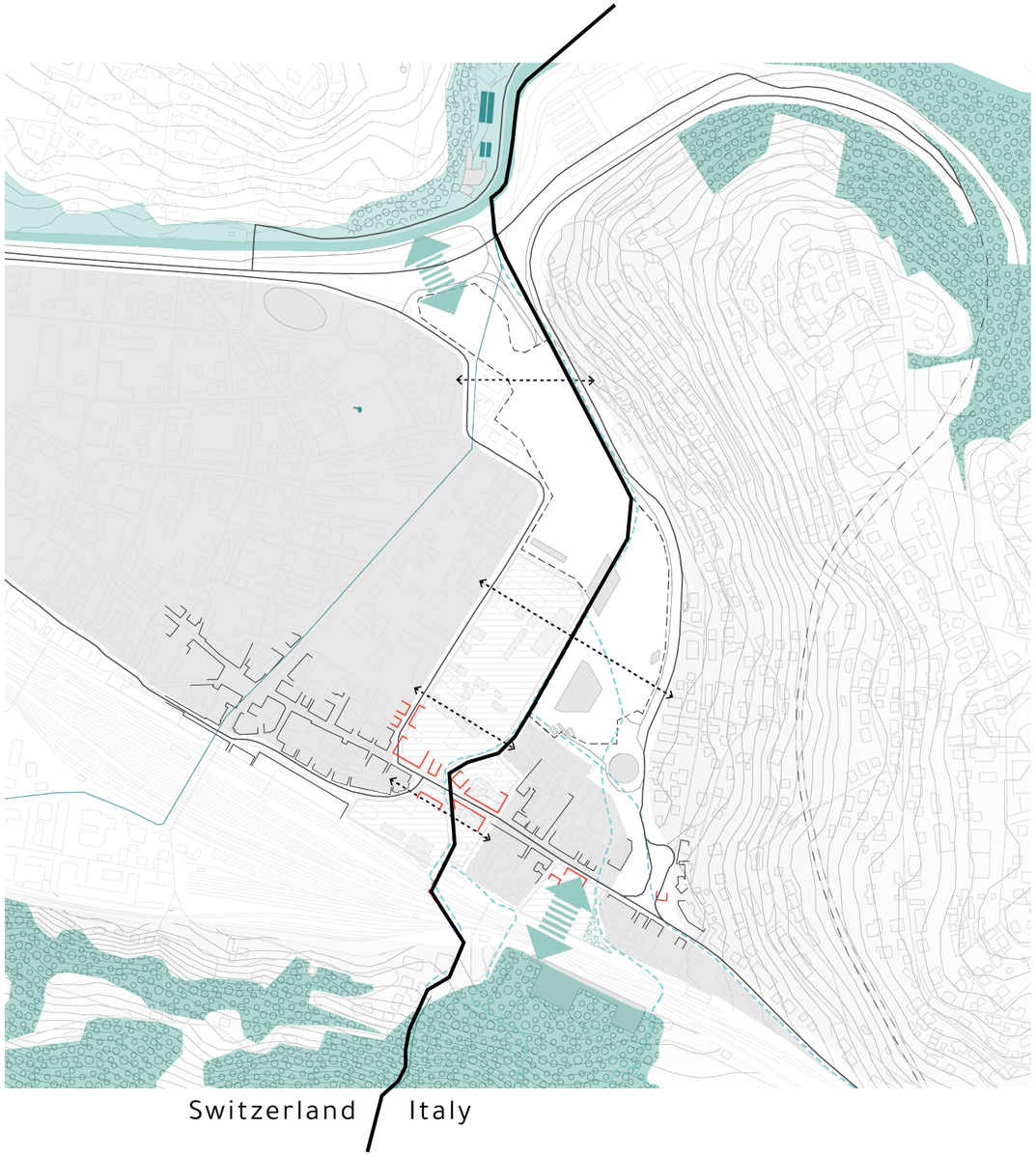
# Ecological & Recreational Connection

Customs park

PARCO DELLE GOLE DELLA BREGGIA ⟷ CUSTOMS PARK ⟷ PARCO REGIONALE SPINA VERDE

# Structural Interventions

CHIASSO

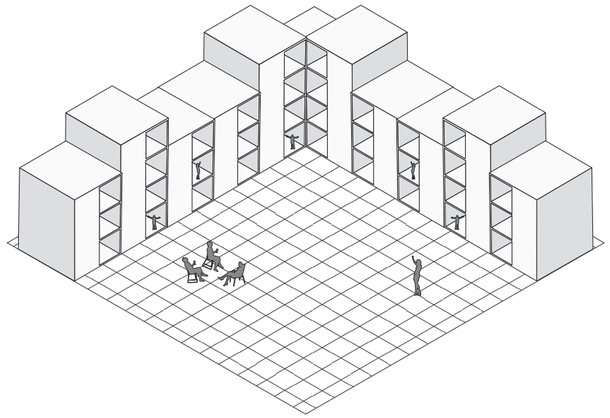


Switzerland / Italy

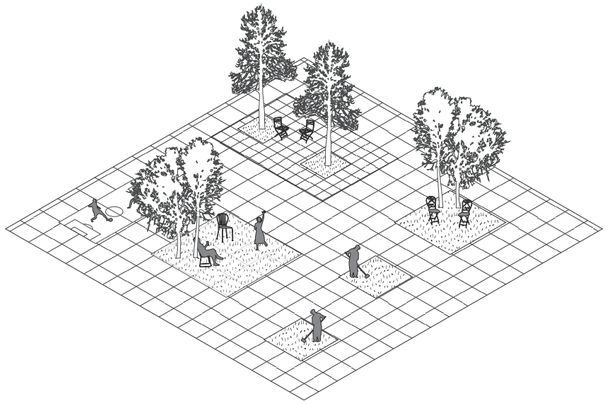
PONTE-CHIASSO (COMO)

# DEVELOPING THE DESIGN AMBITIONS

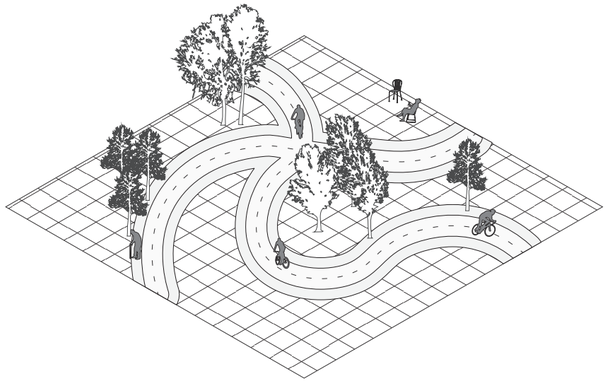
# Design Ambitions



Affordable housing



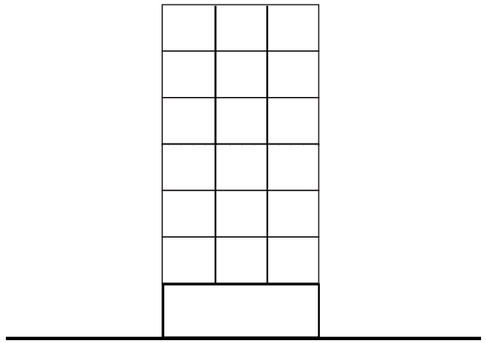
Diverse places to stay



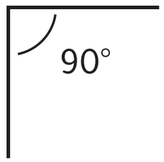
Slow traffic networks

# Affordable Housing

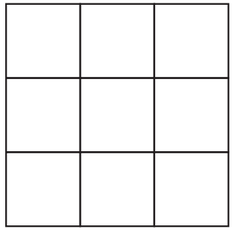
Design principles



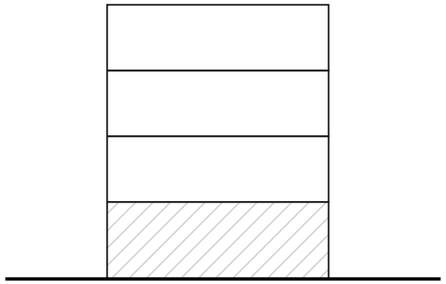
HIGHER DENSITIES



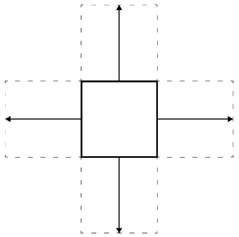

90-DEGREE ANGLES



REPETITIVE UNITS



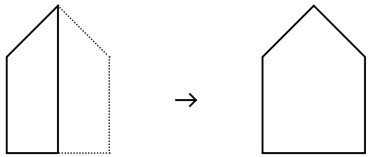
COMMERCIAL GROUND FLOOR



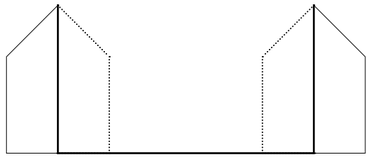
INCREMENTAL HOUSING

# Affordable Housing

Incremental housing concept



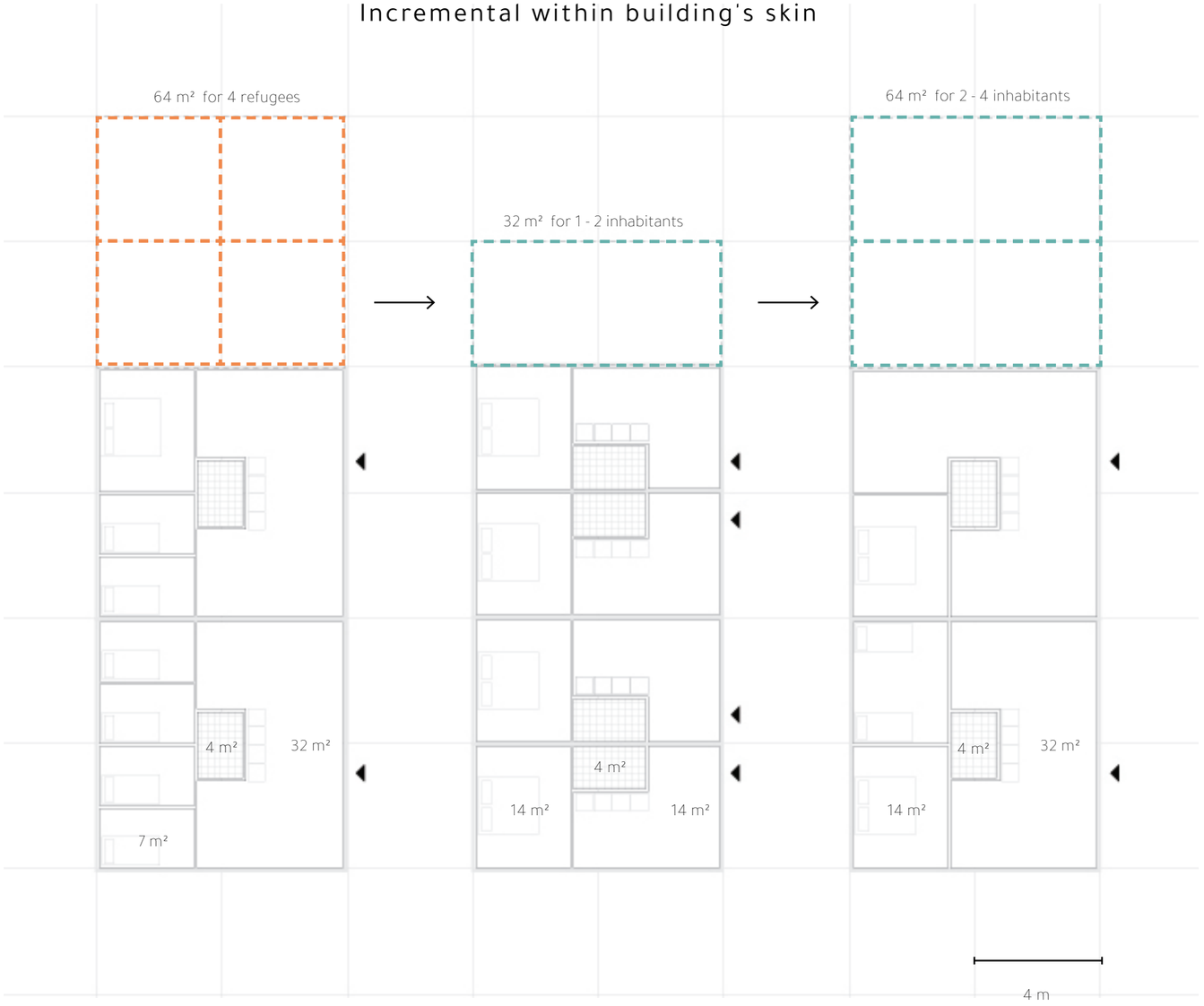
INCREMENTAL HOUSING



PUBLIC SPACE

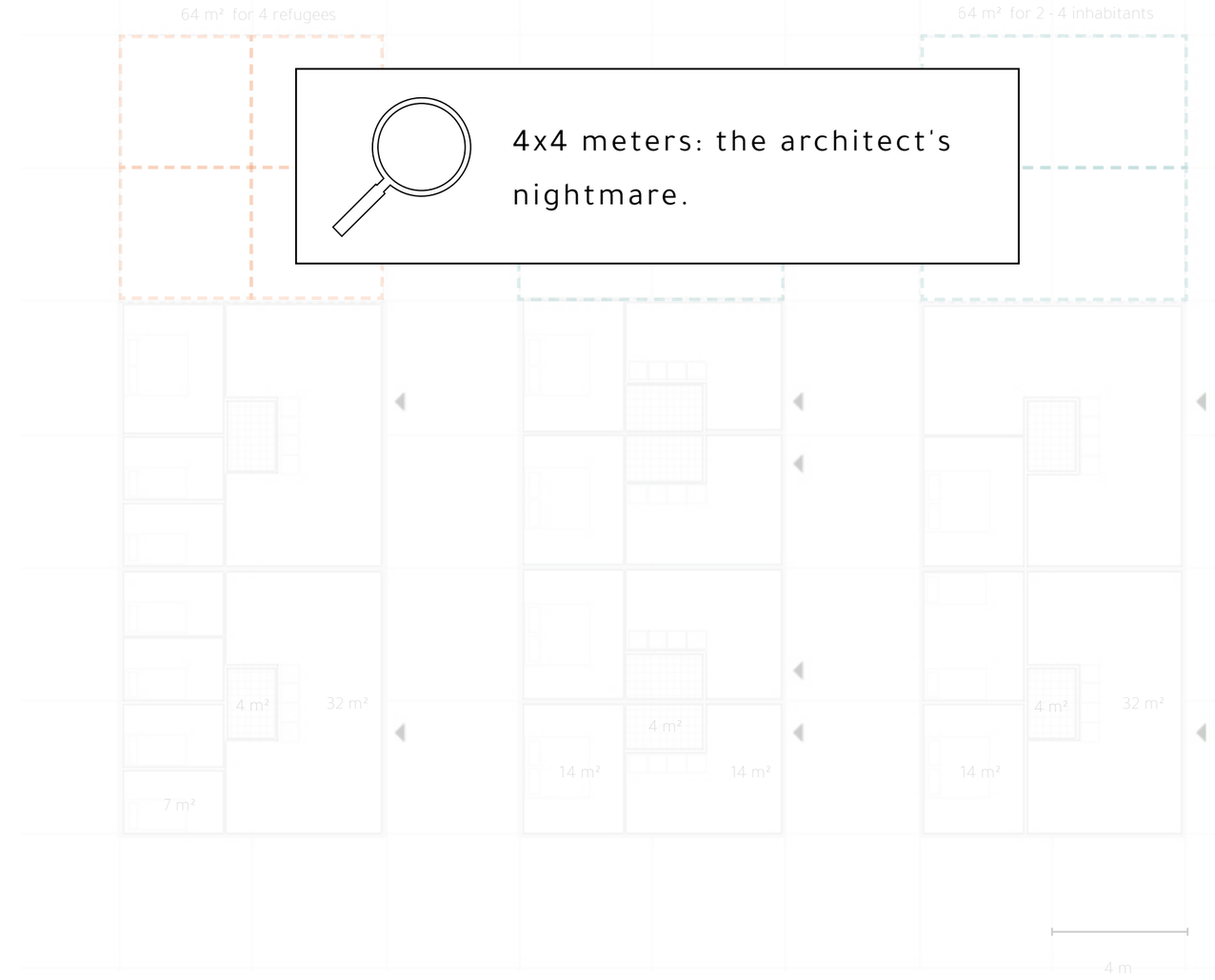
# Affordable Housing

Incremental within building's skin



# Affordable Housing

Incremental within building's skin




4x4 meters: the architect's nightmare.

