



Business Centre



Aristotle University of Thessaloniki

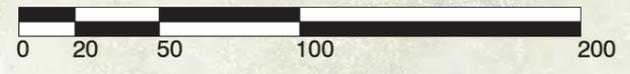
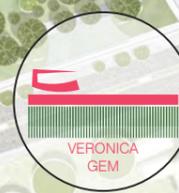


Exhibition Centre



University of Macedonia

Congress Centre





Regenerative Thessaloniki

At the very heart of the city, the new ConfEx Park is the project that will define the future of Thessaloniki. Not only because of its urban location and size, but also because of its place in the hearts of the city's residents and visitors. A strong factor for the city's development as a commercial centre, Thessaloniki's International Fair has also been, for decades, the link between local residents and the rest of the world. It was the place to find new products, to see new spectacles, to try new games and new tastes. As such, it has not only been a place of magic but also a place of culture, shaping the citizens of tomorrow. Having the unique opportunity to redefine this place and make it an integral part of the city again, one needs to ask the question; "What is the innovation that the city of the 21st century needs?"

In line with the ongoing greening strategies of cities around the world, Thessaloniki's Innovation Forest, or TI³F, proposes an urban forest right in the heart of Thessaloniki. At the point where the urban fabric becomes narrower and the city's suburban forest comes closer to the Thermaic Gulf, the new ConfEx Park is envisioned as a place that will be more than a city park. Aspiring to become a model of innovative urban development, that can lead to a more symbiotic relationship between cities and the planet, TI³F proposes a full urban forest, that will not only increase the 1.6 m² of green/ resident indicator, but will also create a new habitat of urban wildlife. A biodiversity hotspot right in the middle of the city, a forest to become the city's new public destination, a forest that will not only provide space for leisure and recreation, but that will also be a place of education and environmental awareness. Coupled with a state-of-the-art Exhibition, Congress and Business Centre, TI³F provides for urban innovation in the power of 3; an Intelligent, Inclusive & Iconic new destination for the city of Thessaloniki, the Balkans and beyond.

Intelligent: An Exhibition & Congress Centre at the Forefront of the Global Expo Industry

Aspiring to make TI³F one of the most important destinations in Europe and the world for expo tourism, efficiency, functionality and optimization are the main parameters of the design. Next to the clean and simple hall volumes, the proposal is looking into enhancing the relationship of the new expo centre with the rest of the city, by minimizing the impact of the big spaces and the servicing. The forest around the big halls, not only merges TI³F Expo with the rest of Thessaloniki's green spaces, but also offers a unique experience to the Exhibition and Congress visitors. Anticipating the possible transformation of the industry, due to the Covid-19 implications, and its possible turn towards hybrid events, our proposal includes a part of flexible spaces that could, in the future, be adapted to a new use. A smart design, that seeks to make a seamless connection between expo and the city, tourists and residents, nature and the city.

Inclusive: A Milestone in the History of the City's Green Development

Looking to align TI³F with the city's Resilient Cities Network agenda, as well as with the United Nations Sustainable Development Goals, our proposal extends the notion of inclusivity. With a multiple range of diverse spaces that offer full public accessibility as well as flexibility and human engagement, TI³F is not only able to give back to the community, but also give back to the environment. Lush green space and a

comprehensive sustainability and climate adaptation strategy, inclusivity extends to embrace not only people, but also animal and plant species and the planet. The forest plays an important role in conveying this message by not only including an educational component in the form of information points about the species it hosts, but also by creating a community around it. We envision that the new Forest of Thessaloniki will be planted by the people and by the city's future citizens. Through the "My TI³F" programme, families will be able to adopt a tree, plant it and watch it grow, along with their children. Education, community and stewardship, are integral components of the future TI³F.

Iconic: The Landmark of the 21st Century

Envisioning the new ConfEx Park as the city's future landmark for excellence, TI³F tells the story of a different kind of icon. Moving away from the idea of an iconic building, and closer to the idea of an iconic landscape and placemaking, we propose a green landmark, a landmark that will tell the story of resiliency, and that will broadcast the environmental performance of this new green space. The buildings are merged with the forest, leaving fragments of them to be revealed on top of it, while the forest becomes the new icon of the city. OTE Tower, becomes part of the tress, a beacon that communicates to the whole city the performance of the forest, through a night-lighting scheme that will change according to the water that is stored, or the oxygen that is produced. A live, green landmark that will concurrently breathe with the city.



My TI³F *Plant a Tree & Watch It Grow!*
The Forest Creates a Community

Thessaloniki is a City of Layers & Gems

Facing the challenge of transforming a huge amount of programme into a human-scale space, our proposal looks at the city's DNA. Thessaloniki, a city with a rich history, a melting pot of cultures throughout time, is a city of layers and gems. The layers of history are visible in the urban fabric, with monuments and fragments of antiquities sitting on different levels than that of the vibrant streets, while the monuments appear like hidden gems among the modern buildings, transforming a stroll around the city into an experience of discovery. Our design embraces the layered structure of the city and adds another layer on top of the historical ones, the layer of nature and ecology. Translated formally into a thick forest and its tree canopies, our nature layer forms a green base. At the same time, the new Exhibition, Congress and Business Centre buildings form another kind of base, on top of which sits a canopy of green & publicly accessible roofs, and a series of smaller buildings with a public destination. Trees, canopies and roofs, form the new green layer, on top of which sit the city's new Gems.

