

CITY ABOVE THE RAILS: HOUSING

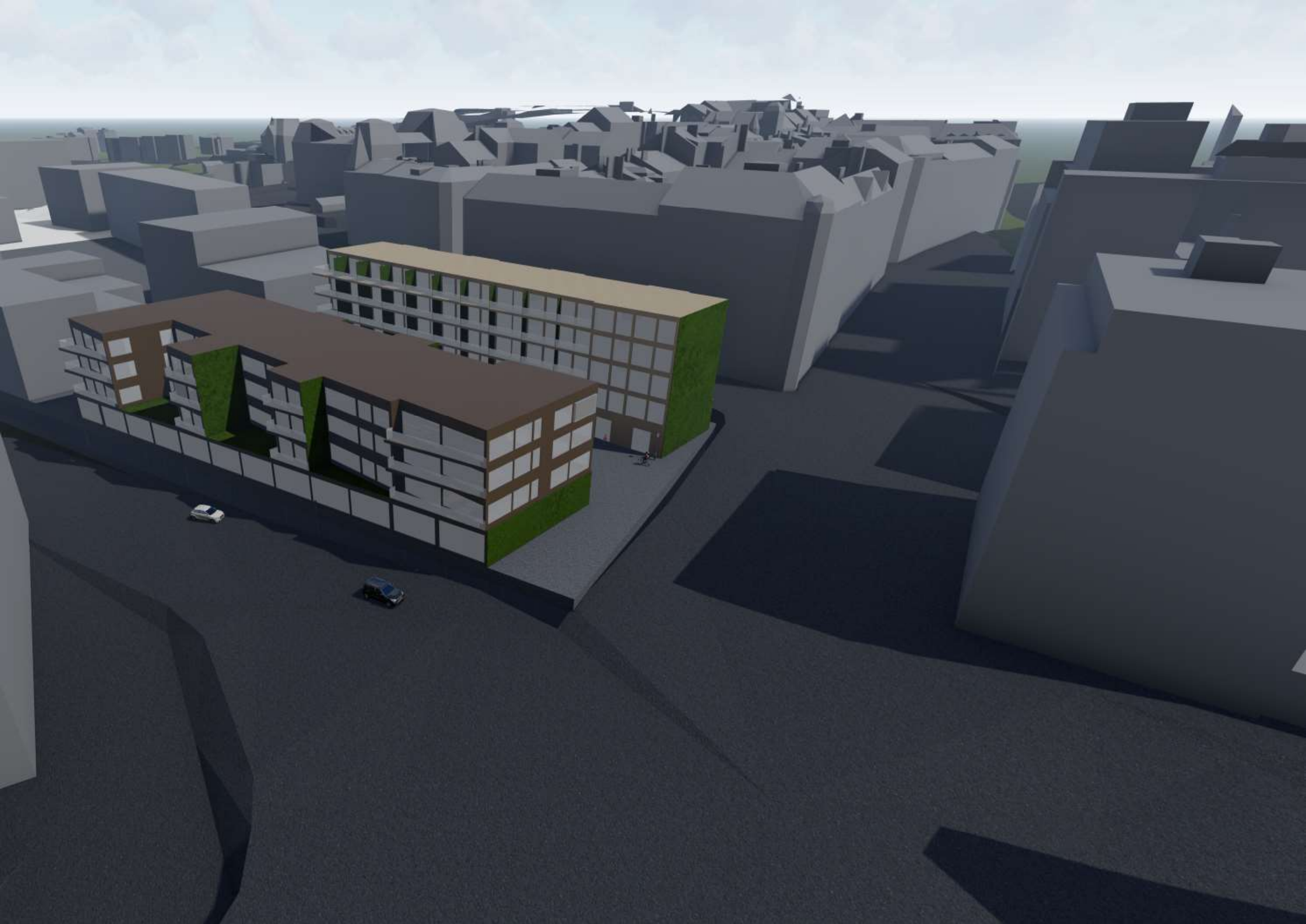
By Kenza HIDDAS



**FAKULTA
ARCHITEKTURY
ČVUT V PRAZE**

Atelier Achten-Pavlíček-Nováková, winter semester 2020-2021
Faculty of Architecture
Czech Technical University of Prague





DESCRIPTION OF THE PROJECT

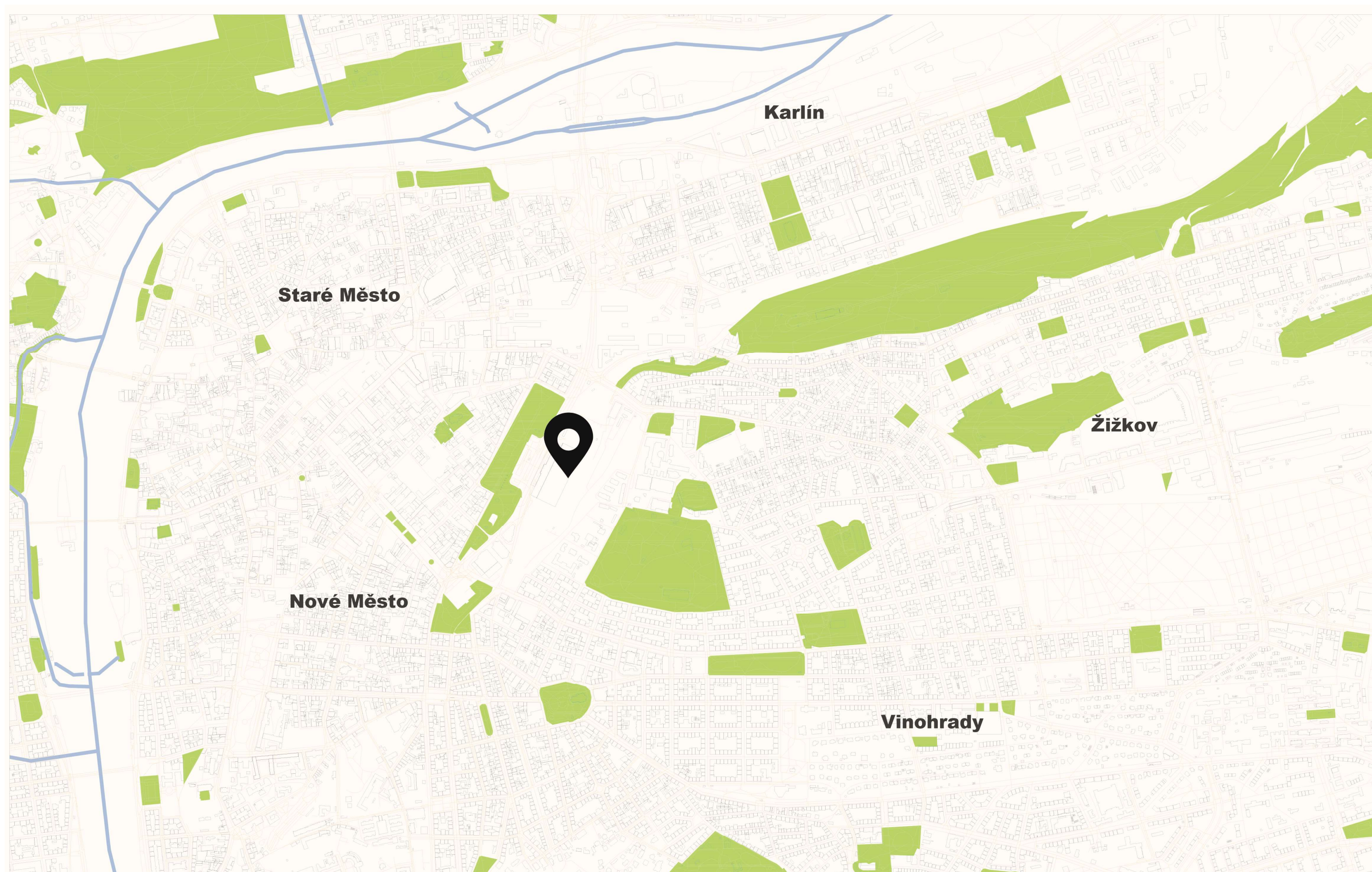
This project is about a whole new concept introduced to Czech Republic which is the construction and conception of a new « city » above the railway station of Prague hlavní nádraží.

This new city will include hotels, shopping center, restauration, green areas, offices and housing which I'm focusing on.

My idea for this project is to break the rules of society levels by mixing both social and regular housing in the same city.

This innovative city will also be ecological by minimizing the usage of cars, choosing eco-friendly materials and making the maximum of green areas as possible.

