

Campus STU - Bratislava



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01 | SITE | Location

BRATISLAVA, SLOVAKIA | Campus STU

Bratislava is the capital of Slovakia, it is located in the southwest of the country, next to the Danube river. The city borders Austria and Hungary.

It has an area of 367.58 km², and it has a population of 446,800 people.

In Bratislava you will find the Slovak Parliament, the Presidential House, the Ministries, the Supreme Court, and the Central Bank.

The site to be intervened is the Campus of the Slovak University of Technology. It's between Sloboda square, Kollar square, Starohoská and Radlinská streets

On the property there are four faculties:

- Faculty of Mechanical Engineering (SjF)
- Faculty of Chemical and Food Technology. (FCHPT I) (FCHPT II)
- Faculty of Civil Engineering
- Faculty of Civil Engineering (SvF)



EUROPA



ESLOVAQUIA



BRATISLAVA

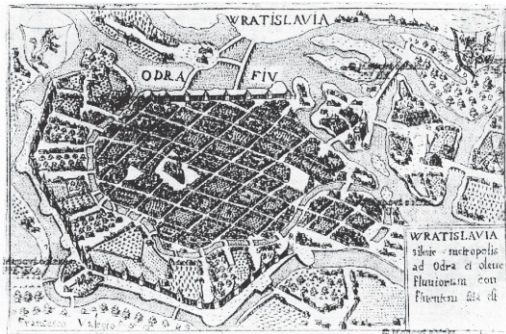


CAMPUS STU

BRATISLAVA | The city

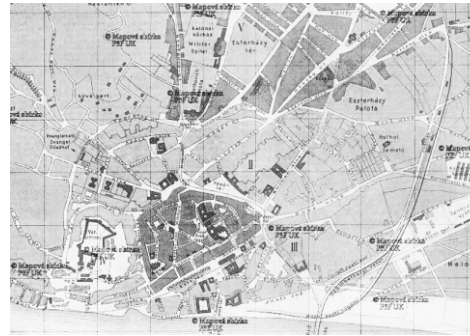
SXVI

Its strategic position led to frequent attacks, but it also generated great economic development and high political status.



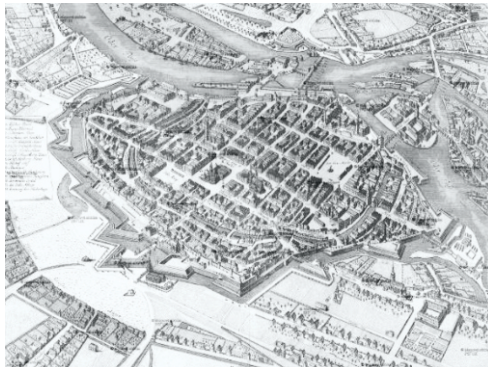
SXIX

During this century there were important events in Europe. The creation of a railway line, resulted in the creation of numerous industries and other institutions.



SVIII

Bratislava became a coronation city and the seat of kings, archbishops, the nobility and all major organizations and administrations.



SXX

Bratislava was bombed by The Allies. After the war large residential areas were built with prefabricated buildings. In the 1990s and early 21st century, the economy grew.



01 | SITE | Architecture

BRATISLAVA | Arquitectura y cultura

The city is characterized by preserving medieval towers, which coexist with grandiose buildings from the 20th century. The architecture has undergone a profound transformation after the Second World War.

Bratislava is the historical cultural center of Slovakia, due to its multicultural character, it receives influences from various ethnic groups, Germans, Slovaks, Hungarians, and Jews. The city has theaters, museums, art galleries, concert halls, cinemas, and government institutions.

ARQUITECTURA EMBLEMÁTICA



Grassalkovich Palace



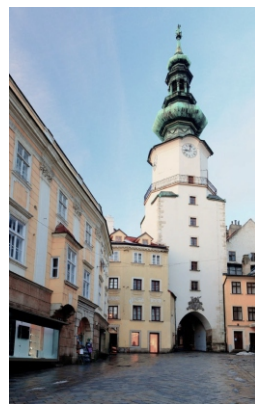
Slavín Memorial



Slavín Memorial



Slovak Radio Building



Michalská brána



Bratislavský Hrad



Námestie Slobody



Námestie Slobody

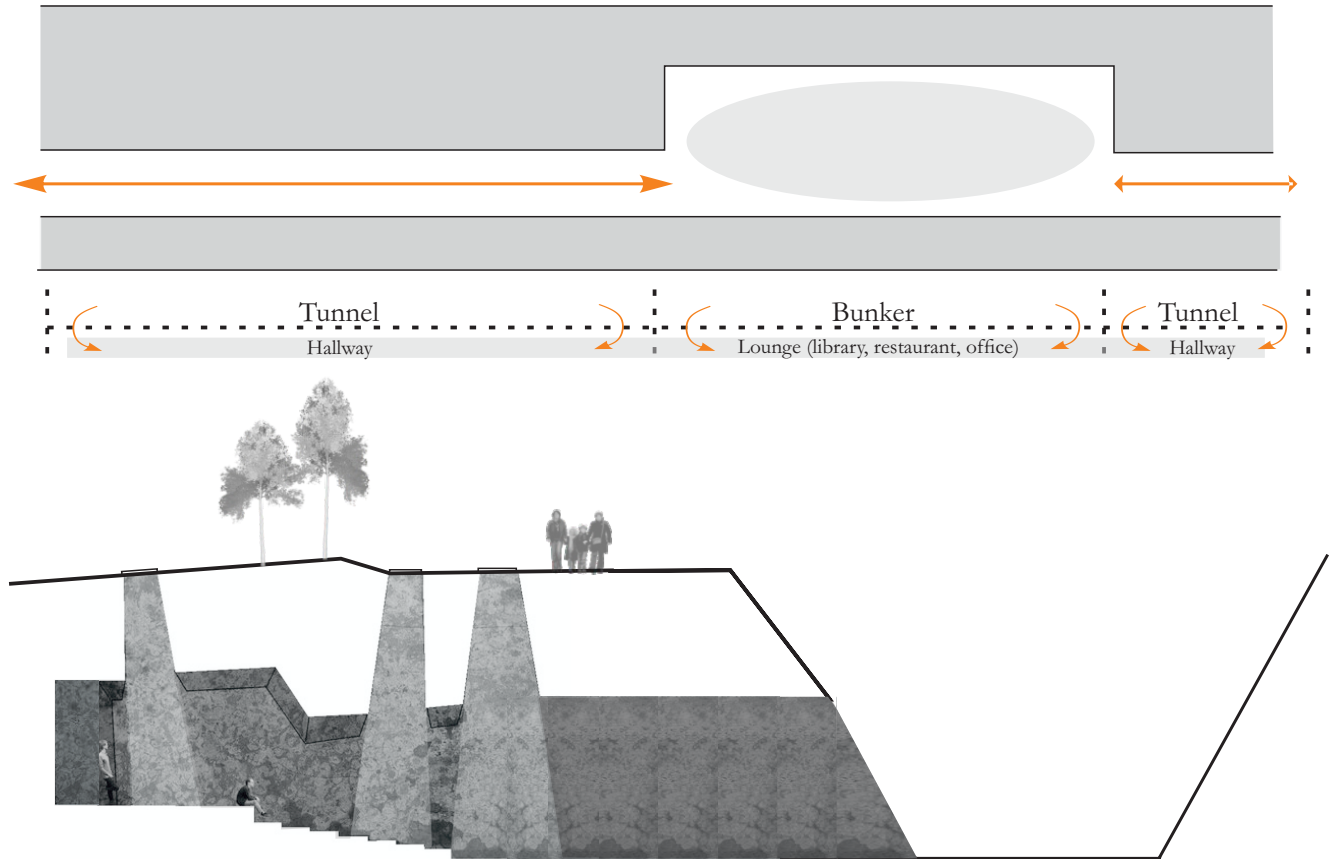
02 | CONCEPT | Tunnels

The idea of the project was born from the existing tunnels in the city, which were created during the Second World War as military emergency shelters. At the end of the war, they abandoned their function and years later they were re-functionalized, creating bars, pubs, public baths, etc.



