

ARCHIPELAGO A CLUSTER OF LIVING ROOMS FOR THE CITY

Archipelago is a connector of the two major regions of Thessaloniki - South and North. Located in the center of the city, this new urban amenity transforms the site into a crucial node for connecting the elements around: universities, cultural spaces, historical buildings, the mountains and the sea.

Thessaloniki is characterized by a vibrant urban network of diverse spaces for interaction and leisure. Archipelago proposes to continue this rich quality within TIF Site. A network of islands are connected together with a single continuous canopy. This element of the park binds the whole site together into a continuous public space blurring elements of retail, commercial, leisure, culture and fitness into a single innovative urban typology.

The design is formed with a diverse range of spaces and qualities both interior and exterior. A collection of "living rooms" for the city each with differentuseandfunctions. The spaces are designed to operate continuously allyear around-quickly adapting to the change in usage. The existing urban routes and axes flow through site perpetuating a new type continuity.

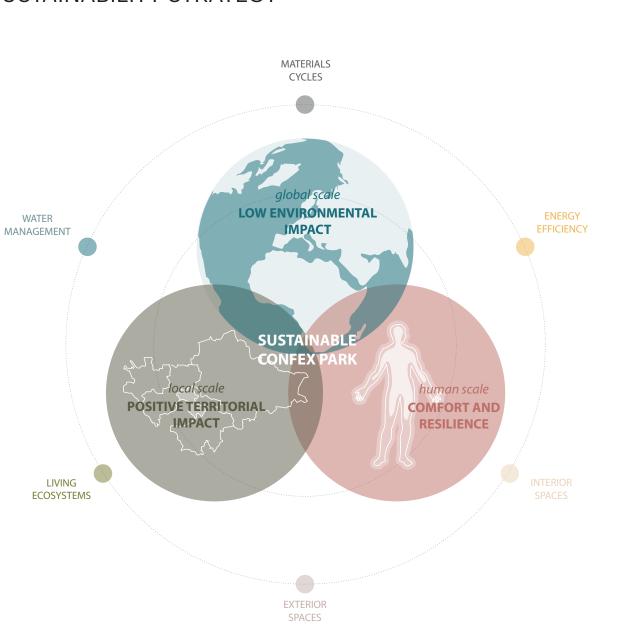
At the core of Archipelago is a carefully calibrated network that creates a flow of energy and resources allowing the building systems to operate in high standards of sustainability. A combination of passive and active systems allow the landscape and architecture to co-exist and positively respond at three scales: global, local and human.