LOCATION



CURRENT SITUATION



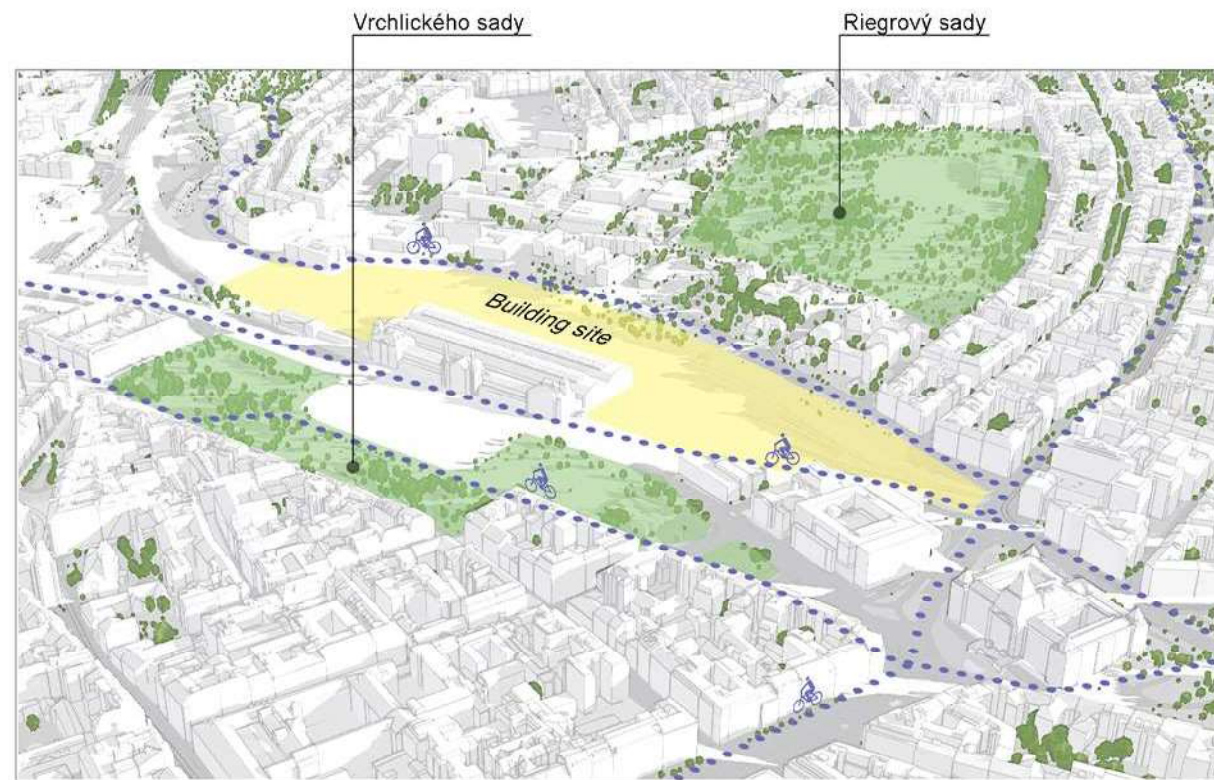
This picture represents the current situation of the Praha hlavní nádraží.

Located in Praha 1, the station was built in 1871 and had been rebuilt and extended during these years.

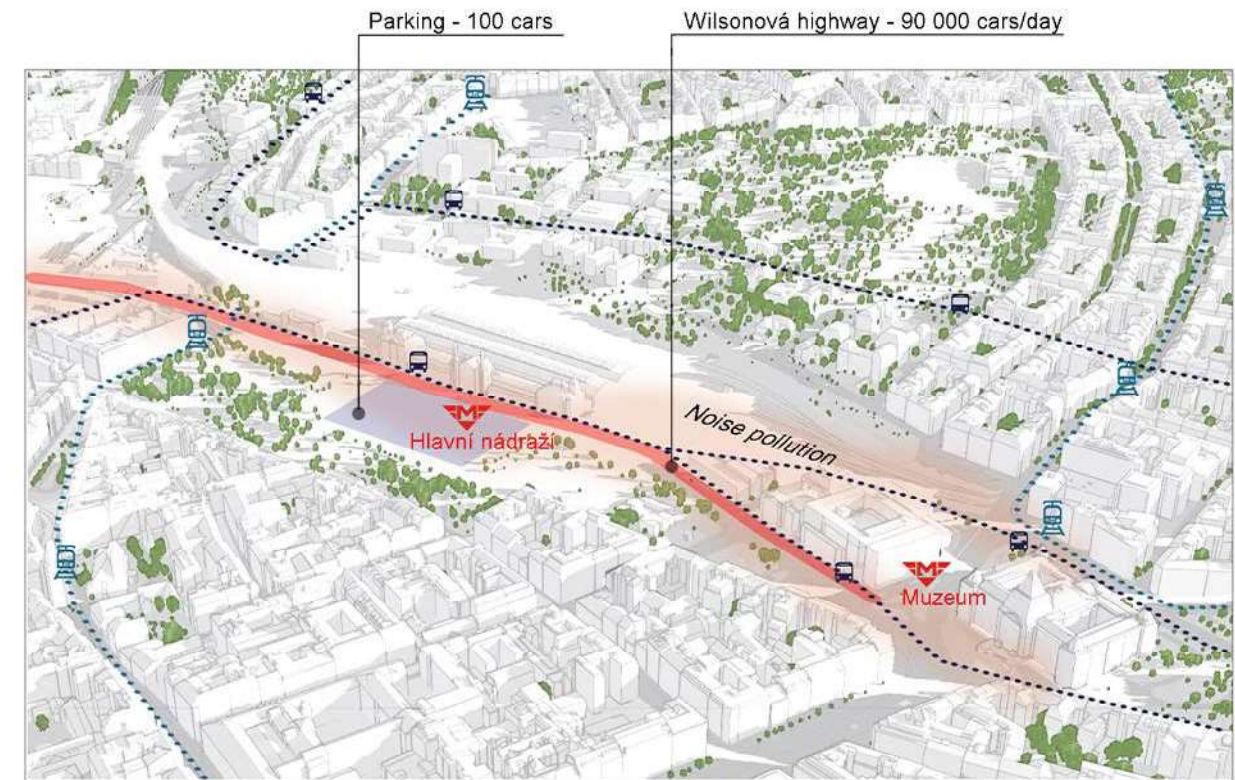
The area we are working on is the free space above the railways and the total area is about 100 000 m², approximately.

The free area will be covered by a platform covering the whole area from side to side allowing to create a variety of buildings.

ANALYSIS OF THE TERRITORY



GREEN AREAS AND CYCLE ROUTES



TRANSPORT SITUATION



Sport	Culture, education	Accommodations, shops, administration, commerce	Garage
Healthcare, police, government	Housing, multifunction	Administrative center	Railway

FUNCTIONS



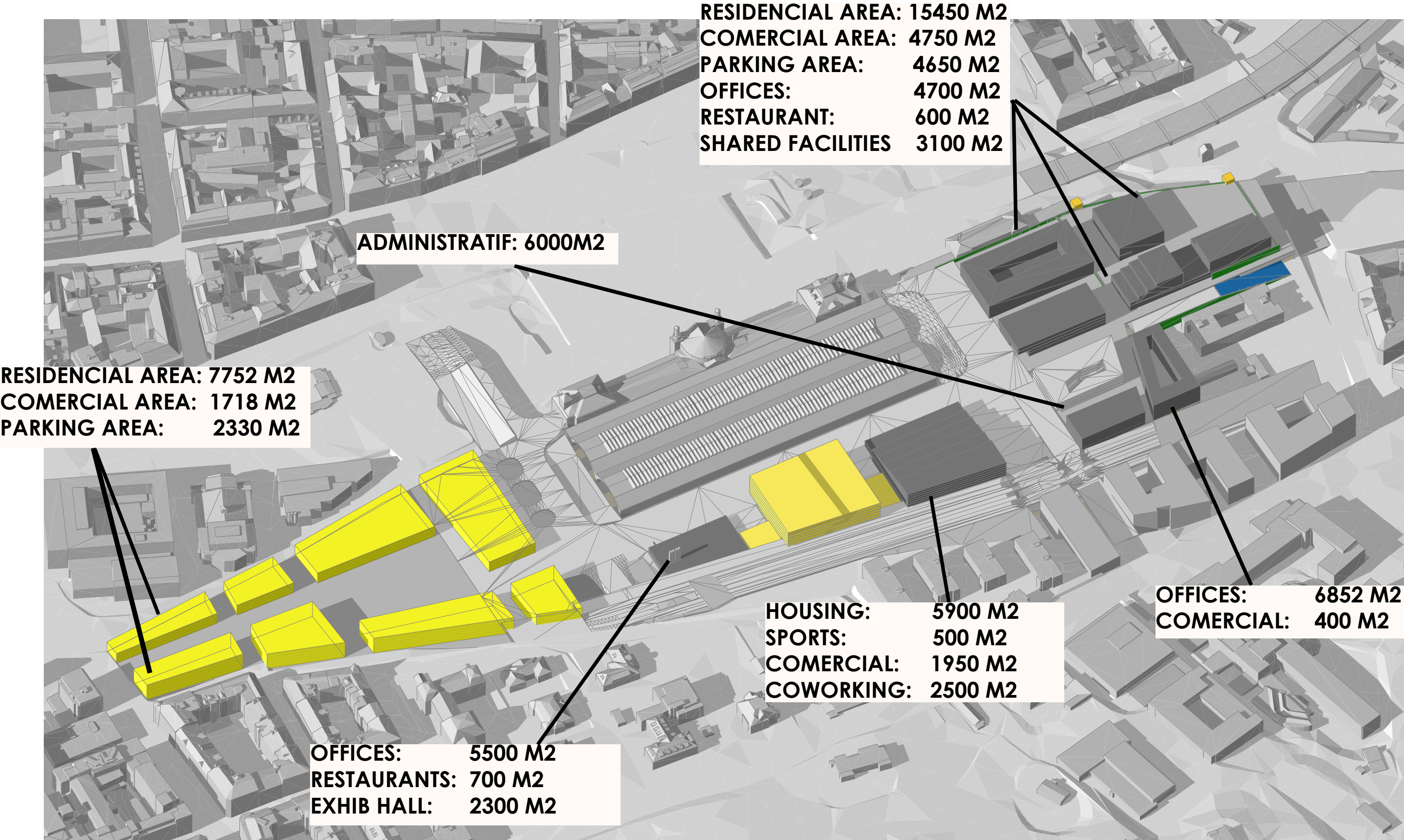
2 floors or less	4 floors	6 floors	13 and more floors
3 floors	5 floors	7-8 floors	