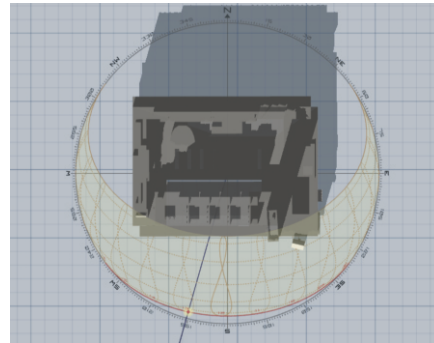
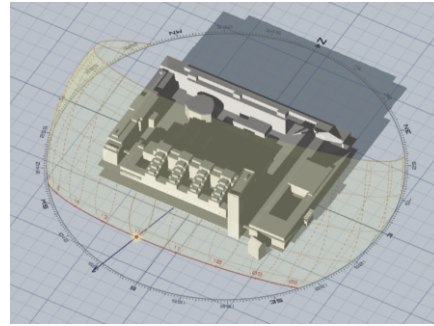
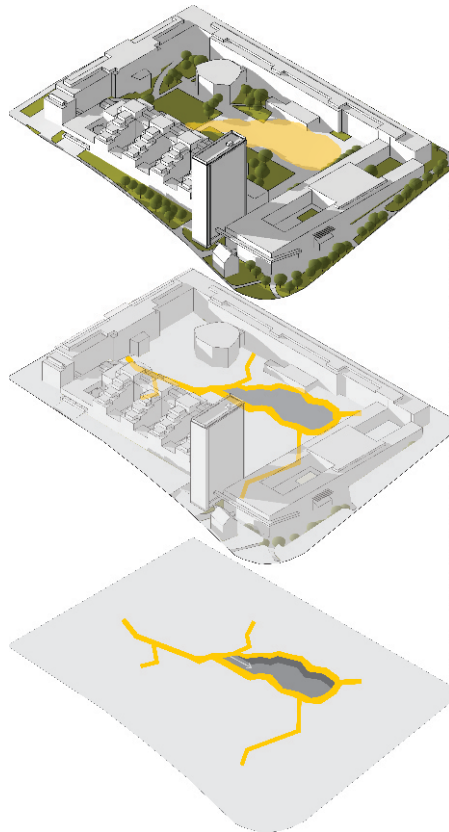
The STU project seeks to connect the city and the four faculties of the property. The concept of tunnels and shelters are recreated in routes and enclosed spaces that will serve the different activities of the program's needs.

In turn, the materiality will accompany the concept, for this we will use heavy materials, exposed concrete and masonry. The building will be completely buried, it will ventilate and it will be basked by rays of light.

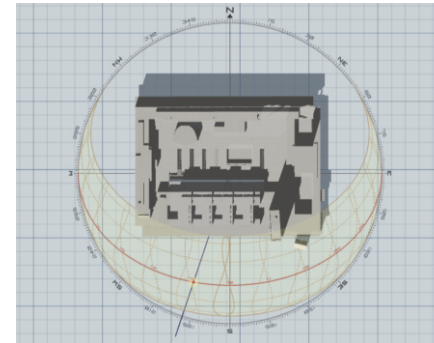
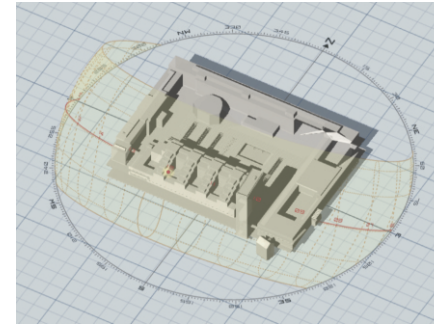


02 | CONCEPT | Sun diagram

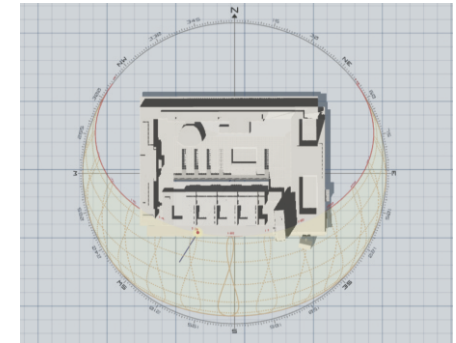
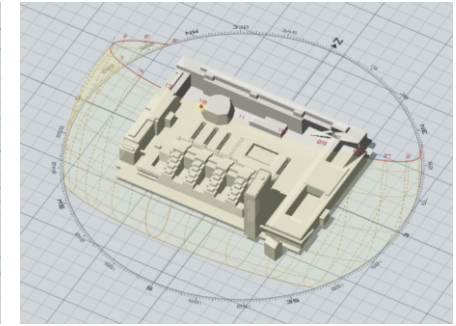
The concept in the use of land: The building is implanted in the place that receives more hours of sun. As it is a semi-buried building, it must have good ventilation and natural lighting conditions. Because of this, a courtyard is created from which the tunnels that connect with the faculties and the city come out.



Winter Solstice
12:00hs



Equinox
12:00hs



Summer Solstice
12:00hs

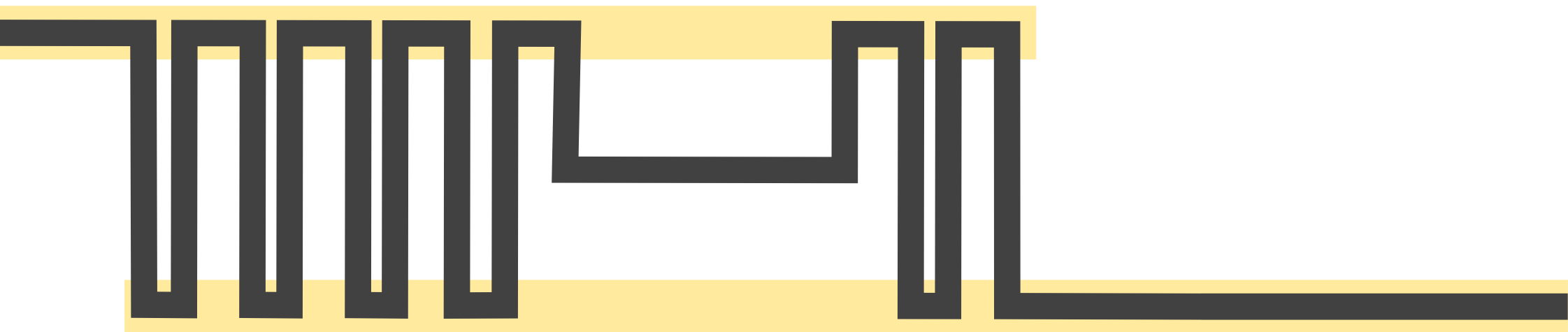
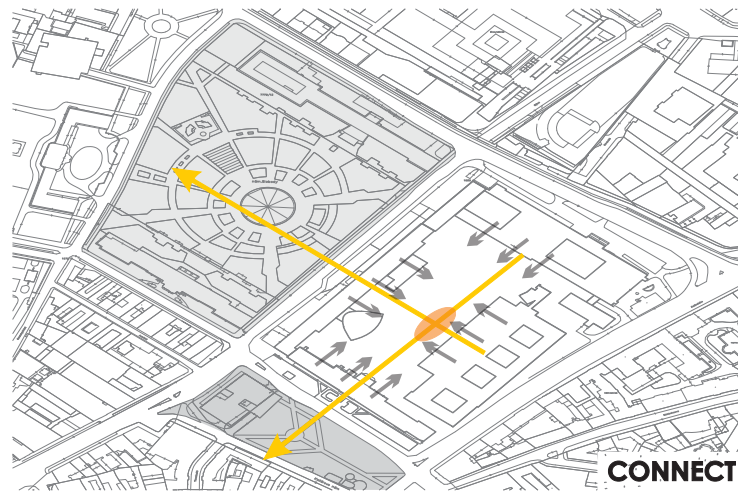
The study of the sun path resulted in the hours of sunshine received by the campus in different seasons. Since the hours of sunshine are very scarce in winter, the decision was to free the patio and build the entire building underground.