# Affordable Housing

The 4x4 unit

**REFUGEE**
16 $m^2$

**TOURIST**
16 $m^2$

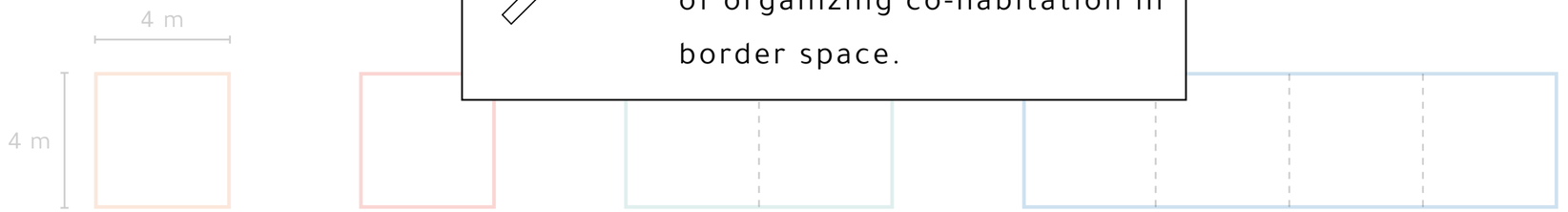
**COMMUTER**
32 $m^2$

**TRANSPORT DRIVER**
64 $m^2$

# Affordable Housing

The 4x4 unit

Simplification of complex personas helps to think more freely about potential ways of organizing co-habitation in border space.




