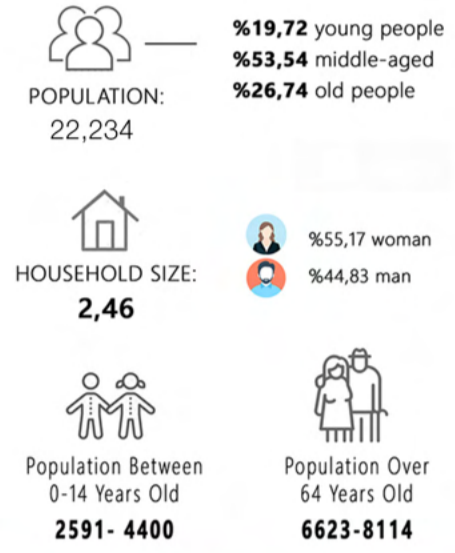




DEMOGRAPHICS OF KELENFÖLD

In Kelenföld, Budapest, the landscape is marked by the presence of communist-era social housing buildings, characterized by their uniform panel construction and utilitarian design. These structures, built in the mid-20th century, provide a stark contrast to the new modern housing estates emerging in the area. The new developments boast contemporary architecture, enhanced amenities, and a focus on sustainability, reflecting the neighborhood's evolving urban fabric.



VISUAL MEMORY

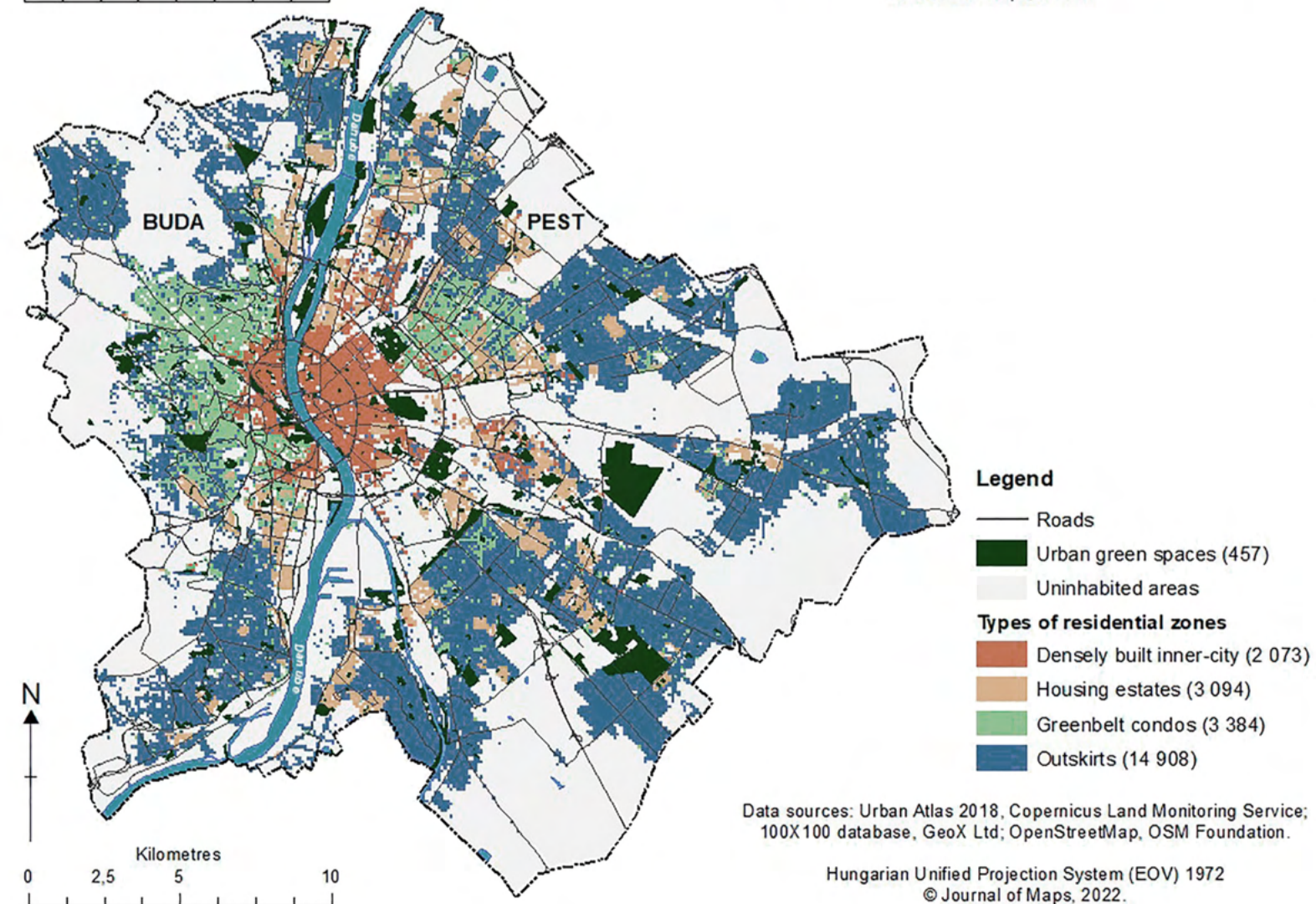
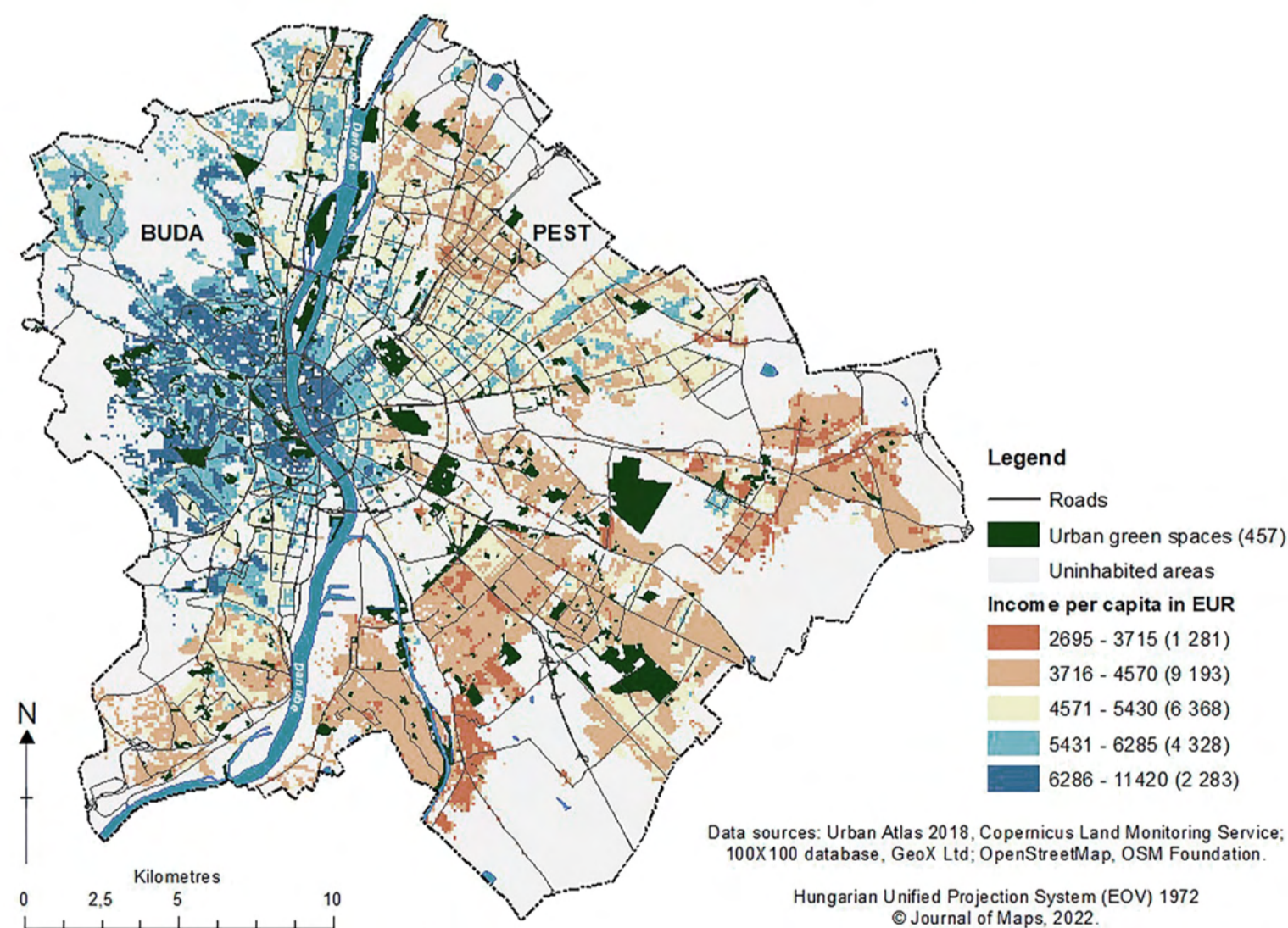
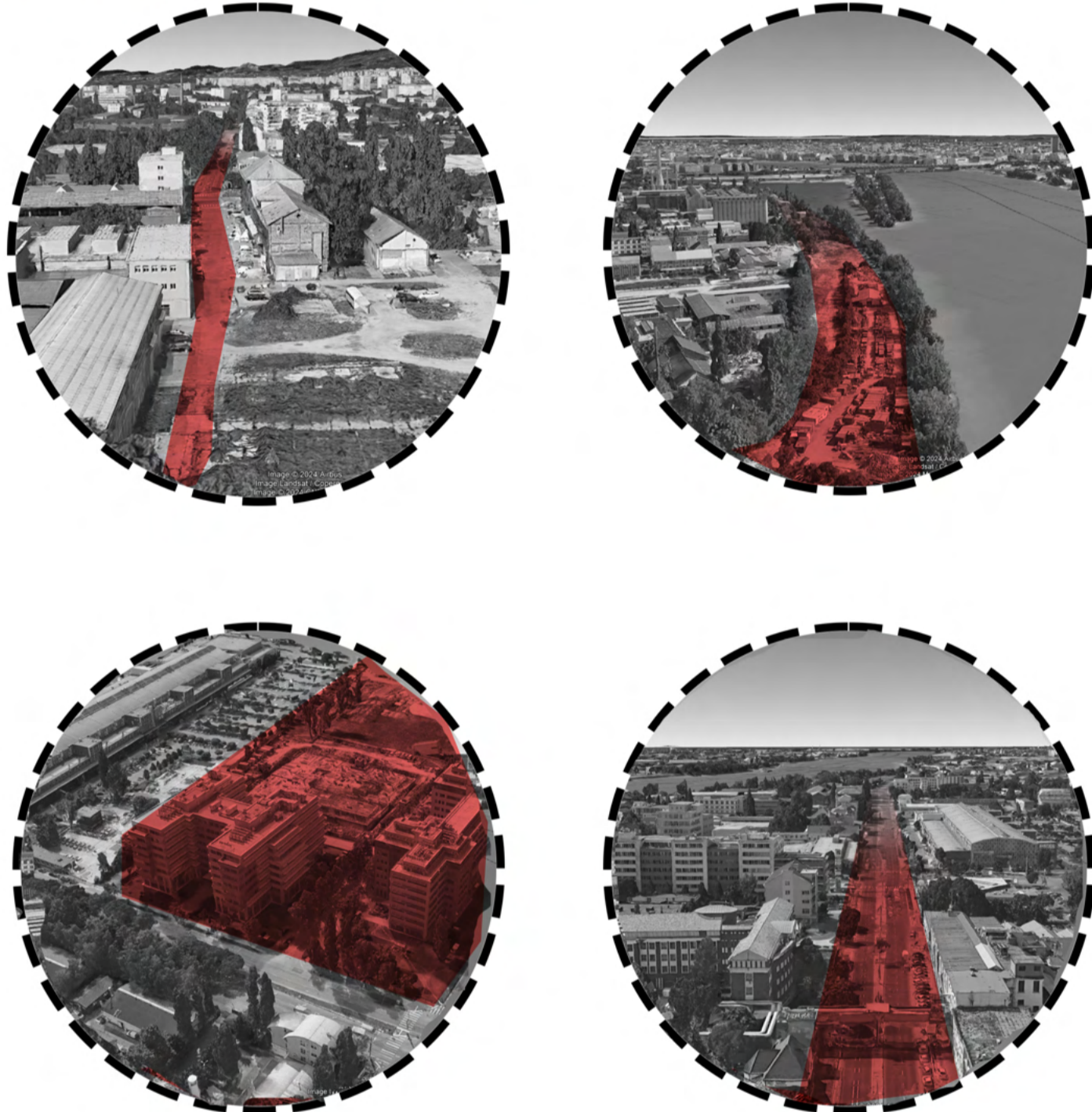