ARCHIPELAGO IN THE CITY





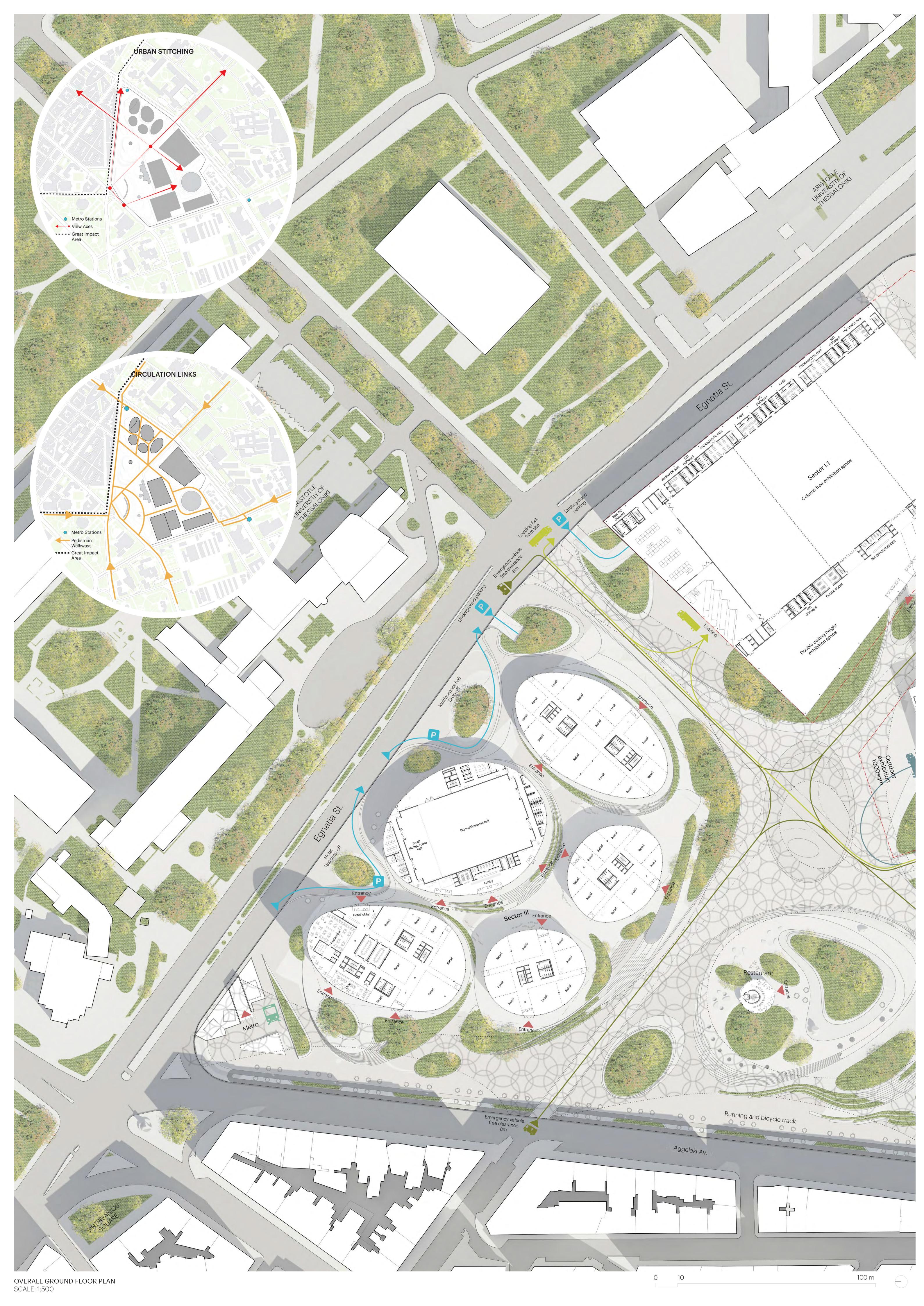
SUSTAINABILITY STRATEGY

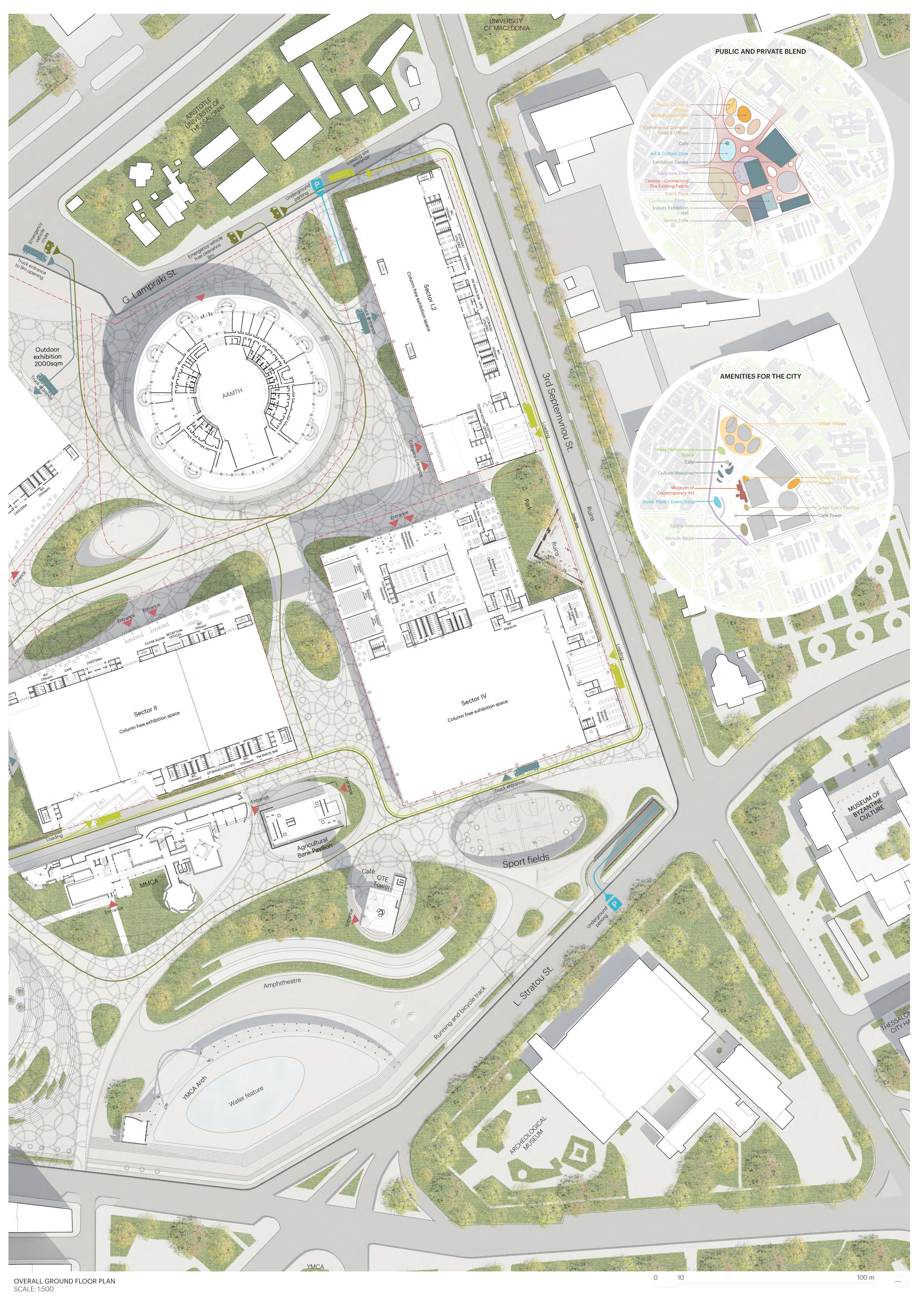


TERRITORIAL ECOLOGICAL CONNECTIONS



























PUBLIC PARK SECTOR 5

Thessaloniki Confex park will stitch the fabric of this creatives to display or perform their craft. Intimate rooted trading metropolis back together, reconnecting lost pedestrian routes between city and sea and providing a dynamic series of spaces to enrich the community it sits within. The park's sinuous forms park's ecological and environmental credentials. draw people from existing routes and encourage situated in the South-Eastern corner of the park, exploration around a new archipelago of landscape a sports island will host a multi-purpose court and skate park, encouraging exercise and giving the local youth a space to come together. cal youth a space to come together.

The largest of these rooms is centred around the YMCA archway and will be home to a multi-functional mirror water feature that transforms into an events fluid open space provides large flexible stages for plaza or ice-rink, depending on the season. Adjacent terraced lawns offer families a place to unwind and relax whilst offering elevated views of the activities beyond. Thessaloniki is a dynamic city, and with its beyond. Thessaloniki is a dynamic city, and with its many universities, a well-known centre for learning and development, the arts and cultural island will enabled to come together.

While engaging the outdoor exhibition areas, the fluid open space provides large flexible stages for ever-evolving public events, offerings and activities best suited for a dynamic community. In addition, the landscape upgrades the surrounding street-scape with a tree-lined promenade and a bicycle lane allowing a dedicated corridor for walkers, jogand development, the arts and cultural island will engaging the outdoor exhibition areas, the while engaging the outdoor exhibition areas, the fluid open space provides large flexible stages for ever-evolving public events, offerings and activities best suited for a dynamic community. In addition, the landscape upgrades the surrounding street-scape with a tree-lined promenade and a bicycle lane allowing a dedicated corridor for walkers, jogand development, the arts and cultural island will gers and cyclists along the site boundaries.

CANOPY STRUCTURAL SYSTEM

The structural system for the canopy is developed through the tiling of a typical canopy unit. The tiling pattern has a random, homogenized appearance when assembled, but is actually made

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The structural system for the canopy is developed through the tiling of a typical canopy is developed throug up of a minimum number of standard elements including columns, curved pipe beams bent at two standard

150 Filter tank

150 Using filtered wastewater to water plants by drip watering

170 Storing rainwater and managing downpours

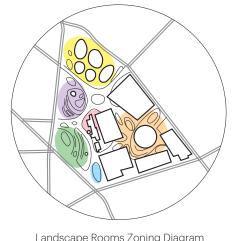
181 Taking advantages of the ground thanks to geothermal energy —10m dia circlular structure diameters, and castings at beam —15m dia circlular structure

A series of bent 40cm diameter steel pipe beams span between four typical joint intersections which are assumed to be cast steel. The canopy is supported on 0.25m diameter pipe columns spaced approximately 10m apart and the full canopy assembly acts together as a rigid frame to resist lateral loads.

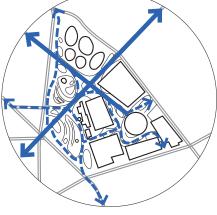
> TOWARDS YMCA PARK & THERMAIC GULF

WATER CYCLE Water Cycle GEOTHERMAL ENERGY / 3 NO DRINKING USES

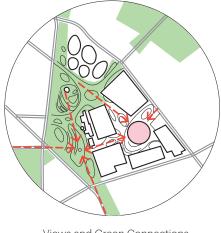
EXTERIOR SPACES COMFORT, LIVING NATURE AND SERVICES SHADOW PATH 1 Creating shaded spaces thanks to the canopy. Canopy density changes through the path GREEN CORRIDOR Creating a local biodiversity ecosystem by re-introducing Mediterranean species 1a High density : very shaded spaces 2 Improving solar panels efficiency by coupling them with vegetation 3 Decreasing soil waterproofing rate by designing planted roofs 1b Medium density : shaded spaces 1c Low density : little shaded spaces Regenerating an ecological continuity with wildlife (birds, insects) thanks to the vegetation 2 Creating shaded spaces thanks to the vegetation 3 Protecting the vegetation from the sun thanks to the solar panels 4 The shadow path evolves through the day thank to the buildings' morphology 5 Water and shadow help to refresh the air, so to improve external comfort reducing the build's landfill requirement. GREEN CORRIDOR 3 VEGETATION ON ROOF 2 VEGETATION UNDER SOLAR PANELS 1 PLANT STRATIFICATION * * * * * Towards Chortiatis mountain 5 WATER GARDEN 3 Solar panels over vegetation 2 Plant stratification



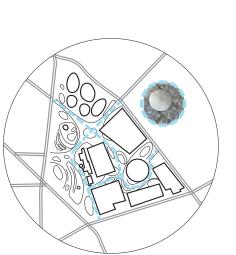
Landscape Rooms Zoning Diagram



Site Mobility Sinuous park forms draw people from existing



The new Confex park links existing green routes to expore the landscape rooms within. spaces and maximises existing landmark buildings



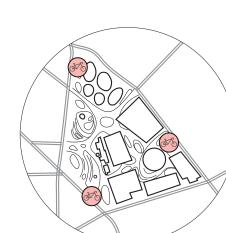
Emergency access through the site is unob-

trusively demarcated using stainless steel

studs over shared surface paving.