A Multi-Layered Approach: Connecting People, City & Nature

The layered organization of the public space of Thessaloniki is further reflected in the organization of the public space of TI³F. The green canopy, formed by the trees and the canopies of the buildings, creates two different layers that offer two distinct experiences. On the layer below, a vibrant world exists under the trees. The forest is a place full of activities, offering the opportunity for playing, relaxing, exercising and meditating; a unique opportunity for recreation under a lush green. At the ground floor of the buildings, activities spill out under the canopies providing cafes, seating areas and breakout spaces for the visitors of the Exhibition, Convention and Business areas. With the trees framing the buildings and getting as close as possible to them, the boundaries between buildings and forest are blurred. Two axes and a path through the forest add to the vibrancy of this lower level and seamlessly connect the site with the rest of the city. On the layer on top, the forest continues in a different form, while the green roofs host a number of activities, for both visitors and the employees of the Business, Exhibition and Convention Centre. The upper layer creates the possibility of experiencing Thessaloniki, in a different way, by offering views towards the city, the sea and the mountain, while strolling along beautiful forest gardens and green. The Gems create their own form of public destination, offering even further possibilities for activities on that level. In between the two levels, runs an elevated walkway, a tree-path that not only connects the two worlds, but also offers the unique experience of walking in between the lush, green canopies of the forest.

Merging Buildings & Forest

Podiums and Gems are treated in different ways, in order to further enhance the idea of Gems in the Forest. Our design blends the bases of the new buildings with the lower level of the forest, while the Gems pop-out on the upper level, as distinct volumes. In order to achieve a blend with the surroundings, the bases are treated with natural materials, while the dimension of verticality is explored, in order to synchronise with the trunks of the trees. Structural columns, supporting the canopy, change direction creating a plethora of views and shadows. Three basic materials are used for the façade treatment of the base; first, transparent glass at the places where the building "breathes" and people come in and out, second, corrugated panels, and third, foggy reflective glass that augments the presence of the forest. On top of the base, canopies with curved edges, further blur the big volumes with the green, creating interesting perspectives of the buildings and playful interactions with the trees. The big horizontal plates of the canopies, create an elevated plateau, which aligns with the site's higher elevation at the side of Egnatia, allowing for access on the roofs from this side. On this plate, the Gems appear. Clean, pristine volumes, with no curves in plan, but with curves appearing on the vertical dimension of the meticulously designed facades. Refined objects on a tray of canopies and trees, the Gems break the large scale of the development and anchor the human-scale public space of the elevated forest. Each Gem, has a distinct shape, creating a natural wayfinding on the site.

1417 newly planted trees

1226 meters of elevated tree path

408 meters of Green-Blue Axis

77.7 % coverage of newly planted Urban Forest



TI³F Park *A green escape from city life*

Thessaloniki's Public Space par Excellence

The history of TIF-Helexpo, like all fairs, is strongly connected to a feeling of magic. Hosting the first amusement park of the city and spectacles like the "Loop of Death", or being the place where the city's residents tried Coca Cola for the first time, the park has been imprinted in the minds of the people as a place of fun, novelties, and fascination. Our proposal envisions bringing back this sense of magic, offering at the same time something new, something that the city of Thessaloniki does not have. Connecting to the site's history, we introduce places like the TI³F Gardens, invoking the flower avenues of the old fairs, or the TI³F Beer Garden, remembering the "black" beer and sausages of the older times. The TI³F Tree Path is the new thing that TI³F will offer to the city of Thessaloniki, while the new destination is programmed with activities that serve residents, tourists, students and employees.

The Forest

TI³F's under-layer is a lively place, active throughout night and day, offering the comfort of a safe green space in the city. A series of smaller destinations and activity areas, like the TI³F restaurant, playgrounds, exercising areas, meeting areas and walking paths, cater for the local residents and visitors, offering the possibility for a unique recreation experience among lush vegetation.

Axes with Purpose

Two axes and a smaller path in the forest, transform the site from an isolated island in the centre of the city, to a fully connected and accessible public destination. Programmed in different ways, they offer a different experience of crossing the site. The axis connecting the University Campus with the YMCA Park, at the south, is designed as a Green-Blue Axis, extending to the mountain and the sea, and bringing the two ecosystems together. Seen in relation to the other two major city axes in this direction, Aristotelous & Navarinou, that have a commercial and historic character, the Green-Blue axis adds to the city a layer of health and nature. The second important axis leading to our site, the one connecting Agia Sophia, and the city centre, with Alexandreio Melathron, is seen as the Cultural Axis. Programmed with an open-air market for local artists, pop-up cafes and the new farm-to-table TI³F Restaurant, where ingredients from the site's herbal gardens are used, it connects to the city's strong food culture and arts. Along the Culture Axis, we propose the TI³F Gardens, as a reference to the flower avenues of the past; seasonal gardens that can function as another platform of communication with the city's residents, by allowing for the public to vote for the plants to be included in their design every season. Finally, an Art Path connects the museums area at the south part of TI³F with MOMus and all the way up to Rotunda. The Art Path is planned to host seasonal art installations from local artists, introducing to Thessaloniki a scheme, similar to the yearly competition for the Serpentine Pavillion in London.

The Roofs & the Gem Gardens: Doubling the Forest

The green canopies and accessible roofs, duplicate the size of the Forest and offer more public space to the city of Thessaloniki. The Gems, revealed among this elevated forest, offer a number of destinations, others for the employees of the Business and Exhibition Centre and others for the public.



The Chestnut Gem - Office Spaces: Part of the TI³F Business Centre, the Chestnut Gem hosts a new office space for the city of Thessaloniki. The Chestnut Garden, around it is envisioned as a break-out space for the office users, a space for relaxation and collaboration that will enhance the wellbeing of the employees. Sitting areas, outdoor meeting rooms, spaces where one can isolate and work among trees and greenery, spaces for meditation and exercising. A unique working environment, offering an office-garden, right in the middle of the city.