**REFUGEE**
16 m²

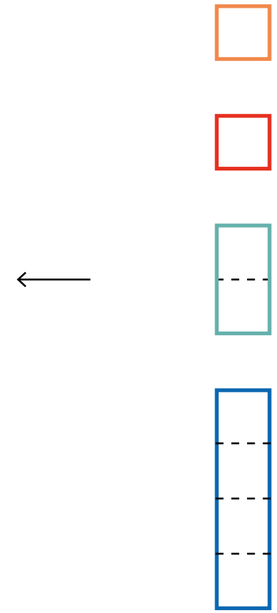
**TOURIST**
16 m²

**COMMUTER**
32 m²

**TRANSPORT DRIVER**
64 m²

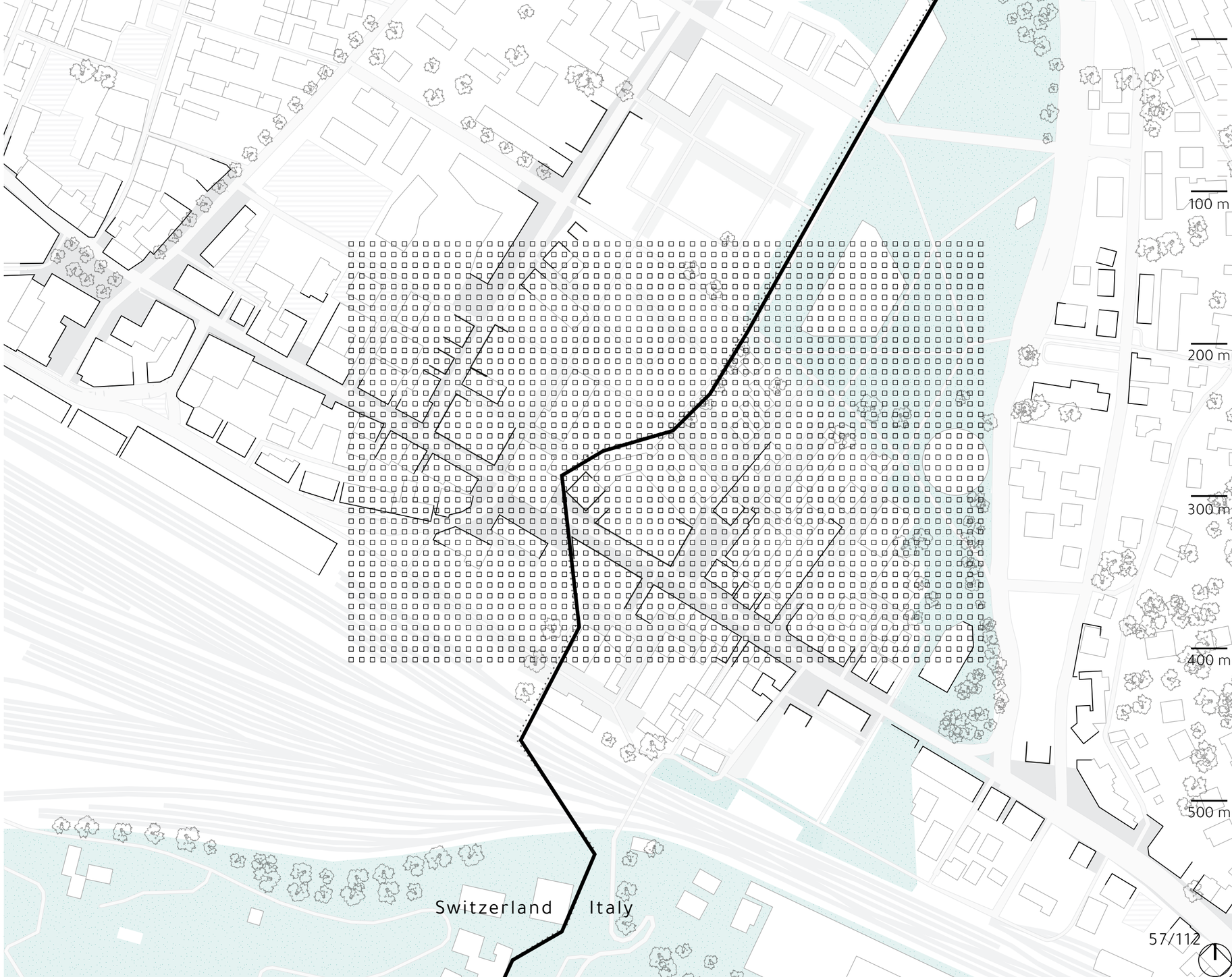
# Urban Design

Integration of the 4x4 module



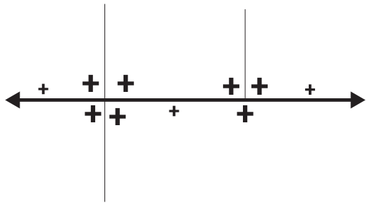
**CHIASSO -**
**PONTE-CHIASSO**

+ 2.000 - 2.500 inhabitants

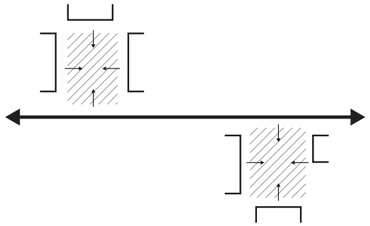


# Diverse Public Spaces

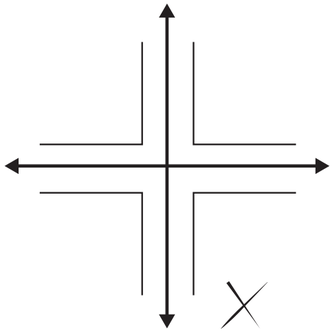
Design principles



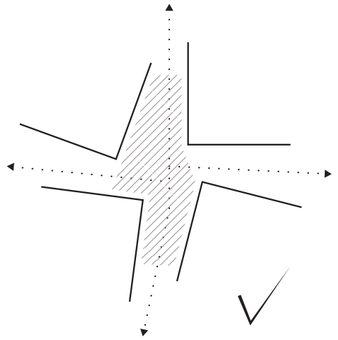
DENSIFY AT CROSSINGS



INTIMATE PUBLIC SPACES
VISIBLE FROM MAIN ROAD



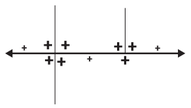
STREETS DESIGNED FOR
RACING THROUGH

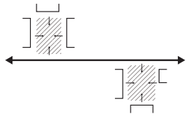


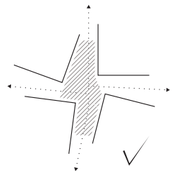
STREETS DESIGNED FOR
STAYING IN

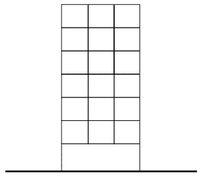
# Diverse Public Spaces

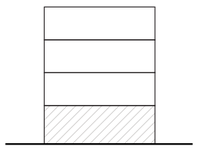
+ 2.000 - 2.500 dwellings

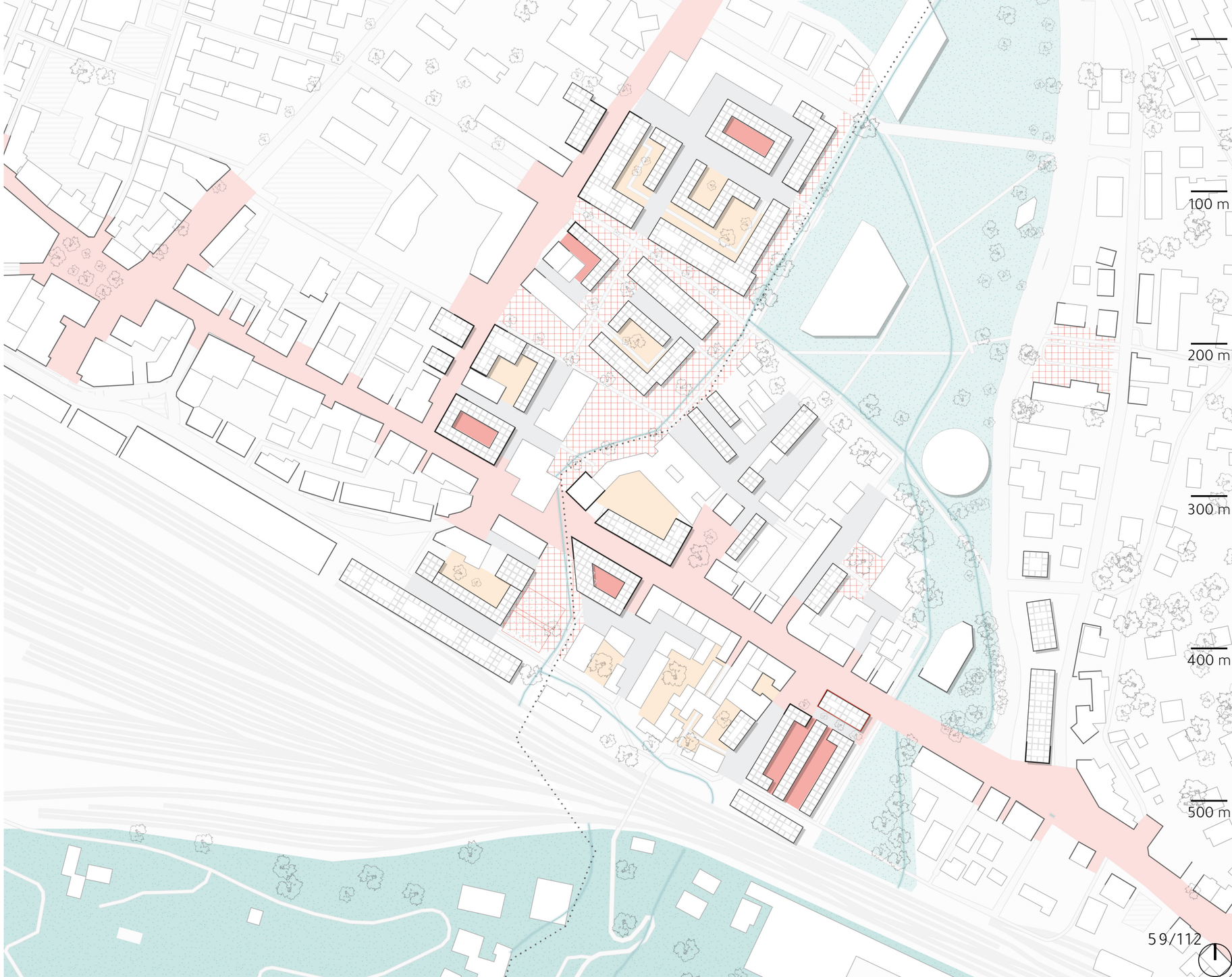




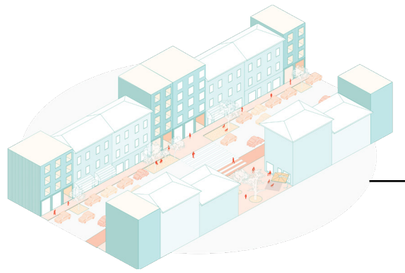




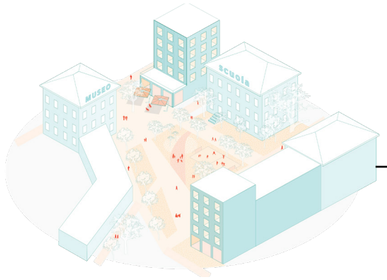




# Diverse Public Spaces



URBAN MAIN STREET




SQUARE

INTIMATE STREET

COURTYARD

100 m

200 m

300 m

400 m

500 m

# Diverse Public Spaces



URBAN MAIN STREET



SQUARE



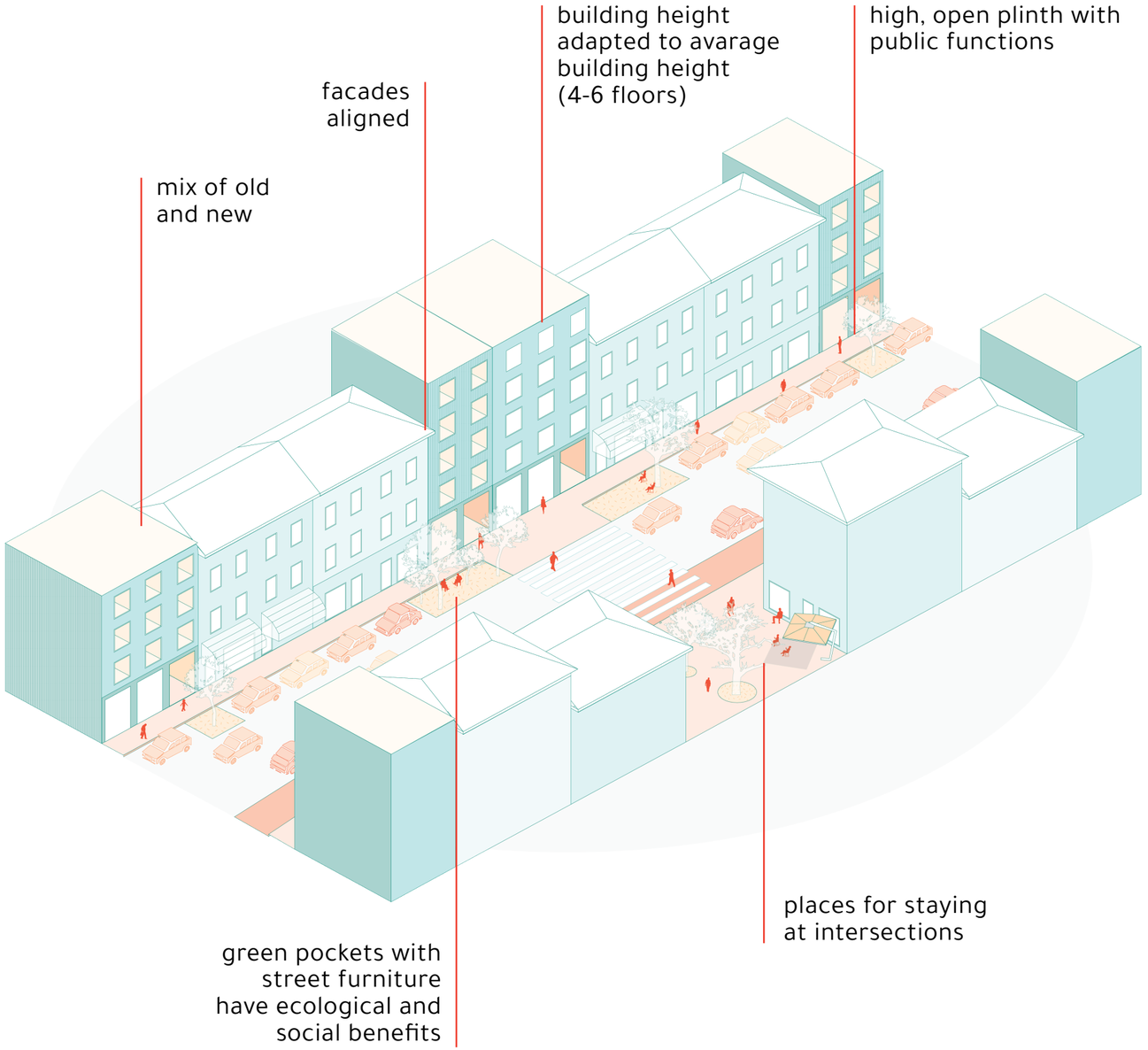
INTIMATE STREET



COURTYARD

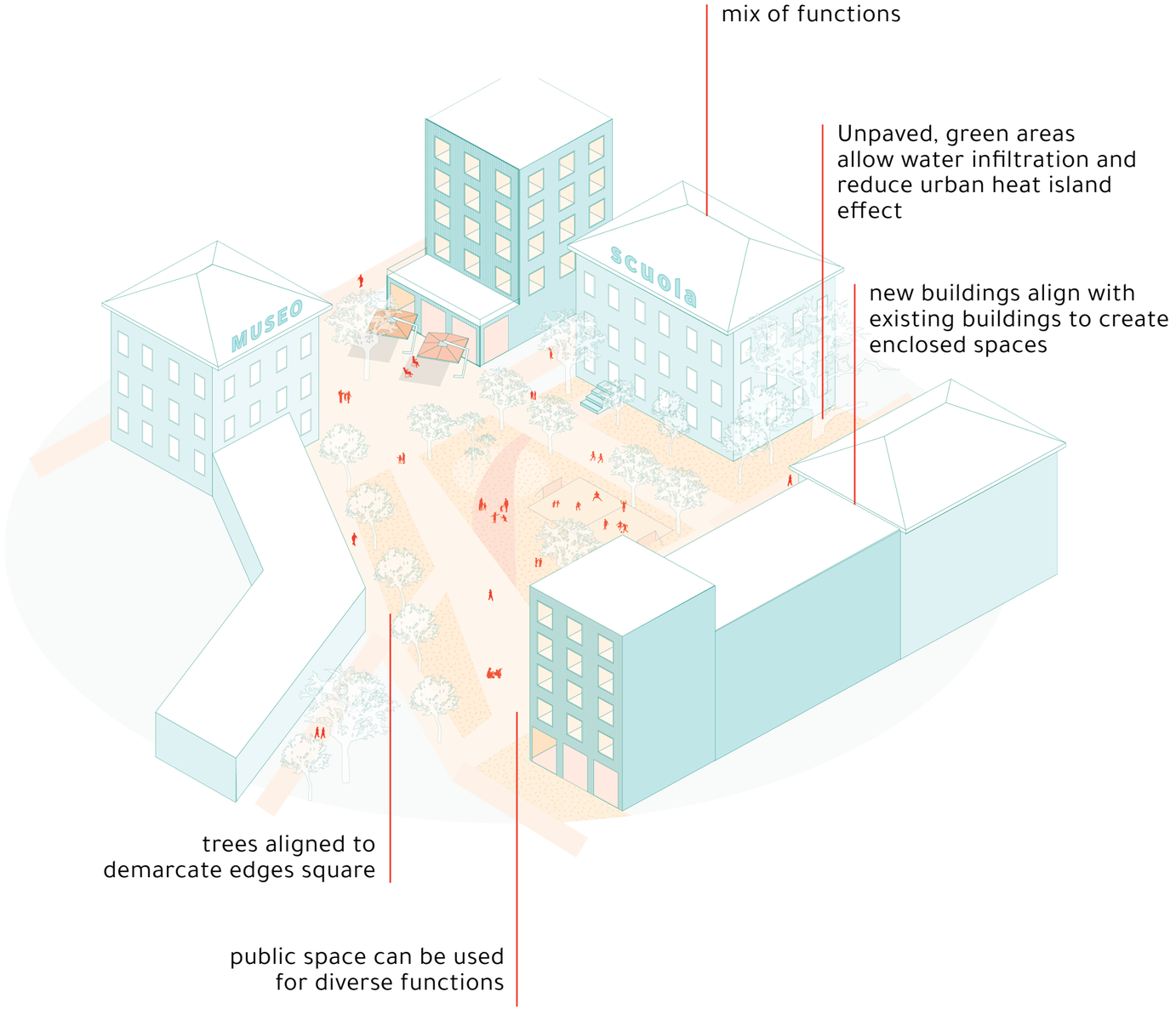
Italians and Swiss-Italians generally don't like people looking into their homes.

# Urban Main Street



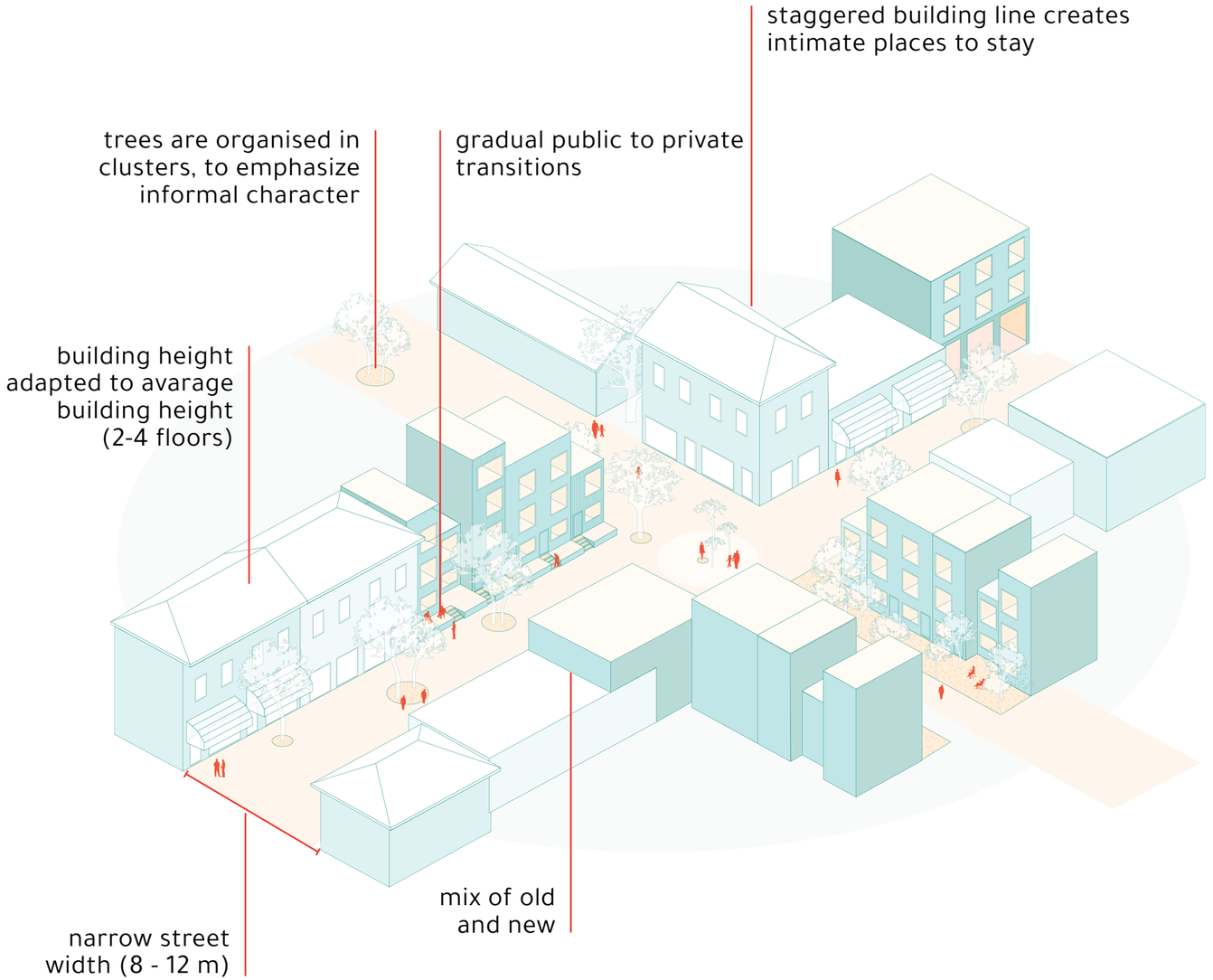
# Urban Main Street

# Square


mix of functions
Unpaved, green areas allow water infiltration and reduce urban heat island effect
new buildings align with existing buildings to create enclosed spaces
MUSEO
scuola
trees aligned to demarcate edges square
public space can be used for diverse functions

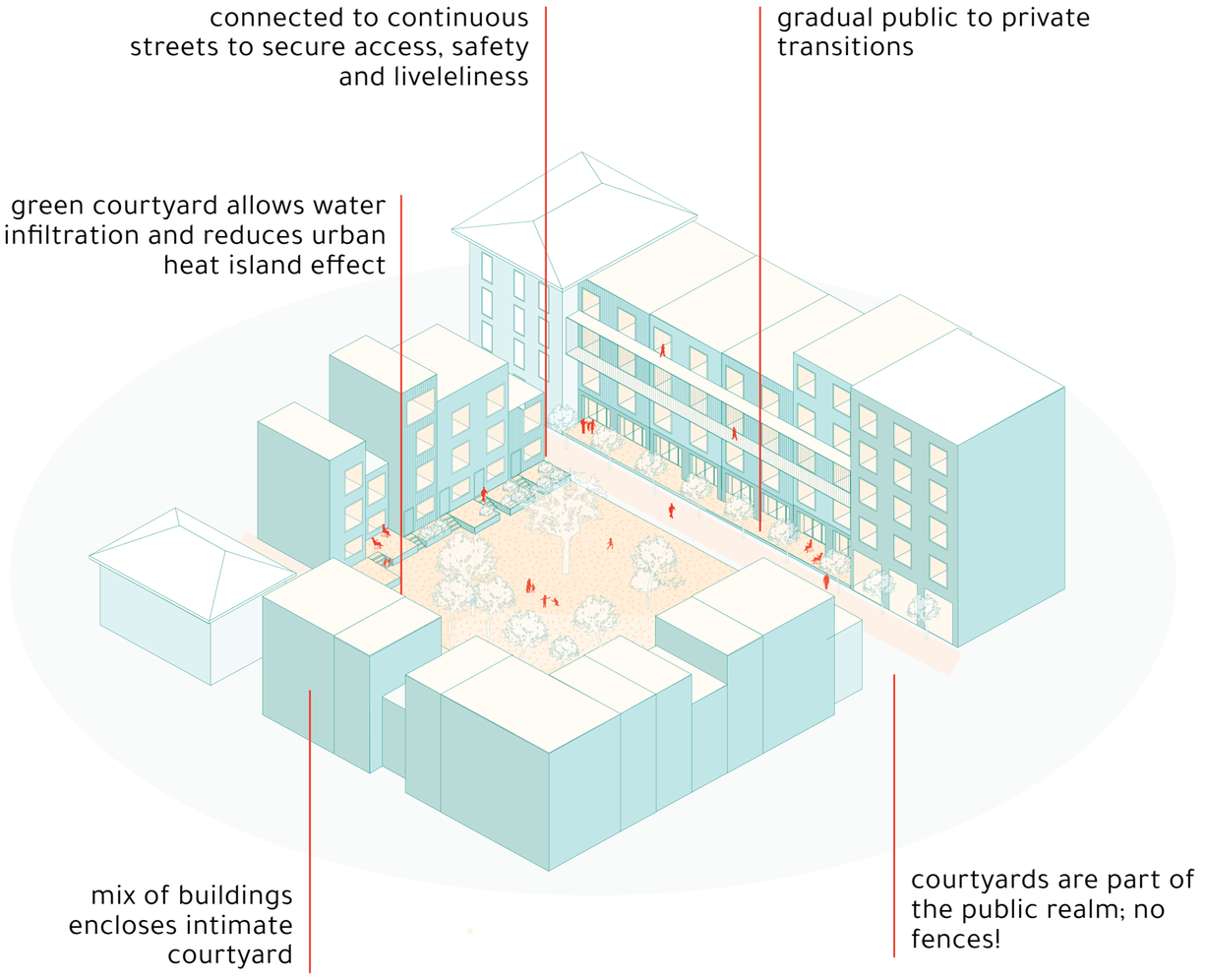
# Square

# Intimate Street



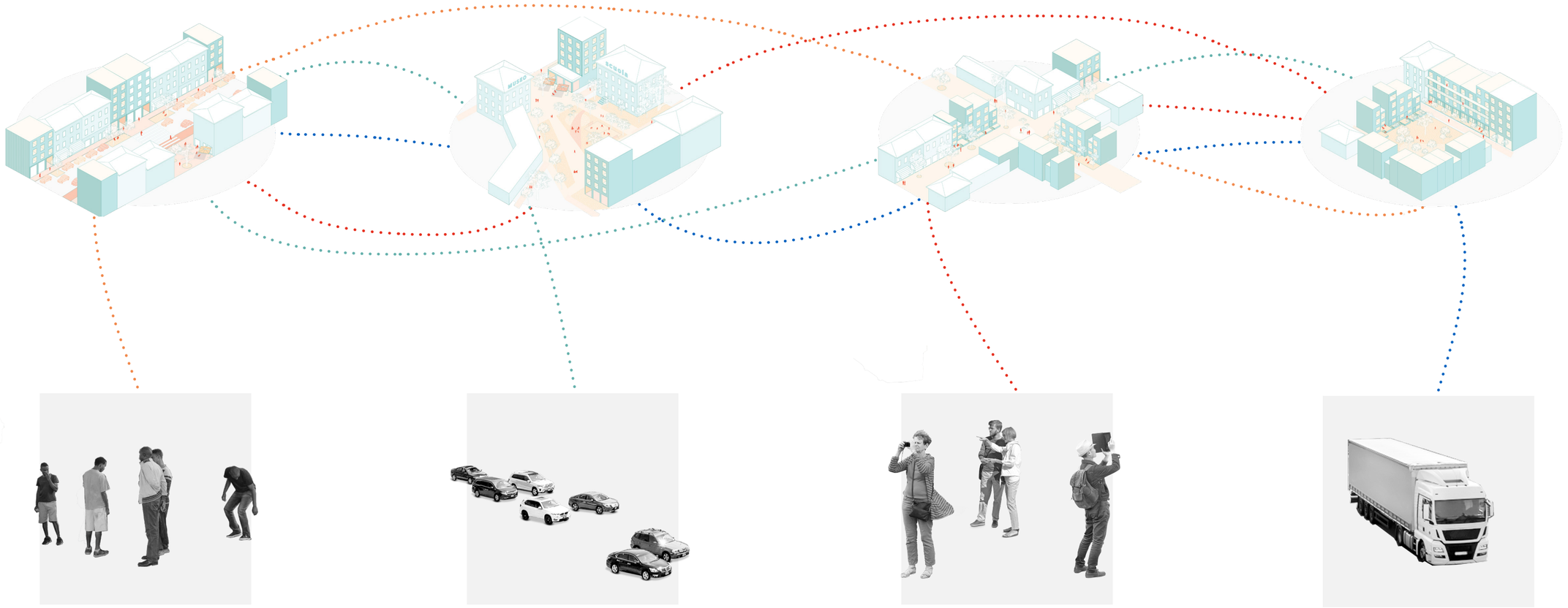
# Intimate Street

# Courtyard


connected to continuous streets to secure access, safety and liveleliness
gradual public to private transitions
green courtyard allows water infiltration and reduces urban heat island effect
mix of buildings encloses intimate courtyard
courtyards are part of the public realm; no fences!