This way that it does not cast more shade in the courtyard, to the benefit of the surrounding buildings. In order for the interior space to sunbathe, the building was conceived as an excavated plane. As a result, a large main courtyard, skylights and

English courtyard bring light to the different levels.

03 | CREATIVE PROCESS | Plan

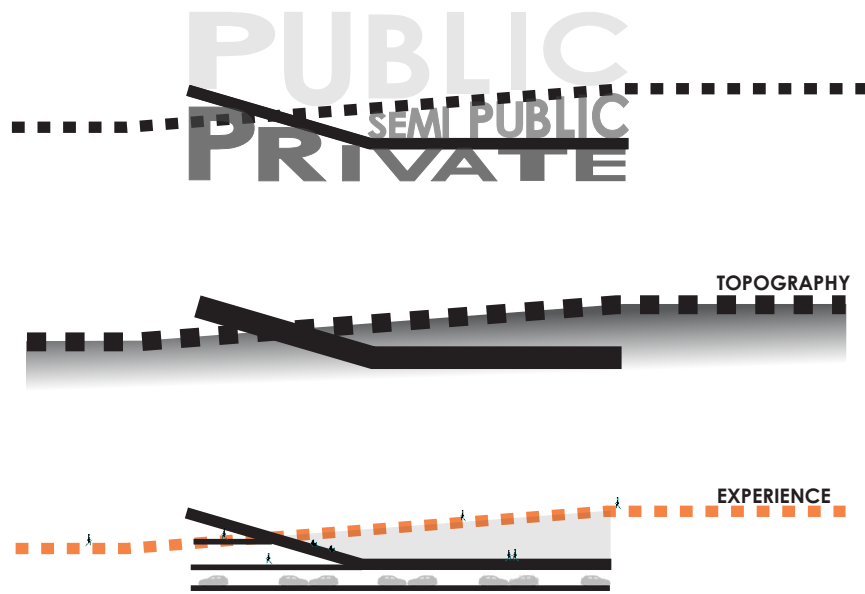
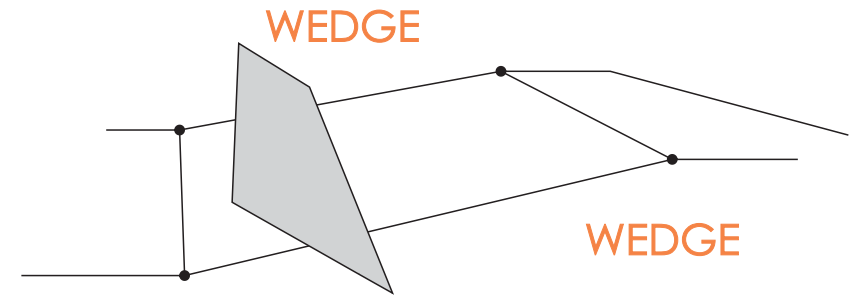
The formal generation of the building went through different processes. In the first place, the idea of linking the courtyard with the other faculties and with the city was generated in the horizontal plane. In an analysis of the existing buildings, the vertical circulation cores were marked as important points and connected underground through tunnels.



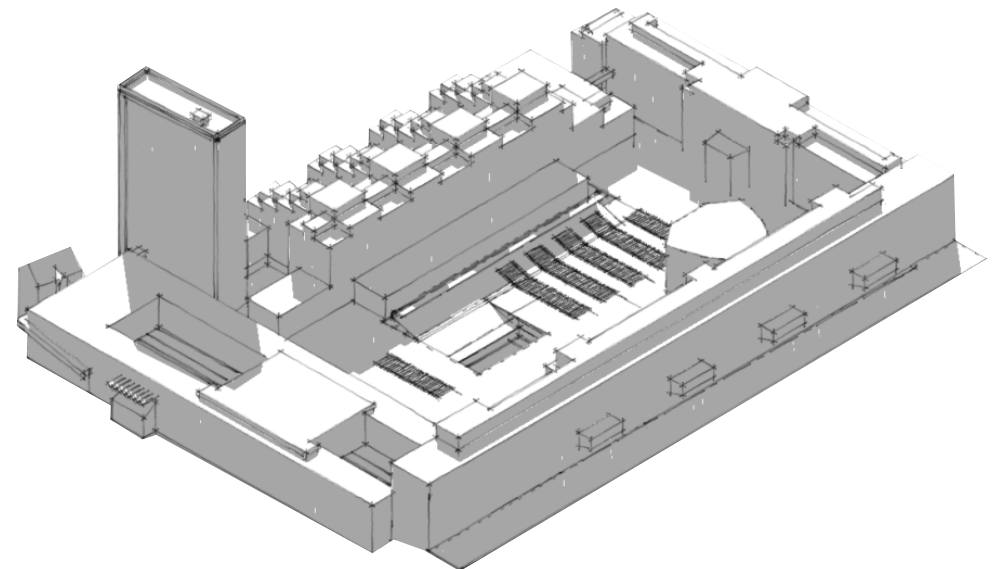
03 | CREATIVE PROCESS | Section

The second way to generate the building was in section, for which the two levels of the north and south streets were linked. A large sloping plate was created to serve as a public space below where the activities of the building are located. These activities are organized according to their privacy gradient, the most public one, in plane 0, and the most private, increasingly buried.

.The wedge generated between the highest plane 0 and the lowest plane 0 was penetrated by a counter slope and the junction gives rise to an amphitheater, a courtyard.