The Oak Gem - Hotel: With a height of 32 m, the Oak Hotel is the tallest of TI³F new Gems. Envisioned as a health-hotel, the Gem hosts at its rooftop a restaurant focused on healthy food. Catering also for the users and visitors of the Business centre, the restaurant is envisioned as an all-day-round destination, serving healthy meals for business meetings, lunch breaks and social meetings; a unique experience of dining, with amazing views to the city, Ano Poli and the Waterfront. In dialogue with OTE Tower, TI³F Loft offers also a unique vantage point towards the elevated forest on the green canopy and the forest below. A green carpet, at the feet of what is designed to be Thessaloniki's greener rooftop restaurant and bar.



The Pomegranate Gem - Exhibition: Publicly accessible from both the elevated walkway and Egnatia Avenue, the Pomegranate Gem, part of the aboveground exhibition spaces, is envisioned as a fully flexible space that can be given back to the community when it is not used for exhibition purposes. At direct proximity with the Aristotle University of Thessaloniki, it can function as a space to host student exhibitions, workshops, or even temporarily be transformed into a working and meeting space. In addition to this, the space can be used for indoor exercising or yoga events, for the rest of the city, or function as a market place, fostering small-scale businesses that are looking for a place to temporarily exhibit their products. With a smaller footprint, than the exhibition halls below, the Pomegranate Gem has the possibility of hosting a different use in the future, if there is less need for exhibition space.



The Linden Garden: Right in the heart of TI³F, a new open-air cinema continues the tradition of the existing open air-cinema on the site. Located on the green canopy and amidst the elevated forest, Linden Cinema will add to the culture of open-air cinemas in the city, combining urbanity with nature and offering magnificent views and a cool space, during hot summer nights.



The Veronica Gem - Helexpo Offices: Similar to the Chestnut Gem, the Veronica Gem hosts the offices of TIF-HELEXPO. The garden around it is again an area devoted to the office users. Designed as a garden for meeting, resting and exercising, the Veronica Garden aims to foster meaningful relations for co-workers and to offer a space for building company culture.



The Lavender Gem - Congress Centre: Placed on top of the Congress Centre, the Lavender Gem is designed as the final destination of the elevated TI³F Tree Path and as the most public gem of all. With an accessible inclined roof that functions also as a seating area, it offers not only views towards the Ano Poli, but also a look-out point towards the Waterfront. Publicly accessible day and night, all year long, it is an integral part of the upper level experience. The Lavender Gem hosts also the restaurant of the new Congress Centre, which is accessible from both the elevated path and the groundfloor lobby. The restaurant opens its doors to a patio facing the forest, adding another experience to the dining opportunities offered at TI³F. Surrounding the Lavender Gem, the Lavender Garden hosts a Beer Garden, as a reference to the past's Black Beer and as a connection to the Beer Festival organized every year at the TIF-HELEXPO grounds.

The Tree Path: With 1,226 m of elevated walkway, the Tree Path offers a fun way of experiencing the city, the Forest and the Gems. With points of information along the way, TI³F Tree Path plays an educational role, offering knowledge about the trees and animal species found around the Forest, as well as about the Forest's ecological services. Designed to be accessible by everyone, it allows for an easy flow of people of all ages and needs.

The Business Centre- Thessaloniki's New Campus: Right at one of the most prominent corners of the site, and next to TI³F's metro station, the Business Centre is designed as a destination of its own. Allowing for access from both Syntivani Square and Egnatia Avenue, it connects the forest park with the rest of the city. Developed on multiple levels, it offers a vibrant square, under the canopy, surrounded by retail, which can host activities and offer a protected public space, throughout the whole year. The retail is extended along the whole length of the facades, including the ones around the multi-purpose hall, activating the perimeter of the complex and creating a vibrant interface between buildings and forest. On top of the canopy, a forest garden, is one of the stops along the route of the elevated Tree Path. The Chestnut Gem, with its unique office environment and garden, and the Oak Hotel, add to the destinations of the new campus, while the proposed Hamam at the lower levels of the hotel, enhances the idea of employee and visitor wellbeing whilst connecting to the city's long history of Turkish baths.

A Performative Forest

The site is envisioned as a hotspot for nature in the middle of the city that aims to respond to the strong desire for green spaces expressed by the citizens.

Far from the image of the traditional ornamental park, often underutilized and reliant on high maintenance, the proposed urban Forest is conceived as a performative and self-sufficient organism, which will strongly contribute to the wellbeing of the local community, on multiple levels.

Thanks to an integrated approach, the Forest will provide several ecological services, including an increase of local biodiversity, carbon footprint reduction, and climate resilience, while offering social and psychological benefits to the citizens. These include opportunities for learning about environmental issues, as well as local flora and fauna, thus encouraging a renewed bond with the city. For international visitors, the park will act as a living showcase, branding the identity of Thessaloniki and its rich natural and cultural heritage.

Urban Scale Approach

The design proposal sets the foundation on a large scale and targets connecting to the wider green framework, in support of the local biodiversity. Generated by the strategic location of the site, between sea and mountain, the design approach embraces the sequence of valuable green spaces emerging from the urban context along the N-W direction, by activating a new green stepping-stone, well anchored to the local green network via robust tree corridors.

Inspired by the Seih-Sou forest north of the site, the new landscape icon of Thessaloniki will showcase a mosaic of woodland typologies, "broadcasting" live the evolution of the forest structure.