# Courtyard

# How to Activate these Spaces?

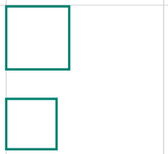


GROUP

| | | | | |
|---|---|---|---|---|
| Health centre | ● | ● | ● | ● |
| Market place | | ● | ● | ● |
| Sports facilities | | | ● | ● |
| Bar / café | ● | ● | ● | ● |
| (Small) library | | | ● | ● |
| (Small) theatre | | ● | ● | ● |
| Mensa | ● | | | ● |
| Language school | | ● | | ● |
| Primary school | | | ● | ● |
| Kindergarten | | | ● | ● |
| Office / work space | | | ● | ● |
| Migration centre | | | | ● |
| Tourist information | | ● | | |

# First, Second and Third Place

## FIRST PLACE



market place / event location

health care

pavillion

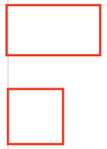
look-out

(botanical) garden

public garden

supermarket

## SECOND PLACE



basketball field

dance and music centre

allotment gardens for 16 families

children's farm

language school

library

kindergarten

primary school

small exhibition space

museum

tourist information

office / work space

## THIRD PLACE

bar / café

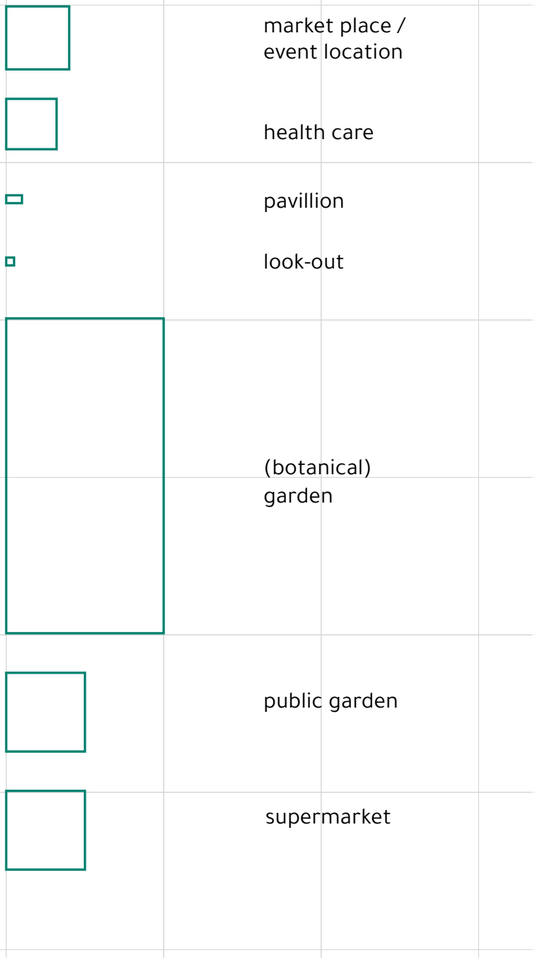
restaurant

small shop

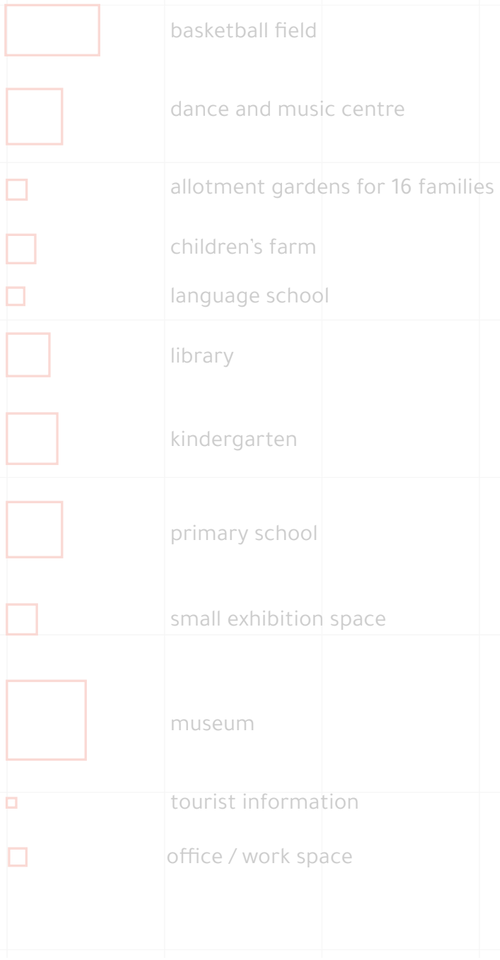
playground

# First, Second and Third Place

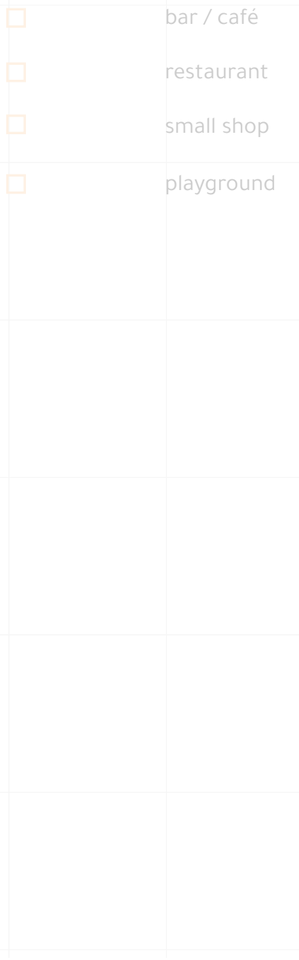
## FIRST PLACE
## ANONYMOUS SPACE




## SECOND PLACE
## CONNECTIVE SPACE




## THIRD PLACE
## FAMILIAR SPACE



# First, Second and Third Place

## FIRST PLACE
## ANONYMOUS SPACE



market place / event location

health care

pavillion

look-out

(botanical) garden

public garden

supermarket

## SECOND PLACE
## CONNECTIVE SPACE

basketball field

dance and music centre

allotment gardens for 16 families

children's farm

language school

library

kindergarten

primary school

small exhibition space

museum

tourist information

office / work space

## THIRD PLACE
## FAMILIAR SPACE



bar / café

restaurant

small shop

playground

100 m

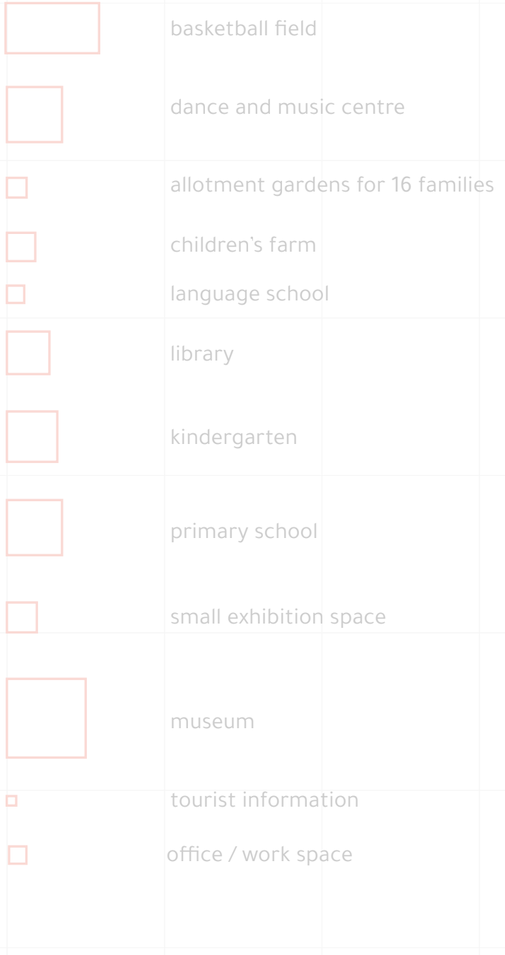
# First, Second and Third Place

## FIRST PLACE
## ANONYMOUS SPACE



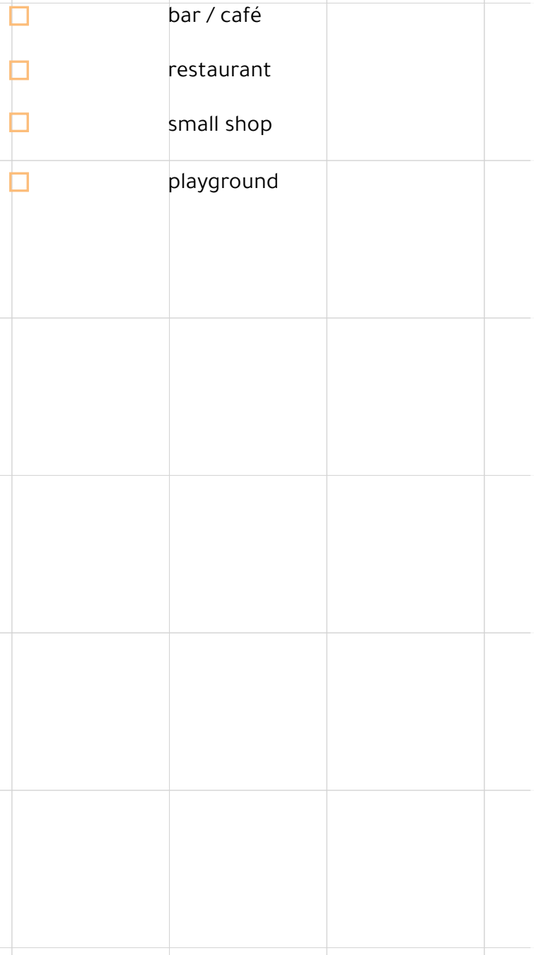
- market place / event location
- health care
- pavillion
- look-out
- (botanical) garden
- public garden
- supermarket

## SECOND PLACE
## CONNECTIVE SPACE



- basketball field
- dance and music centre
- allotment gardens for 16 families
- children's farm
- language school
- library
- kindergarten
- primary school
- small exhibition space
- museum
- tourist information
- office / work space