Water usage on the site will be minimised



Bicycle parking is located throughout the through the specification of drought tolersite to encourage against the use of cars ant species and rainfall capture systems.



will be constructed from demolition rubble,



Flowering perrenials will celebrate the seasonality of the park whilst also providing

valuable food for bees and other pollinators.

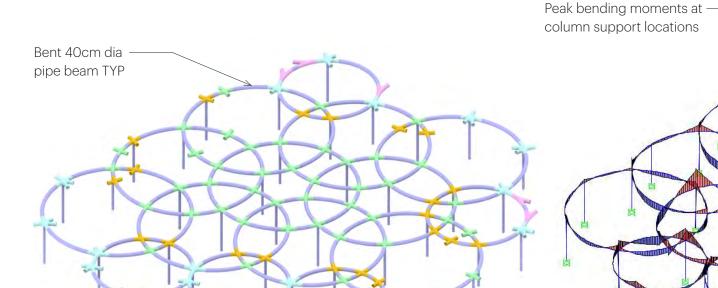


Tree Palette | Albizia julibrissin, Catalpa bignonioides, Cercis silaquastrum, Olea europa, Pinus pinaster, Prunus dulcis, Prunus cerifera, Washingtonia robusta, Quercus Ilex Planting Palette | Allium spaerocephalon, Callamagrostis x acutiflora, Carex oshimensis evergold, Euphorbia characias, Festuca glauca, Gaura lindheimeri, Lavandula intermedia grosso, Myrtus communis compacta,

the site are to be retained and transplanted

wherever possible.





Basic unit within canopy structural system

3D view of canopy unit structural assembly



Joint type B

Joint type C

-Standard casting

-0.25m dia pipe column TYP

joint TYP

The moment-connected bent beams work effectively together to carry gravity loads. Laterally, the beams and columns are moment connected to behave as moment frames, transferring lateral loads imposed on

Beam bending moment diagram under gravity loads for a typical unit

Joint type D the structure to the foundation.



EXHIBITION CENTER SECTOR 1 AND 2

The Exhibition Center is designed as the most functional and flexible work of architecture. It will provide a timeless state-of-the art showroom. Expressed through a minimal envelope the buildings use a sophisticated and innovative structural system to achieve large spans without any columns. This effort is used to establish a generous uninterrupted space for exhibitions sandwiched by two volumes of leisure, support and circulation spaces. The exhibitions are always connected to the outside using massive sliding doors the outside using massive sliding doors that allow the interior exhibition to be seamlessly integrated with the outdoor programs. This system opens up more possibilities for exhibitions and event types by extending. This achieves a all-year round exhibition calendar making use of the always beautiful weather in

the region.