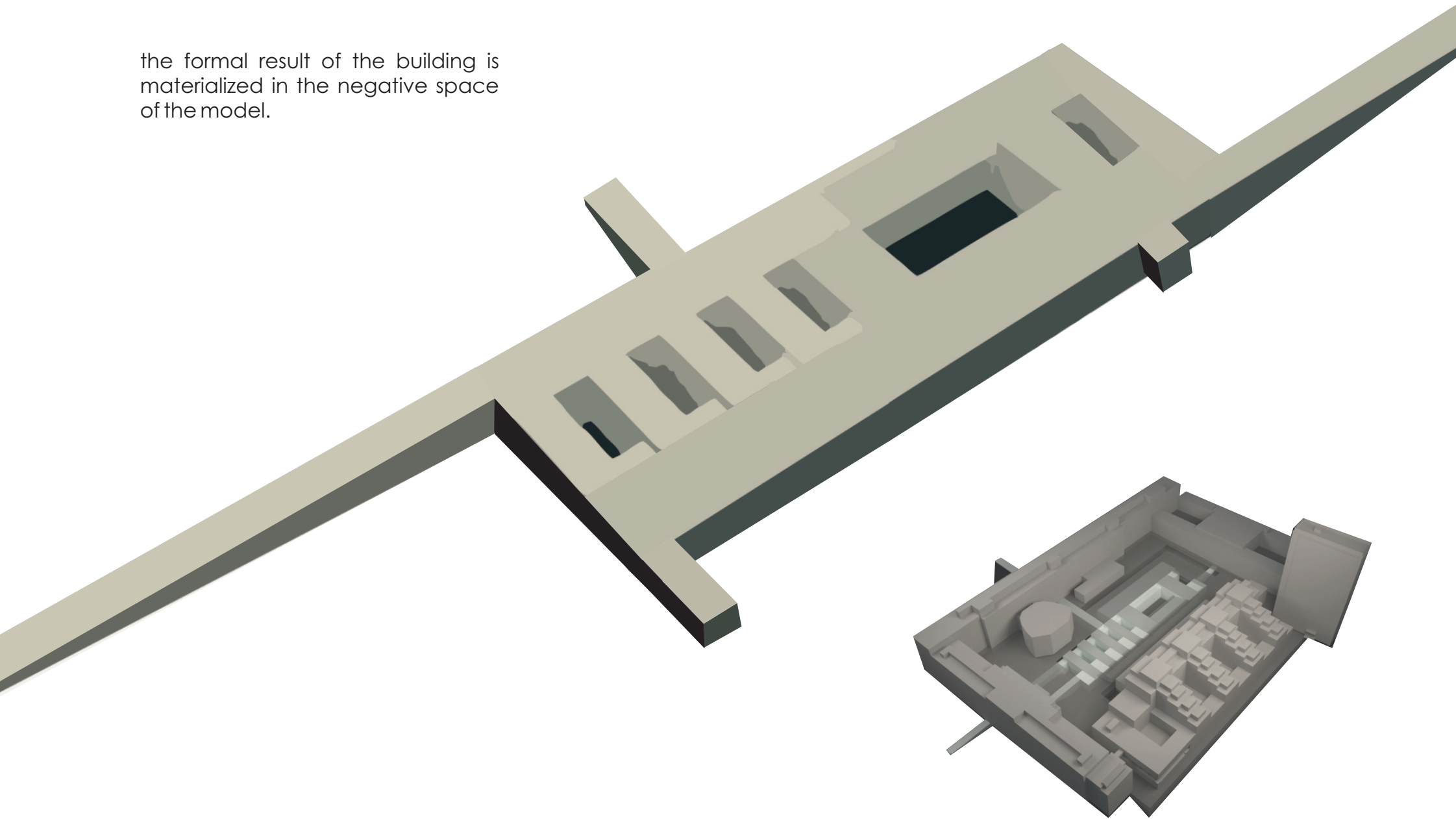


LAND USE DIAGRAM

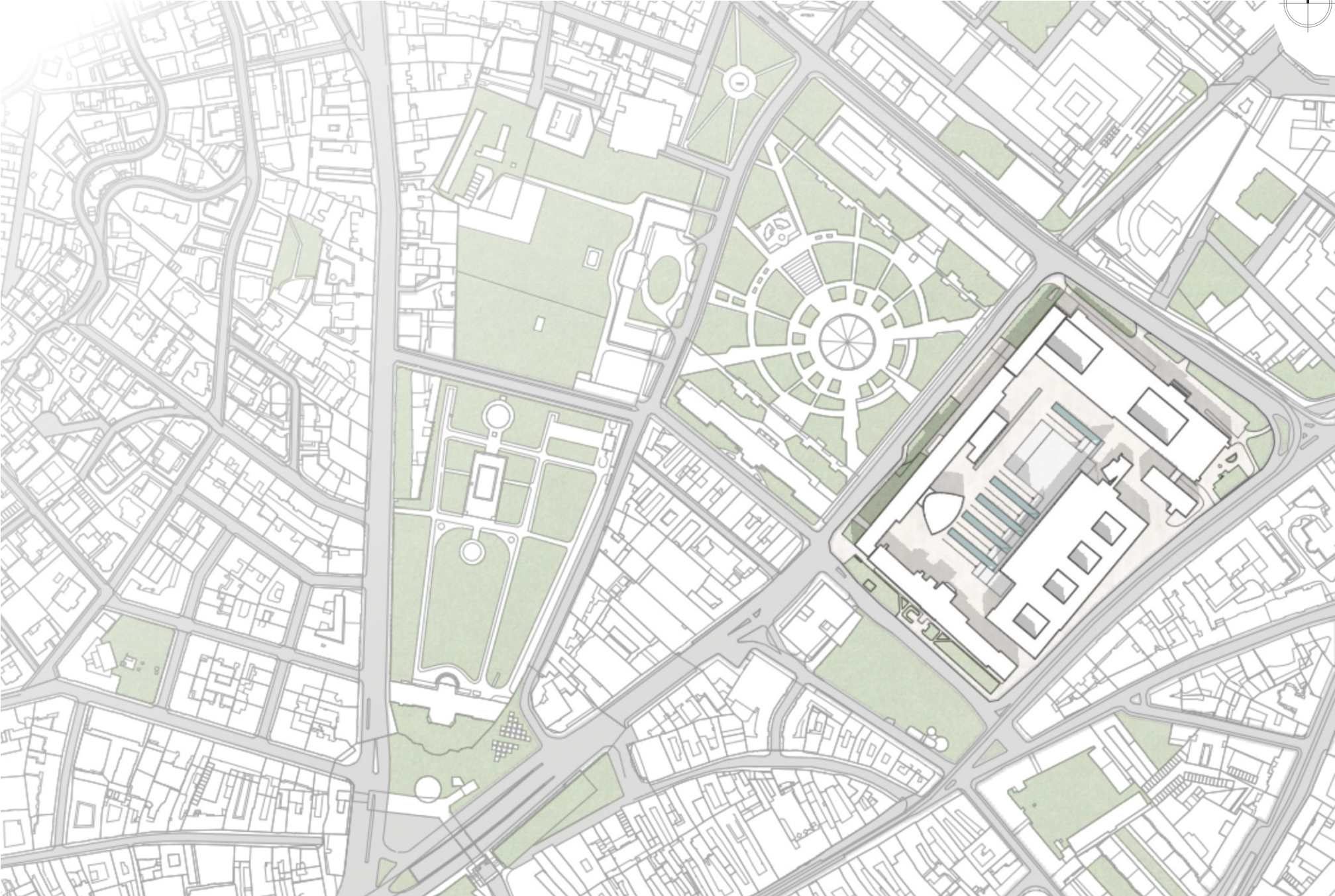


03 | CREATIVE PROCESS | Model