Natural Maturation Process

The new Forest will grow over time, and thus, the site will change, offering a different experience to the residents of the city. It will become more beautiful by time, becoming a legacy and an investment, for future generations to come.

Planting Stage, first 5 Years: Approx 3 years after the planting, natural selection among the seedlings allows the most adoptive species to develop and grow further.

Shrubs Stage, 6-25 Years: Tree seedlings and larger shrubs take over from plants and provide habitat for many species.

Young Forest, 25-50 Years: Deciduous trees grow a more consistent shading canopy. As a result of the more constant presence of shade, they mitigate the fast growth of the understory.

Mature Forest, 50-150 Years (+300): Large, deciduous trees are decreasing their emergent canopies as they grow old and large evergreens take over the forest. The disappearing deciduous canopy provides additional space for young trees and shrubbery.

Design Strategy of the New Forest

Based on the characteristics of the local ecosystem and climate, the design strategy aims at encouraging a natural evolution of the forest, resulting in a healthy and self-sufficient ecological system. By combining the plantation of new trees with more mature ones, and fast-growing species, an attractive and recognizable image of the forest will be achieved already in the short term. The typical structural complexity and density patterns of the forest are replicated within the new park, allowing for the integration of transition corridors or more programmed areas.

Proposed Green Framework

Linear Components: The main urban axes from the adjacent districts are clearly reflected within the park green framework and marked by formal trees structures.

The green Cultural Axis extends in continuity with the urban axis of Svolou Avenue, in terms of tree species and character, both expressing cultural aspects. This includes:

- Extension of the signature species along Al. Svolou Av.
- Integration of a low level of signature aromatic plants, signifying the local cultural heritage
- Integration of edible plants and fruit trees

The Green-Blue axis expresses the identity of the sea and the mountains through the combination of large tree species, typical of the forest ecosystem, with a visible blue layer, activated by sustainable urban drainage solutions.

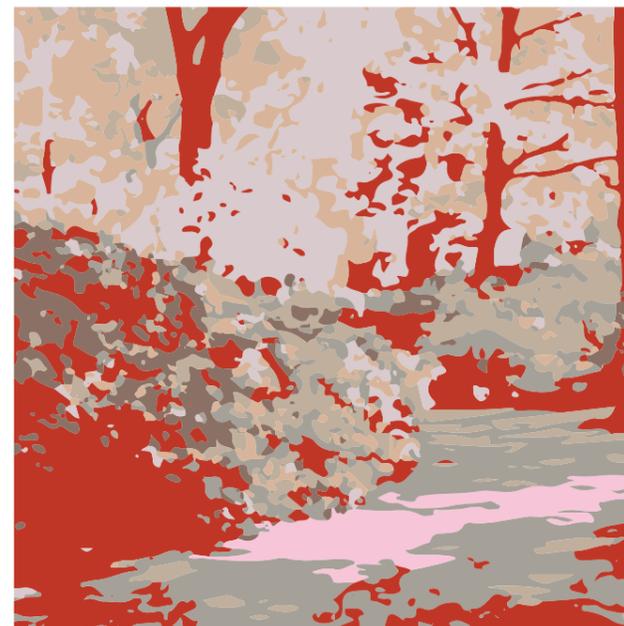
Forest Mosaic: The atmosphere of the forest evolves and reflects several native Greek mixed forest typologies, resulting in three main character areas. The path dynamics within these larger character zones contain smaller mosaics of sub-ecosystems that create an overall united forest atmosphere.

Three main typologies:

- Dense forest core (native evergreen forest)
- Lighter mixed stands of deciduous broadleaves (productive character, integrated orchards etc.)
- Elevated forest (dwarf shrubbery, aromatic planting, canopy experience)

Special Features: The homogeneous character of the forest is broken by special features at strategic locations.

- Signature species, such as fruiting trees or aromatic plants, create recognizable identities
- Species with a strong colour accent mark the elevated pathway
- A forest fringe provides a transition zone from forest to urban context (focus on lighter understory planting and high CO2 sequestration value) with the functional role of buffering the busy traffic and absorbing CO2



Indicative Planting Selection

I. Dense Evergreen Core

1. Aegean pine core - Kedrinis Lofos
Dominant species: Cupressus sempervirens & varieties, Pinus varieties (halapensis, pinea, brutea, orientalis)

2. Mixed stands of evergreen broadleaves - Dadia Forest
Dominant species: Quercus sp. (coccifera, ilex), Carpinus orientalis, Sorbus torminalis, Ostrya carpinifolia
Fruiting secondary layer: Arbutus unedo, Crataegus monogyna, Juniperus oxycedrus

3. Old oak forest-Folói oak forest
Dominant structural species: Quercus dacechampi, frainetto, ilex, pubescens
Fruiting evergreen: Prunus laurocerasus
Understory layer: Asphodelus sp.

4. Illyrian mixed forest - Pindos mountain
Dominant species: Abies cephalonica, Aesculus hippocastanum, Fagus sylvatica, Quercus calliprinos, Juniperus foetidissima

II. Lighter Mixed Stands of Deciduous Broadleaves

1. Light deciduous forest core (Tilio-Acerion) - Rhodopi Mountain chain
Dominant species: Tilia sp., Acer sp., Quercus sp., Ostrya carpinifolia

2. Mediterranean Beech forest (Fagetalia) - Grammos mountain
Dominant species: Fagus orientalis, Pinus nigra, Populus tremuloides
Secondary flowering species: Robina pseudoacacia

3. Illyrian deciduous forests (productive character) - Dinaric mountains
Dominant tree species: Fraxinus ornus, Arbutus andrachne, Carpinus orientalis, Pinis halapensis, Pinis nigra
Secondary layer: Cercis siliquastrum, Pistacia terebinthus
Shrubbery layer: Cotinus coggygria, Nerum oleander