Envelope

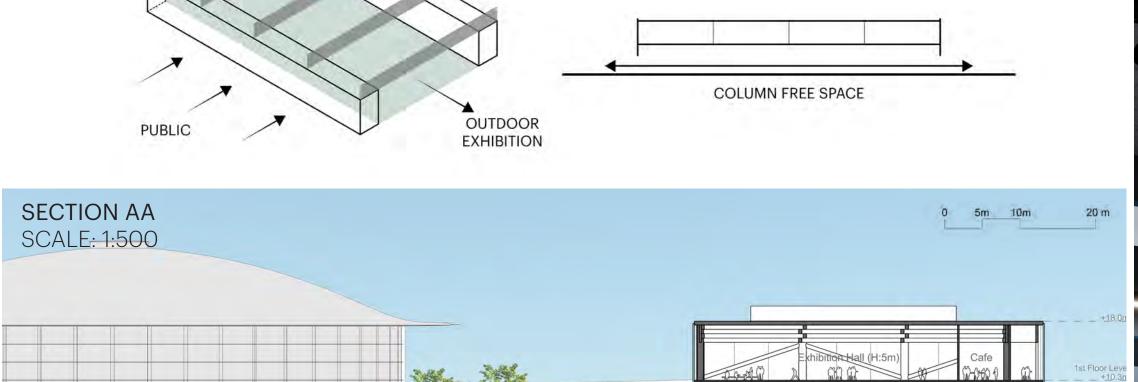
Structure

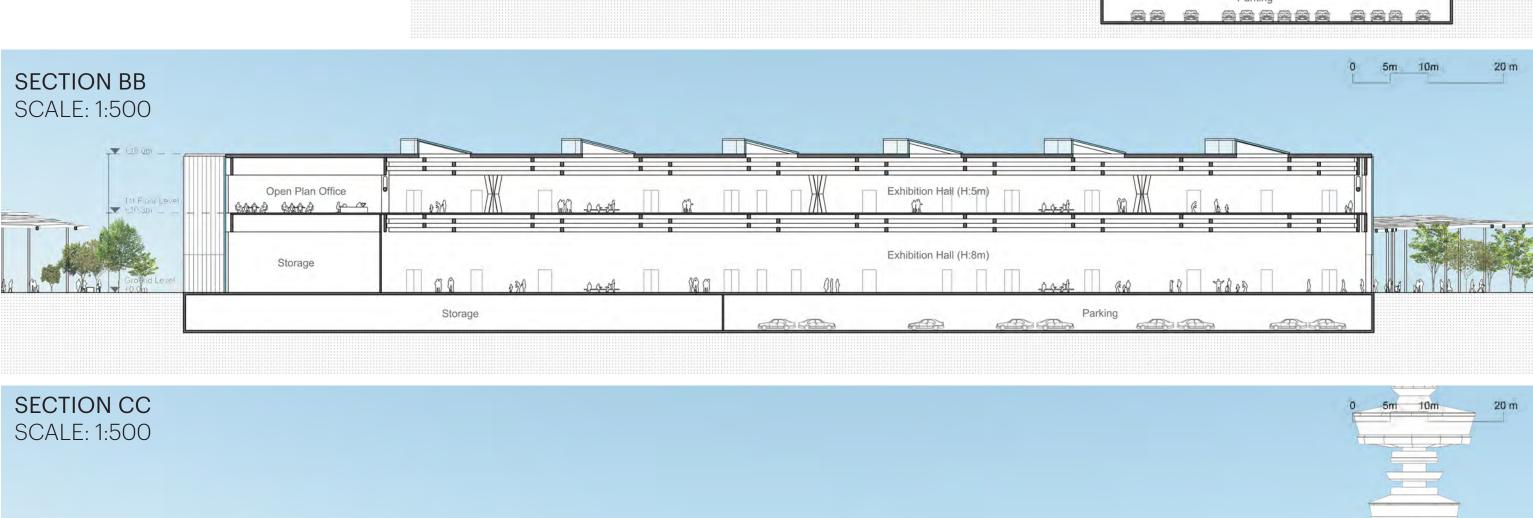
Exhibition

Cafe /Bar Storage

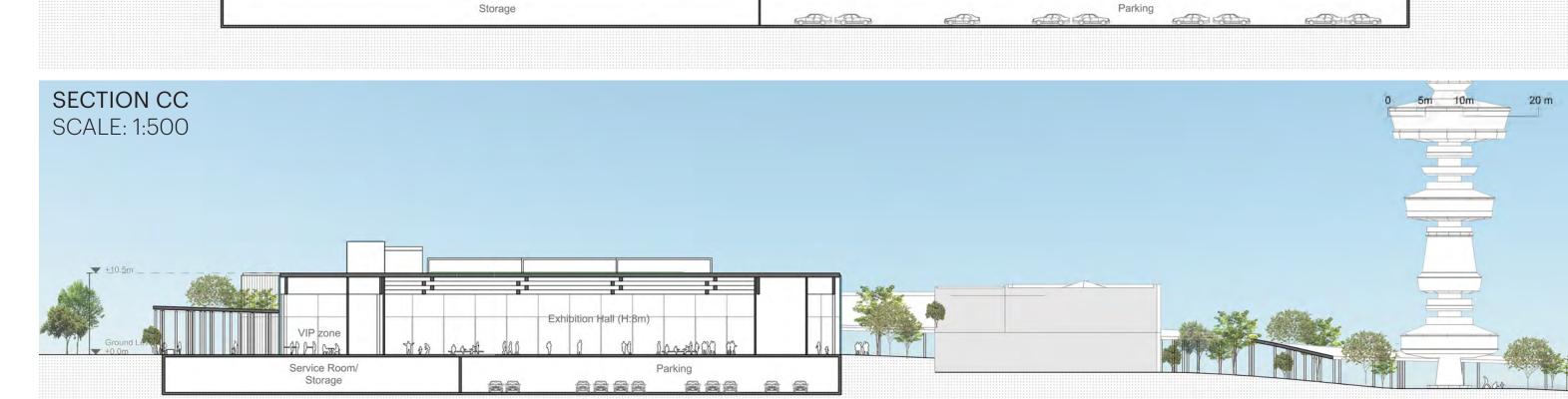
Visitor Entrance ▲ Truck Entrance

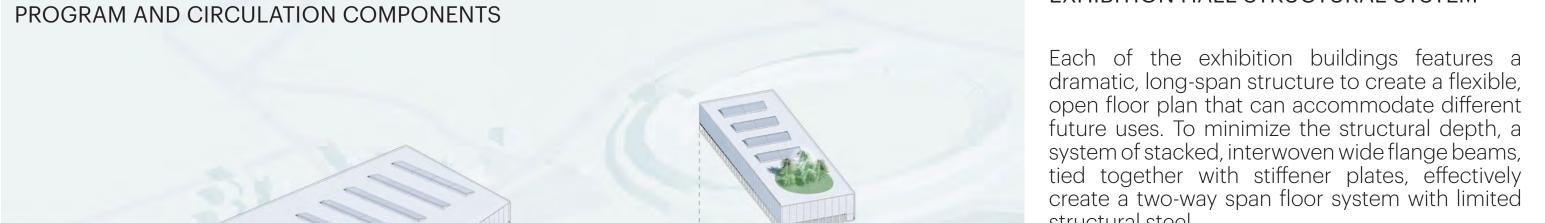
Extra Height Exhibition





LOADING DOCK

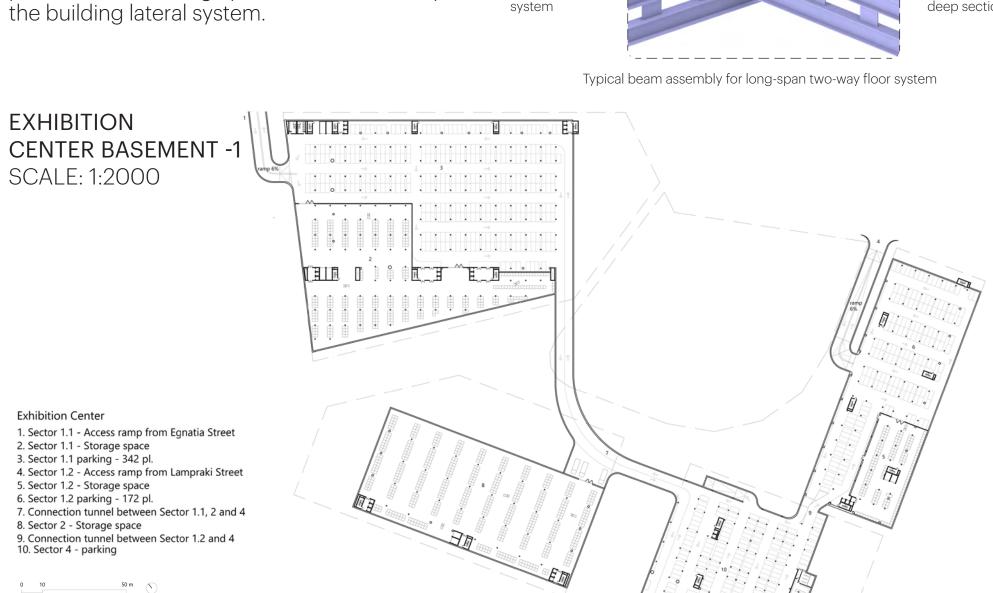




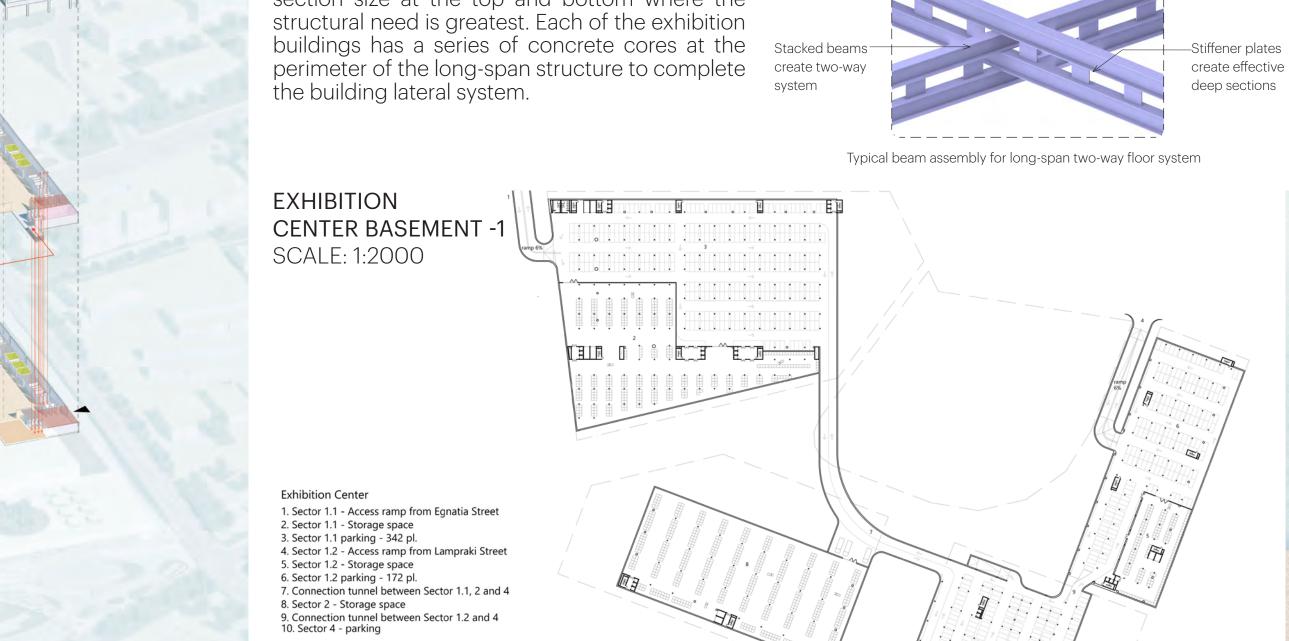
structural steel. A limited number of columns span between the ground and the roof or the ground and the second level. For sectors 1.1 and 1.2 where a clear span is desirable at the ground level, a series of fabricated, tapered columns turn the full structure into a Vierendeel truss that allows for a clear span below. The columns are tapered to increase the section size at the top and bottom where the