1/3000 SITE DIAGRAM

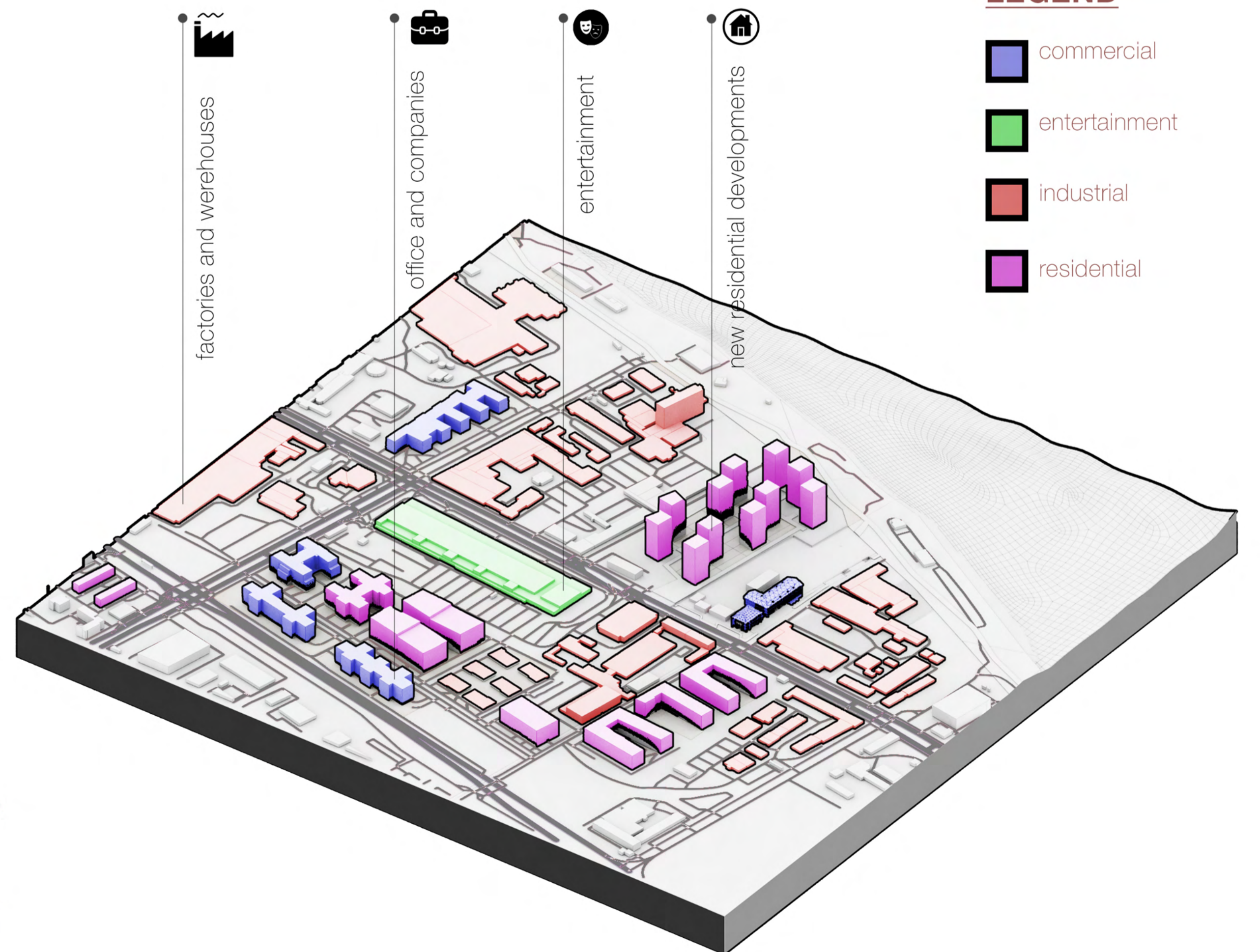
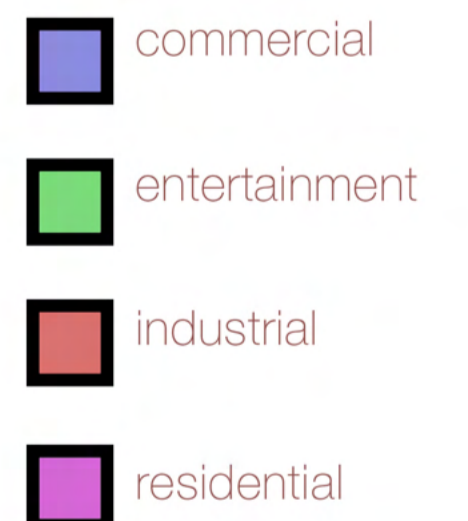


THE URBAN FRAMEWORK

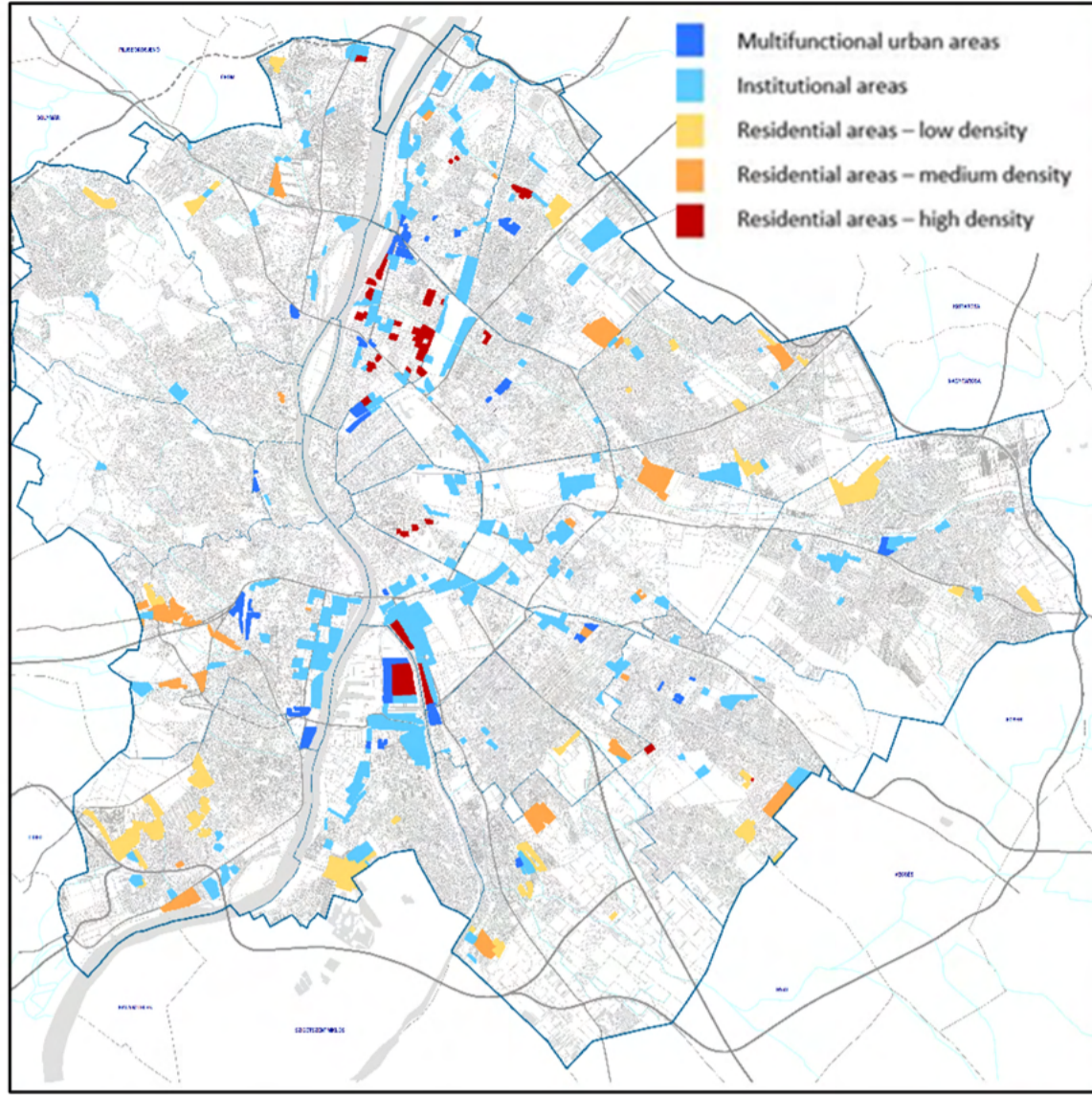
The concept involves maintaining the continuity of green spaces around the plot and the pedestrian pathways through the community center. It emphasizes rehabilitating the public area and its surroundings. This approach ensures seamless integration of natural and pedestrian-friendly environments. The focus is on creating a cohesive and accessible community space. The aim is to enhance the overall aesthetic and functionality of the area.



LEGEND



DISTRICT 11 BUDAPEST
KELENFOLD
URBAN FABRIC

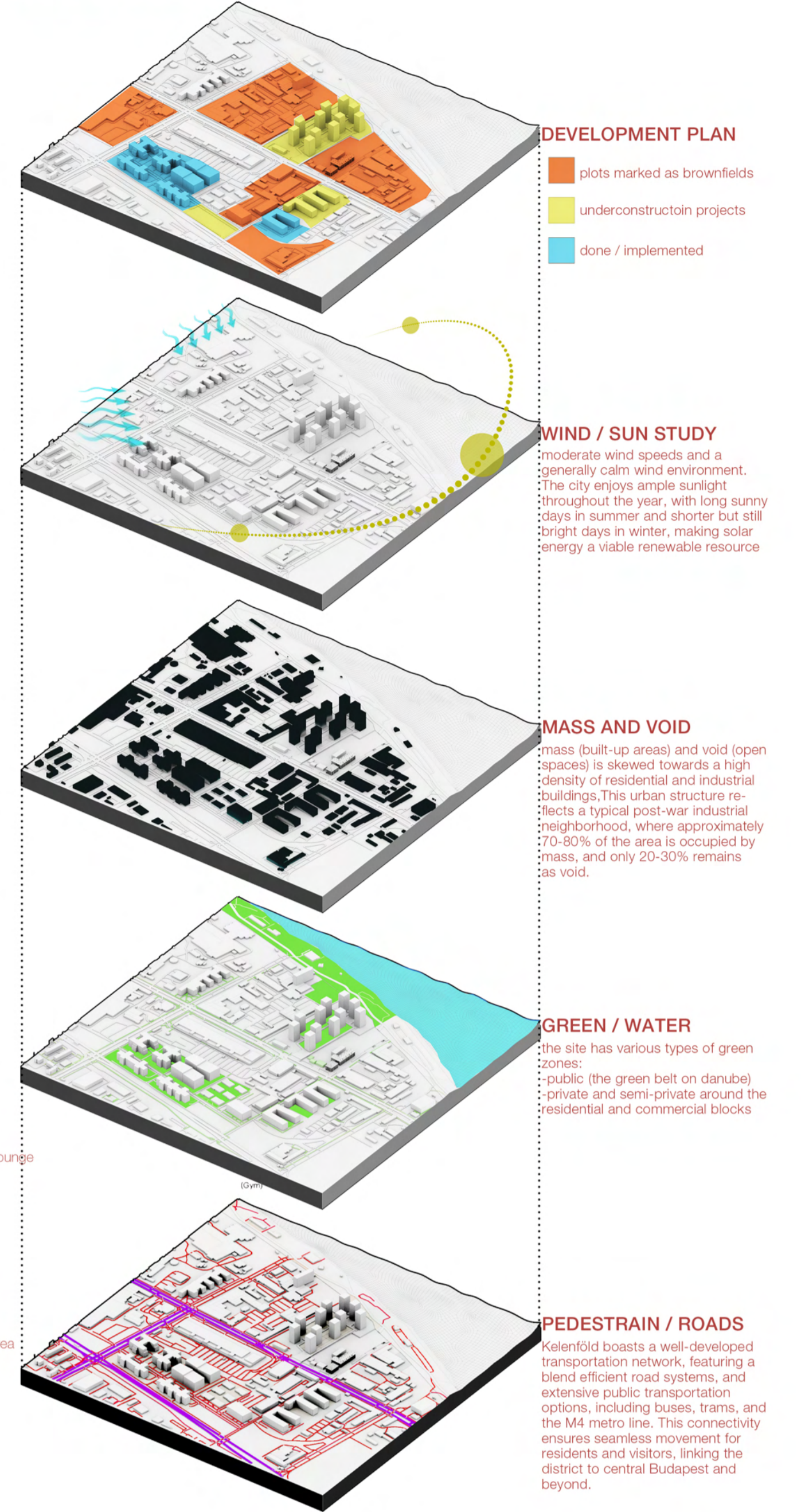


Towards Sustainable New Neighbourhoods

The Budapest Municipality aims to offer development opportunities within the city limits, especially in the transition zone to reduce urban sprawl while improving quality of residential areas. The Municipality concentrates on brownfield sites, with a housing focus, because one of the main problems in Budapest, especially in terms of daily transport and commuting, is the population moving out to the suburban areas. Budapest currently has more than 2600 hectares of brownfield areas that can be used for new developments.