HIGHT AND HISTORY

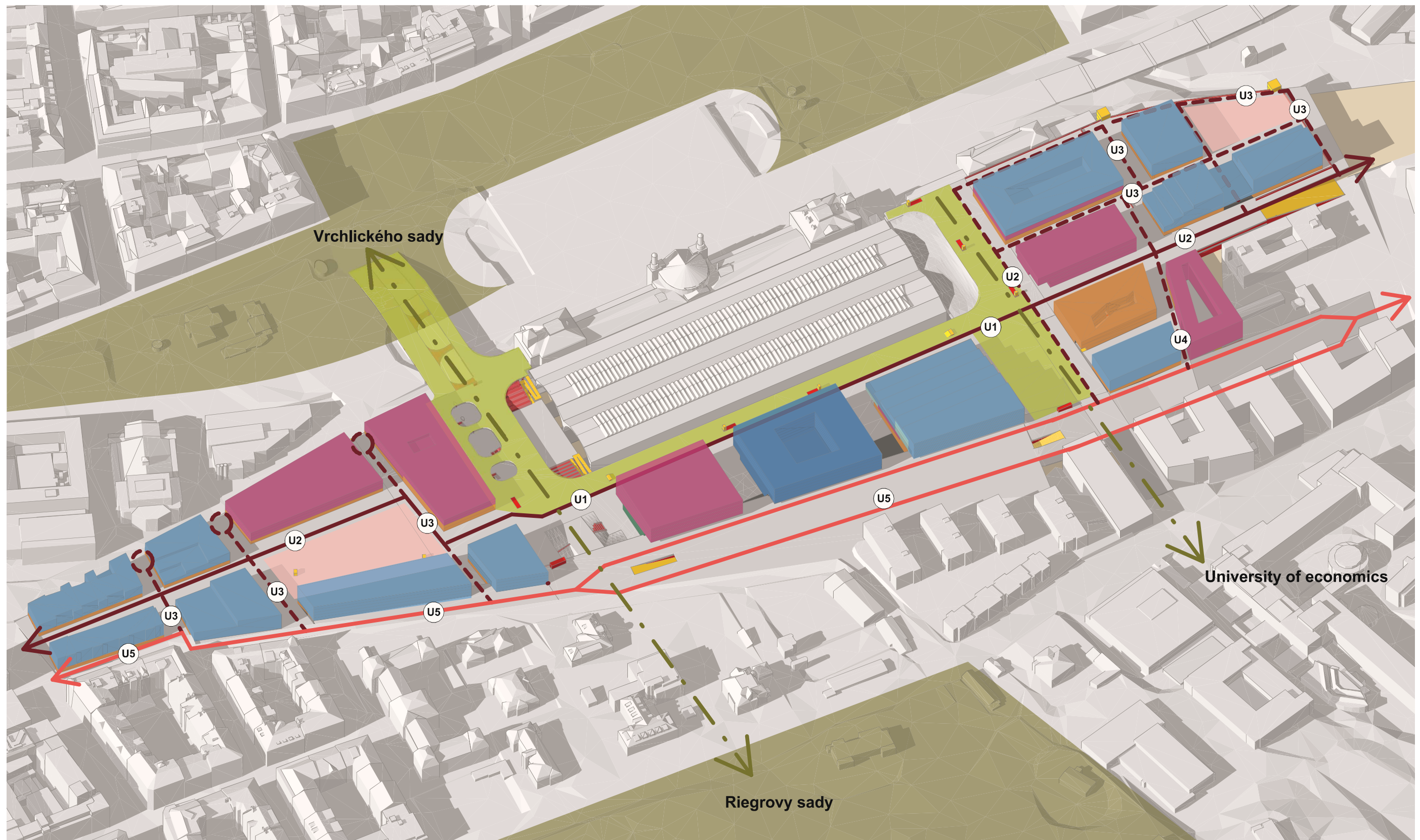
MASTERPLAN FLOOR



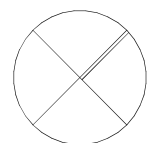
TECHNICAL INFORMATION



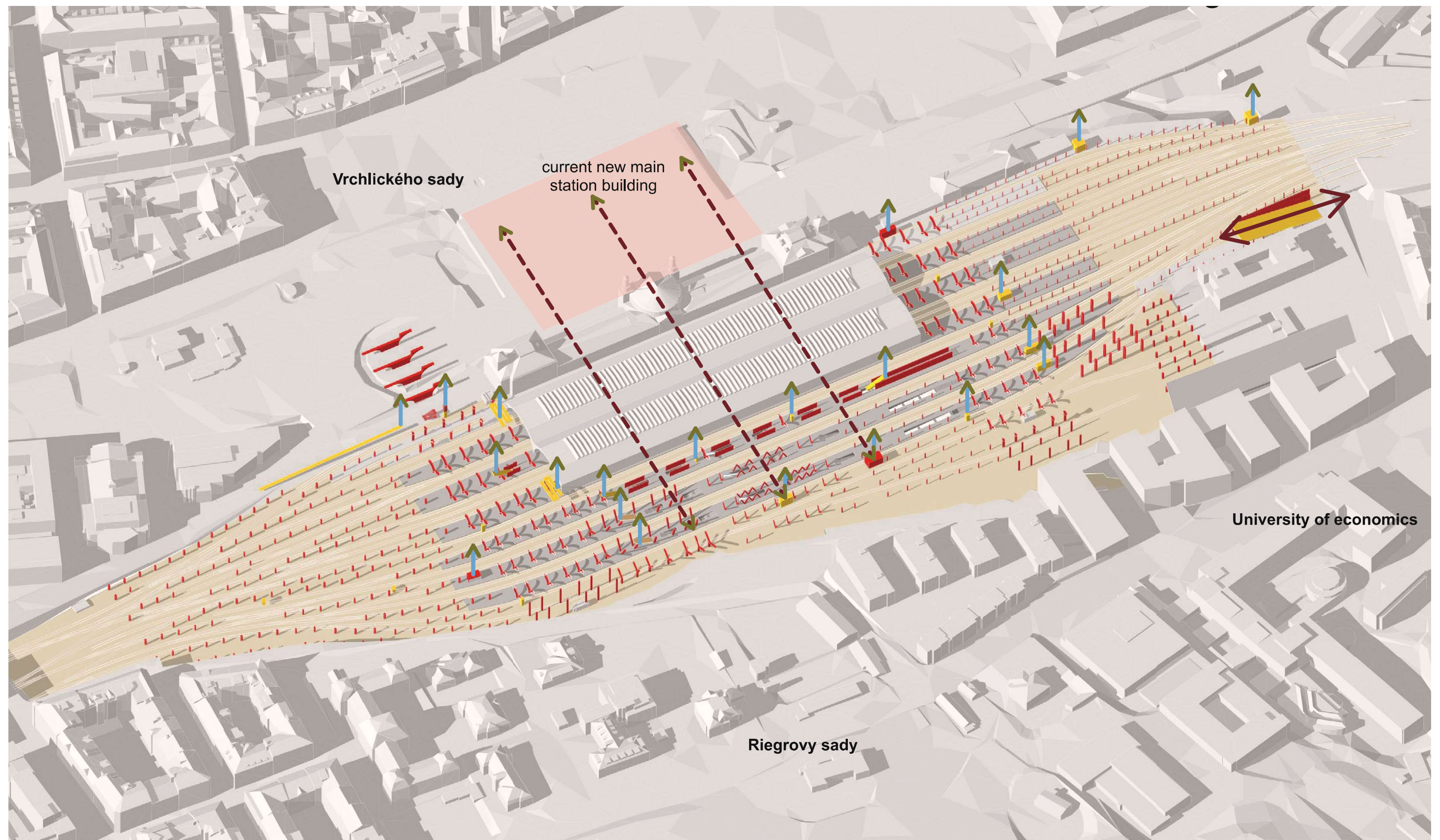
ANALYSIS OF THE PLATFORM






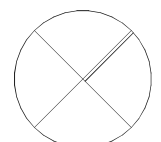
- | | | | |
|---|--|---|--|
| Park | Hotel | Vertical communications | Main micromobility communications |
| Residencial | Sport | Street profile | Side micromobility communications |
| Offices | Culture | | Španelská street |
| Commercial | Local centre | | Geen connection line |



ANALYSIS OF THE PARKING FLOOR

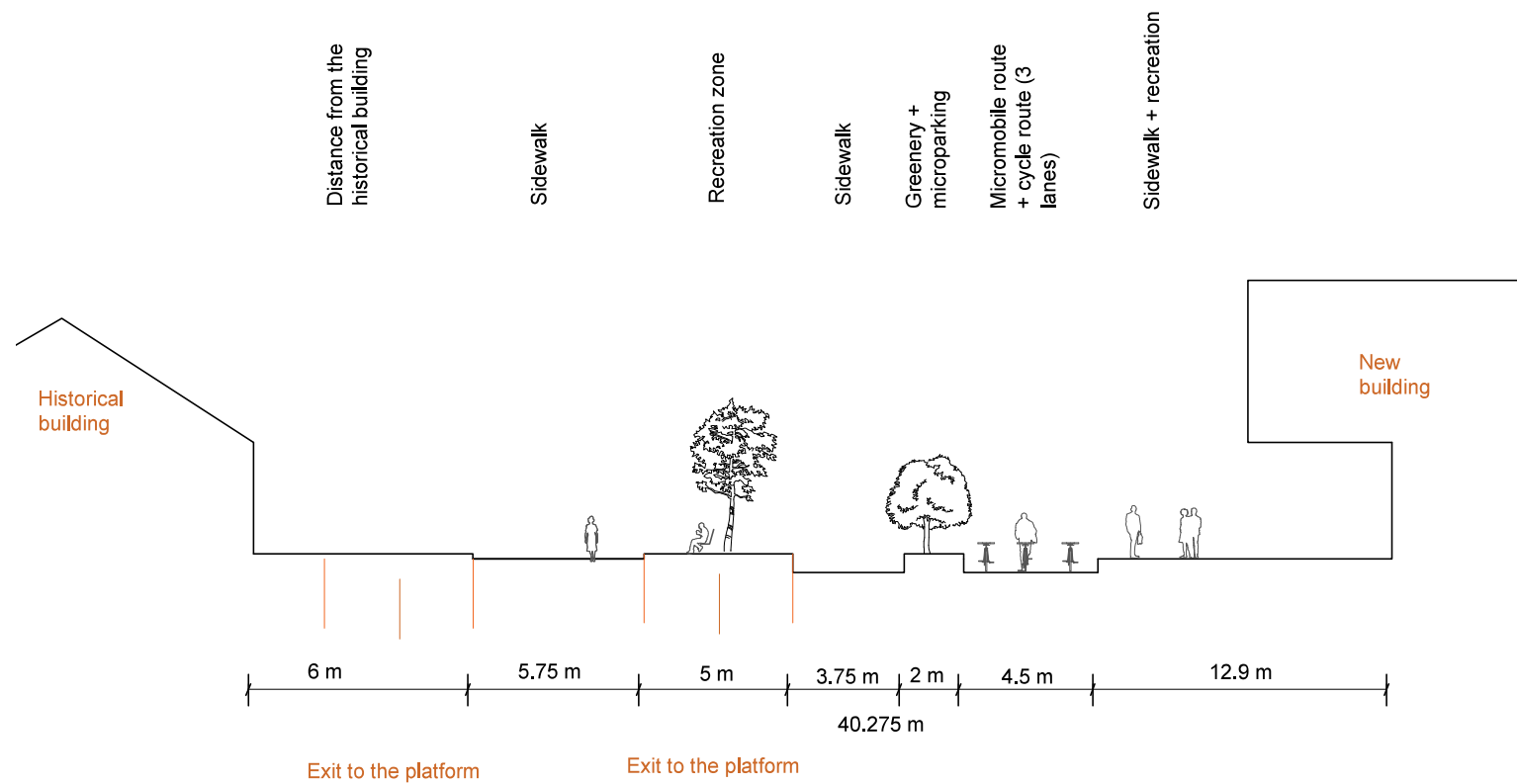


-  communications to parking level
-  Main station underpasses
-  Main micromobility communications (ramp leading to the higher floor)