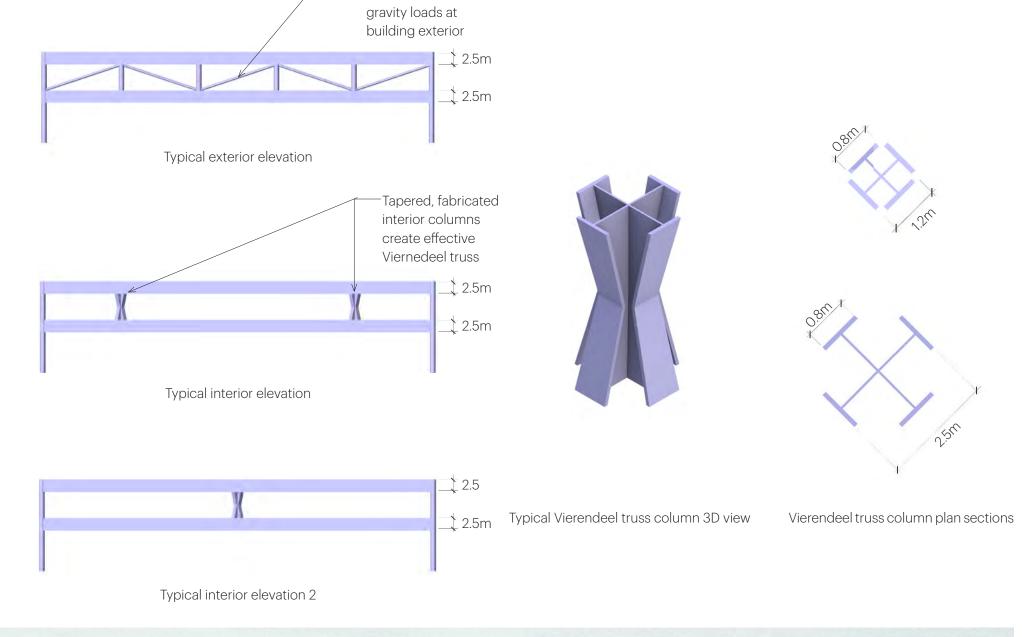
EXHIBITION HALL STRUCTURAL SYSTEM

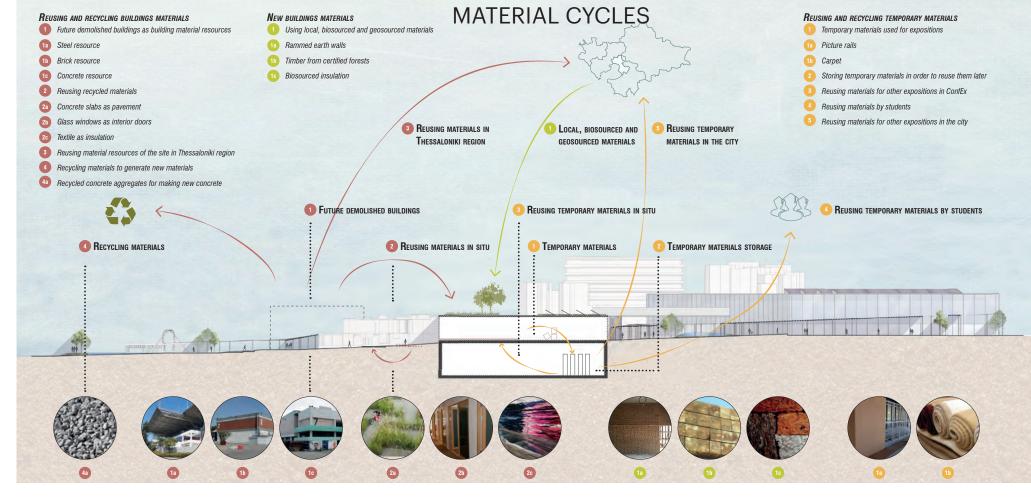
Typical long-span structural system for exhibition buildings Stacked beams-