III. Elevated forest

1. Flowering forest patch
Fruit-bearing trees: Erythrina crista-galli, Ficus carica, Pistacia chinensis, Punica granatum

2. Aromatic cliff planting
Woody species: Laurus nobilis, Nerium oleander, Pinus mugo, Pistacia chinensis
Herbal shrubs: Origanum majorana, Origanum vulgare, Thymus vulgaris, Salvia officinalis, Satureja montana

3. Dense dwarf shrubbery
Crataegus laevigata, Erythrina crista-galli, Hebe spp., Ligustrum vulgare, Osmanthus delavayi, Vachellia karroo

4. Herbal gardens
Erysimum sp., Olea europaea, Stipa barbata, Stachys byzantina, Verbena bonariensis

5. Light pioneer mix
Populus Alba, Populus tremuloides, Robinia pseudoacacia

6. Base roofplanting
Aloysia citrodora, Stipa zalessky, Stachys byzantine

IV. Special additions

1. Signature path
In the pine forest: Arbutus unedo & Cercis siliquastrum
Elevated park: Dombeya rotundifolia
Deciduous forest: Peltophorum dubium

2. Forest fringe
CO2 absorbent species: Amelanchier lamarckii, Crataegus monogyna, Schinus molle, Taxus baccata

3. Special colour accents
Arbutus andrachne
Mimosa Dealbata

Water System

The proposed water strategy is inspired by the original water system of the area, which was crossed by one of the natural streams carrying water run-off from the mountain to the sea. The ambition is to re-establish the buffering role of the stream, today disappeared, via a sequence of climate adaptive solutions, visibly integrated within the landscape areas.

Evolution of the Local Water System

During the urbanisation process of the last century, natural water systems and relative ecological qualities have been replaced by more controlled and urban water engineering solutions, which resulted into limited flexibility towards the upcoming climate change. Already today, the excess of hardscape and the increase of extreme climate events cause severe urban floods in winter and excess of heat during summers.

The Proposed Watermachine

The new forest park is envisioned as a resilient water machine, able to mitigate extreme climate events, through attenuation of heavy rainfalls and heatwaves. The system will make the site climate-proof in the long term, while also benefiting adjacent areas. Besides its functional role, the presence of the water has the potential to reinforce the identity of the place and encourage engagement with the public space.

System

- The original stream is re-interpreted and brought back in the form of a green blue-spine following the N-S urban axis
- Stormwater runoff from the surroundings is naturally directed by gravity across the site into the resilient blue spine
- Provided with underground crates, the resilient blue spine absorbs and filters the excess of stormwater
- The water is ultimately discharged and stored into a large pool, where extra biological purification systems are applied.
- Underground seasonal crates support the capacity of the pool, supplying water needs during dry periods
- Water from the pool is pumped back to ensure a constant water flow
- All roofs are envisioned as water retention green roofs, contributing to stormwater buffer, while ensuring irrigation for their plants

Benefits

- Increased stormwater capacity, thus prevention of urban flooding
- Provision of seasonal water storages to compensate for long dry periods
- Renewed ecological qualities linked to the integration of wet environments
- Heat mitigation due to the introduction of open water
- Contribution to placemaking and iconicity of the park

Components & Characteristics

1. Resilient blue spine
 - Combination of a stepped and more urban edge with a soft bank, provided with water-loving plants
 - The visible water dynamics provide a learning opportunity
 - The stepped profile invites to approach the water
2. Square 1: recreational water feature
 - Urban character contributing to placemaking
 - The flexibility of the scenarios offers a diverse experience and opportunity for informal interaction and play
 - Water in motion contributes to heat mitigation
3. Square 2: ecological water feature
 - Combination of an urban and ecological character
 - The visible water dynamics provide a learning opportunity
 - The large surface of open water contributes to heat mitigation through evaporation

The Forest Experience

Forest Programme

The immersive forest experience, supported by meandering discovery paths, is complemented by designated areas with different types of programs, seamlessly integrated within the various openings of the forest. Hidden within the structure of the dense trees, these green rooms provide a range of activities for all age groups, including sport and play, as well as intimate gathering spots for leisure and formal orchards supporting the learning experience.

Hierarchy & Character of the Pathways

The major urban axes from the city context extend into the site in order to ensure the preservation of relevant urban vistas, as well as a direct connection to important destinations. Each of the axis expresses a clear character, telling a chapter of the forest park experience: culture, environment, nature and art. To complement the hierarchy of pathways, an elevated walkway provides a continuous route through the canopies of the forest, while giving direct access to the green roofs of the buildings. The unique experience of walking through the crown of the trees is marked by the smells and colors of signature species.

Extending Services to the City of Thessaloniki

The redevelopment of the ConfexPark region within Thessaloniki provides a prime opportunity to improve the sustainable performance with the revised design. Not only of the site itself, but also of the surrounding neighbourhoods and the city as a whole, without harming the historical gem structure. Through a holistic and systemic approach the site can serve more than its own needs, and extend services towards the city itself. These services are diverse in nature, including environmental (ecosystem services), social (public services), and financial (commercial services).

It is for this reason that the strategy towards a holistic and systemic approach is built upon three pillars; The Landscape, The Community, and the Buildings. Each of these pillars is again subdivided into different service subcategories. The Landscape pillar, for example, focuses on four specific services, including Water Management, which helps the city manage urban flooding and drought events, Urban Comfort, helping reduce thermal stress in the urban fabric, Recreation, serving as an urban retreat, and Urban Biodiversity, strengthening the local ecosystem. Each of these subcategories are investigated for potential and practical solutions to be integrated into the design.