URBAN LAYERING



Strengths

- The diversity of area between different functions of building
- Ujbuda center the biggest entertainment facility in the area
- inside the plot two buildings in an open plan design and good physical condition
- existing old vine trees to keep
- pedestrian path along the river starting from Budapest development
- open panoramic view towards the Danube

Weakness

- unhuman scale residential towers comparing to the existing fabric of the city
- lack of public spaces and social interactions
- commercial functions mixed with residential plots

Threats

- existing industrial building close to plot
- wind loads coming from the Danube

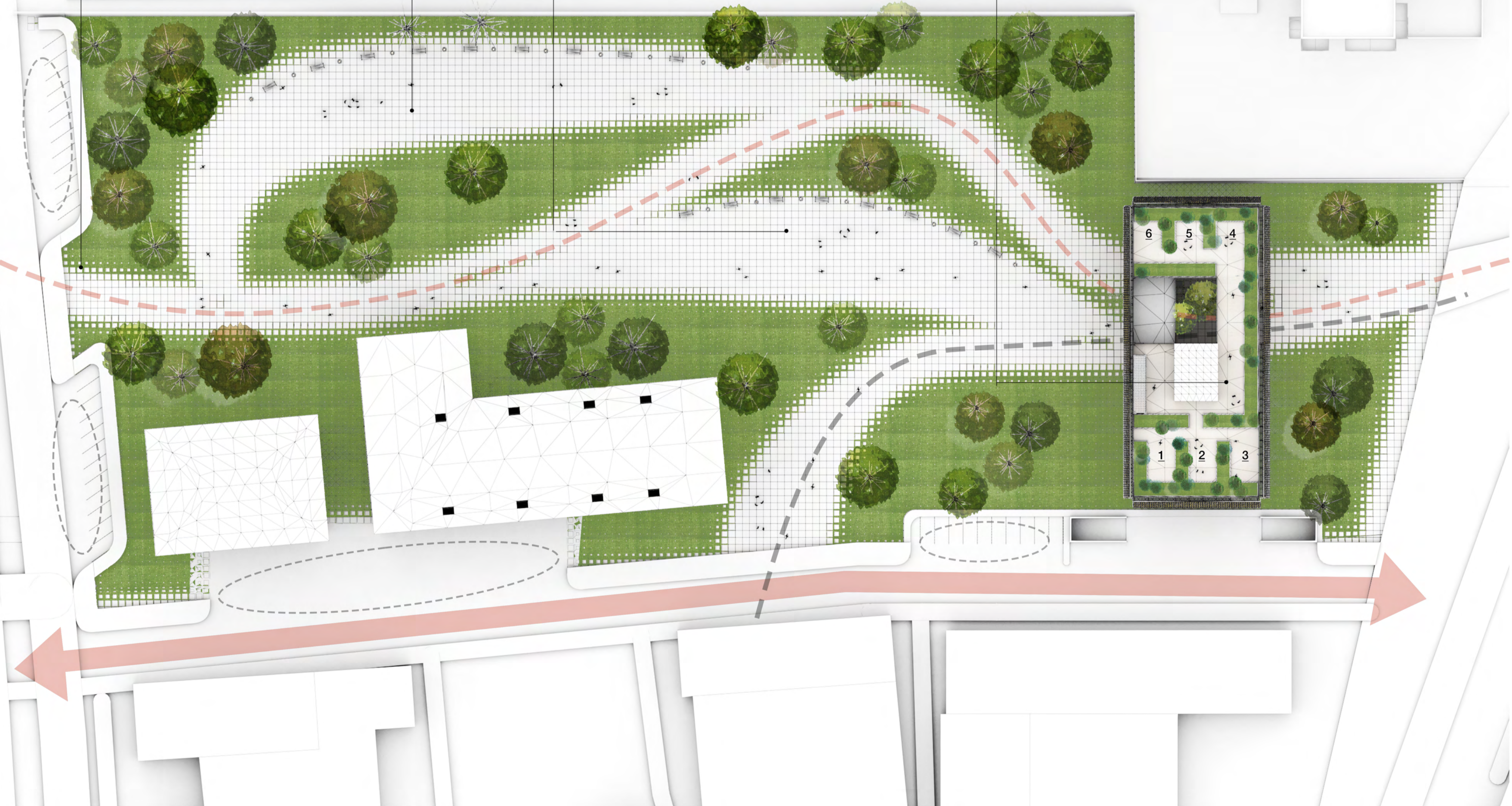
Opportunities

- new bridge linking Kelenfold with Csepel
- visual axis towards Danube
- pedestrian axis with the green belt
- main roads at the plot
- secondary roads going inside the plot
- private green spaces between residential blocks
- diverse infrastructure between tram, bus, and metro line

URBAN FURNITURE / SOFTSCAPE AND LANDSCAPE



1/500 PUBLIC SPACE DIAGRAM

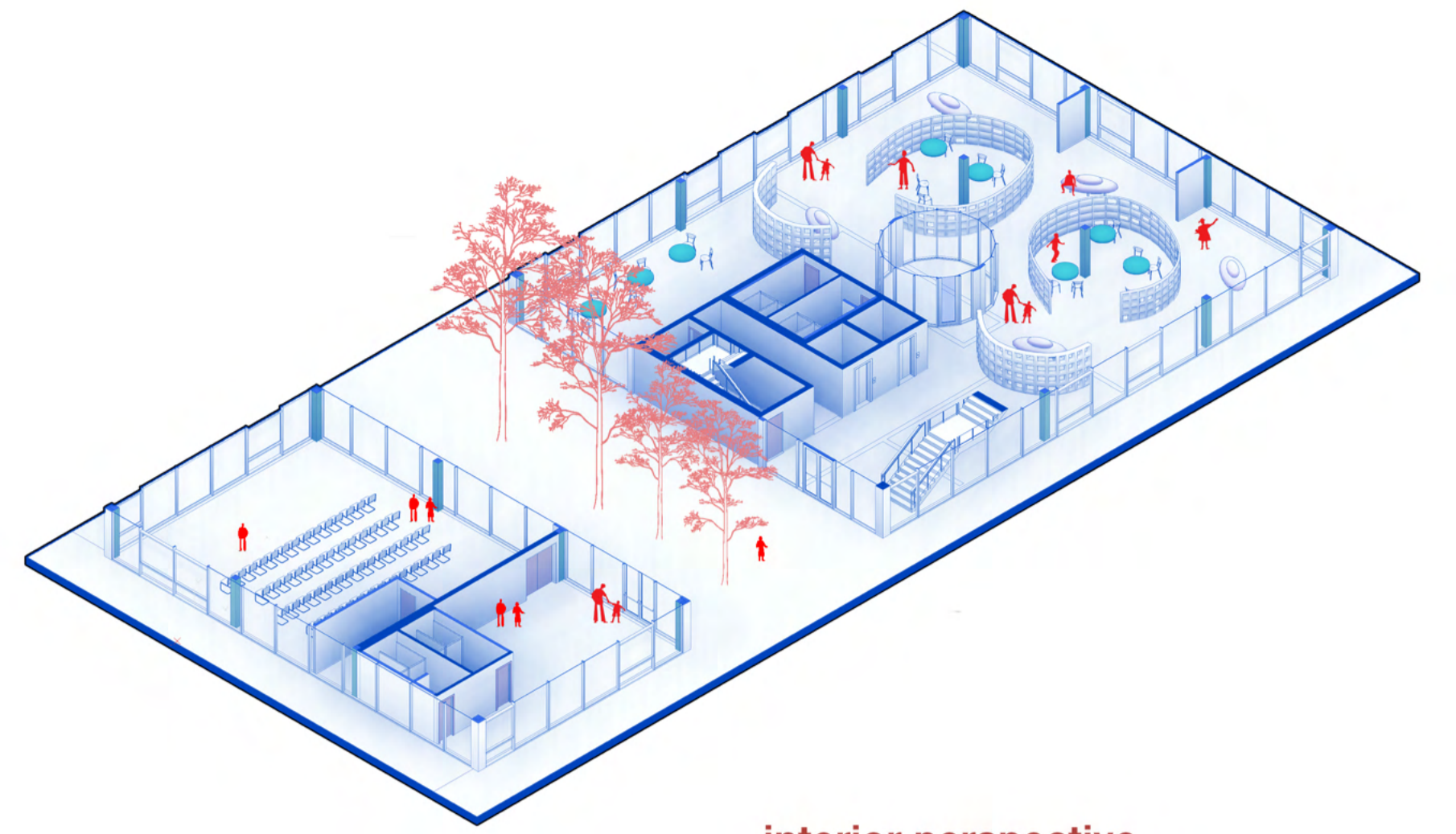


GROUND FLOOR PLAN 1/200

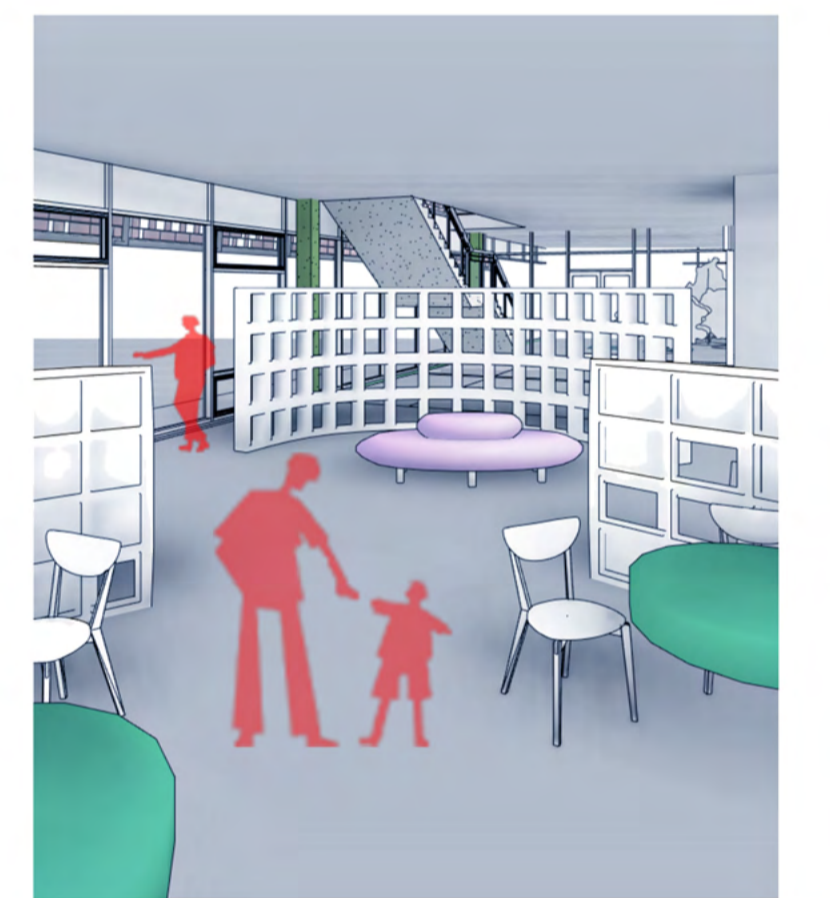
The ground floor plan is designed to cater to children and parent-child activities in the southern spaces. These areas are tailored to create a welcoming and engaging environment for families.

On the northern side of the building, there is an events hall accompanied by a preparatory lobby, providing ample space for gatherings and events.