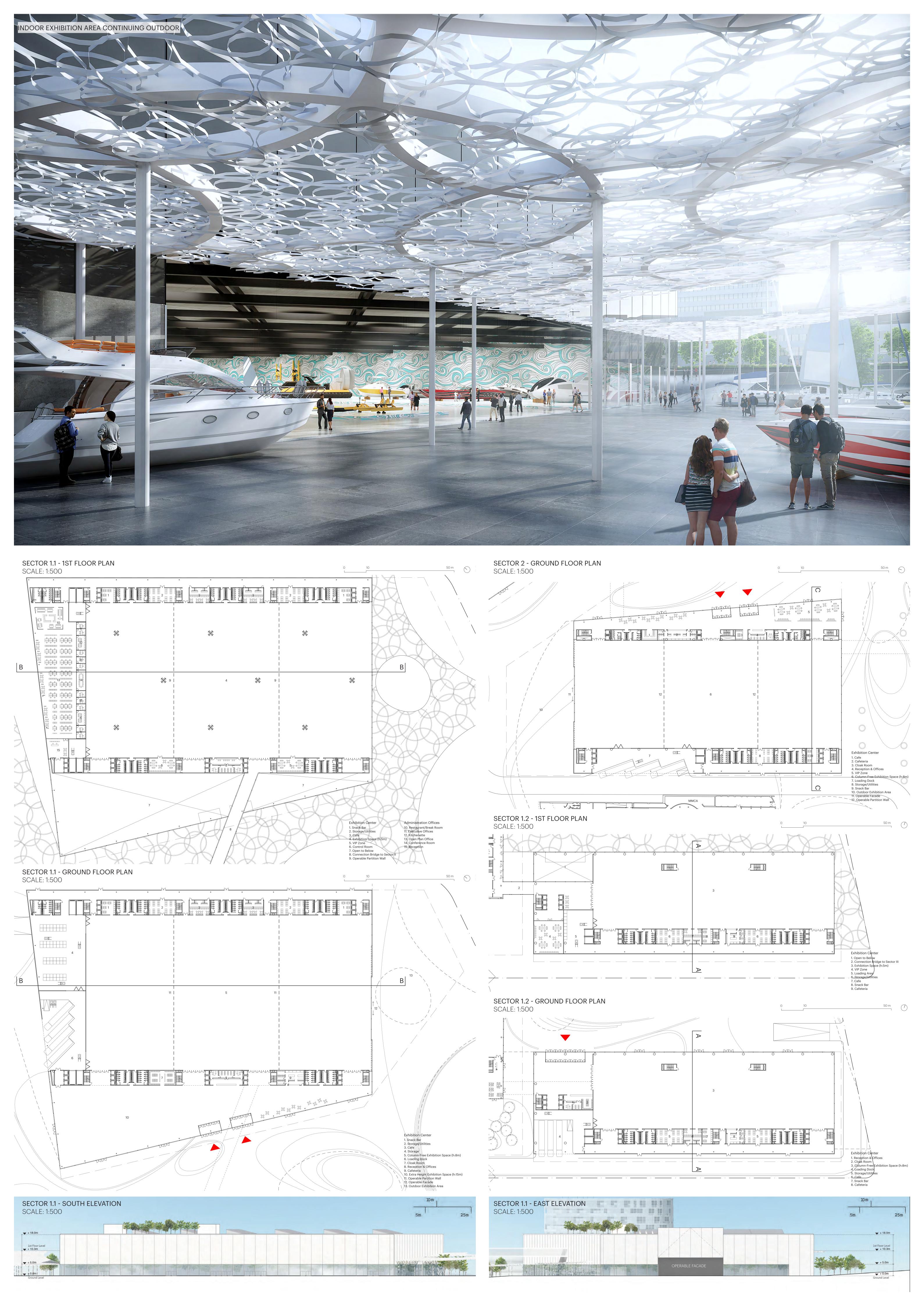










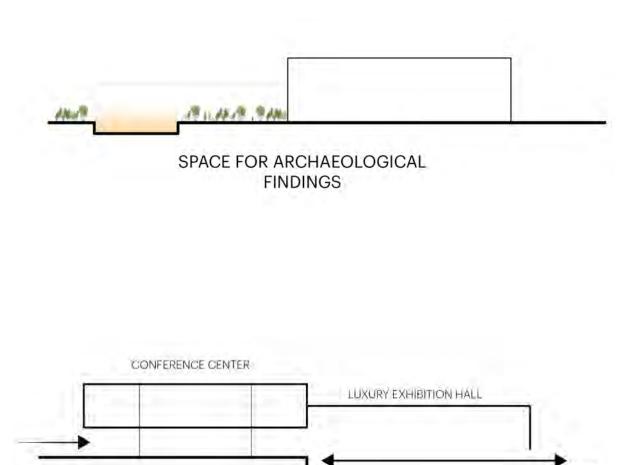




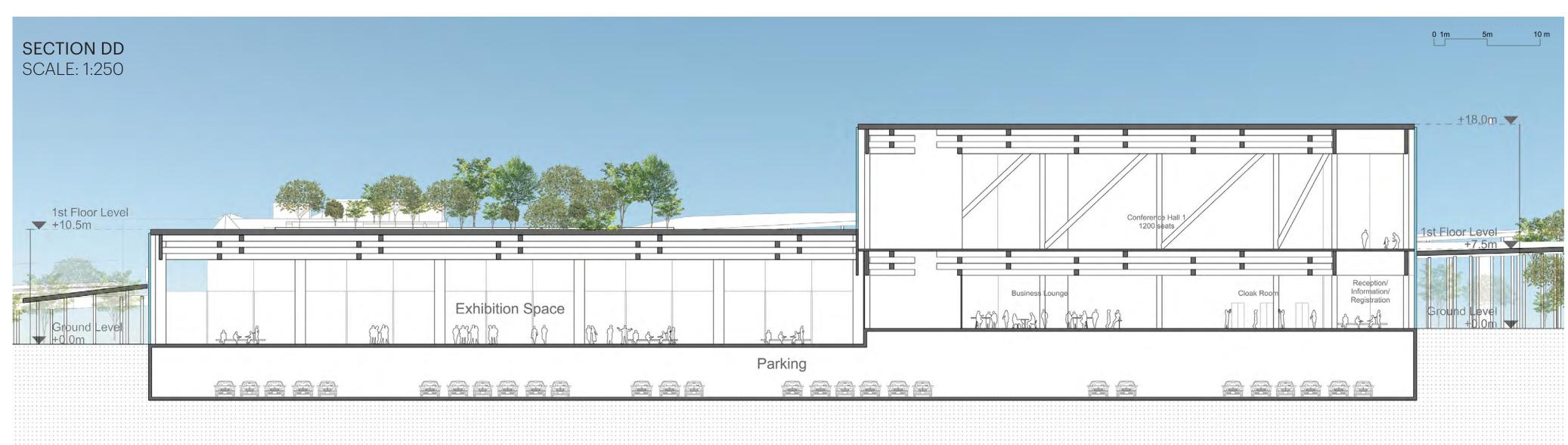
CONGRESS CENTER SECTOR 4

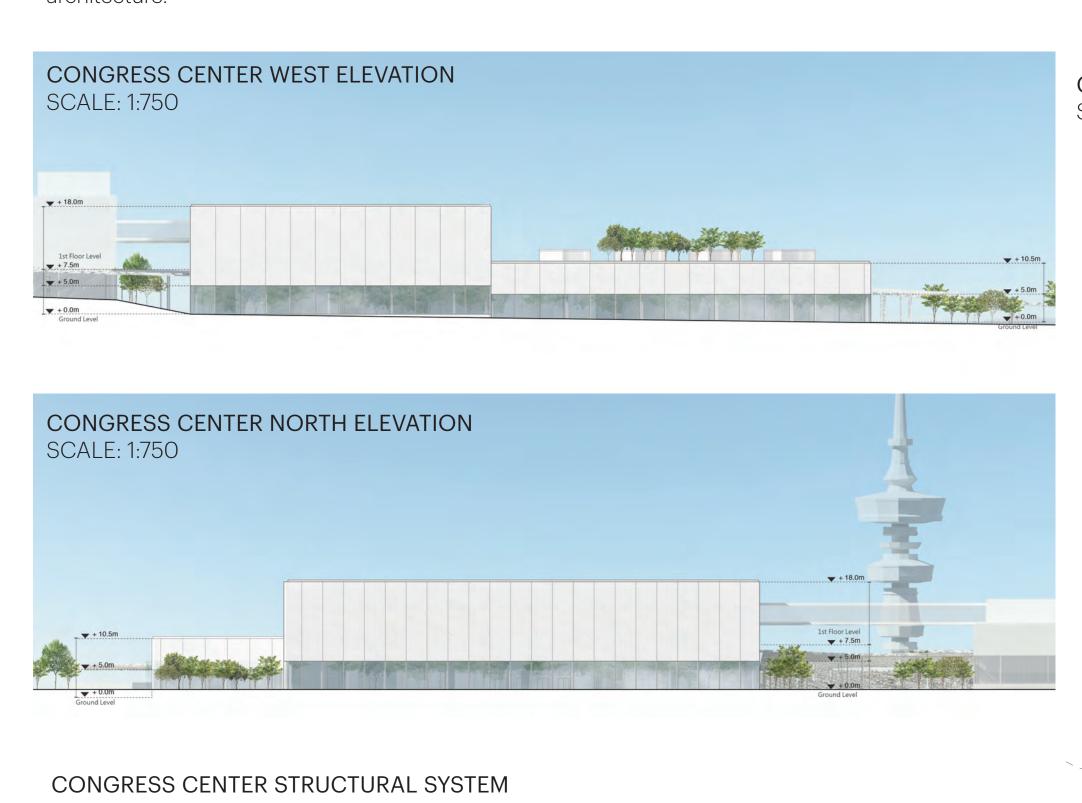
The Congress Center is connected to the Exhibition Center network - but can function separately. The building is designed similar to the Exhibition Center - with a simple facade of clear glass on ground level and opaque glass on the second floor. The very light and open structural system allows for maximum flexibility of the spaces inside. The building is divided into two major components for the Conference function and the Luxury Hall function. The two sides can simultaneously operate independent events and gatherings. The Luxury Hall provides a roof garden which can be used to experience panoramic views of the surroundings.

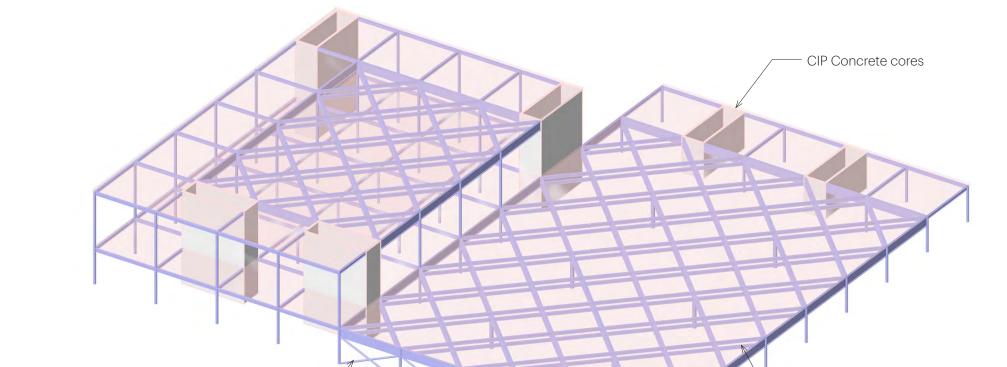
A fragment of the site is allocated to the potential archaeological findings and allows these to become part of the unique nature of the site and this architecture.