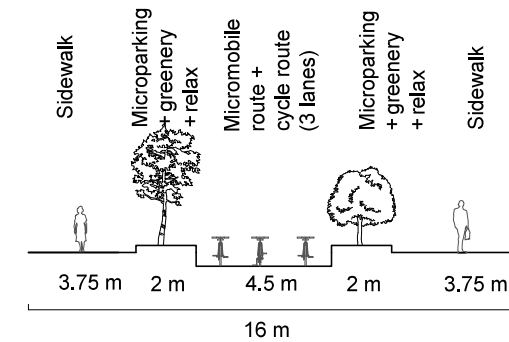


URBAN PROFIL ANALYSIS

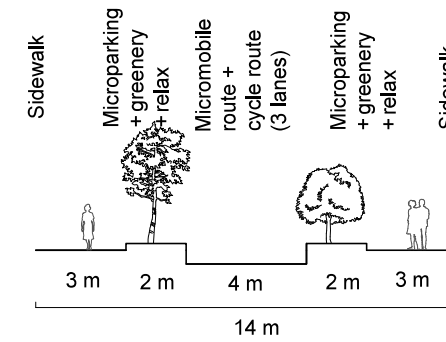
U 1 PROMENADE PROFILE



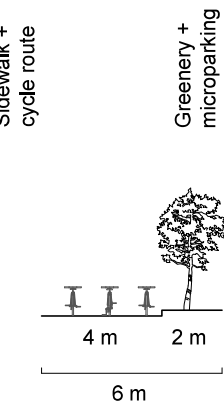
U 2 PROMENADE PROFILE IN THE NORTHERN AND SOUTHERN PARTS



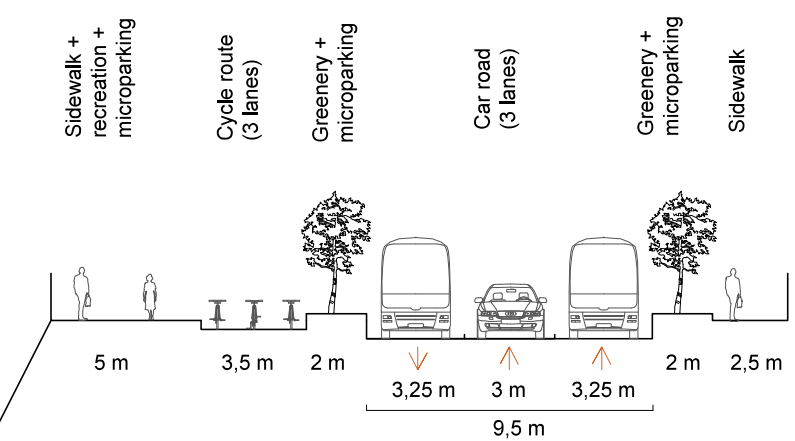
U 3 MAIN STREET PROFILE



U 4 SECONDARY STREET PROFILE



U 5 PROFILE OF THE STREET ŠPANELSKÁ





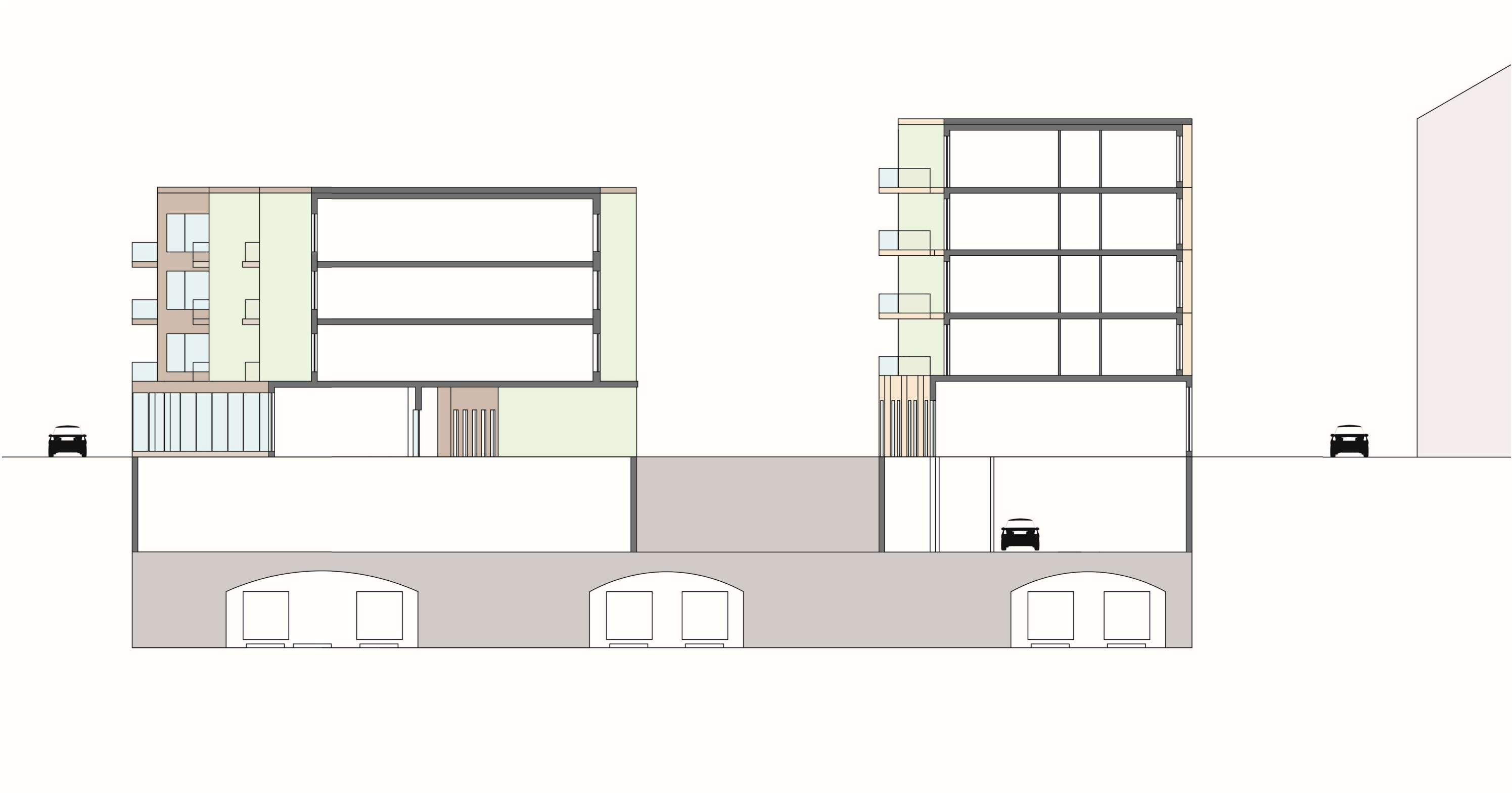
RESIDENTIAL





PARKING PLAN 1:500





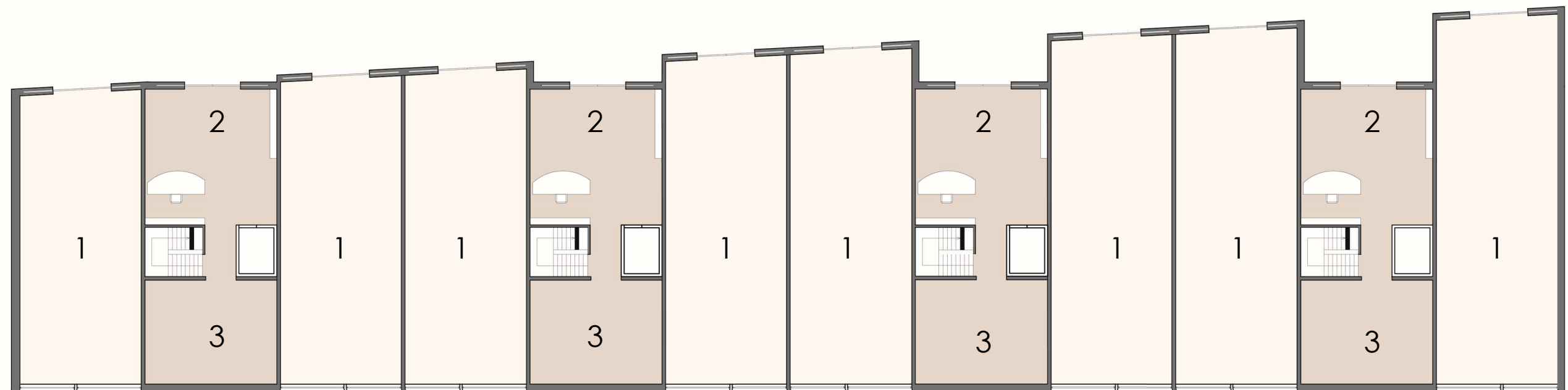


SOCIAL HOUSING

TECHNICAL INFORMATION

TOTAL RESIDENCIAL AREA: 3918 M2
TOTAL COMERCIAL AREA: 907 M2
TOTAL PARKING AREA: 972 M2