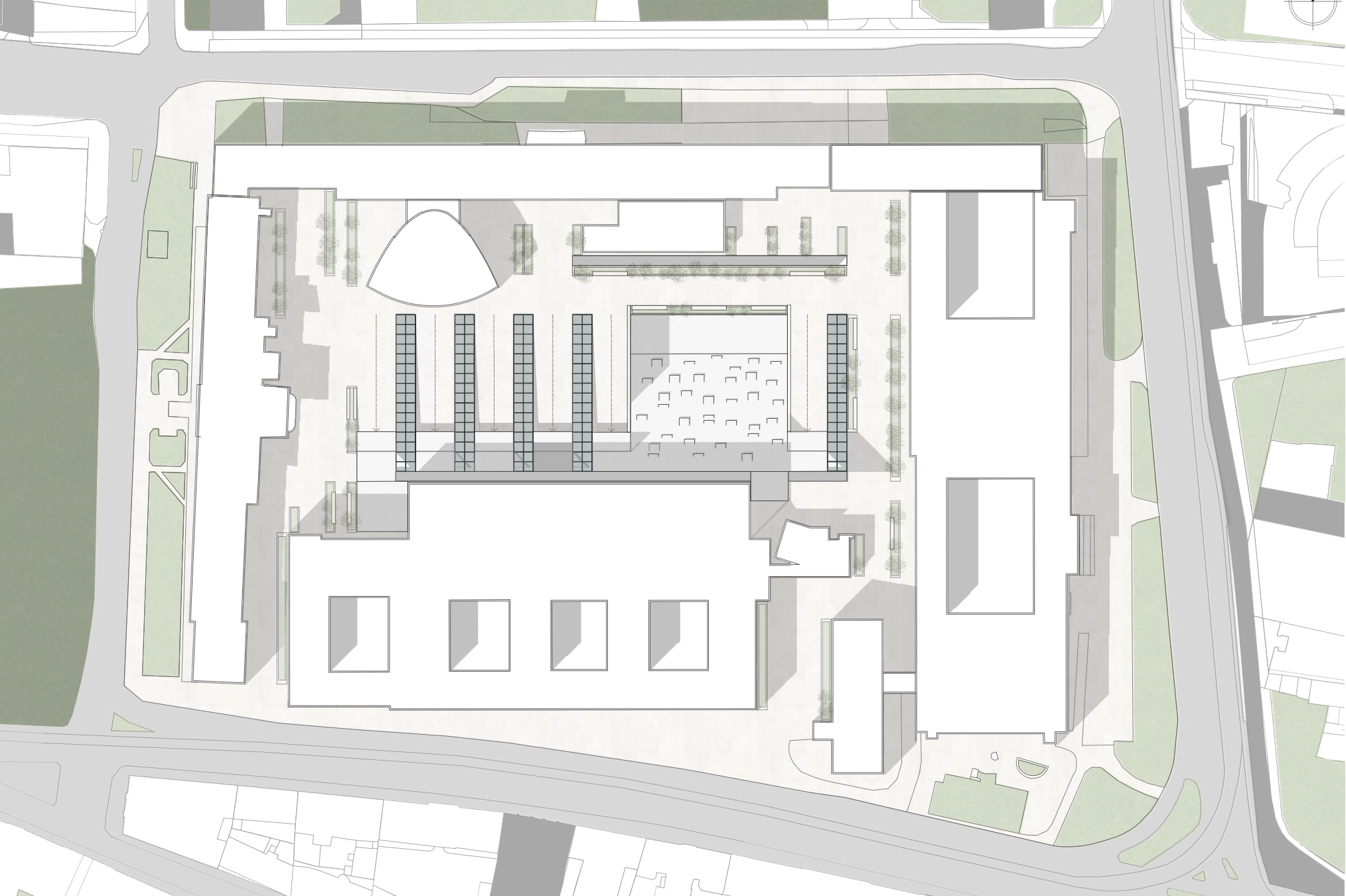
the formal result of the building is materialized in the negative space of the model.