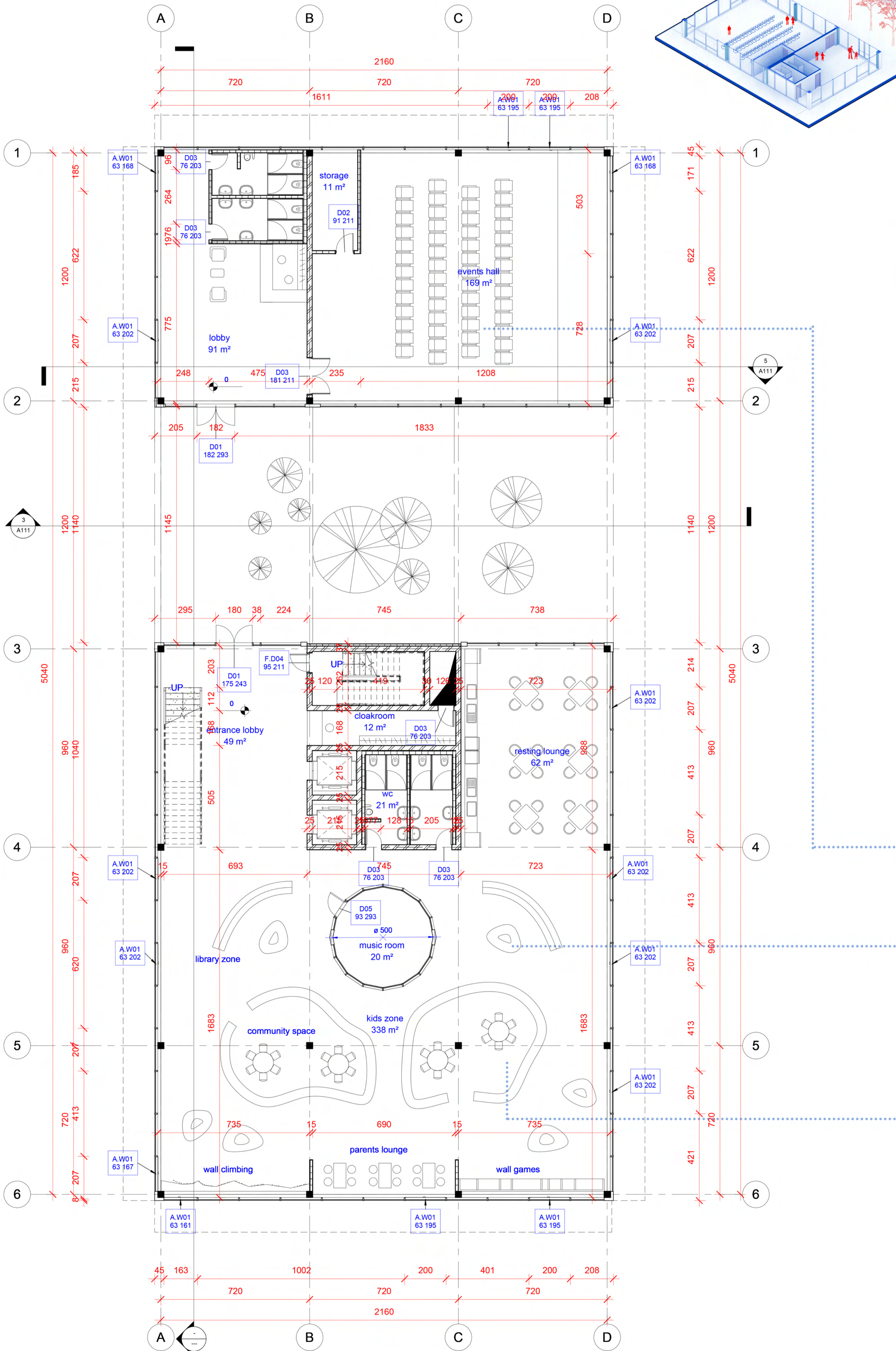
A pathway seamlessly connects the indoor spaces to an outdoor public park, creating an easy flow between the interior and exterior areas. This pathway serves as a functional and aesthetic bridge, enhancing the overall accessibility and enjoyment of the facility.



interior perspective



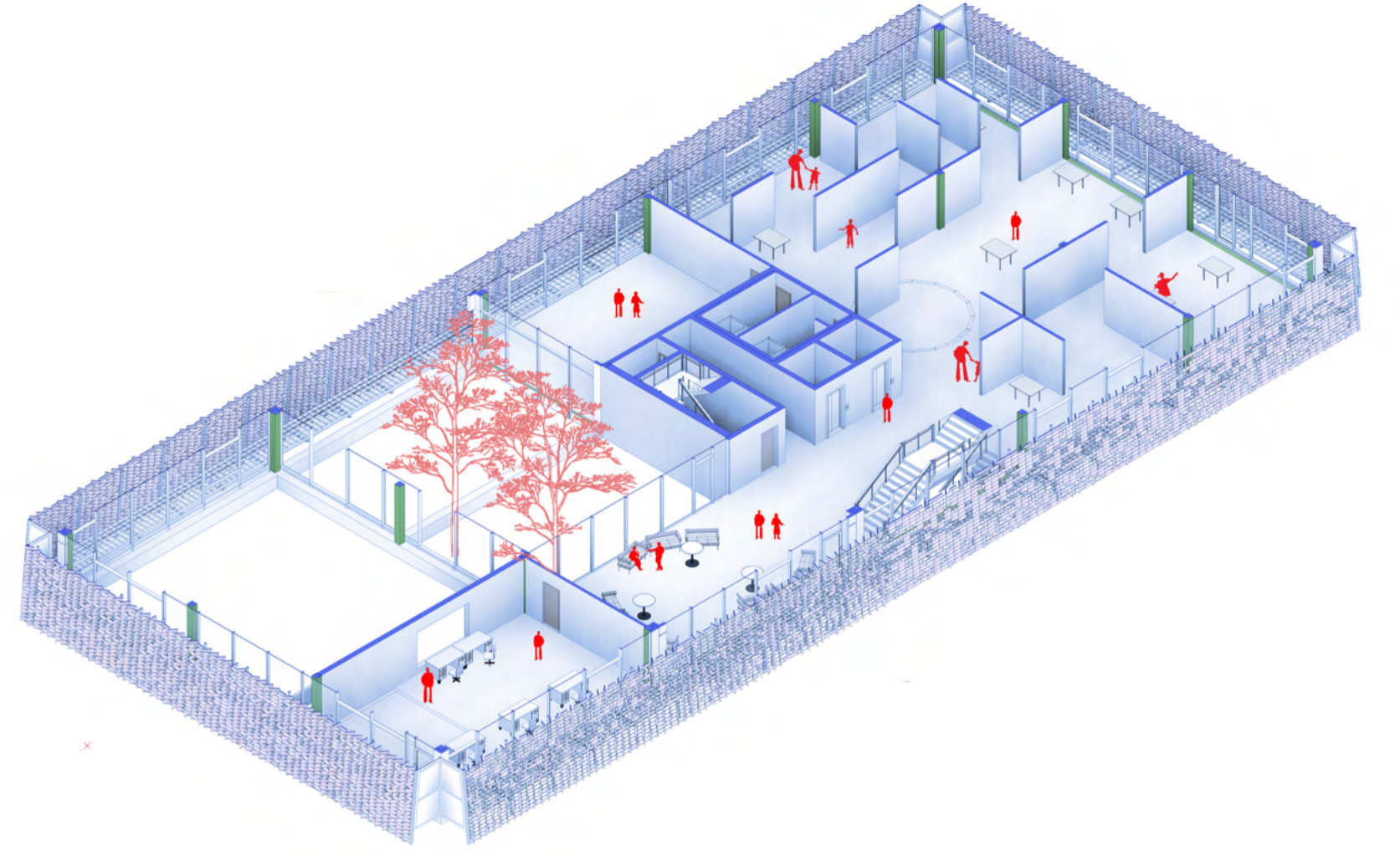
case studie examples



FIRST FLOOR PLAN 1/200

Permanent Gallery: A space designated for long-term exhibitions, showcasing a consistent collection of artworks.
 Temporary Gallery: An area designed for rotating exhibitions, allowing for a dynamic and ever-changing display of art.
 Closed Event Room for Musical Art Shows: A dedicated room equipped for musical performances and shows, providing an intimate setting for audiences.
 Indoor Lounge: This lounge faces the internal green space to the east, offering a tranquil view, and has a direct axis view to the park to the west, creating a relaxing atmosphere for visitors.
 Additionally, the events hall on the ground floor extends to a double-height space, enhancing the grandeur and acoustics of the hall. Adjacent to this hall is a technical room, essential for controlling the visuals and audio during events, ensuring a seamless and professional experience.

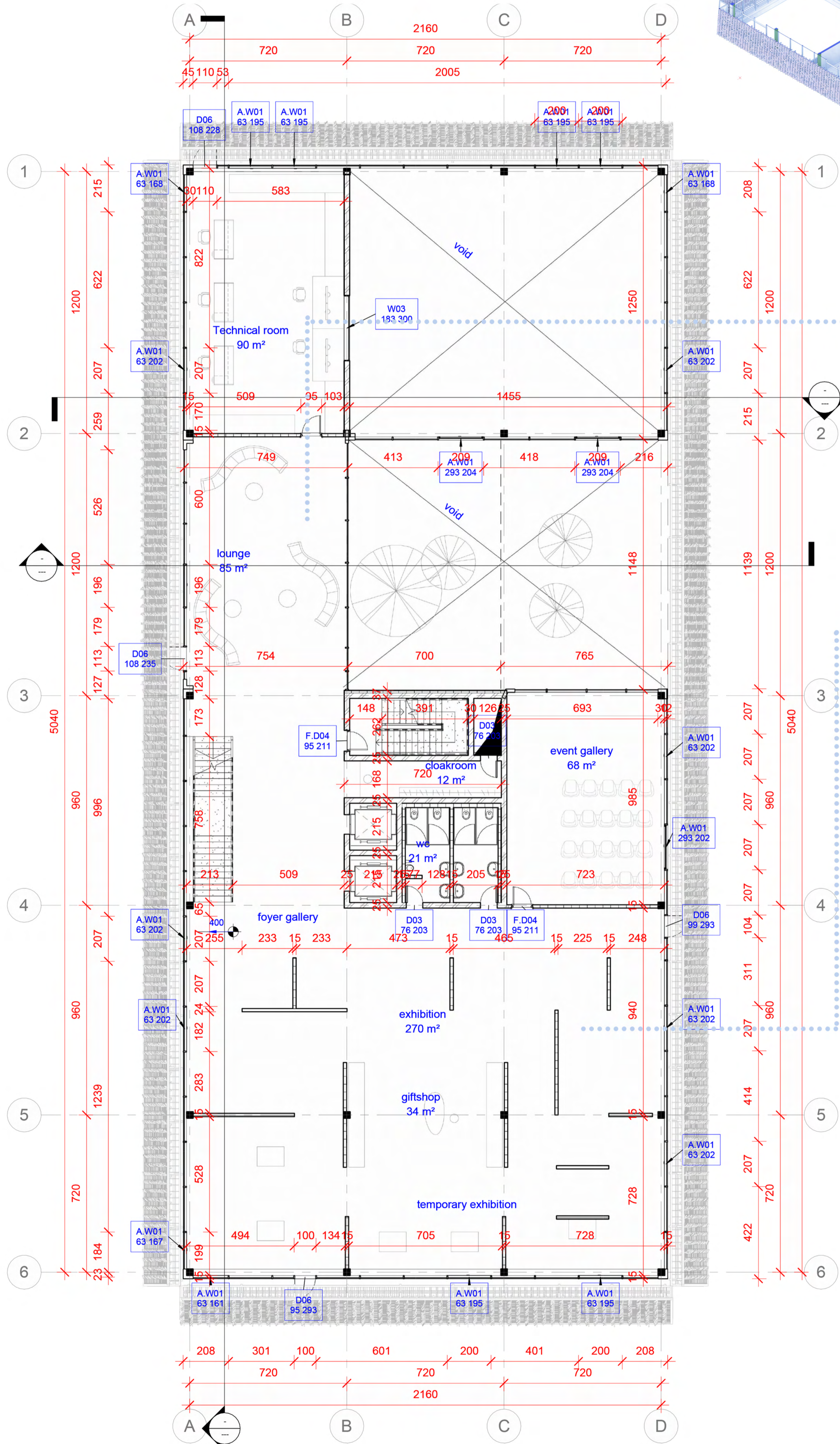
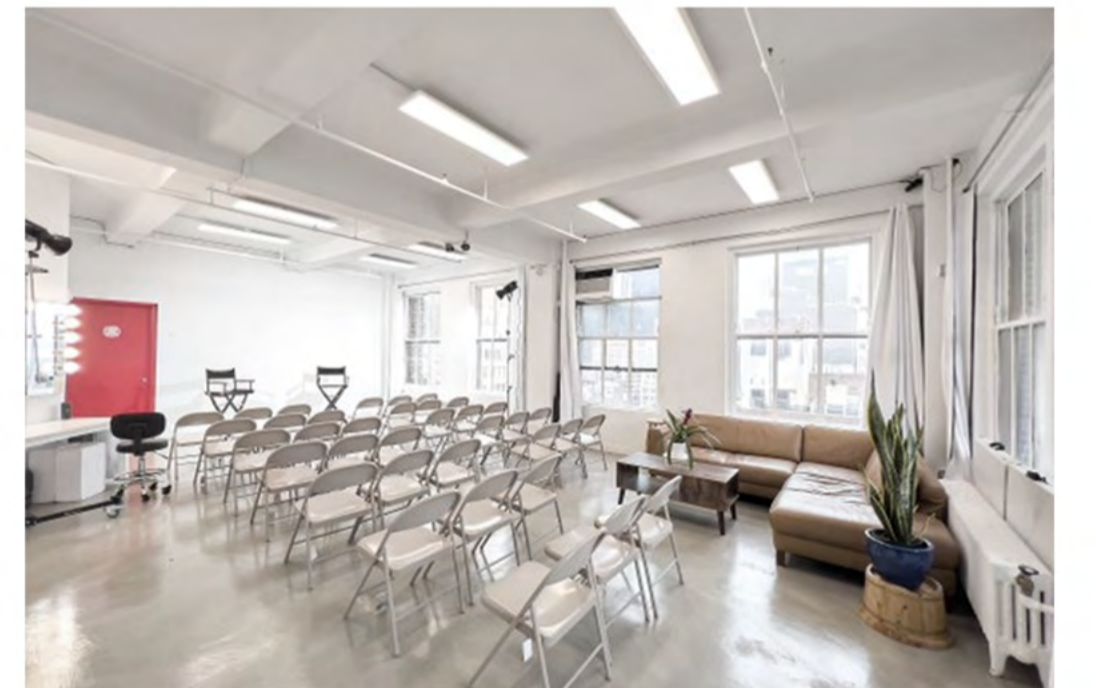
This design promotes a harmonious blend of art, relaxation, and functionality, making it a versatile space for various activities and events.