SOCIAL HOUSING 1:200



Ground floor

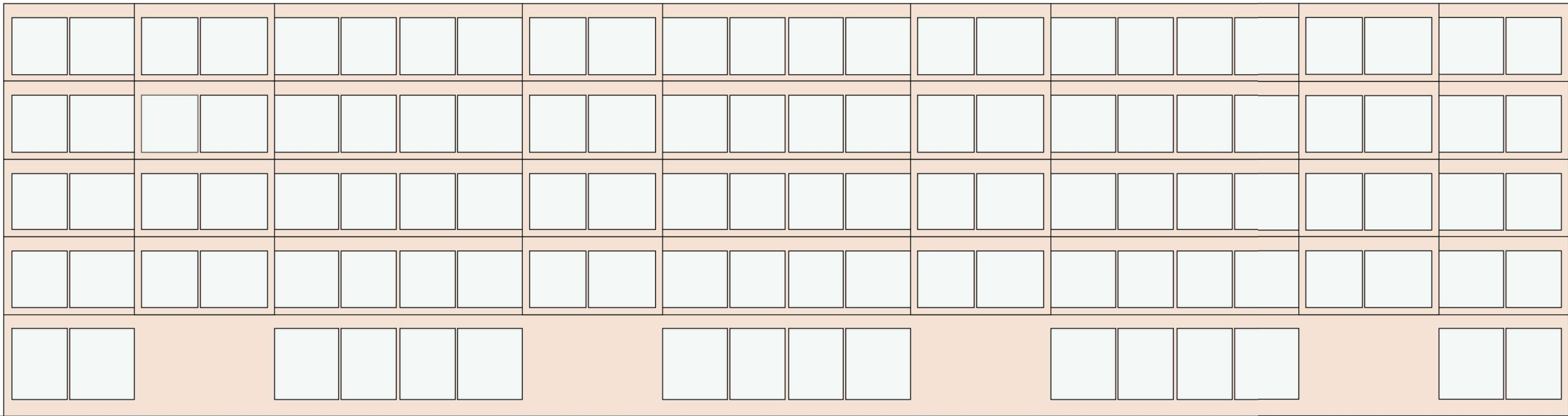


Floor plan

- 1: Comercial use
- 2: Entrance to the building
- 3: Bicycle storage



SOCIAL HOUSING 1:200



West profile



East profile



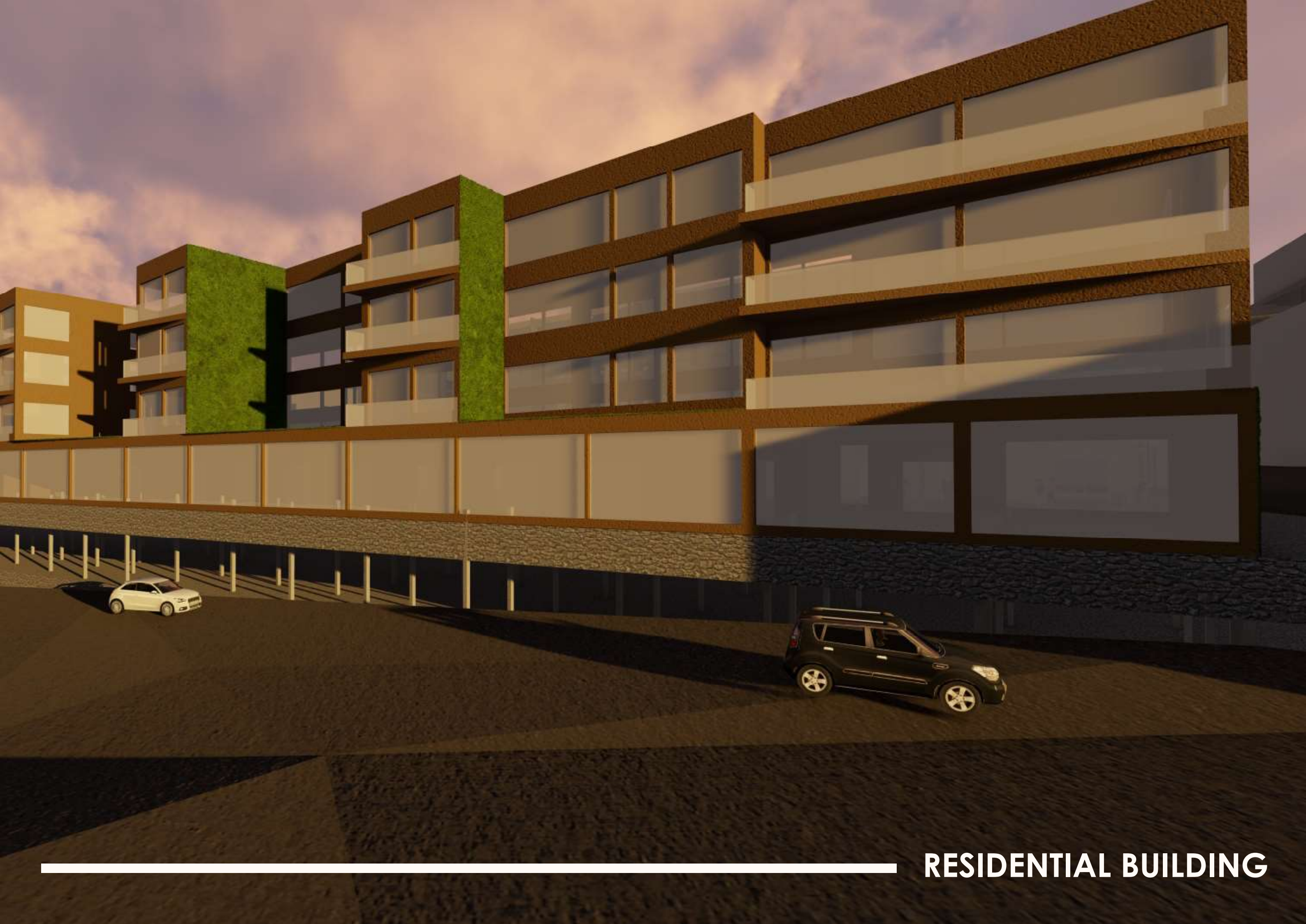
The building is composed by this block that repeats 4 times creating a rhythm and a module that makes it more easy to work with the structure.

Each block is composed by 2 typologies of apartments and they create a certain symmetry.

The element for vertical communication is located in the center.

- Studio area: 25,5 m²
- 2 ppl apartment area: 65 m²

(areas without balcony)