COLUMN FREE SPACE



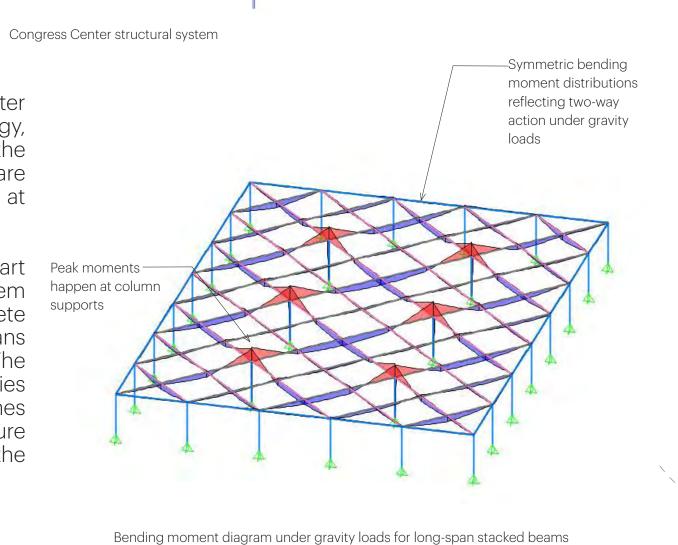




The structure for the congress center utilizes a two-way beam grillage strategy, similar to the system deployed in the exhibition spaces, where long-spans are required for programmatic purposes at the ground and second floor levels.

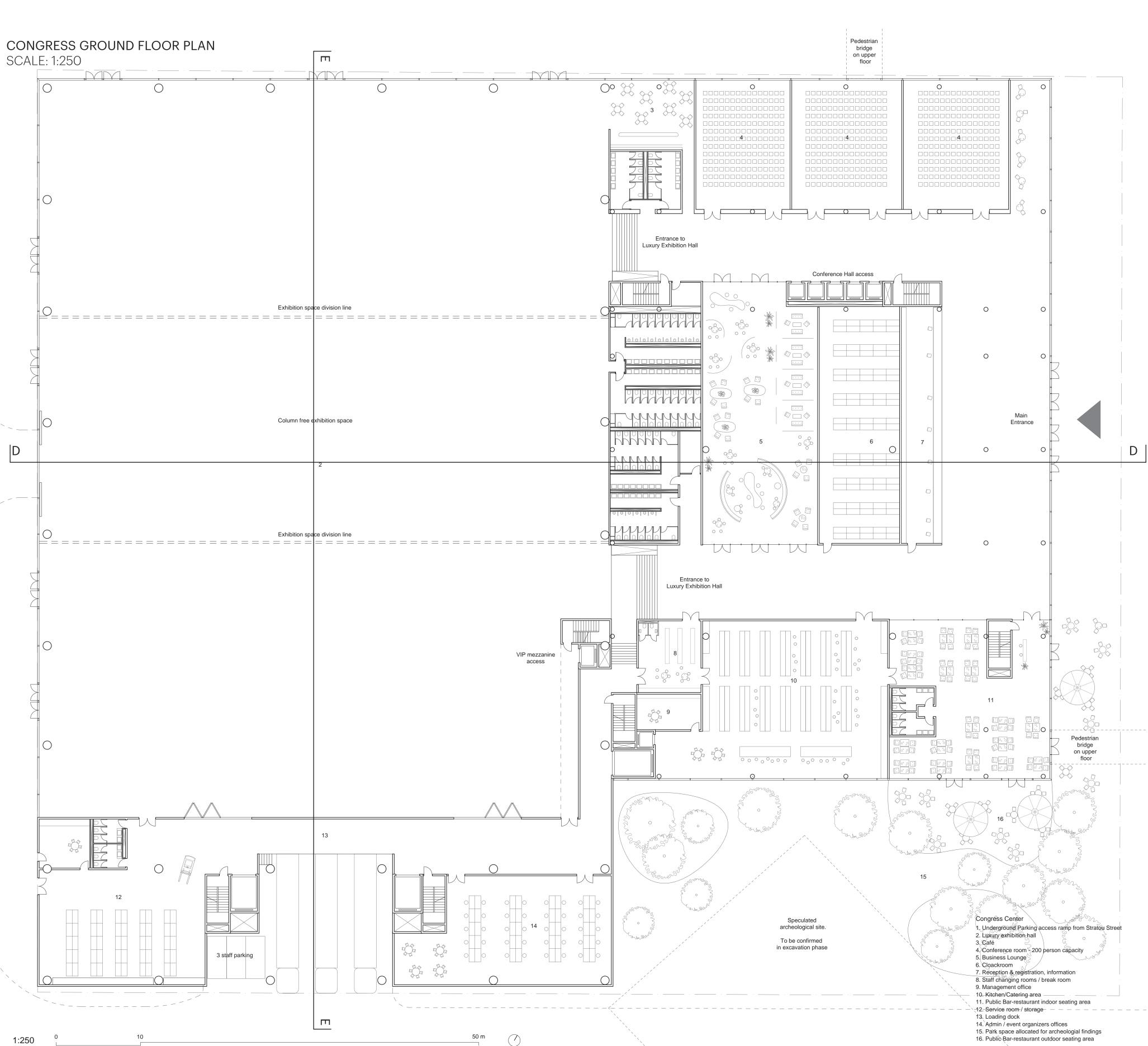
Braced frame

Perimeter columns are spaced 13 m apart and a simplified two-way floor system of wide flange beams and CIP concrete slabs is implemented where long spans are not necessary architecturally. The lateral system is comprised of a series of structural cores and braced frames balanced across the building structure to avoid torsional irregularities in the lateral behavior.