interior perspective

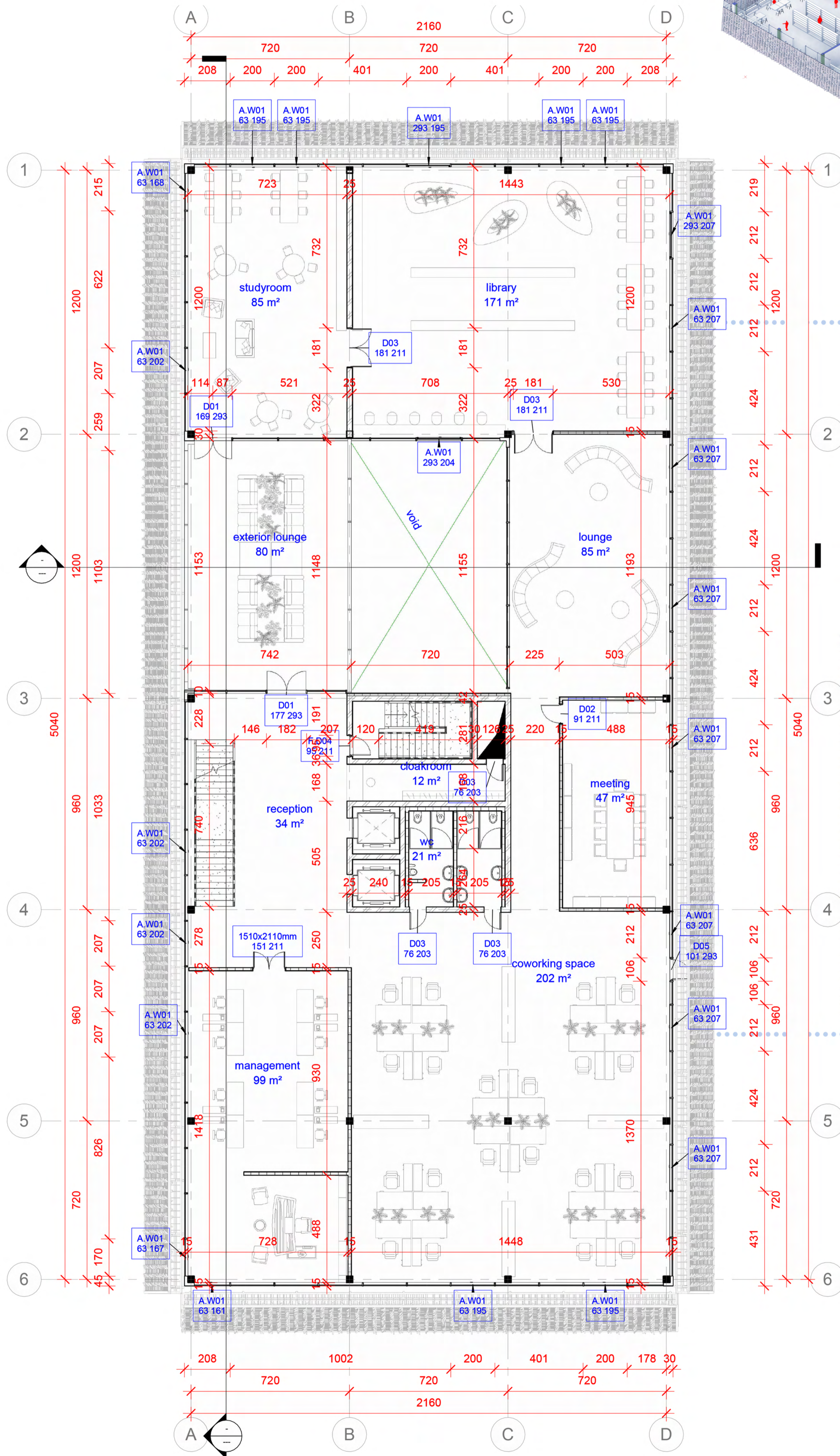
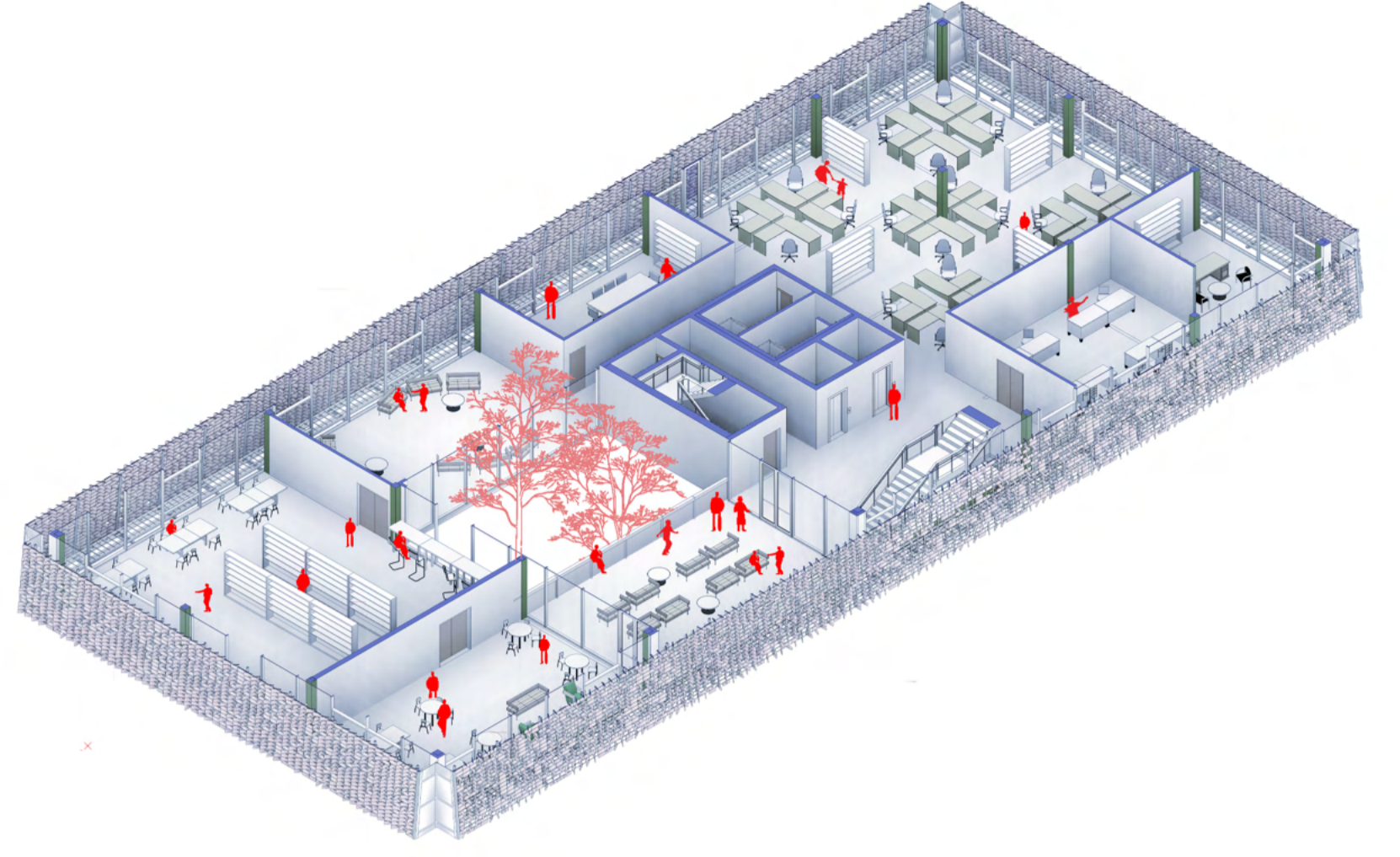


case studie examples

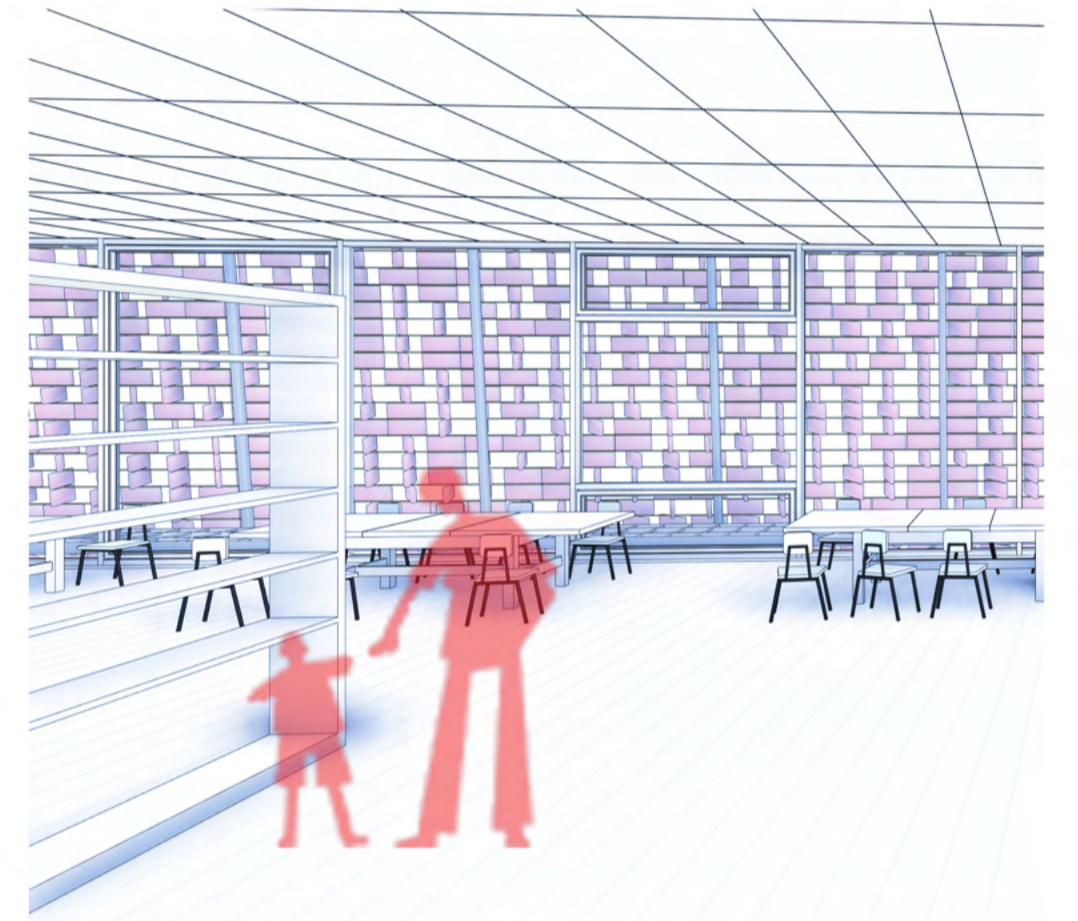


THIRD FLOOR PLAN 1/200

open space library suitable for all kind of ages it has different seating areas one of the is a bar table with direct view to the indoor patio, it has also study room inside it another part from the plan is open space for coworking can be rented by chair depending on the need and then there is the management zone the link between two main volumes is two terraces one open and the other is closed lounge