## THIRD PLACE
## FAMILIAR SPACE



- bar / café
- restaurant
- small shop
- playground

# First, Second and Third Place

## FIRST PLACE
## ANONYMOUS SPACE



market place / event location

health care

pavillion

look-out

(botanical) garden

public garden

supermarket

## SECOND PLACE
## CONNECTIVE SPACE

basketball field

dance and music centre

allotment gardens for 16 families

children's farm

language school

library

kindergarten

primary school

small exhibition space

museum

tourist information

office / work space

## THIRD PLACE
## FAMILIAR SPACE



bar / café

restaurant

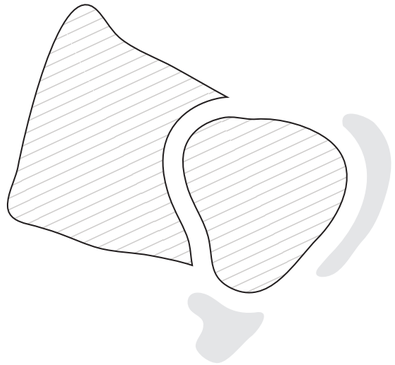
small shop

playground

# First, Second and Third Place

FIRST PLACE
ANONYMOUS SPACE

SECOND PLACE
CONNECTIVE SPACE



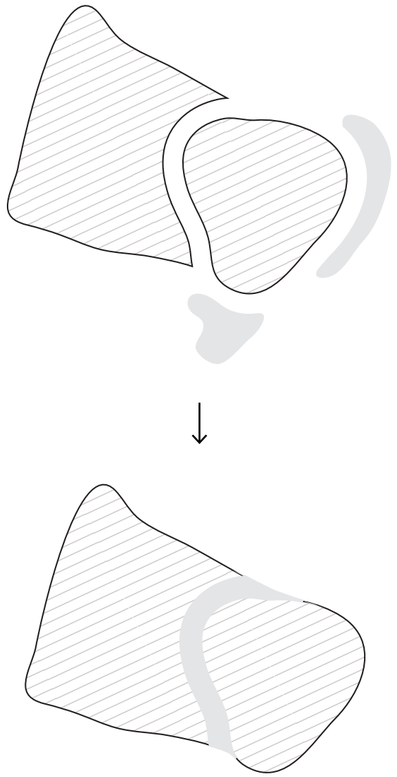
THIRD PLACE
FAMILIAR SPACE

100 m

# First, Second and Third Place

FIRST PLACE
ANONYMOUS SPACE

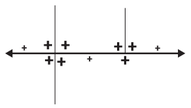
SECOND PLACE
CONNECTIVE SPACE

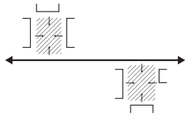


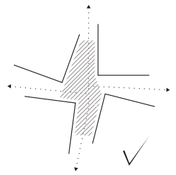
THIRD PLACE
FAMILIAR SPACE

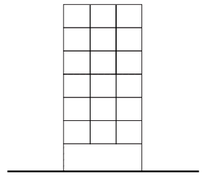
# First, Second and Third Place

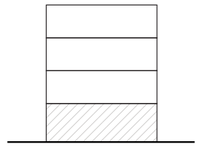
+ 2.000 - 2.500 inhabitants

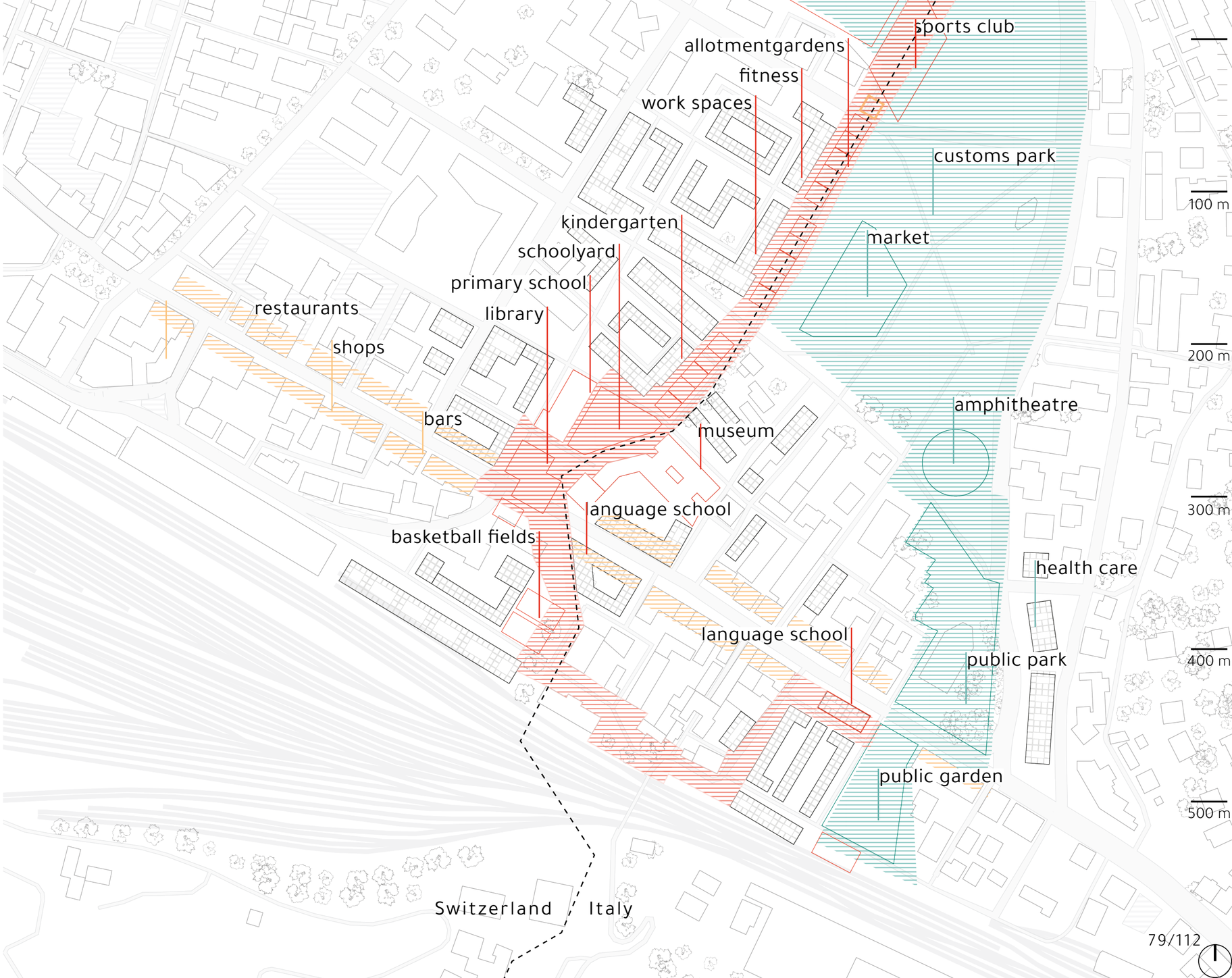






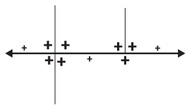


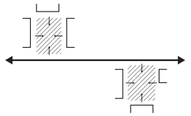