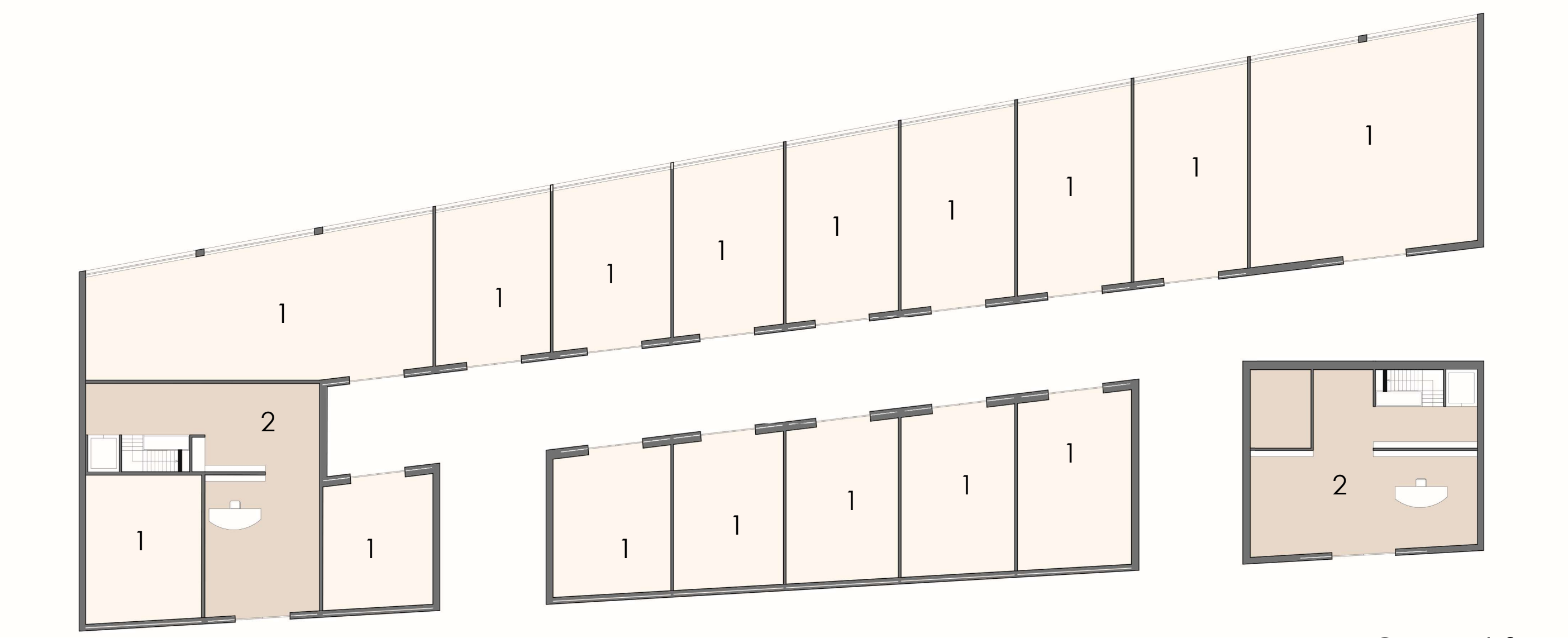


RESIDENTIAL BUILDING

TECHNICAL INFORMATION

TOTAL RESIDENCIAL AREA: 3834 M2
TOTAL COMERCIAL AREA: 810 M2
TOTAL PARKING AREA: 1360 M2

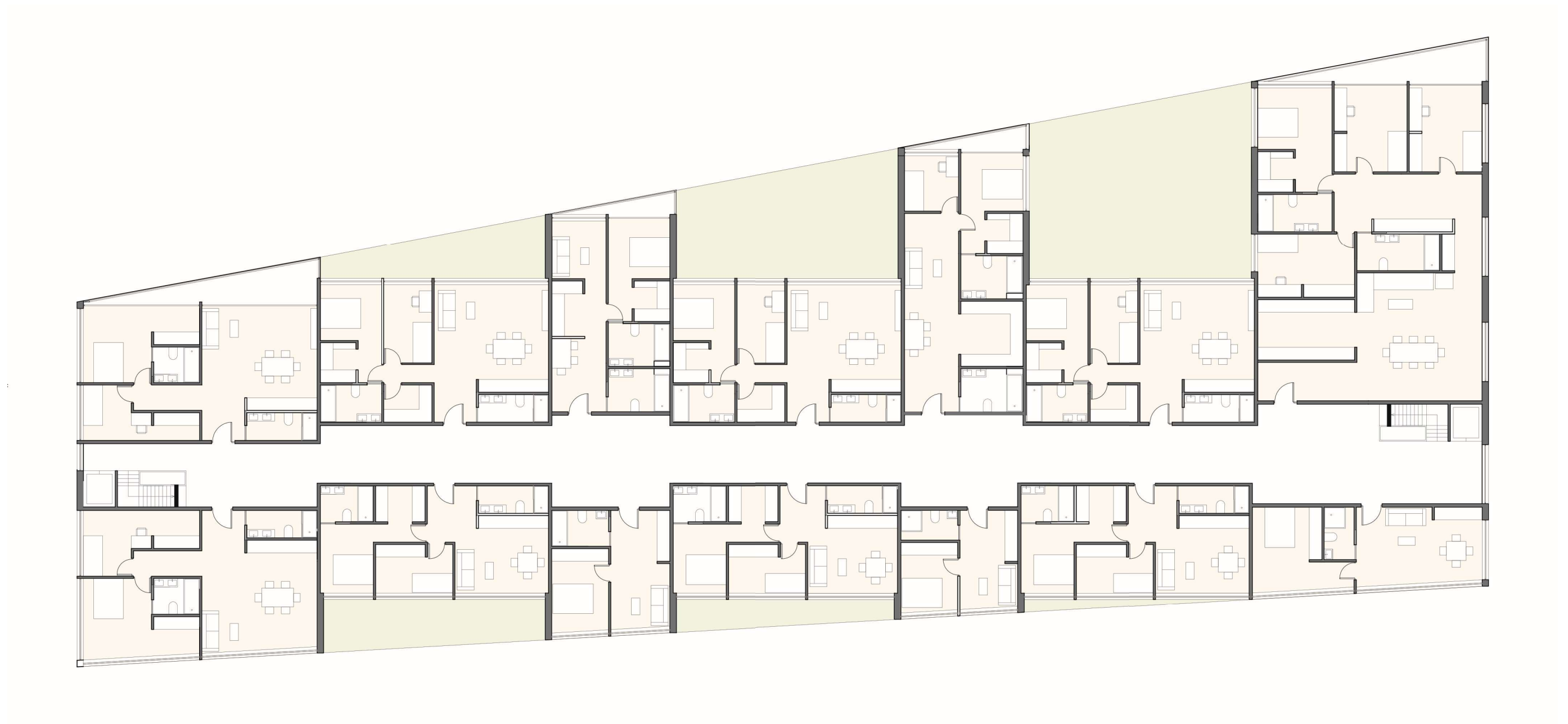
RESIDENTIAL BUILDING 1:200



Ground floor

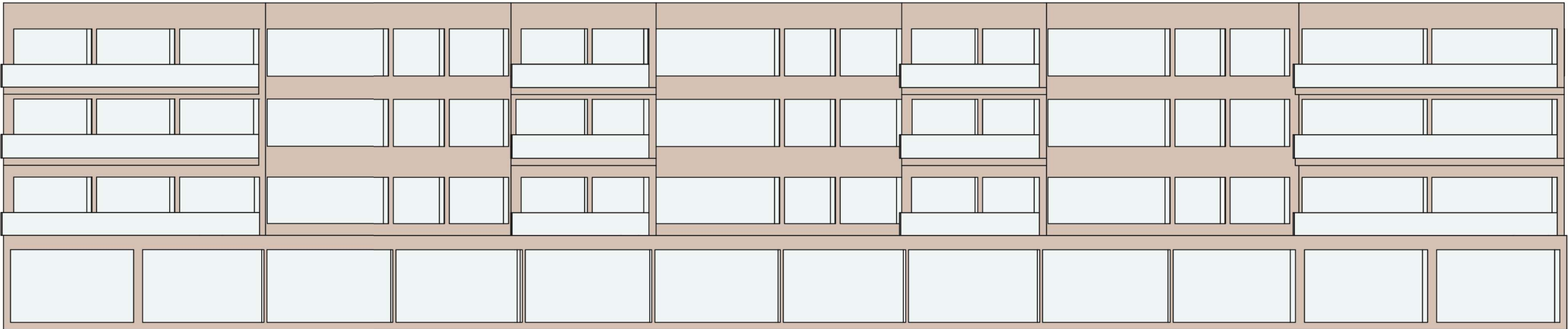
1: Comercial use
2: Entrance to the building