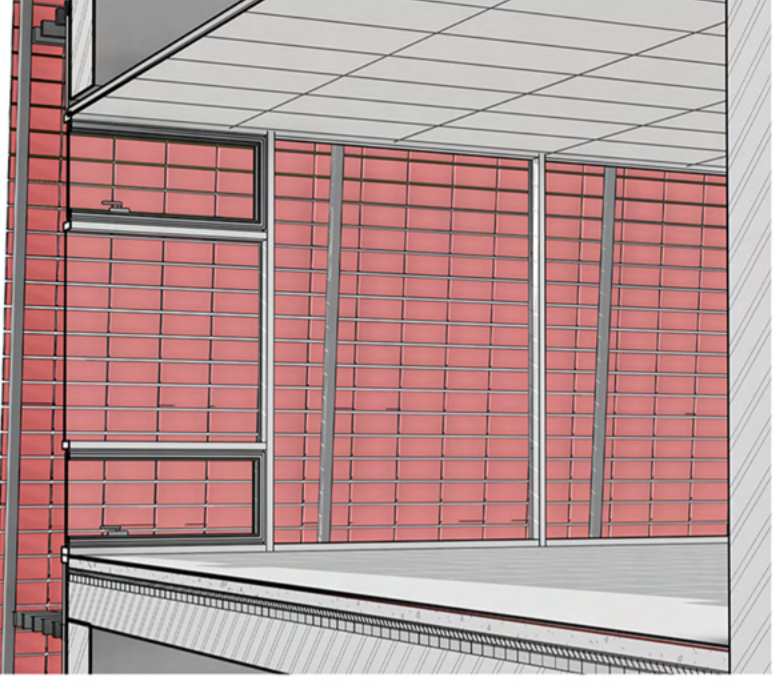
interior perspective



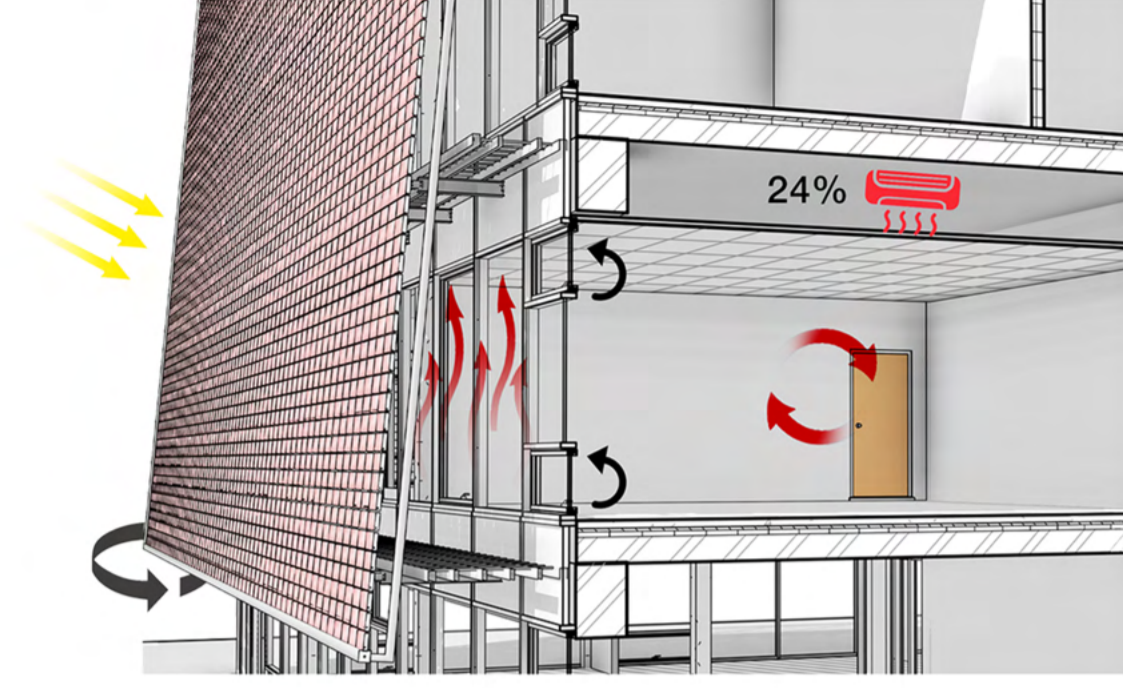
case studie examples



phase 01 interior view



phase 01 exterior view



Winter Daytime

Solar Gains: During the day, the outer layer of brick captures solar radiation, warming the air in the cavity. This warm air can be circulated into the building to reduce heating requirements.

Insulation: The air cavity acts as an insulating buffer, reducing heat loss from the interior to the cold outside.

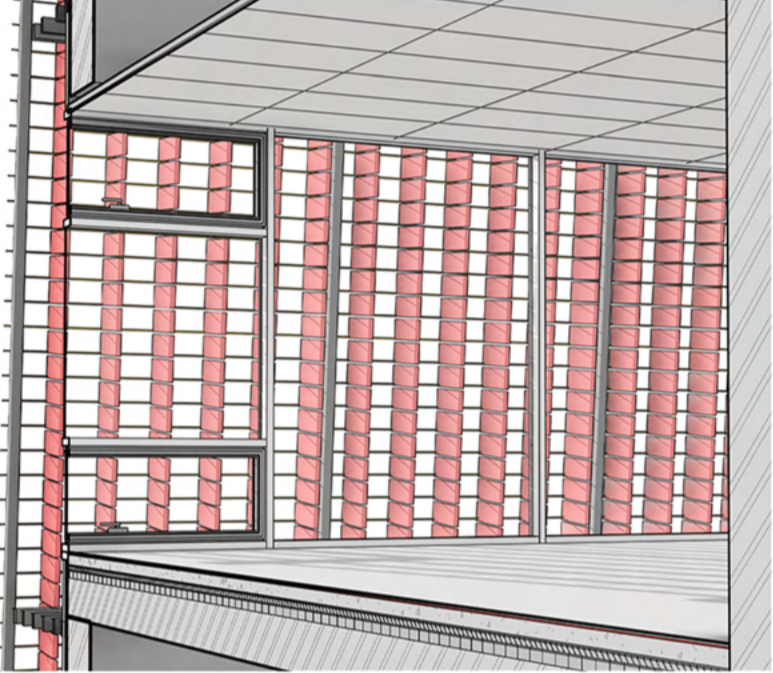
Controlled Ventilation: rotatable brick tiles can be adjusted to allow some airflow while maintaining heat within the cavity to enhance insulation.

Winter Nighttime

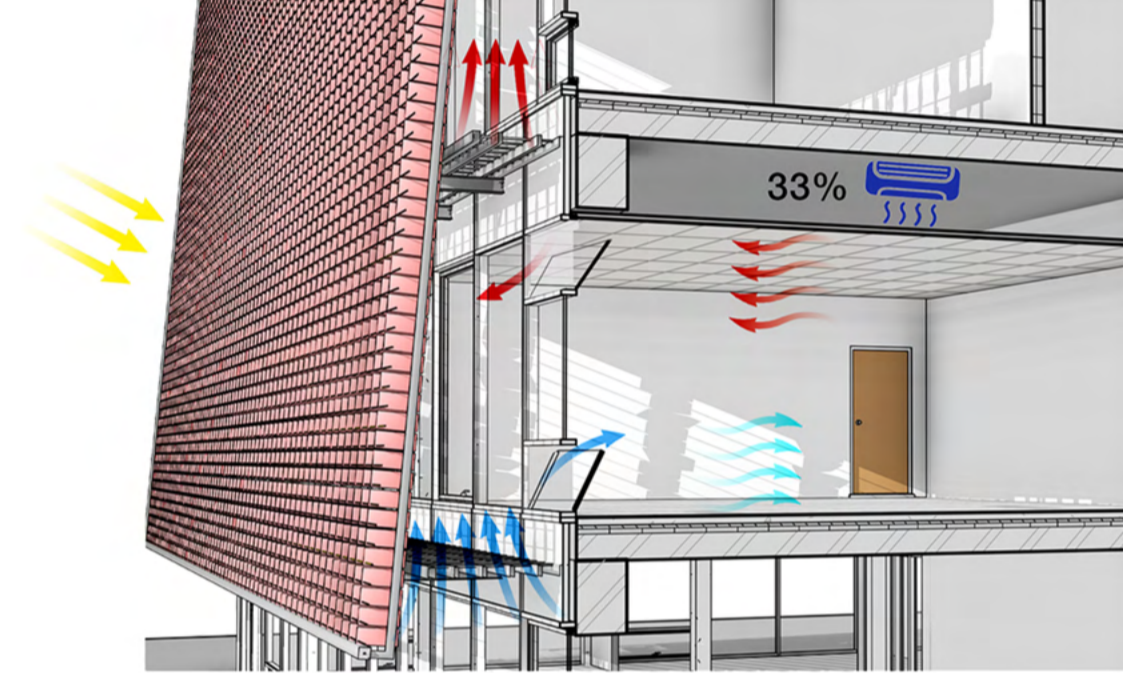
Enhanced Insulation: With minimal or no solar gains, the DSF focuses on maximizing insulation. The air cavity acts as a barrier to heat loss, maintaining indoor temperatures.

Heat Retention: Any heat accumulated during the day can be retained in the cavity to provide a buffering effect, reducing the need for heating systems to work as hard.

phase 02 interior view



phase 02 exterior view



Summer Daytime

Solar Shading: The DSF blocks direct solar radiation, preventing it from heating the interior spaces.

Ventilation: Hot air within the cavity is ventilated out to prevent heat buildup. This reduces the cooling load on the building.

Natural Ventilation: In some designs, windows in the inner layer can be opened to allow natural ventilation, bringing in fresh air and enhancing occupant comfort.