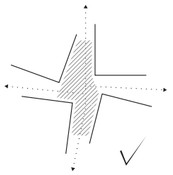


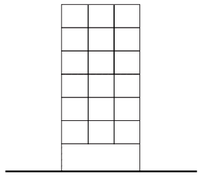
# First, Second and Third Place

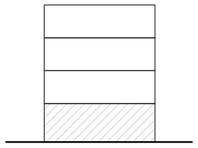
+ 2.000 - 2.500 inhabitants

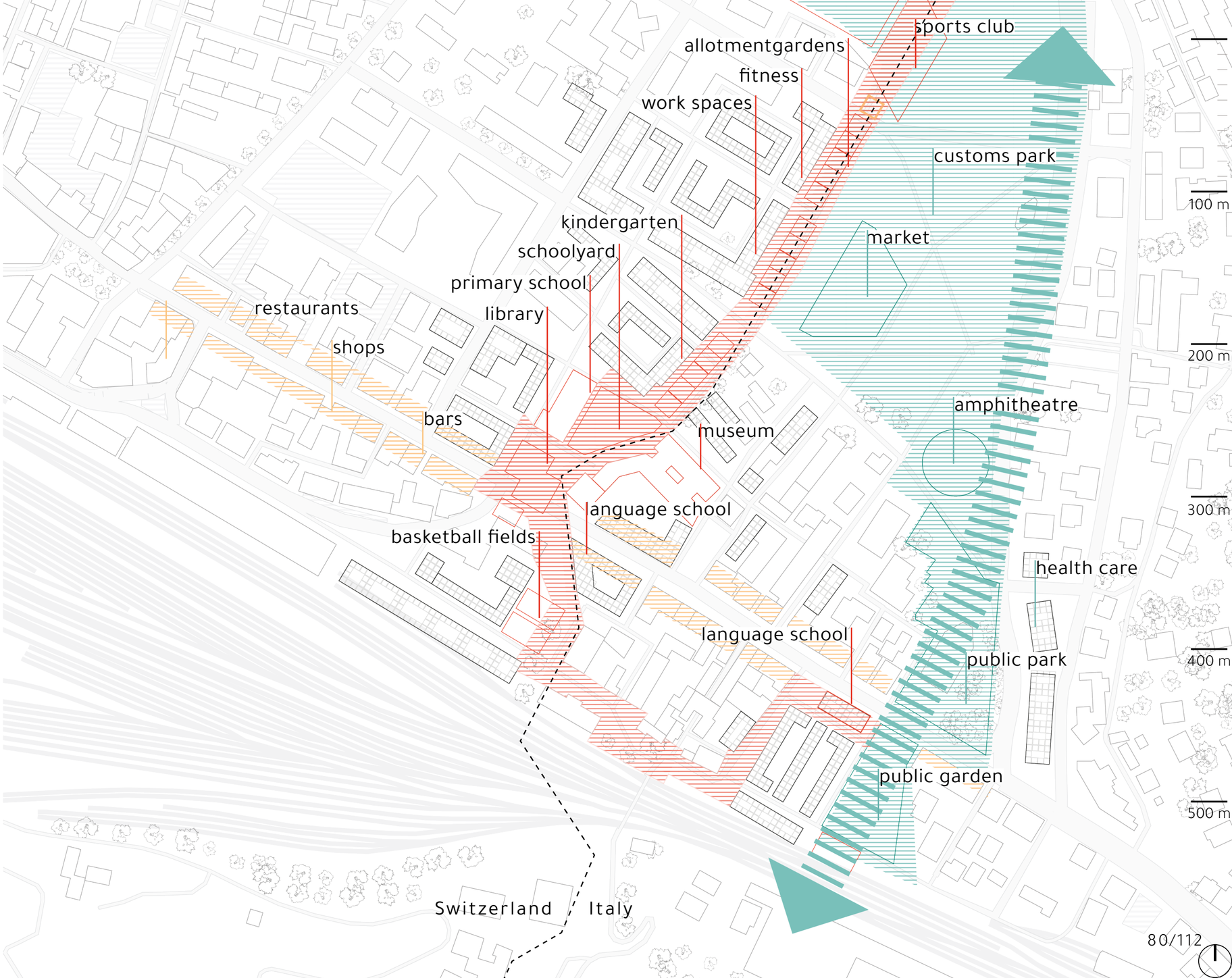




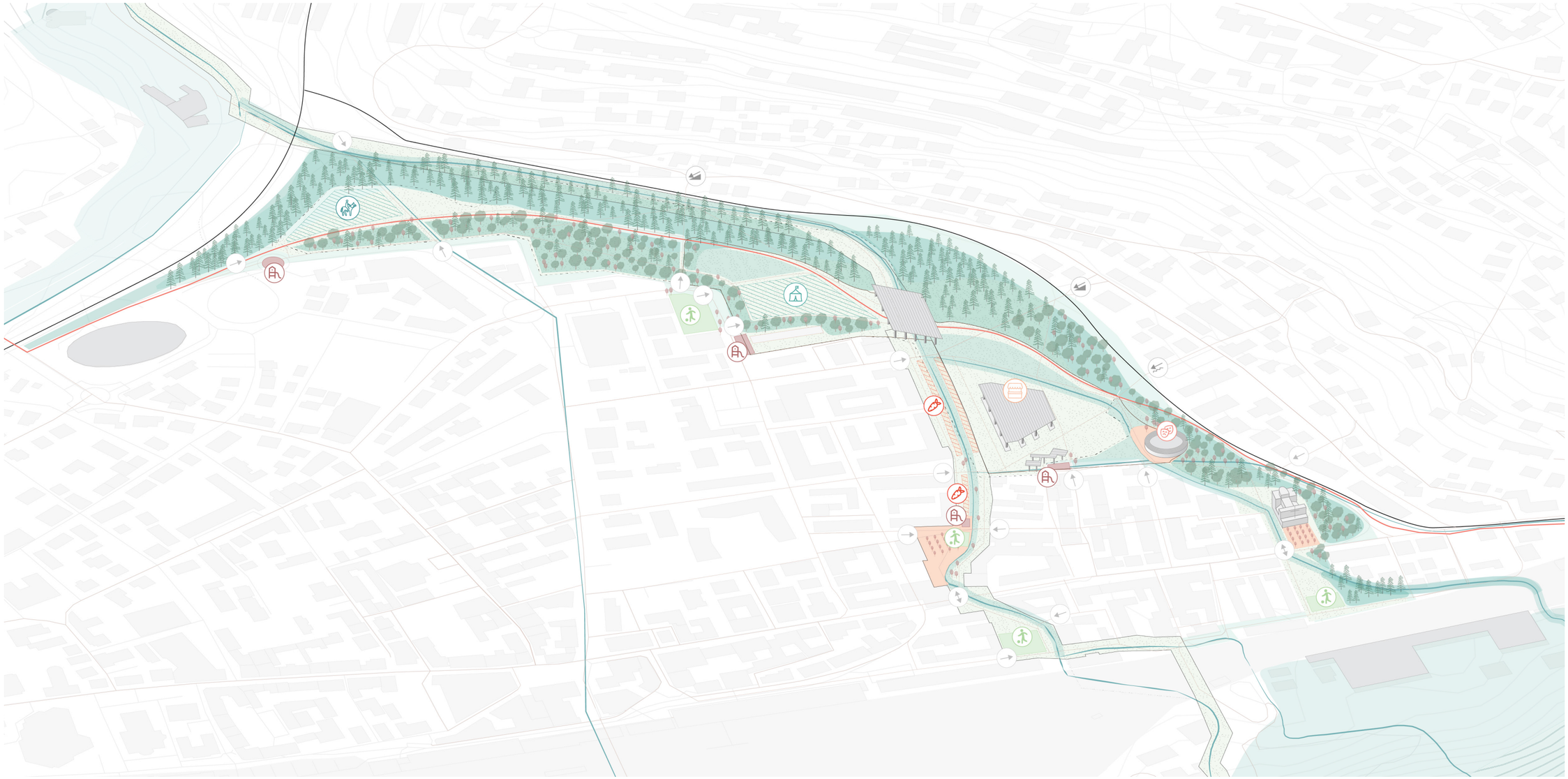








# Customs Park



# First Place

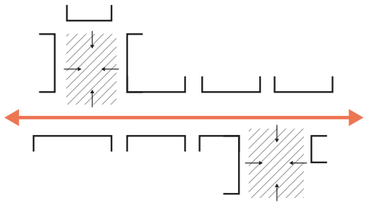
# Second Place

# Second Place

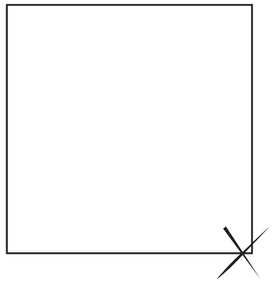
Third Place

# Slow Traffic Networks

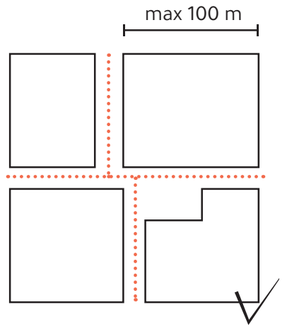
Design principles



SLOW TRAFFIC NETWORKS
EMBEDDED IN MAIN URBAN AXES



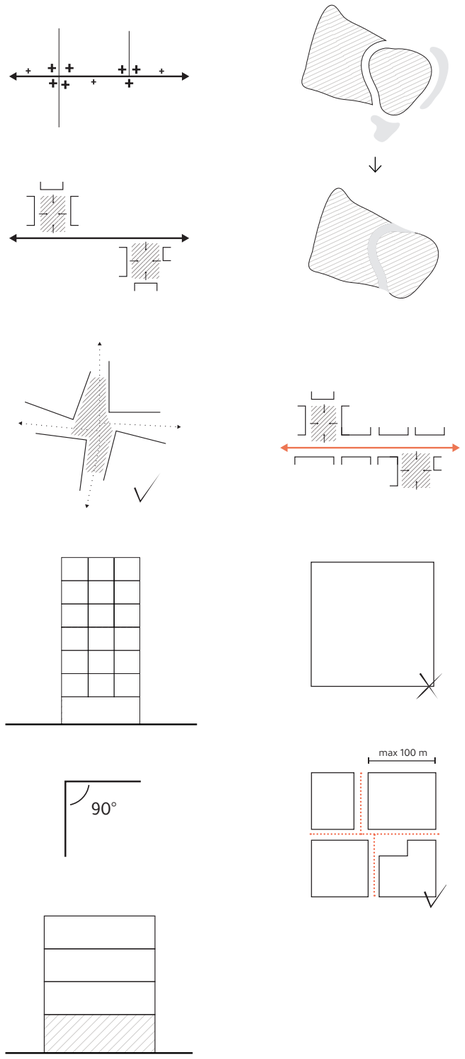
LARGE BUILDING BLOCKS
ENCOURAGE HOMOGENEITY

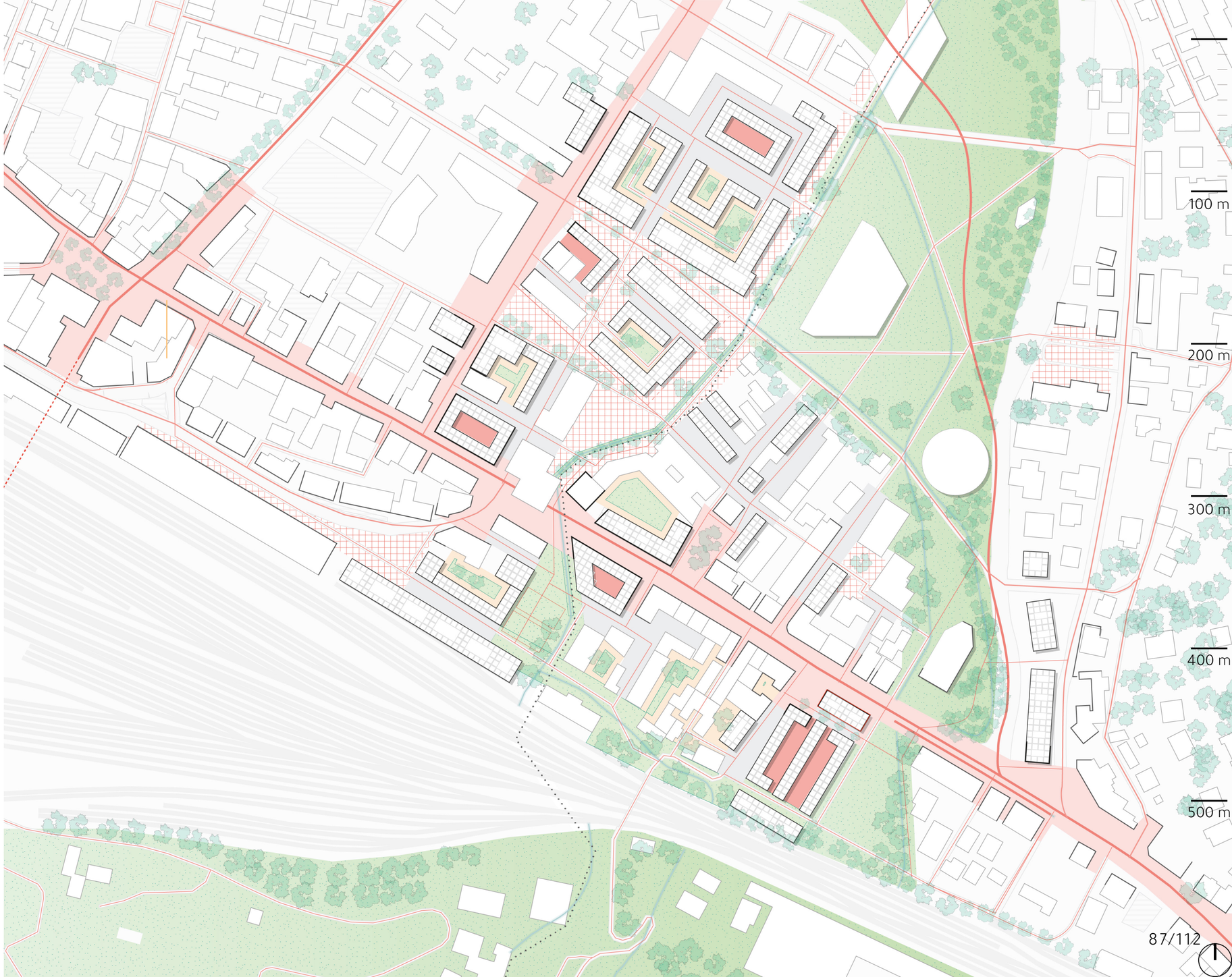



SMALL BUILDING BLOCKS
ENCOURAGE WALKING

# Slow Traffic Networks

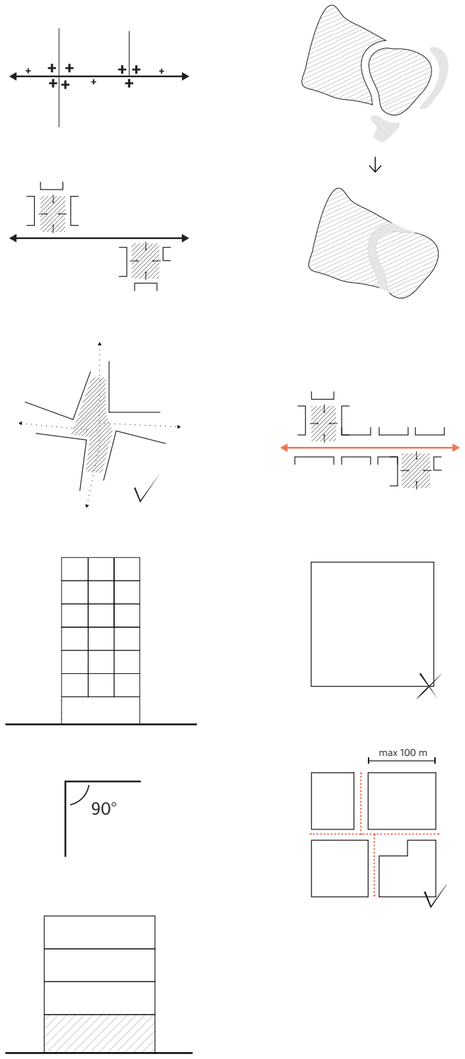
+ 2.000 - 2.500 inhabitants



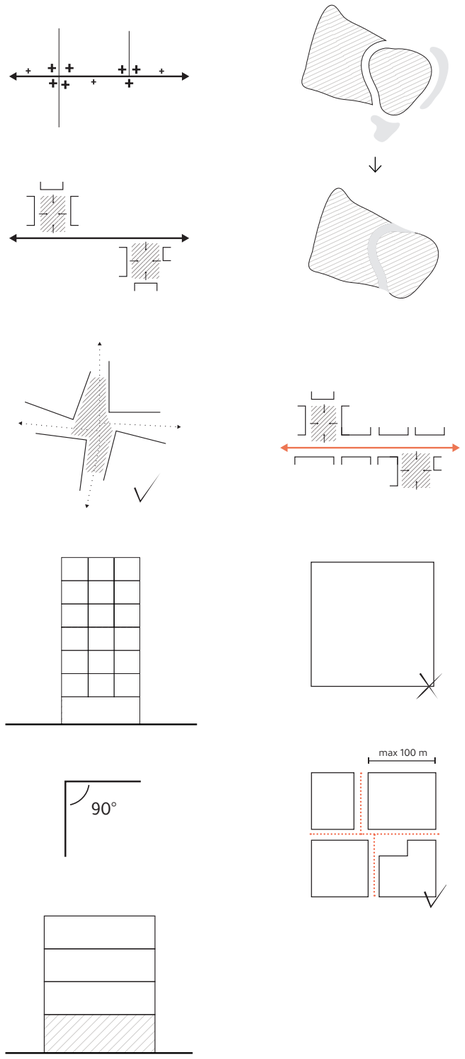
# Urban Plan

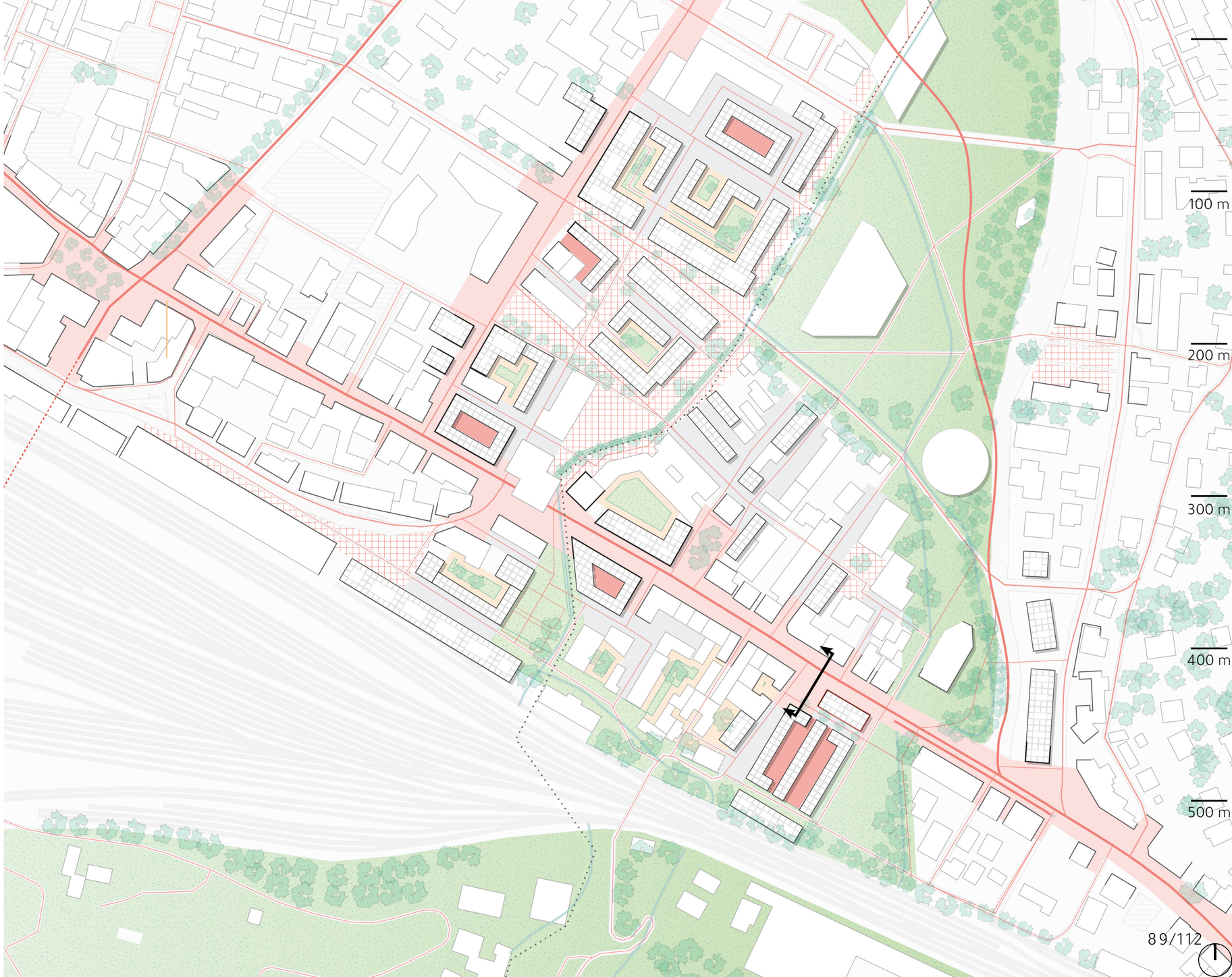
+ 2.000 - 2.500 inhabitants



# Urban Plan

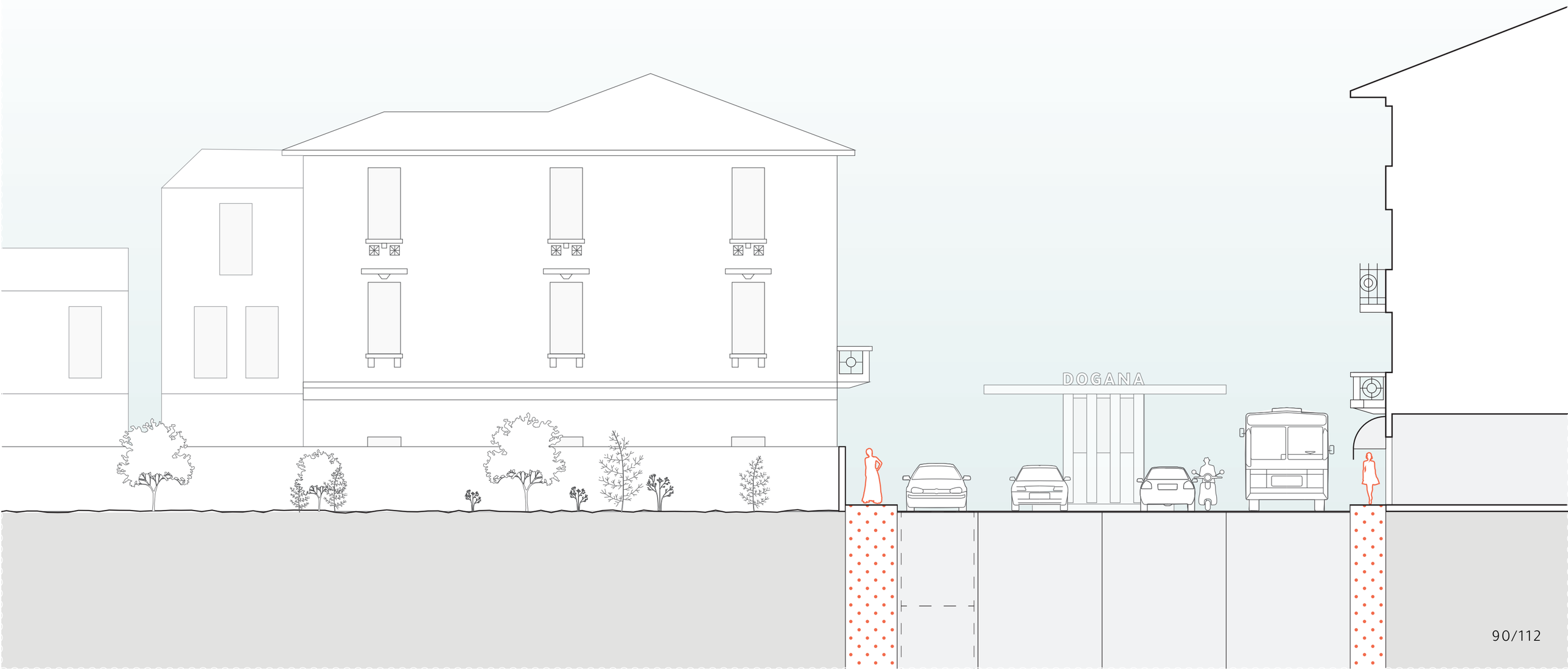
+ 2.000 - 2.500 inhabitants



# Towards Inclusive, Inhabitable Border Space

Current situation



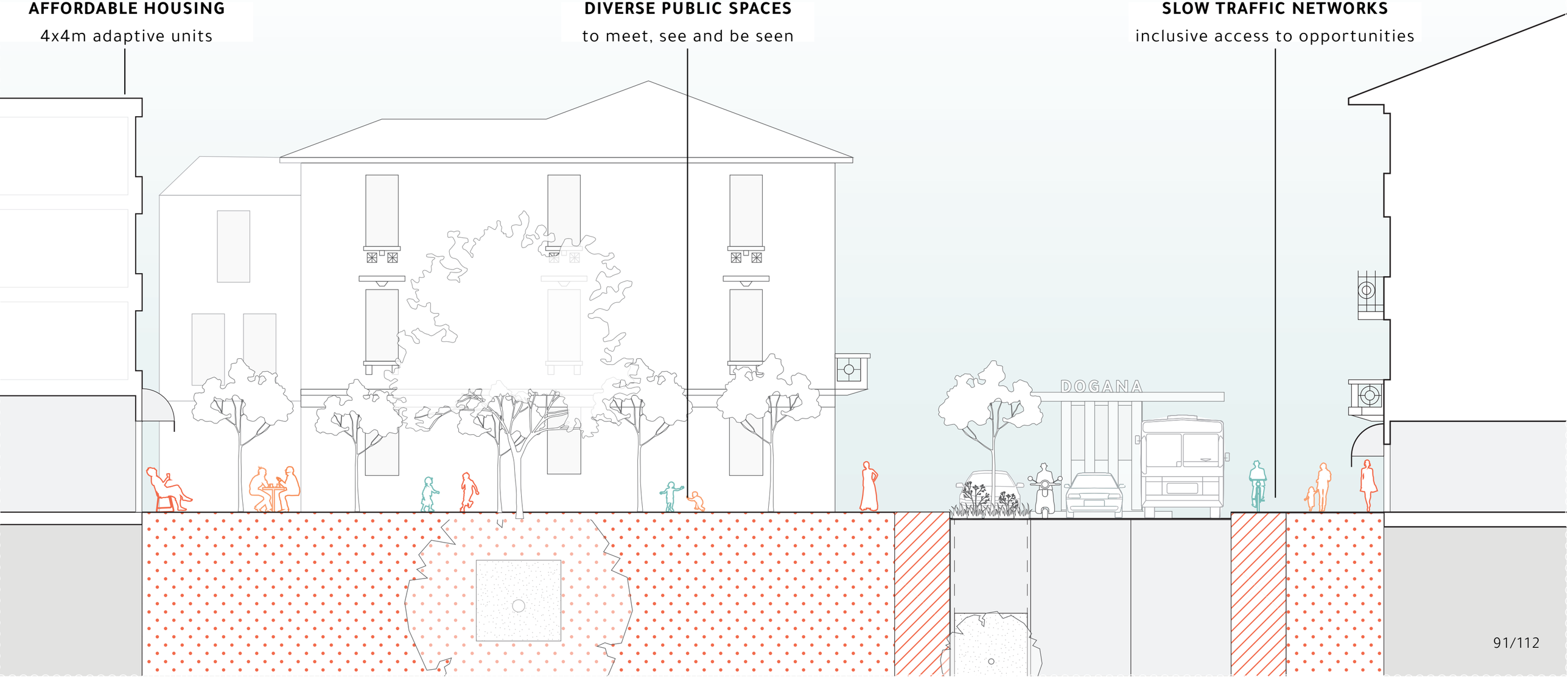
# Towards Inclusive, Inhabitable Border Space

Current situation

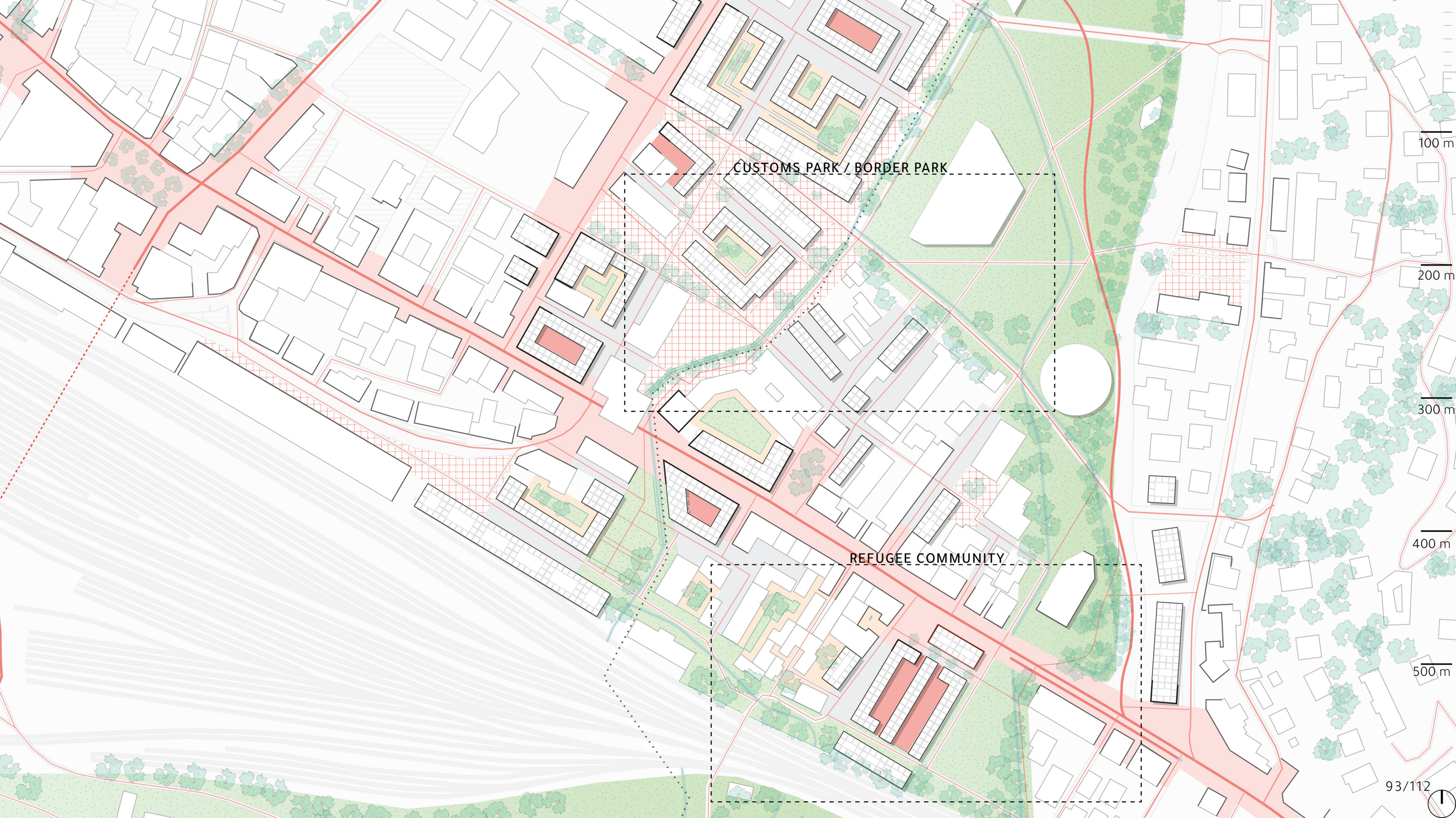
**AFFORDABLE HOUSING**
4x4m adaptive units