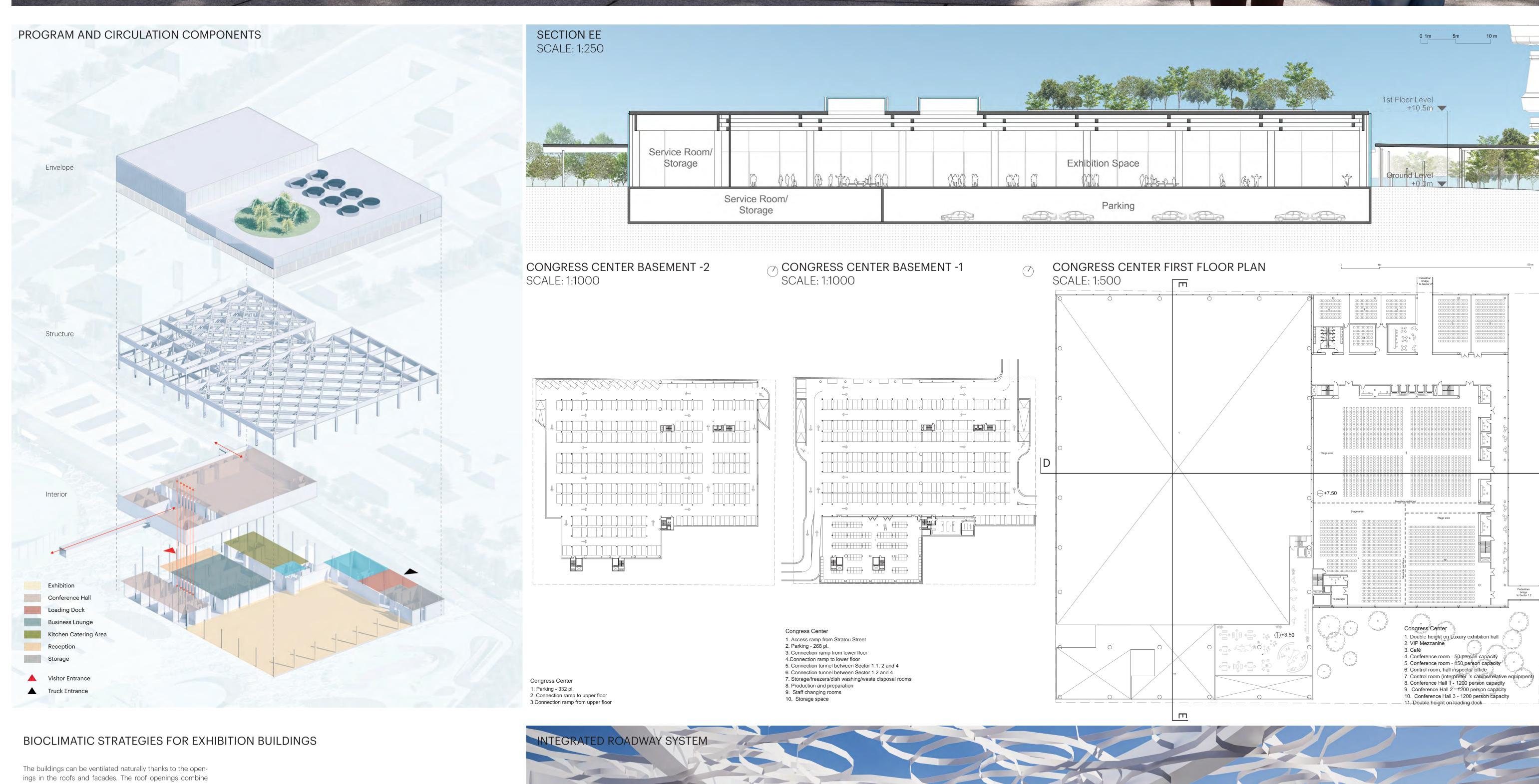


structural grillage of stacked beams

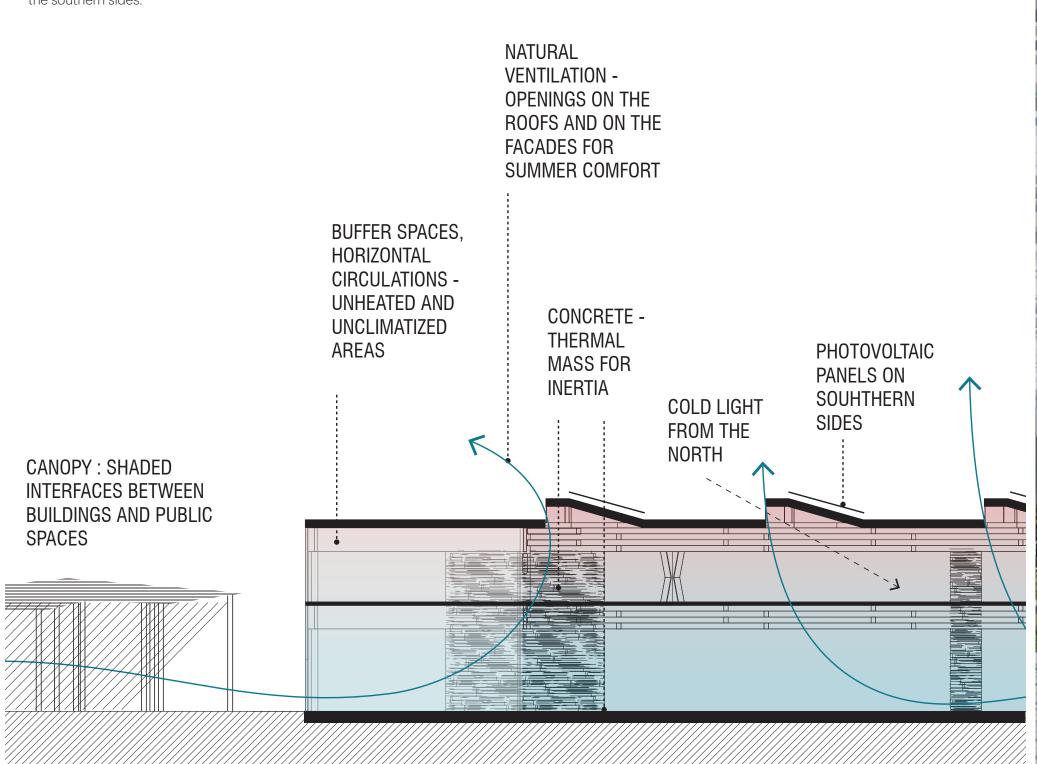
1:250







The buildings can be ventilated naturally thanks to the openings in the roofs and facades. The roof openings combine both a supply of "cold light" (north orientation), therefore without risk of overheating, and support for photovoltaic panels on the southern sides.







BUSINESS CENTER SECTOR 3

The Business Center is a manifestation of the diverse and dense nature of Thessaloniki's urban fabric. The buildings are designed as a collection of islands acting like an urban village. The landscape is a series of terraces which blur the scale between Egnatia street and the newly designed park. The architecture is porous and open to allow flexible entries and multiple path possibilities. All ground level retail are connected together with outdoor space creating a sense of a village in a park.

The hotel is located facing Sintrivaniou Square, establishing an iconic landmark at the corner. It project's out as the tallest island - this corner piece attracts the public to the varying between 10 and 30 meters. These buildings are mostly cylindrical in shape and some of them feature a sloped roof.

The structural gravity system for the buildings in the business center consist of steel columns and beams. One-way concrete slabs on metal deck supported on steel beams form the floor and roof slabs. Perimeter steel columns are located at a regular spacing around each building, in coordination with the window wall panel sizes based on architectural design. Interior columns will be located within the architectural partitions where possible to minimize interference with open spaces.

- this corner piece attracts the public to the vast and diverse public space located within the site.

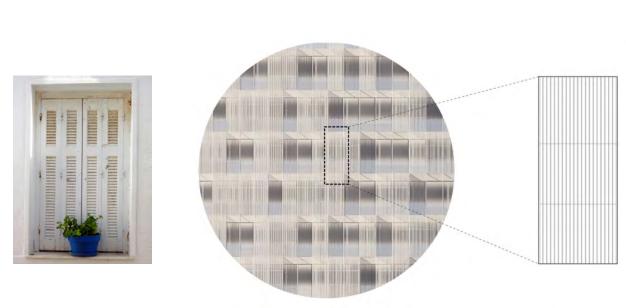
BUSINESS CENTER STRUCTURAL SYSTEM

There are five buildings in the Business Center complex, with the height of the buildings

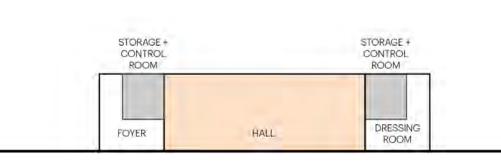
The corner it projects out as the tailest Island open spaces.

Cast-in-place concrete shear walls located around elevator and stair openings form the structural lateral system of the buildings.

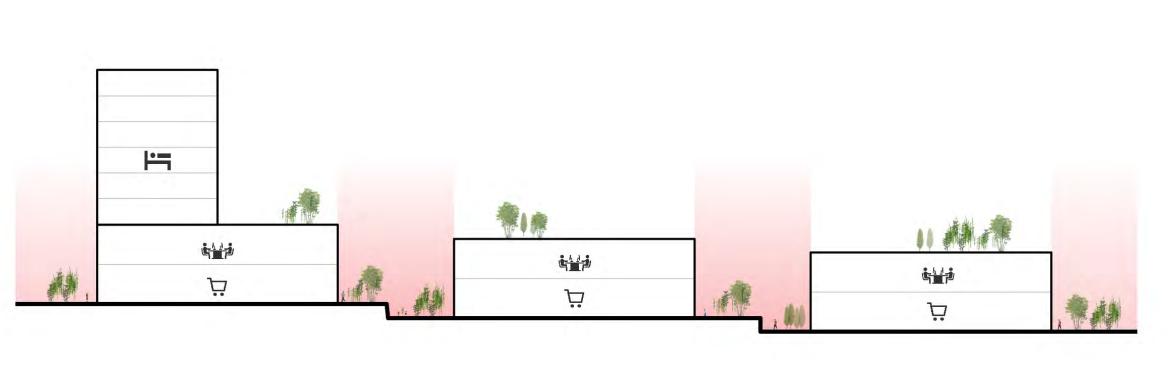
These concrete shear walls are balanced across the buildings to provide sufficient lateral stability for the buildings under wind and earthquake loads.



HOTEL FACADE SCREEN



MULTI-PORPOSE HALL



BUSINESS CENTER URBAN VILLAGE