With this approach the challenge is addressed holistically, and guaranteed to get as much sustainable value out of the site as possible. Under the Natural Capital framework by the EU this value could potentially be quantified as well. Creating a resilient, autonomous, and equitable space within the city of Thessaloniki.

Landscape

Water Management: Aid in Thessaloniki's challenges and struggles surrounding urban flooding and droughts, to contribute as much as possible to holistic water management in the city.

- Water Resilient Park, increasing water infiltration and storage, decreasing flooding risk and damage. (Rainwater storage, increasing availability of water throughout the seasons)
- Water Retention Elements, creating a more stable water table and presence throughout the seasons (Green roofs, elements that contribute to water retention)

Urban Comfort: Aid in the city's challenges surrounding increase of temperature and noise within the urban fabric, to contribute as much as possible to creating thermal and audio-visual comfort on site and in the surrounding neighbourhoods.

- The Forest, a break in the urban fabric that provides relief from heat stress
- Canopies, functional through passive cooling as well as a sound barrier
- Sound breakers, (planted) structures which provide noise reduction
- Green roofs, reducing the heat island effect through less exposed grey
- Surface water features, providing passive cooling

Recreation: Provide and facilitate recreational space to a broad and diverse audience, to contribute as much as possible to the value of the city as perceived by its citizens and visitors.

- Public Park, provides outdoor space for citizens to use for leisure or activities
- Walking Routes & Discovery paths, providing

convenient ways to explore and enjoy the park and forest

- Play areas and sport facilities, providing public services integrated within the forest environment

Urban Biodiversity: Provide a safe and thriving habitat for a broad range of valued species, both flora and fauna, to contribute as much as possible to the health of the urban ecosystem which provides services in many ways.

- The forest, a significant local habitat
- Green spaces, including flower avenues and wild strips
- Blue spaces, including the central water feature and wadis
- Functional green, flora species chosen have specific additional benefits outside, such as providing food or habitat for local fauna
- Green roofs, attract local insects and birds
- Bat/bird housing, attract local bats and birds, who will provide services towards insect management
- Insect hill and hotels, attract local bees and other insects
- Edible plants, such as fruit trees and aromatic shrubs

Buildings

Energy Neutrality: Aid to reduce energy consumption based on fossil fuels and increasing the share of renewable energy, to contribute as little as possible to urban induced climate change.

- Atrium, passive cooling effect and shaded spaces for thermal comfort
- Canopies, living canopies evapotranspire creating a passive cooling effect
- Solar panels, generate electricity on site in a non-invasive way on unused roofs

Circularity: Aid to reduce the use of (fossil) resources and prevent waste generation, to contribute as much as possible to a responsible, circular, biobased and local economy.

- Wood construction, biobased and local materials reduce environmental impact
- Recycled materials, recycled materials reduce environmental impact
- Water management, improving the availability and effective use of this dwindling resource

Adaptability: Provide effective multi-functional spaces, programs, and real estate, to contribute as much resilience as possible to the changing and intensified use of the urban landscape.

- Resilient real estate, flexible design of the Gems, with the possibility for future conversion to office or retail
- Elective blue infrastructure, the water feature in the central square is flexible. It can be switched off when needed to make space for events

Community

Local Ownership: Facilitate and engage citizens to take part in the creation and maintenance of public space and program, to contribute as much as possible to a thriving and connected city.

- "My T1³F" Program, where citizens adopt and plant trees
- The Forest Gardens, showing the services nature can provide in the right context
- Expo+, flexible spaces that can be used by the community in multiple ways when there are no exhibitions
- Blue infrastructure as informal meeting spaces, boosting social interaction/informal play

Tourism: Facilitate tourists to connect with the city and its citizens in an engaging way, as to contribute as much as possible to a thriving local economy and a positive urban identity.

- Conference space, attracting (inter)national presence
- Public park, offer leisure space to visitors of the city
- Recreational program, actively engaging visitors (and locals) to visit the park
- Health & Leisure facilities, including hotel and hamam, connecting to the local history of Turkish baths

Connectivity: Facilitate connections between citizens, visitors, and the city, to contribute as much as possible to a lively and coherent social environment.

- Conference space, as a beacon of (inter)national connections
- Public Park, as a beacon of local connections
- Meeting spaces, providing numerous opportunities for people to connect through programs and spaces
- Open-air market, hosting local artists and other local or even regional events
- Farm-to-table restaurant, bringing in the rich local food-culture, involving also local farmers. Create events/workshops/special days that tie to the seasonality and functionality of the park, for example growth of the productive trees of the forest/herb gardens

Education

- Information spots, an educative way to teach visitors about diversity of flora and fauna
- Mediterranean herb garden, offering information on species and culinary uses to interested visitors
- Broadcast the performance of ecosystem services

Technical Description

The overall functional program of TI³F can be divided into 4 parts, in accordance to the project brief: Exhibition Centre, Congress Centre, Business Centre and the Forest.

Exhibition Centre

The Exhibition Centre is located within sectors I & II around the preserved circular AAMTH building and it consists of three buildings (Halls A, B and C). In order to achieve the desired quality of public realm, as well a functional, integrated and attractive Exhibition Center, the main exhibition floor of all the buildings was positioned at +10 meters (about 4-6 meters below the existing terrain).

Lobbies: The visitors access the buildings through double-level lobbies that seamlessly connect the ground level of the landscaped terrain (+16) with the exhibition floors (+10) through a series of escalators, elevators and double height spaces. All the lobbies are strategically positioned around the open exhibition plaza around AAMTH and have cafeterias and canteens that spill out onto this shaded public space. The goal is ensure that this plaza is active and vibrant even when there is no exhibition on show.