**DIVERSE PUBLIC SPACES**
to meet, see and be seen

**SLOW TRAFFIC NETWORKS**
inclusive access to opportunities



# ZOOMING IN


CUSTOMS PARK / BORDER PARK
REFUGEE COMMUNITY
100 m
200 m
300 m
400 m
500 m

CUSTOMS PARK / BORDER PARK

100 m

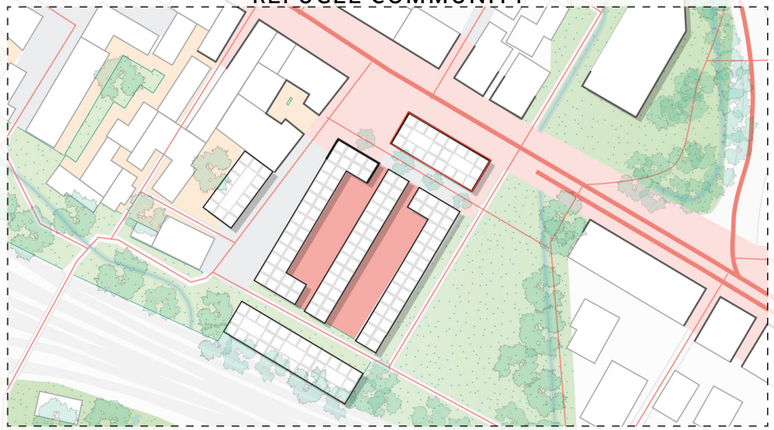
200 m

300 m

400 m

500 m

REFUGEE COMMUNITY



# Reviving a Dead Area

Chiasso - Ponte-Chiasso

# Reviving a Dead Area

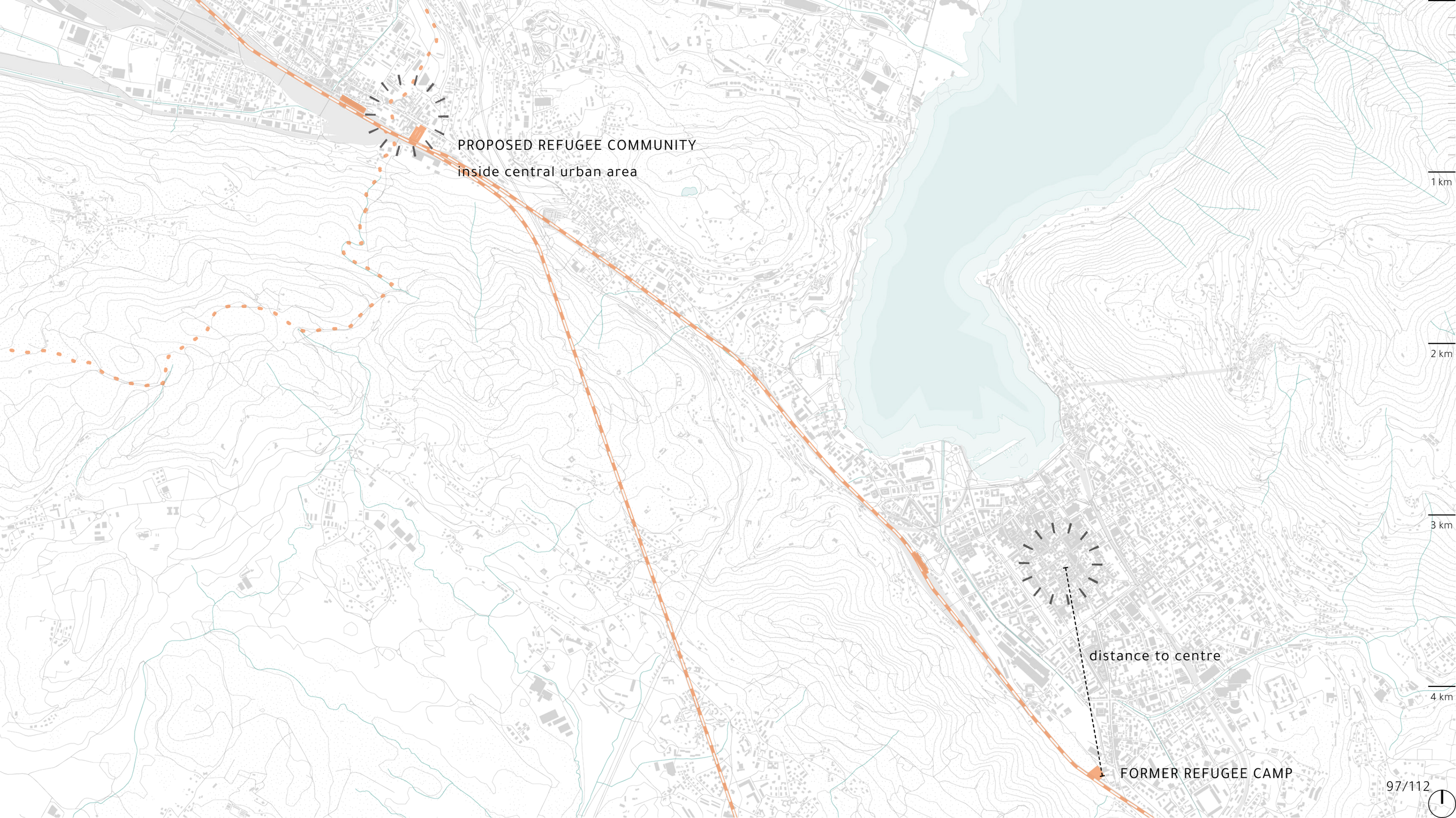
Chiasso - Ponte-Chiasso



Pragmatic? Idealistic?

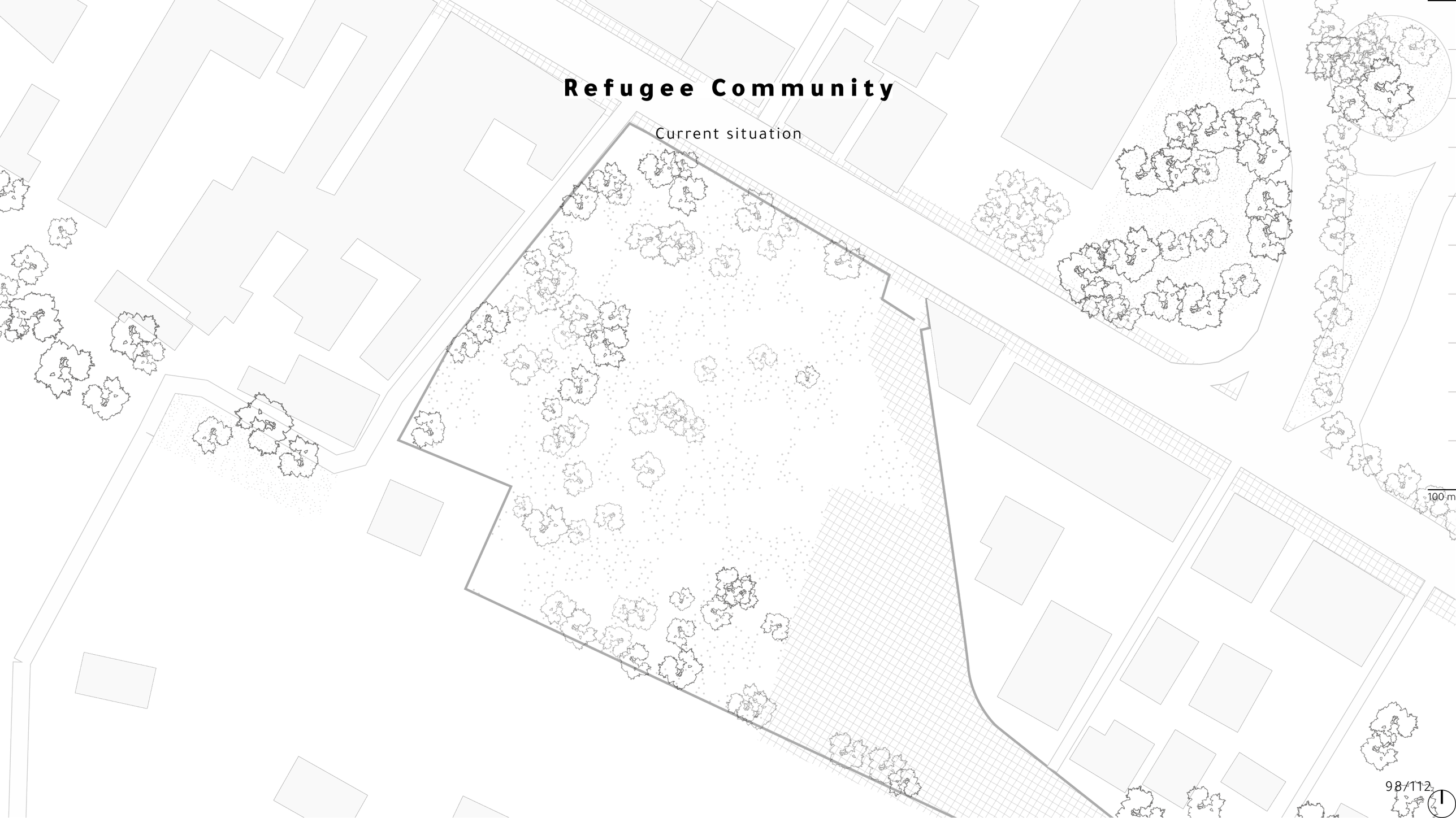
The aim of this thesis is to develop a new understanding of refugee-space; to explore what could be and ask critically: why are we (not)dealing with things the way we are now?

> A spatial design experiment.


PROPOSED REFUGEE COMMUNITY
inside central urban area
1 km
2 km
3 km
4 km
distance to centre
FORMER REFUGEE CAMP