RESIDENTIAL BUILDING 1:200

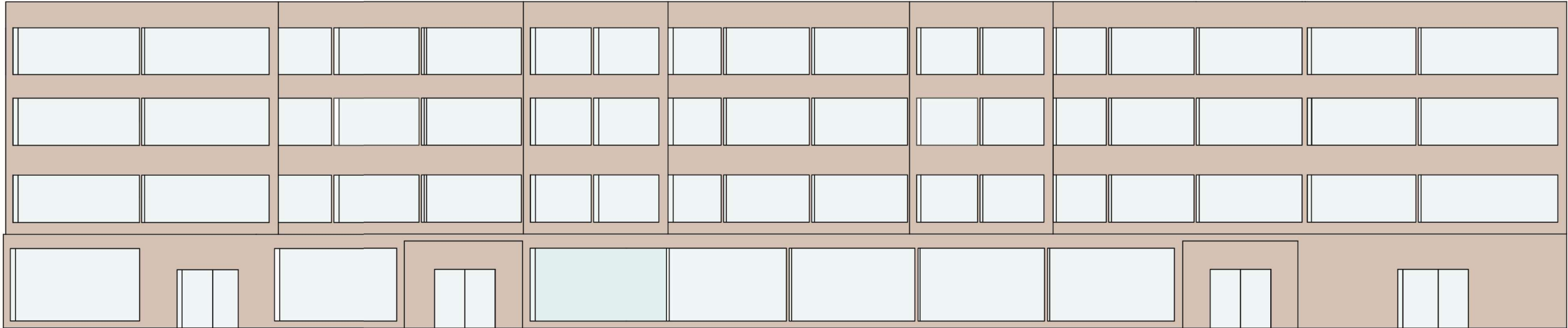


Floor plan

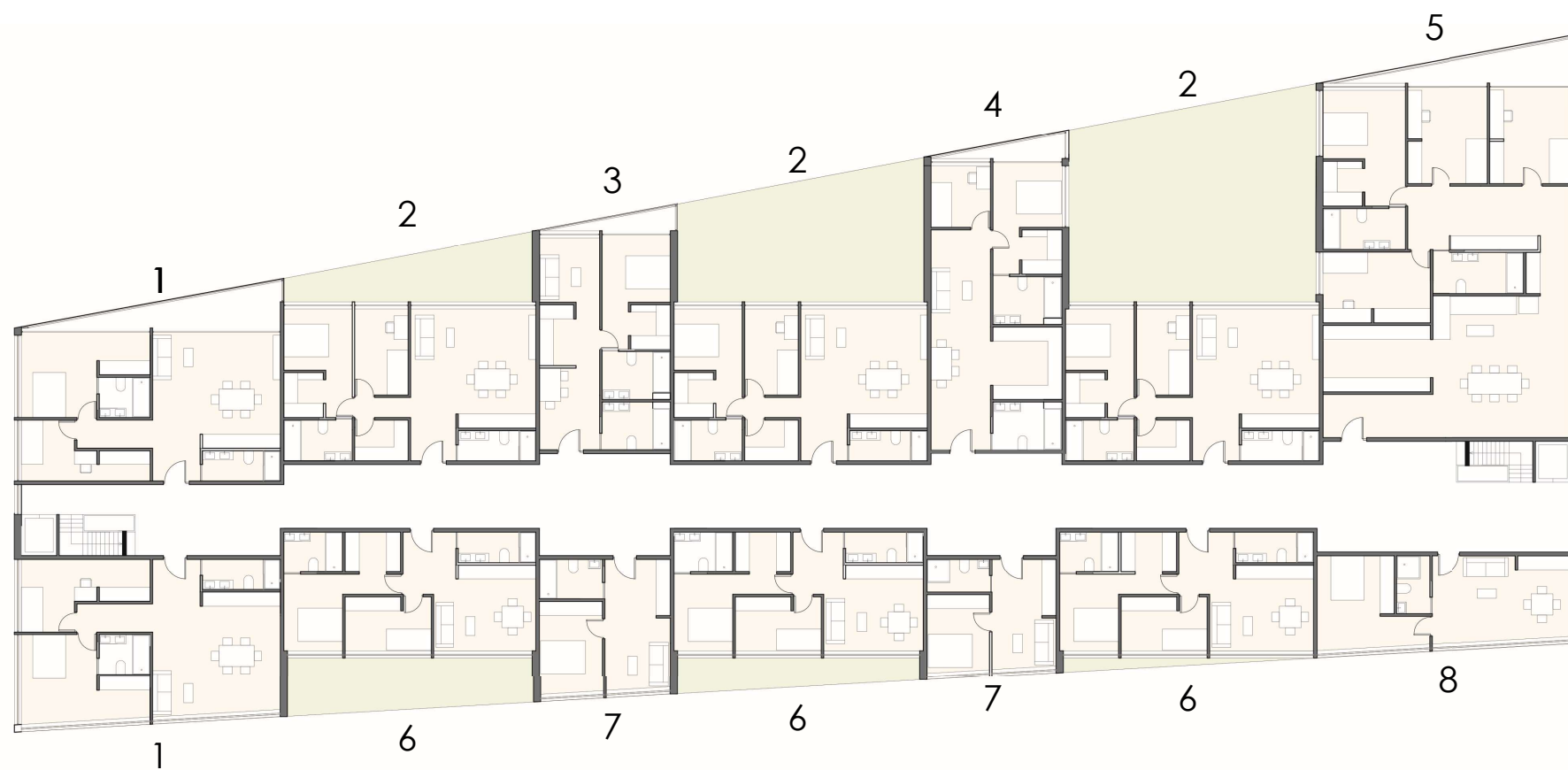
RESIDENTIAL BUILDING 1:200



West profile



East profile

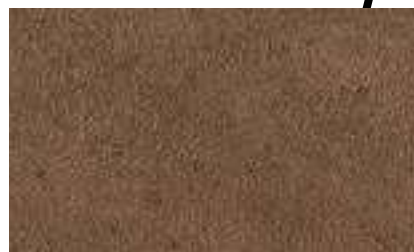


The concept of this building is completely different from the social housing project. Since the type of housing is very different, I decided to create a contrast also in the rhythm. This building does follow a rhythm but it's not as obvious as the last one. Also the diversity of typologies is wider than the precedent. We can see that some typologies are repeated in order to create an order still.