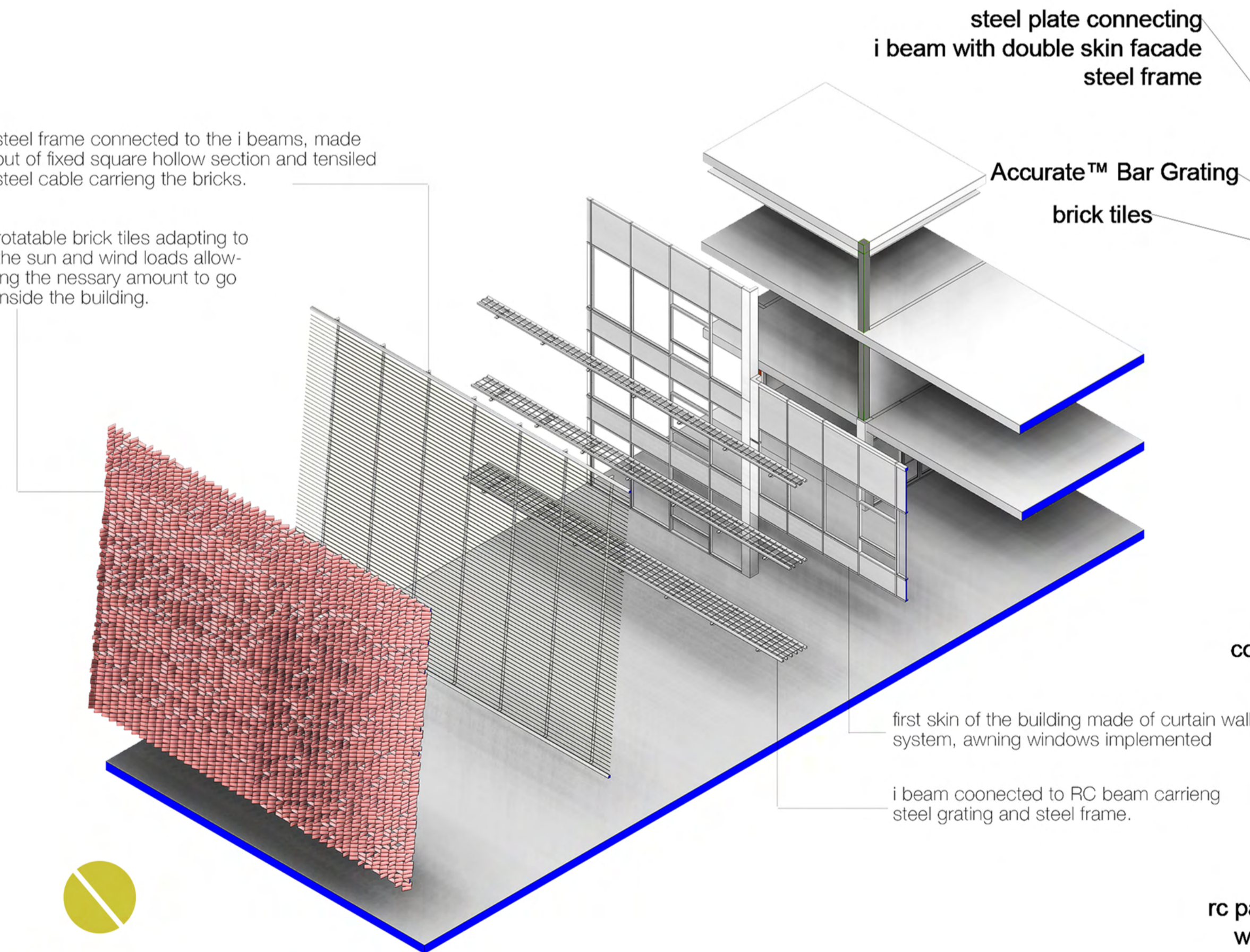
Summer Nighttime

Night Cooling: Cooler nighttime air can be drawn into the cavity and circulated into the building to reduce indoor temperatures. This process, known as night flushing, helps cool the building naturally.

Ventilation: The cavity is ventilated to expel any residual heat accumulated during the day, preparing the building for the next day's cooling needs.

steel frame connected to the i beams, made out of fixed square hollow section and tensiled steel cable carrying the bricks.

rotatable brick tiles adapting to the sun and wind loads allowing the necessary amount to go inside the building.



steel plate connecting i beam with double skin facade steel frame

Accurate™ Bar Grating
brick tiles

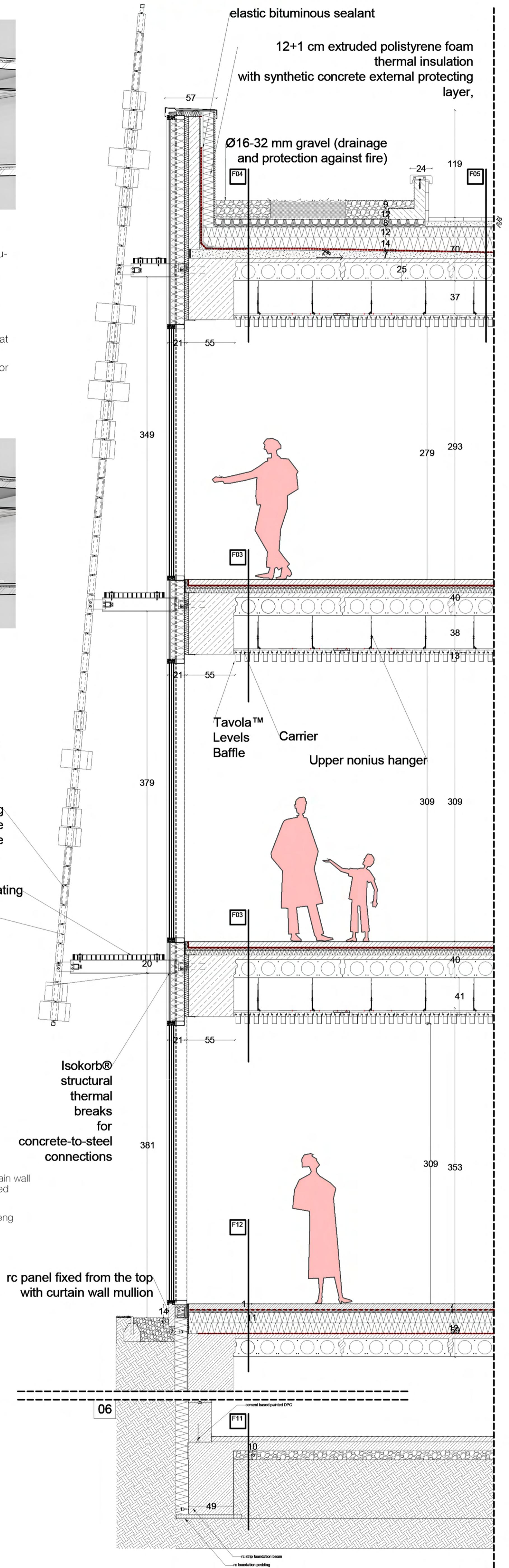
Isokorb® structural thermal breaks for concrete-to-steel connections

first skin of the building made of curtain wall system, awning windows implemented

i beam connected to RC beam carrying steel grating and steel frame.

rc panel fixed from the top with curtain wall mullion

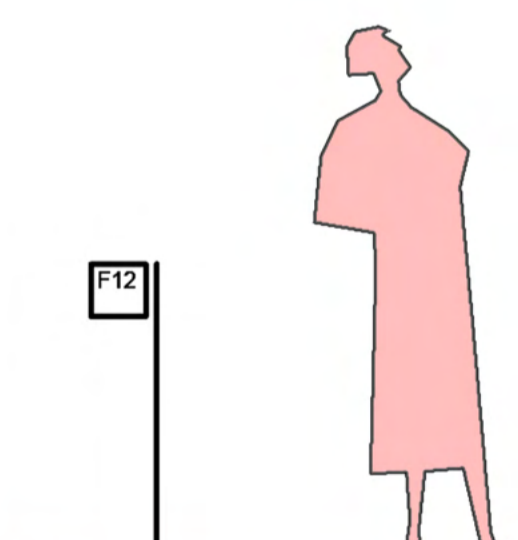
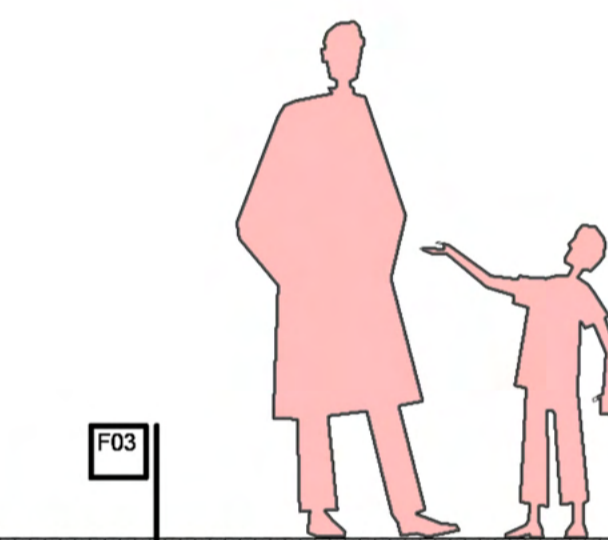
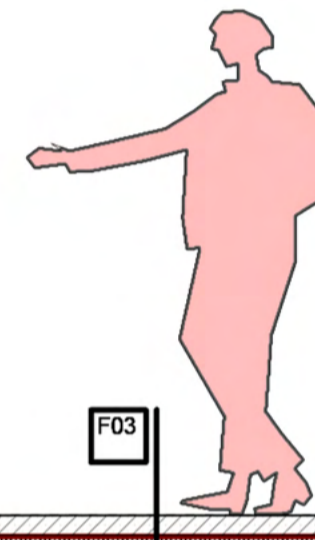
FACADE SECTION 1/25



elastic bituminous sealant

12+1 cm extruded polystyrene foam thermal insulation with synthetic concrete external protecting layer,

Ø16-32 mm gravel (drainage and protection against fire)



Tavola™ Levels Baffle Carrier Upper nonius hanger

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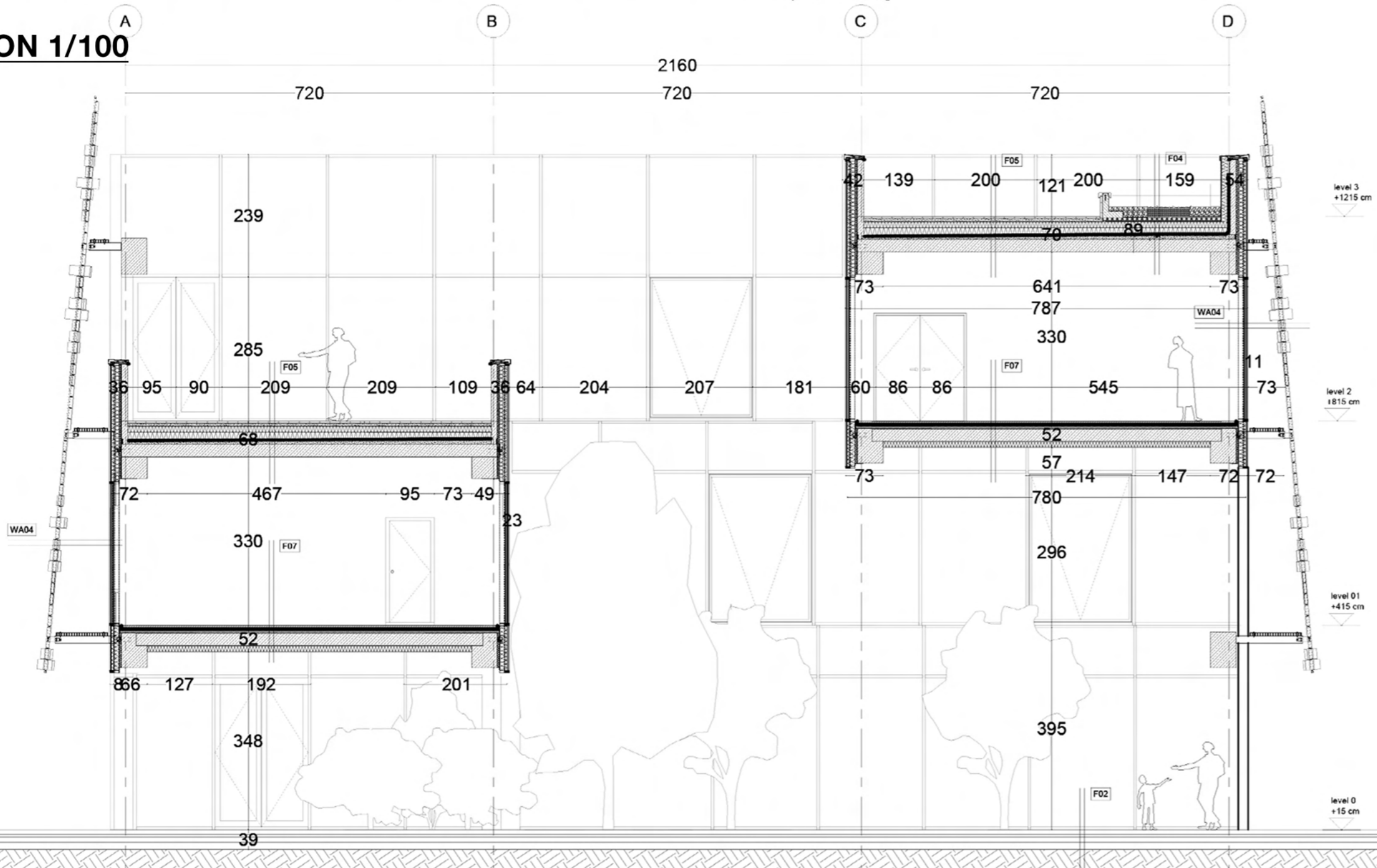
- F01 UNDERGROUND FLOOR SLAB**
2mm pvc
6 cm surface smoothing concrete
2mm 2 PE foil
3 cm step noise reduction mineral wool acoustic insulation
10 cm XPS thermal insulation
2 mm waterproofing
10 cm cast in place RC slab
10 cm gravel bedding
soil
- F02 GROUND FLOOR PUBLIC AREA**
10 cm concrete paving stone
4 cm fine crushed stone bedding
10 cm concrete base
13 cm compressed granular soil frost protection layer
soil
- F03 INTERMEDIATE SLAB**
2 mm pvc
6 cm surface smoothing concrete
2 mm 2 PE foil
3 cm step noise reduction mineral wool acoustic insulation
5 cm EPS thermal insulation
2 mm waterproofing layer
25 cm prefabricated hollow core RC slab
37 cm void for mechanical ducts and plumbing
5 cm suspended ceiling