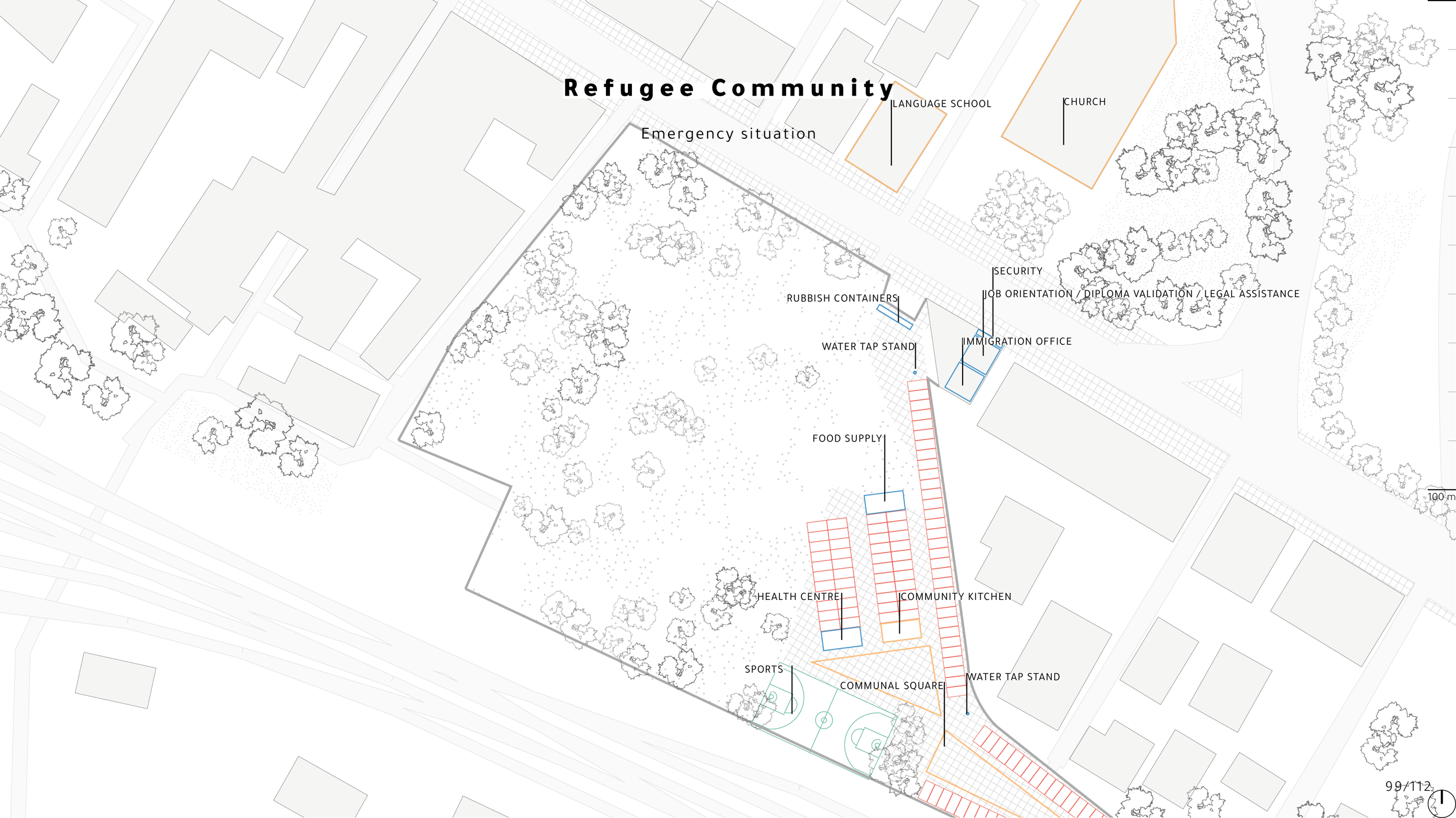
# Refugee Community

Current situation

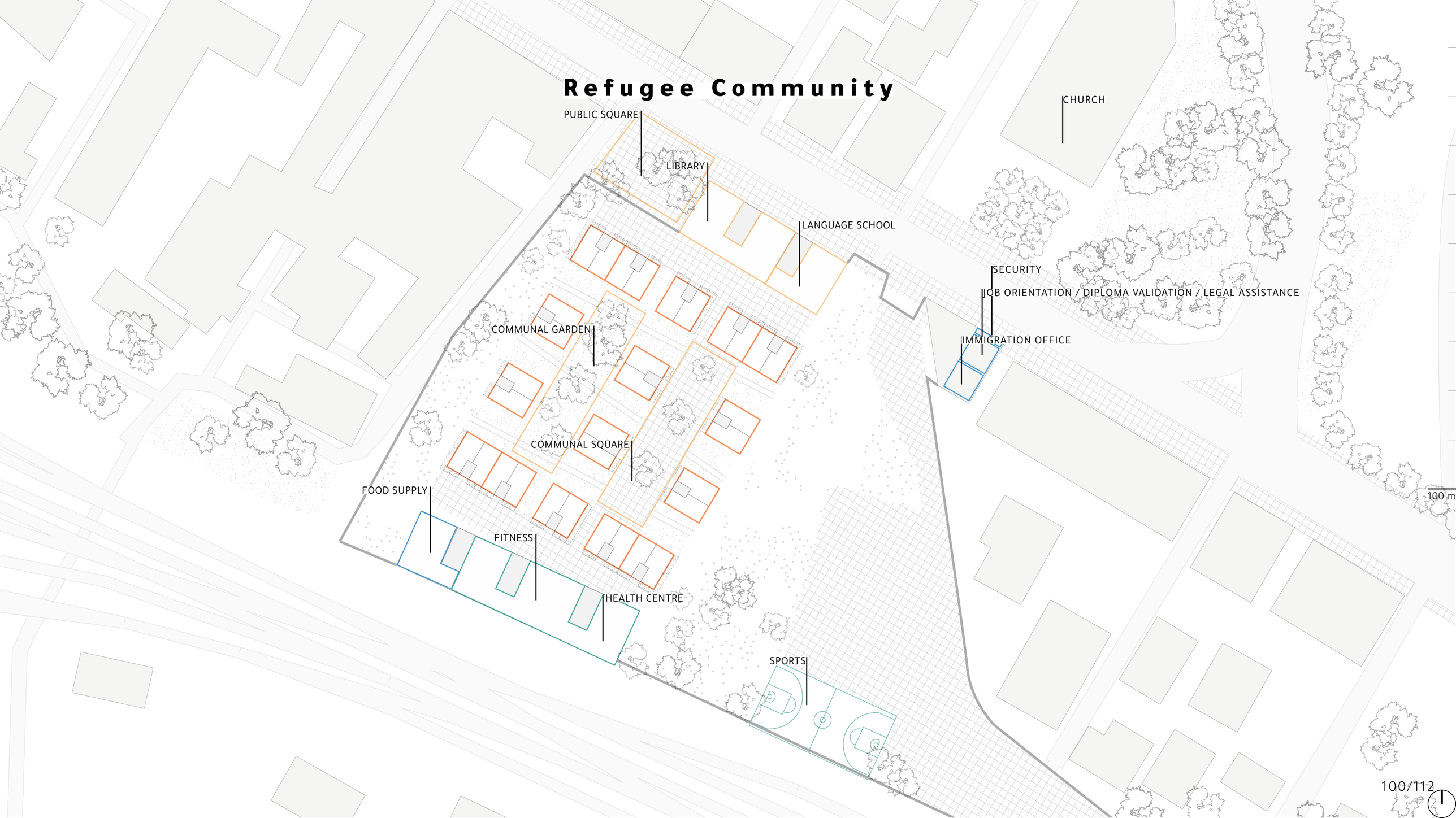


# Refugee Community

Emergency situation

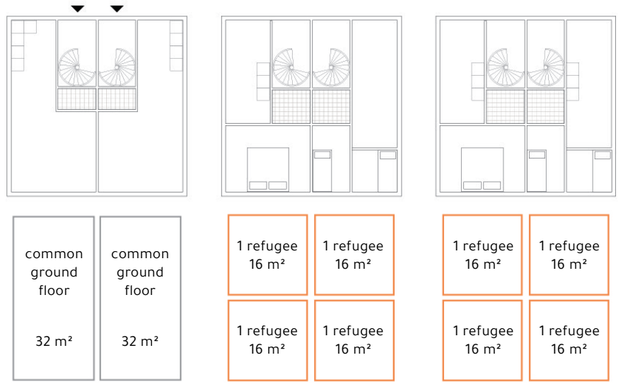


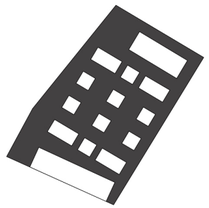
# Refugee Community



# Refugee Community

- Mutual support reduces aid dependency
- 'Top-down' collaborative incremental housing
- Co-design and development encourages feeling of ownership over spaces



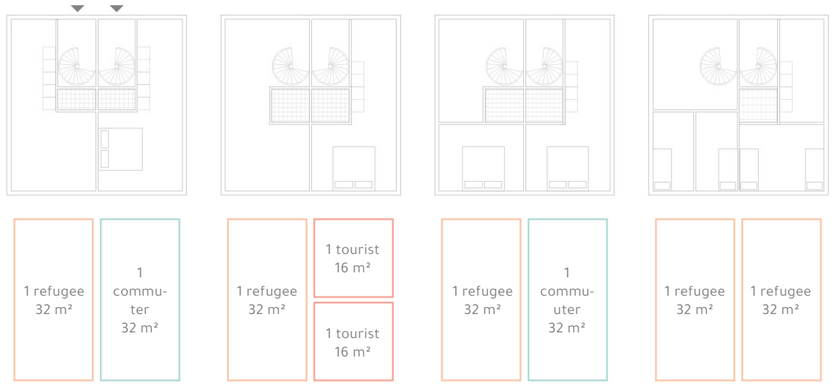



# (4x4) units: 342

# refugees: 342

# Mixed Community

- 50/50 balance promotes the opportunity to meet and interact on a regular basis and on an even footing
- Co-design and development encourages feeling of ownership over spaces



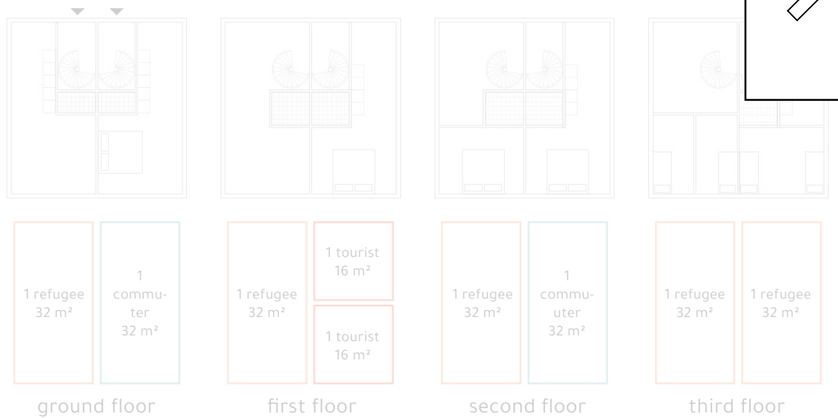
# 4x4 units: 564

# inhabitants: 282

# refugees: 141

# Mixed Community

- 50/50 balance promotes the opportunity to meet and interact on a regular basis and on an even footing
- Co-design and development encourages feeling of ownership over spaces






# 4x4 units: 564

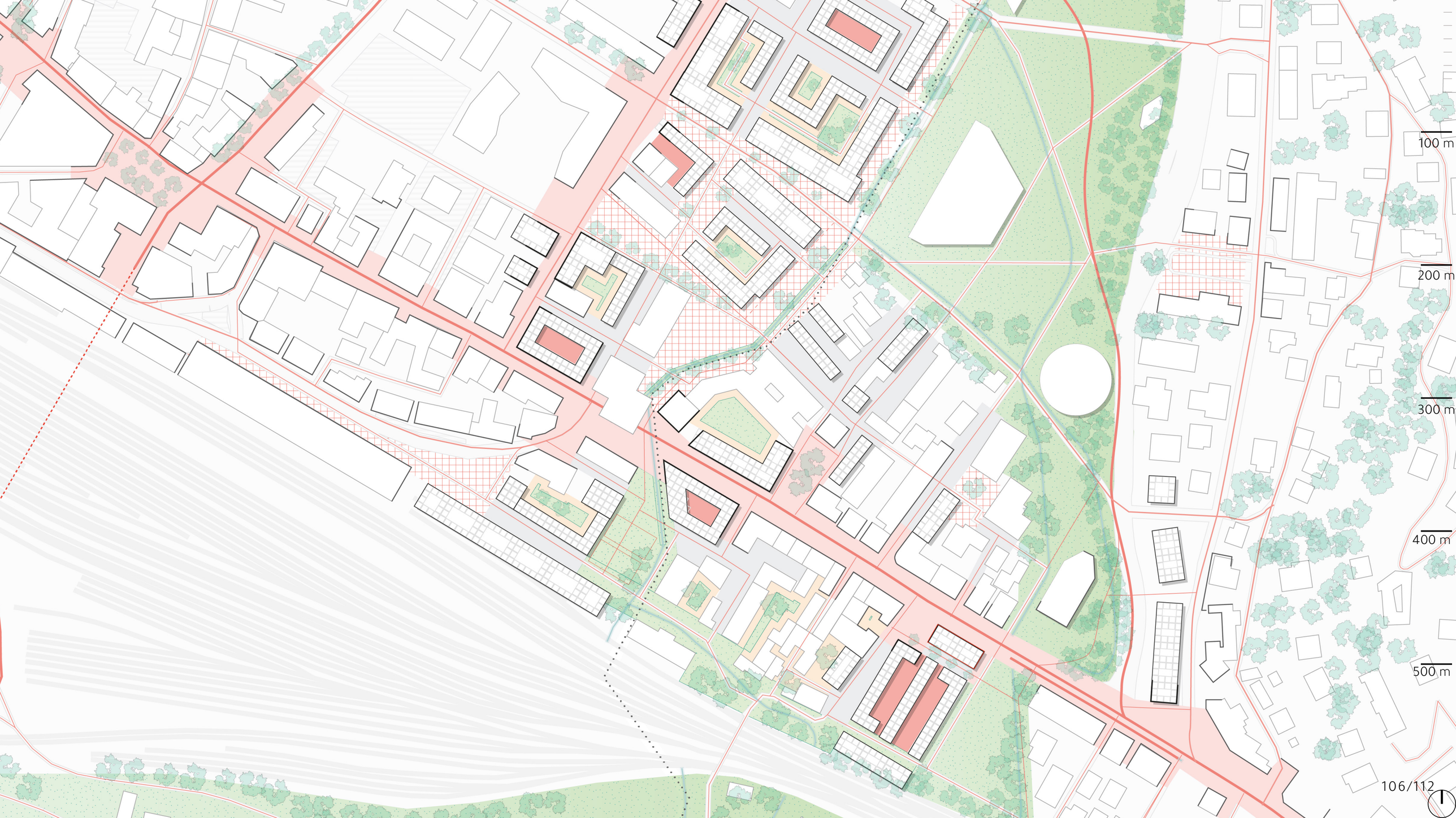
# inhabitants: 282

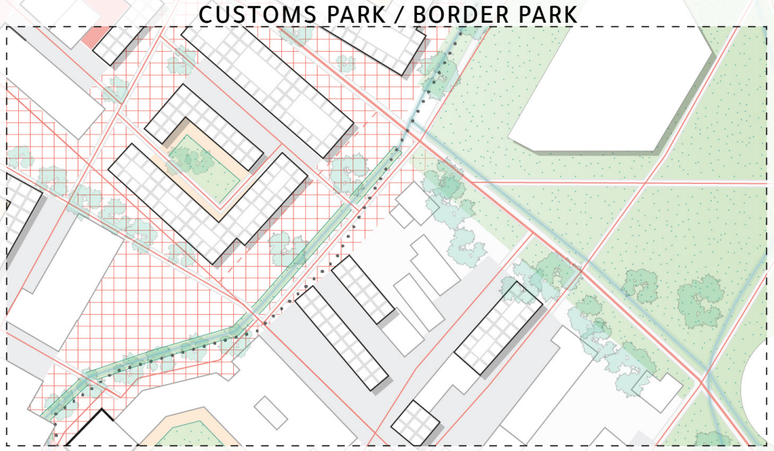
# refugees: 141

Finding a balance between pre-defined and undefined / "spontaneous" development

# Refugee Community

# Mixed Community


100 m
200 m
300 m
400 m
500 m




REFUGEE COMMUNITY

100 m

200 m

300 m

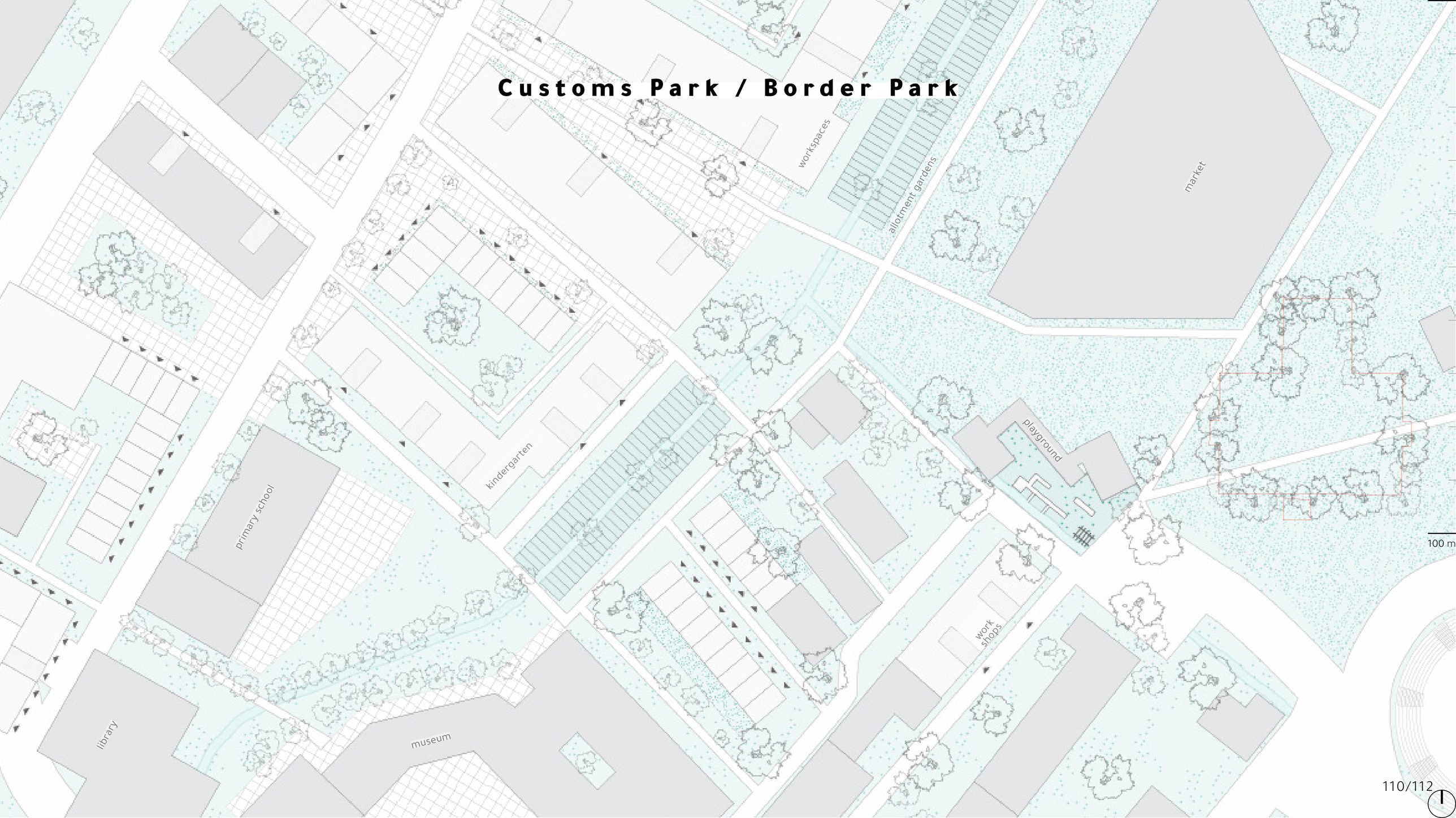
400 m

500 m

Customs
100 m

# Customs Development

# Customs Park / Border Park



# Communities

market

playground

kindergarten

primary school

work shops

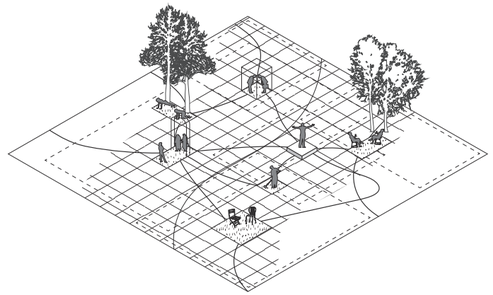
library

museum

100 m

# Evaluation & Recommendations

- Advocating **open borders in times of COVID-19** ???
- The implications on **governance** of such a plan could be studied more thoroughly
- Rather than spatially fitting refugees into currently established frameworks, my thesis seeks to spatially **experiment on European territory.**
- Area in which many contemporary urban issues come together; of course the **findings are transferable** to less extreme circumstances
- I really **enjoyed** it!



BORDER SPACE AS A HIGH QUALITY LIVING ENVIRONMENT