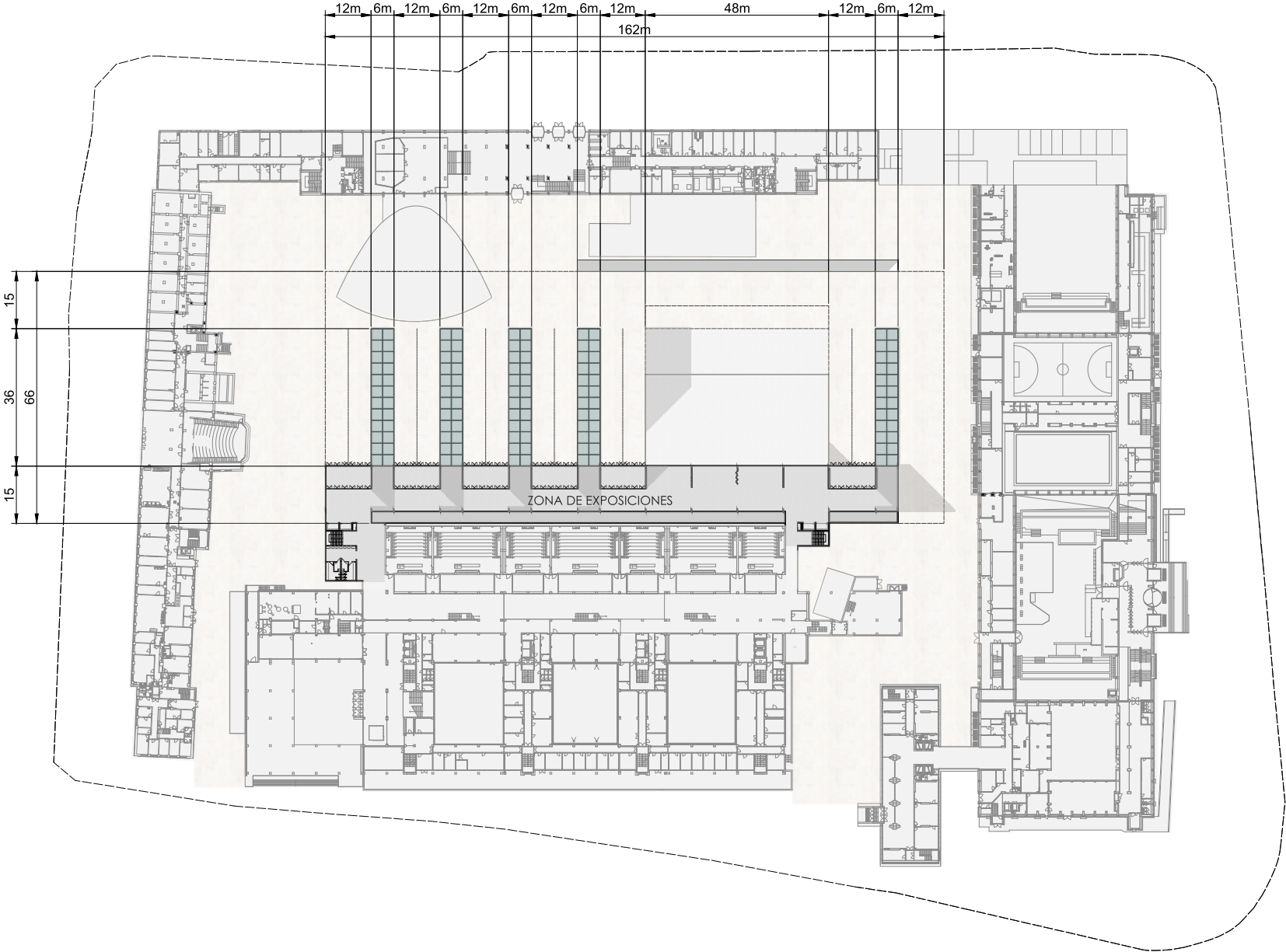
04 | PLANS | Site location plan



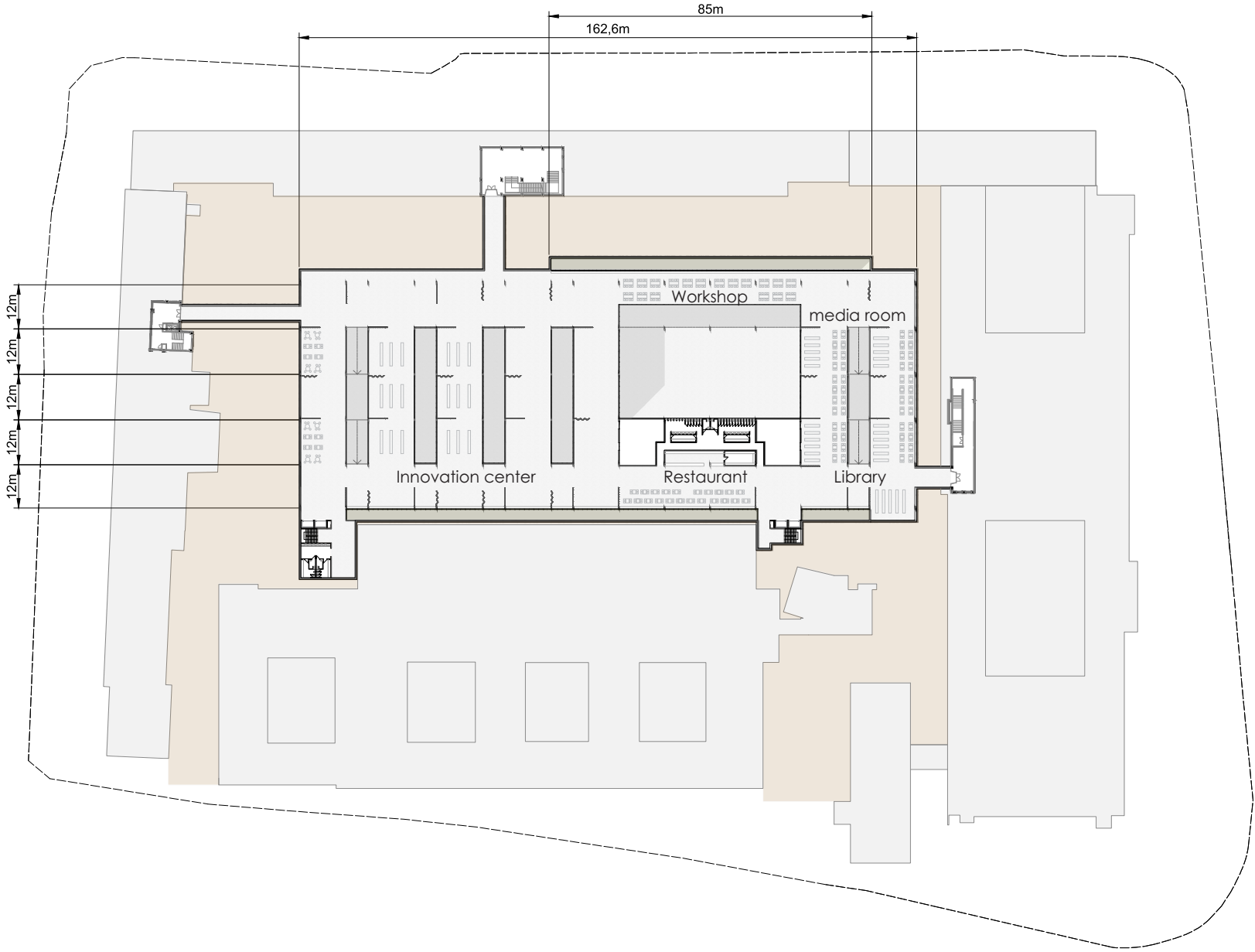
04 | PLANS | Block plan



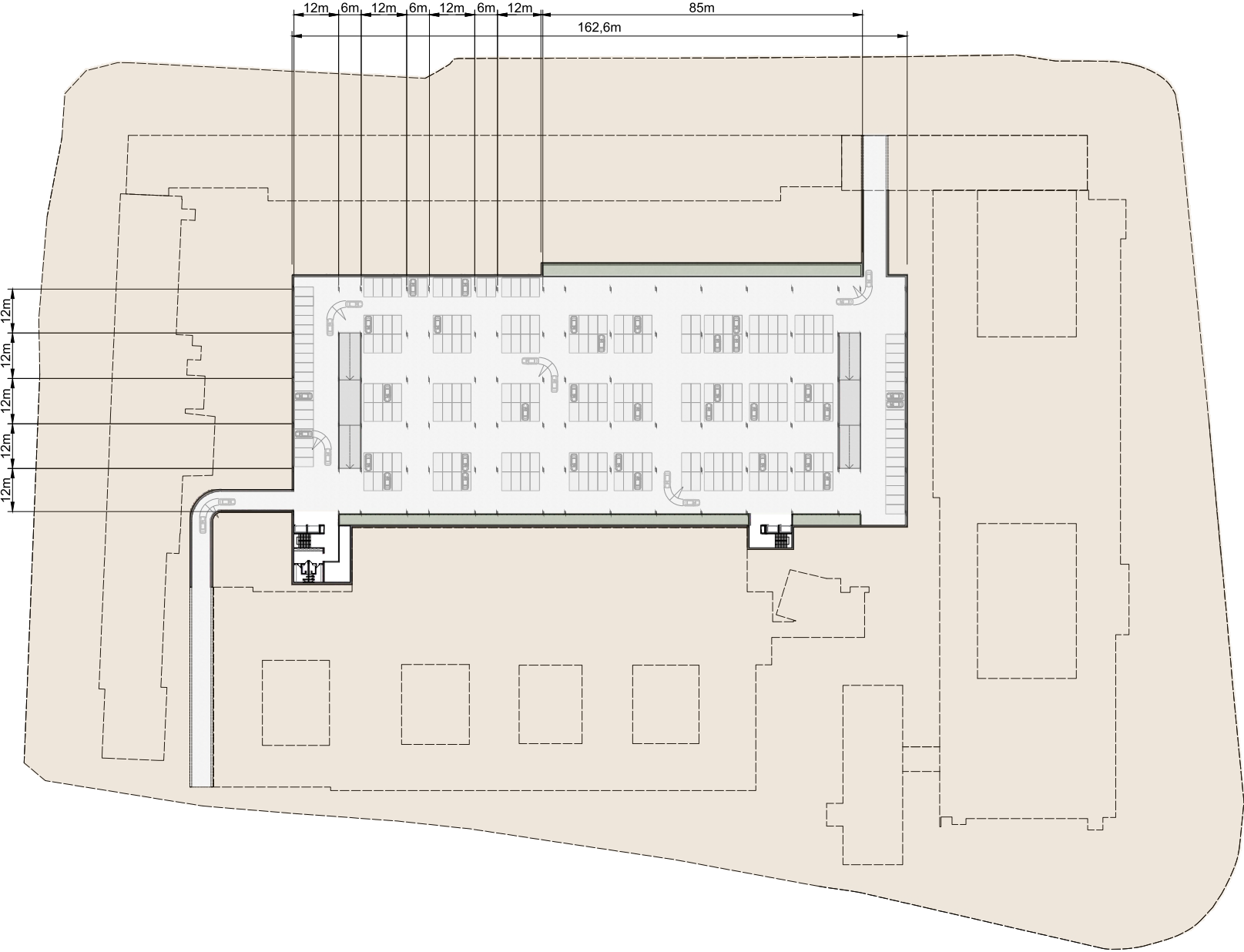
04 | PLANS | Ground floor