- Type 1: 71 m²
- Type 2: 75 m²
- Type 3: 50 m²
- Type 4: 68 m²
- Type 5: 160 m²
- Type 6: 60 m²
- Type 7: 32 m²
- Type 8: 40 m²



MATERIALS

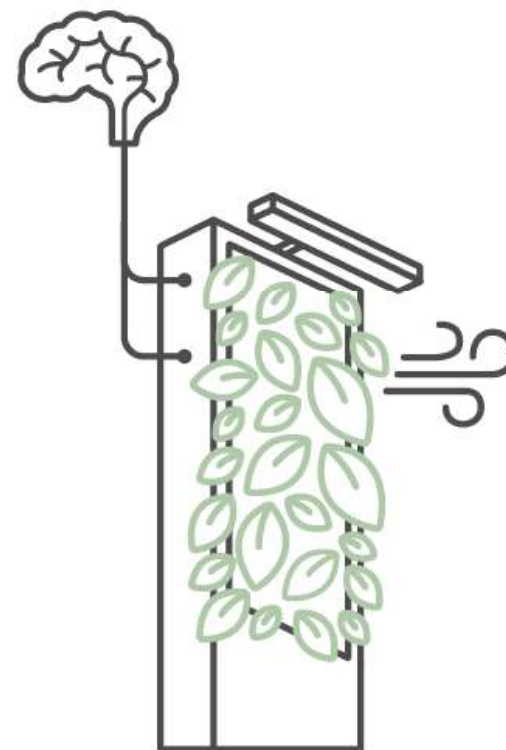
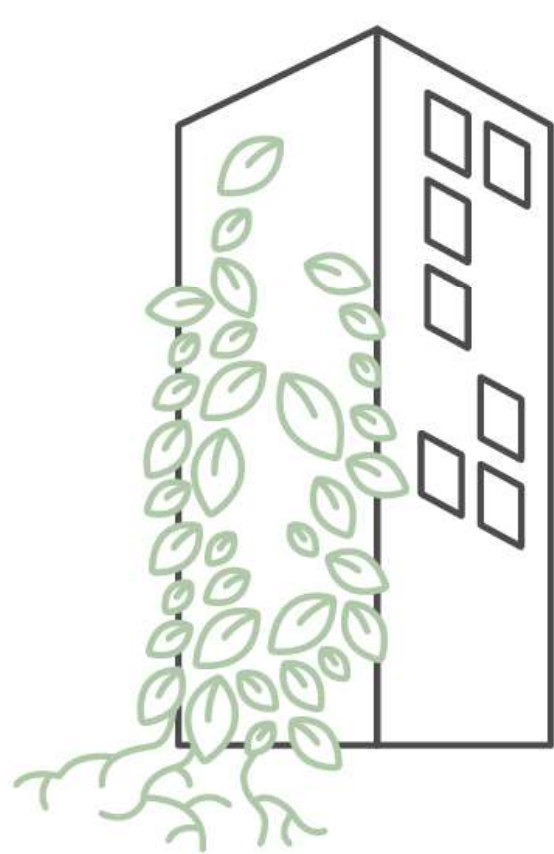


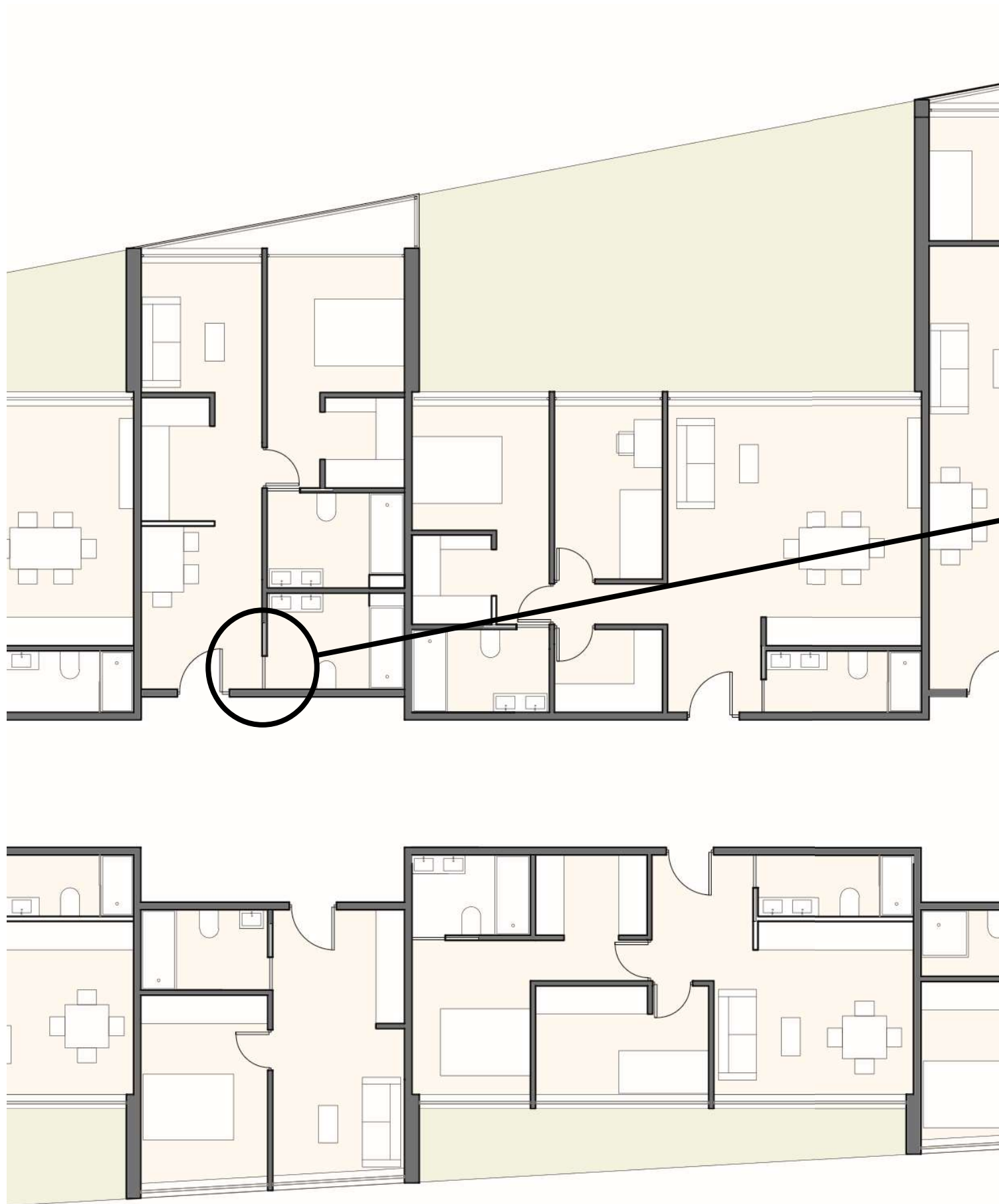
CONCRETE



CORK

VEGETAL WALLS: In addition to the visual and biophilic benefits of all green walls, smart and active green walls can feature natural air purification and humidification thanks to the combination of enhanced air circulation, specialized growth medium, and technology.





SLIDING WOOD DOOR: saving space, aesthetical and ecological.