- F04 VEGETATED ROOF SLAB**
20 cm vegetation
2 mm waterproofing membrane
8 cm drainage and water storage layer
24 cm XPS thermal insulation panels
4 mm bitumen membrane waterproofing
4 mm glass fibre reinforced SBS
1 layer cold bitumen patching compound
10 cm concrete inclination layer
25 cm prefabricated hollow core RC slab
37 cm void for mechanical ducts and plumbing
14 cm suspended ceiling baffles
- F05 WALKABLE ROOF SLAB**
4 cm granite stone paving
6 cm 2-4 mm sharply cut stone chipping
5 mm geotextile filter layer
24 cm XPS thermal insulation panels
4 mm bitumen membrane waterproofing
4 mm glass fibre reinforced SBS
1 layer cold bitumen patching compound
10 cm concrete inclination layer
25 cm prefabricated hollow core RC slab
37 cm void for mechanical ducts and plumbing
14 cm suspended ceiling baffles

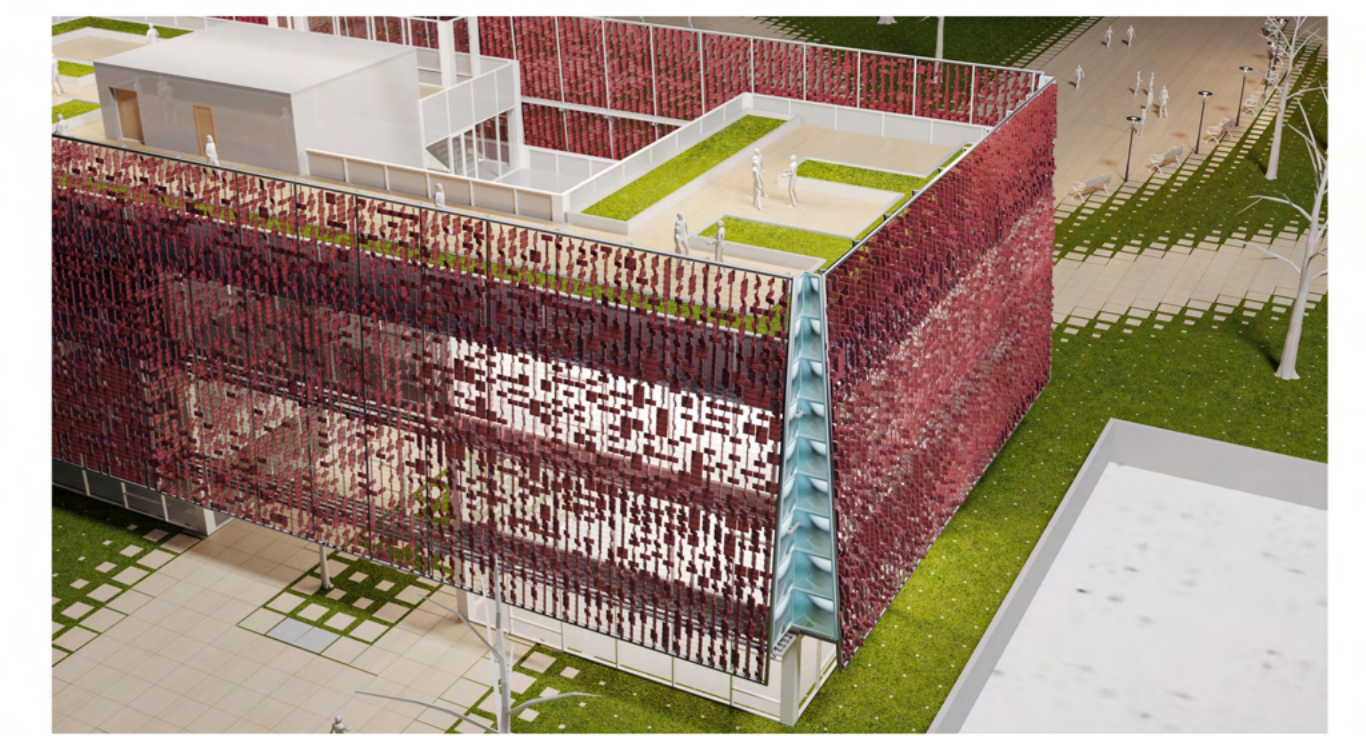
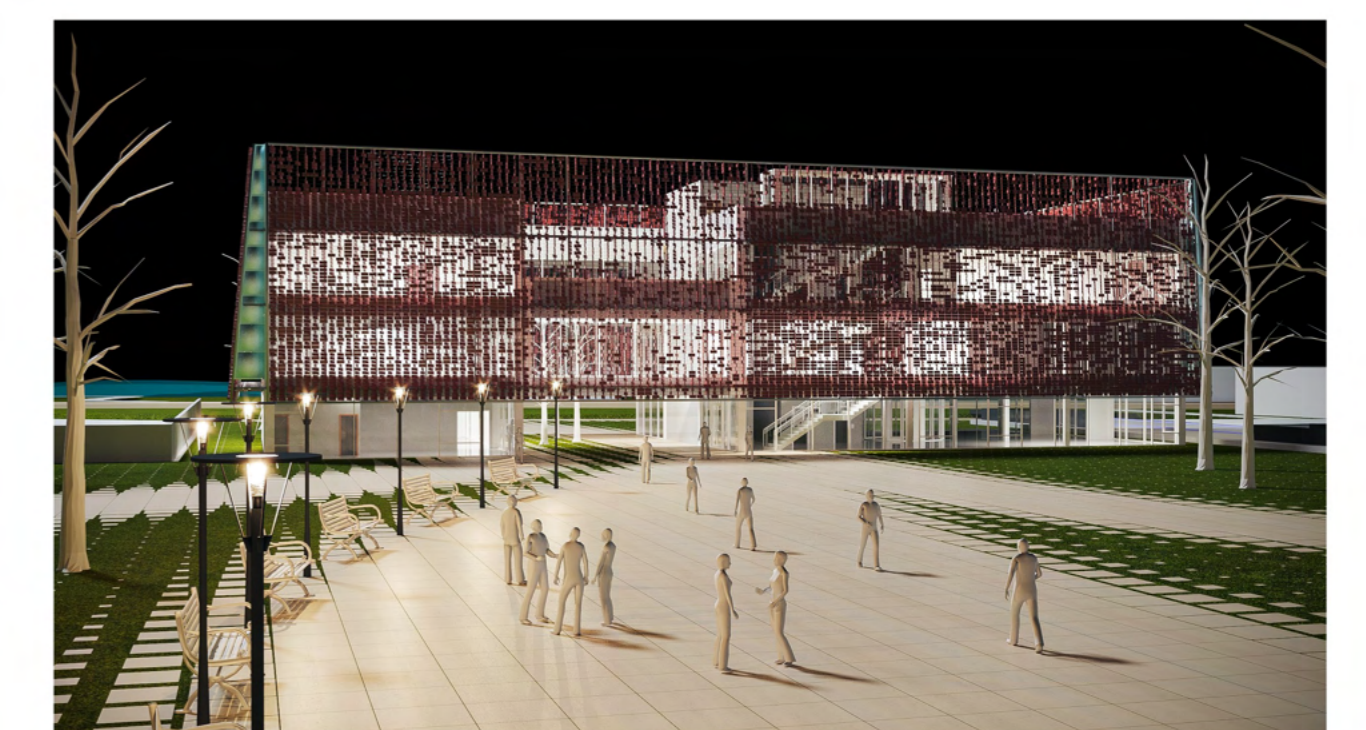
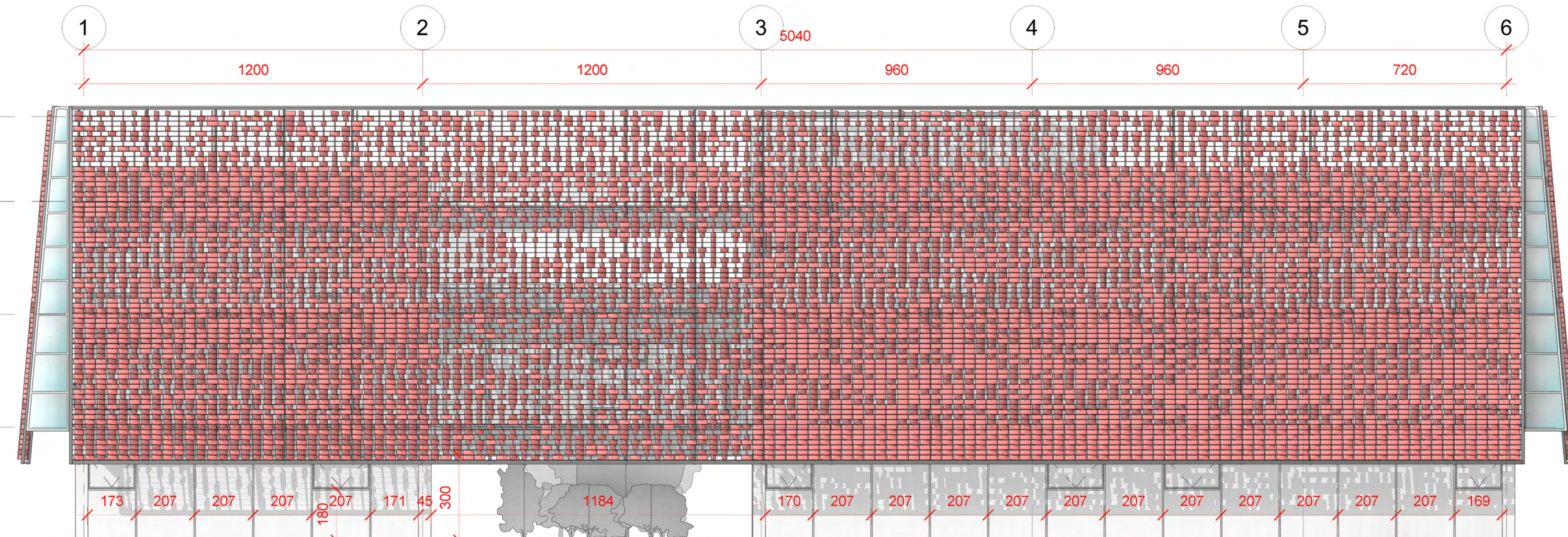
- F06 EXPOSED TERRACE**
2 mm flexible PVC waterproofing, in 8 cm overlapping
3 cm hot air welding separation and levelling layer (polyester)
23 cm EPS thermal insulation
3.0 mm modified bitumen vapour barrier membrane
25 cm prefabricated hollow core RC slab
5 mm plaster
- F07 CLOSED TERRACE**
2 mm pvc
6 cm surface smoothing concrete
2 mm 2 PE foil
3 cm step noise reduction mineral wool acoustic insulation
5 cm EPS thermal insulation
25 cm prefabricated hollow core RC slab
12 cm EPS thermal insulation
5 mm External Thermal Insulation Composite Systems
- F08 BATHROOM SLAB**
1 cm ceramic tile
1 cm Adhesive
2 mm waterproofing Lyr
4cm Screed
5cm Subconcrete reinforced Technological foil
3cm Mineral wool floating Lyr
5 cm EPS foam Lyr for installation
25 cm prefabricated hollow core re slab
37 cm void for mechanical ducts and plumbing
5 cm suspended ceiling

- F09 STAIR FLIGHT**
2 mm pvc
35 cm RC stair flight
2 mm plaster
- F10 LANDING SLAB**
2 mm pvc
1 lyr PE Foil
25 mm Mineral wool (floating layer)
35 cm RC slab construction
- F11 UNDERGROUND PARKING SLAB**
2mm oil proof artificial resin
7 cm concrete inclination layer
5 mm waterproofing layer
10 cm cast in place RC slab
20 cm gravel bedding
soil
- F12 GOUNDFLOOR SLAB**
2 mm pvc
6 cm surface smoothing concrete
2 mm 2 PE foil
3 cm step noise reduction mineral wool acoustic insulation
23 cm EPS thermal insulation
2 mm waterproofing layer
25 cm prefabricated hollow core RC slab

SECTION 1/100



ELEVATION / WEST



- Level 4
1500
- Level 3
1200
- Level 2
800
- Level 1
400
- GF