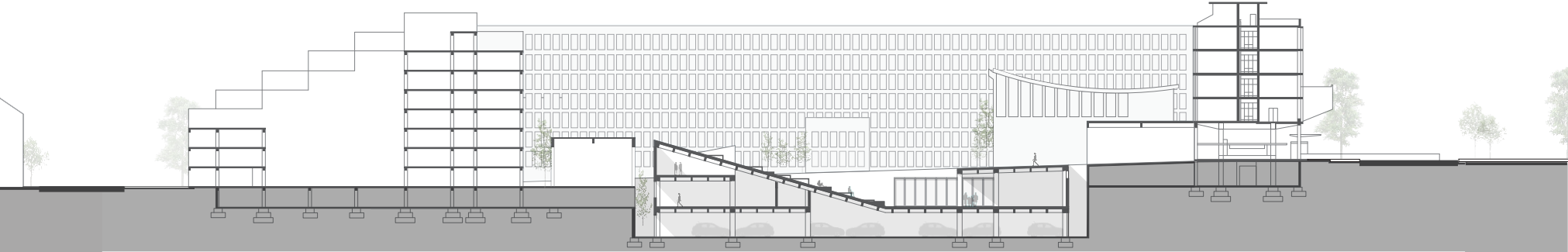
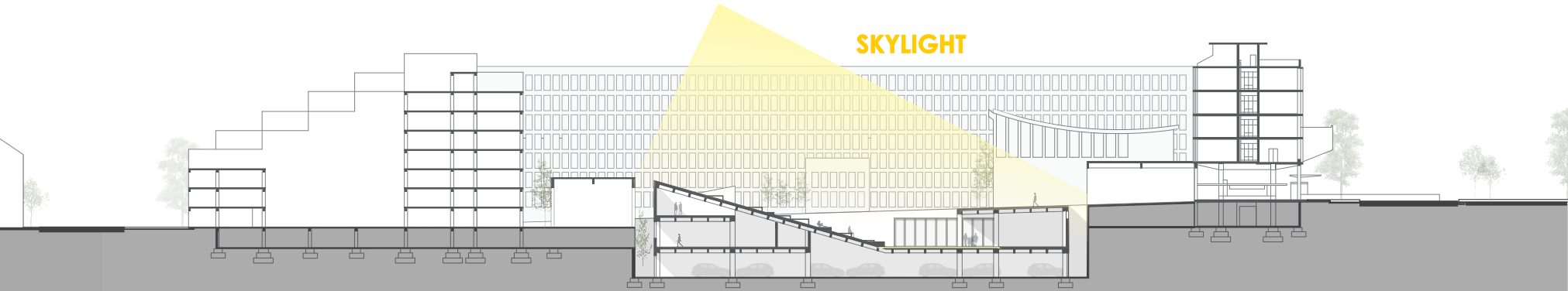
04 | PLANS | Level -1



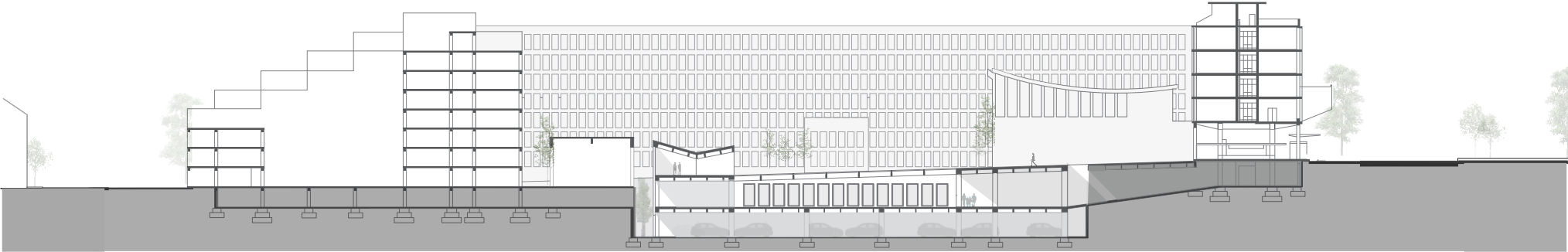
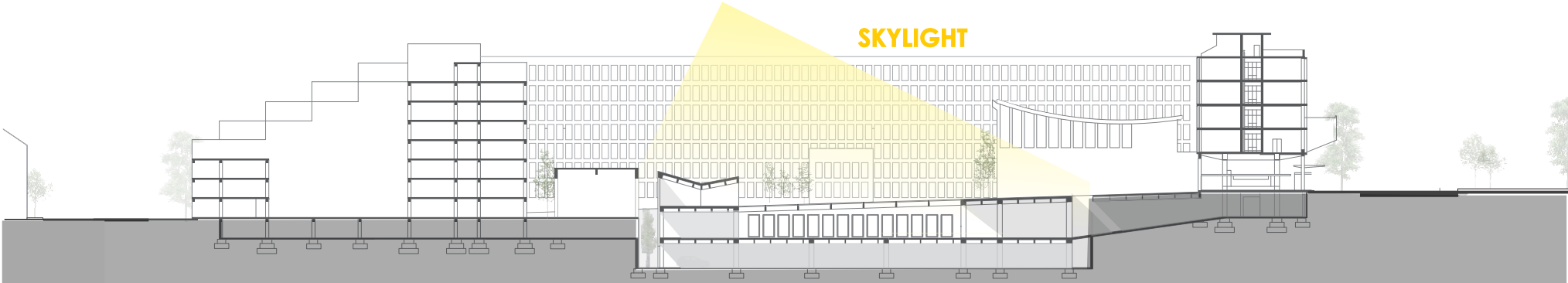
04 | PLANS | Level -2