Hall A: Hall A, located in sector I.1, is the largest of the three buildings of the Exhibition Centre. At level +10 there is an exhibition space (11.200 m²) that can be divided into 5 smaller spaces which can be accessed independently from the lobby. Above the green canopy, there are two more levels (+21, +27) of above ground exhibition spaces that are stacked one above the other in order to minimize their footprint and, consequently, their visual impact on the forest. These spaces form the volume of the Pomegranate Gem.

Hall B: Positioned in sector II, Hall B is comprised of only one level (+10) of exhibition space (8.200 m²) that can be divided into 4 smaller flexible halls. On the roof of Hall B there is the Linden Garden with an Open-Air cinema that can be accessed independently of the function of the hall.

Hall C: The third building of the Exhibition Centre, Hall C, is situated in sector I.2 and has four levels of program. At level +10 and +21 there are exhibition spaces (3000 m² each) that can be divided into 3 smaller halls. Above the green canopy, there are two levels with administration offices which reside within the Veronica Gem.

The lobbies of all the halls are functionally connected with underground passages at level +10. The lobby of the Luxury Exhibition space, which is part of the Congress Centre, is also connected with the three buildings.

Congress Centre

The Congress Centre is located in sector IV and has two functional entities: Luxury Exhibition Hall (Hall L) and the Congress Hall.

Hall L: Hall L is located on the east side of the sector and is joining the three buildings of the Exhibition Centre into forming a cluster around the open exhibition plaza. It has the same organizational logic with the other exhibition spaces (main hall at level +10, lobby access at level+16) and it can be divided into 3 smaller halls.

Congress Hall: The Congress Hall is positioned on the western side of the plot, in close proximity to the OTE tower and Stratou Avenue. Its lobby is located on the north-west corner of the sector opposite the Esso Pappas pavilion. The main hall, in full capacity, can accommodate 2600 people but it has also the flexibility to be divided into one medium (1200 people) two smaller halls (600 people). Within the main lobby space there are two mezzanine levels (+13, +16) with the VIP lounge, the Business lounge and administrative offices. Above the green canopy there are two more levels of congress centre program. At level +21 there are 8 conference rooms: 4 with 200 people capacity and 4 with 50 people capacity. Finally, at level +24.5 there is the public Bar-Restaurant that can be also accessed through an independent entrance, when the Congress Centre is inactive. The restaurant layout is taking advantage of the architectural form of the Lavender Gem in order to create two outdoor terraces, one towards the seaside and one overlooking Kedrinos Lofos.

Business Centre

The Business Centre is located in sector III, in direct proximity with the busy Sintrivaniou square and the dense urban fabric. Its mixed-use program has four main components: the multi-purpose hall, recreation/retail spaces, the hotel and the office cluster.

Multi-Purpose Hall: The multi-purpose hall is positioned on the southern side of the sector at level +12 but its lobby can be accessed from level +16 which is the ground level at that part of the landscaped terrain.

Recreation & Retail: Various retail and recreation spaces are placed at the north side of the sector (on levels +16 and +20) but they also wrap around the three sides of the multi-purpose hall. This ensures that there are active, engaging facades along the main Green-Blue axis and the Cultural axis.

Hotel: The hotel is situated near Egnatia St. and is strategically placed a bit further away from Sintrivaniou Square in order to avoid obstructing the view from the YMCA square towards Ano Poli and the Trigonion Tower. The hotel lobby, the restaurant and various amenities (gym, spa, etc.) are placed under the green canopy but the main volume of the hotel extends above the canopy and forms the Oak Gem. There are 7 levels with various types of rooms according to the brief and a roof garden with a bar-restaurant.

Office Cluster: Like the hotel, the office cluster is also located above the green canopy and is forming the Chestnut Gem. There are two levels of office spaces around an internal atrium that offers private outdoor working spaces. The plan has the flexibility to be adjusted according to the needs of the tenants and can accommodate both open floor campus-like office layouts as well as more traditional individual cell offices.

Atria: The large volumes of the exhibition and congress spaces are broken down with the introduction of atria spaces between the lobbies and the main halls. These atria (26.4m x 6.4m) bring natural light and ventilation into the halls and allow them to connect visually with the forest that develops around them. At the same time, the large trees that grow from these atria are enriching the vegetation of the elevated forest that is created on top of the building canopies.

Service, parking and underground spaces

TI³F is conceived as a vibrant, human-centered, urban forest accessible to all. For this to become a reality, it was necessary to minimize the visual and functional impact of service and delivery trucks at the ground level of the landscaped terrain. Therefore, the majority of the back-of-house logistics happen below ground.