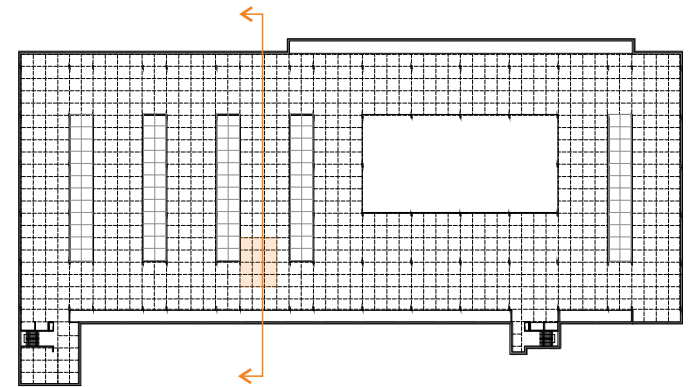
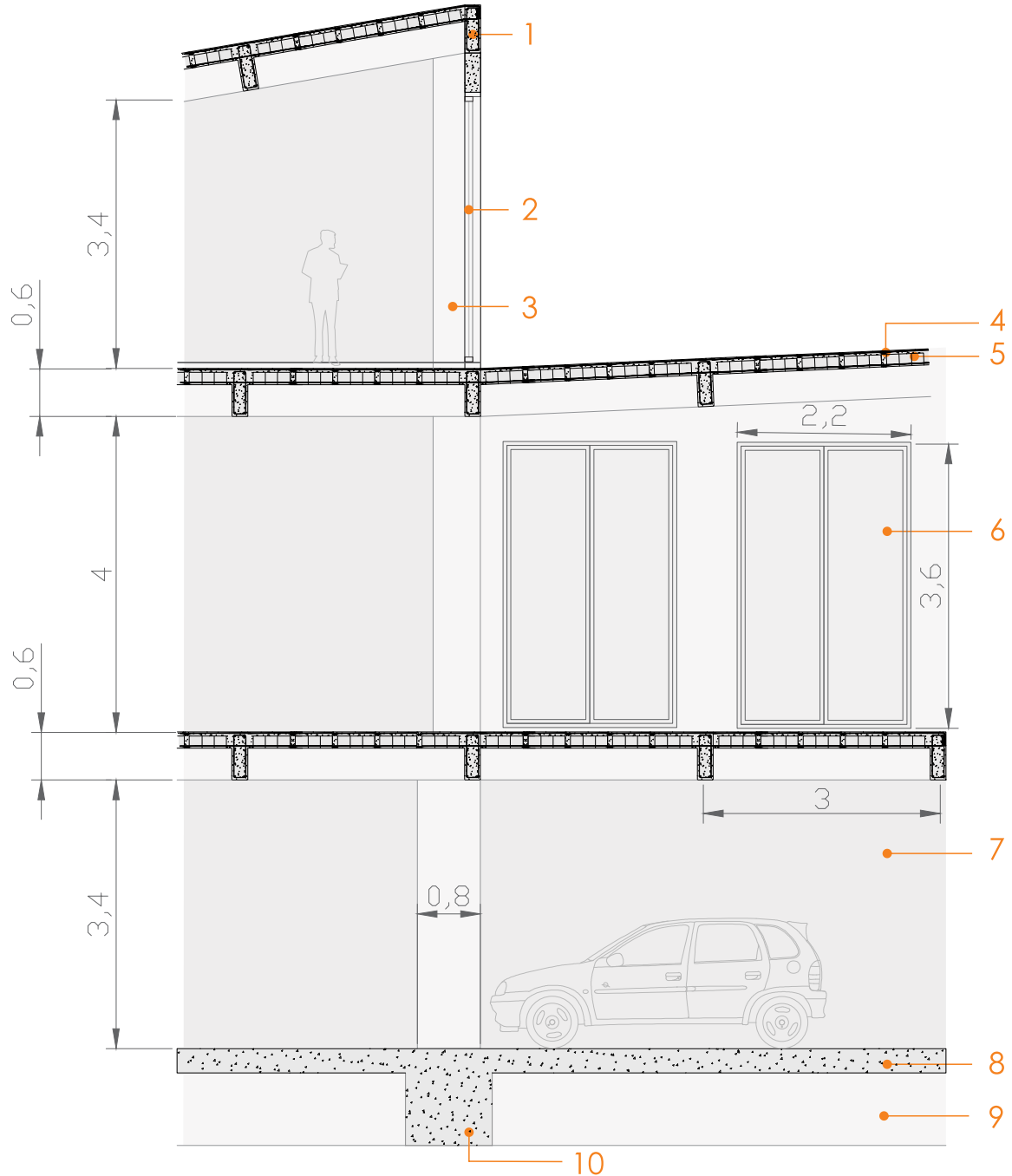
04 | PLANS | Cross section 1-1



04 | PLANS | Cross section 2-2

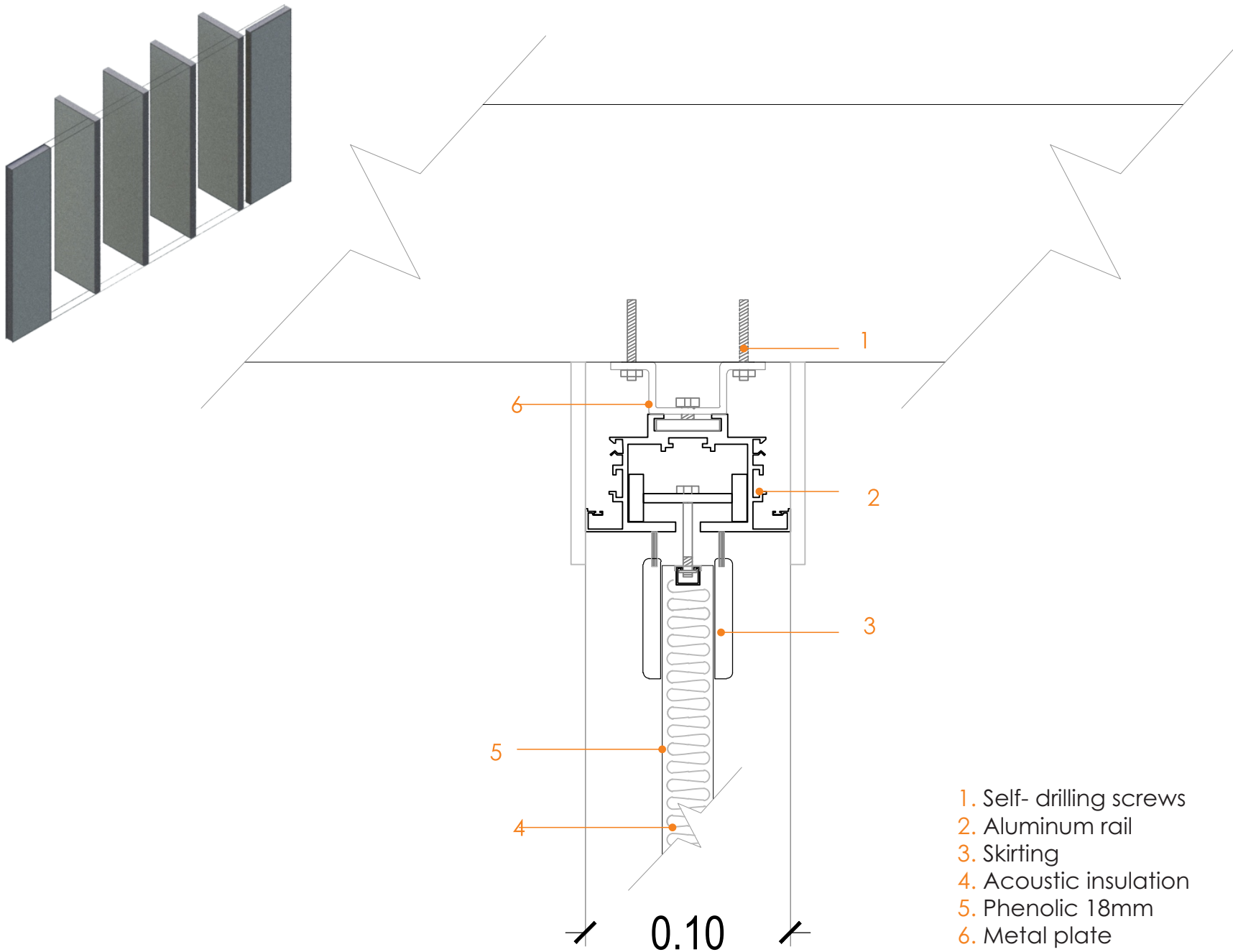


05 | CONSTRUCTIVE DETAILS | Structure



- 1. Concrete beam
- 2. Metallic door with double glazing
- 3. Concrete column (0,2m x 0,6m)
- 4. Ribbed slab
- 5. Ceiling blocks of polystyrene
- 6. Stainless steel window
- 7. Concrete wall
- 8. Slab
- 9. Foundation plates
- 10. Foundation plates

05 | CONSTRUCTIVE DETAILS | Mobile panels





06 | RENDERS | Exhibition area



06 | **RENDERS** | Exhibition area



06 | RENDERS | Skylight



06 | RENDERS | Parking



06 | RENDERS | Courtyard