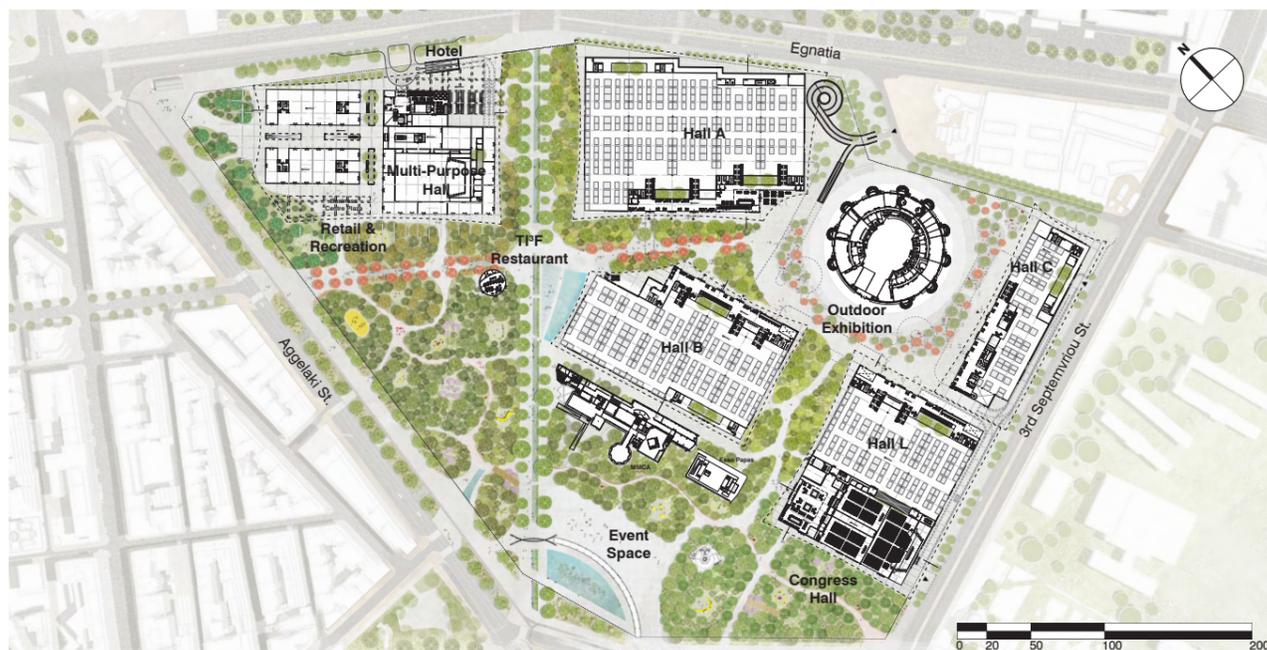
The primary service, delivery and parking access of the Exhibition Centre is from 3rd Septemvri St. A ramp leads to level +10 under the open exhibition plaza where all the four halls (A, B, C and L) have service entrances and loading docks. From the same level, cars can access two circular ramps that lead to the underground levels (+7, +4) below Hall B and Hall L which have parking spaces. There are two separate exits from the service and parking levels, one on 3rd Septemvri St. and one towards Lampraki St.

For oversized objects and exhibits there is a secondary delivery access at the back side of Hall B. This is accessed from Egnatia St. through the Main Green-Blue axis but it is expected that this delivery route will be used infrequently.

A second parking facility is located under Hall A with its own independent access at the beginning of Lampraki St. In total there are 996 parking spots dedicated to the Exhibition Centre and 611 parking spots assigned to the Congress Centre.

The Business Centre has its own parking facility with and entry/exit point on Egnatia St. next to the hotel drop-off. There are two underground levels with a total capacity of 510 cars.

Apart from the parking spaces, the rest of the two levels of basements (+7, +4) under Halls A, B, L and the Business Centre have auxiliary spaces (BOH, storage, MEP, etc.). Under Hall C, since there is no parking, the full two basement levels are used for auxiliary functions.



Approach to Structure, Façade Materiality, Fencing Strategy and the Economy of the Project

Structural Systems

Within the TI³F master plan there are two different structural systems used: The Congress Centre has a wooden structural frame while the Exhibition Centre and the Business Centre are relying on concrete structural frames.

Wooden Structure: The roof structure for lobby and the main hall of the Congress Centre are formed by a two way spanning beam grid using glue laminated timber sections. All joints are designed invisible by using slotted plate/ drift pin points joint at the beam intersections. The Fire Resistance F60 can be achieved without additional covers or coating considering the mass burning rate of the timber sections. The halls are covered by prefabricated cross laminated timber panels which are nailed to the beam grid in order to provide a rigid braced slab. All timber can be sourced from and fabricated by local manufacturer.

Concrete Structure: The Exhibition Halls are using a concrete structural system with a 30-meter spanning grid. In order to maintain the elevated forest on top of the halls, the 2-meter-high beams have a customized v-shaped section that allows, locally, 1.2-1.5m of soil.

Façade Materiality

The complexity and the diversity of the required program necessitates different façade typologies that can adapt efficiently to the demands of each functional entity.

Base: All the buildings have a base podium that is placed under the green canopies. The facades of these volumes are using a curtain wall system with three types of panels: transparent glass, foggy reflective glass and solid panels with vertical corrugated formwork.

Gems: The Gems have unitized system facades with similar visual characteristics but with enough variation that corresponds to the different program. The exhibition spaces of the Pomegranate Gem have transparent glass panels on the arching bottom and solid panels with vertical custom-shaped lamellas on the top part. The office spaces of the Chestnut and the Veronica Gem have a mixture of solid and transparent panels behind vertical lamellas of variable depth that control daylight comfort and efficiency. Finally, the hotel volume of the Oak Gem employs a checkerboard grid in order to accommodate the balconies of the rooms. Here, the transparent glass panels are aligning with the balconies while the solid panels have aluminum vertical elements that relate to the lamellas of the other Gems.

Fencing Strategy

We envision TI³F as an integral, vibrant component of the urban city life of Thessaloniki. As such, it should not only be fully accessible to the users but it should also maintain the visual appearance of openness and accessibility. Therefore, the overall fence of sector V is composed by two elements. Whenever the site border coincides with landscaping elements, a dry, deep, inaccessible, "green" moat is integrated within the vegetation. On the hardscaped paths and access points, there are modular, retractable fencing elements that can be used whenever it is deemed appropriate.

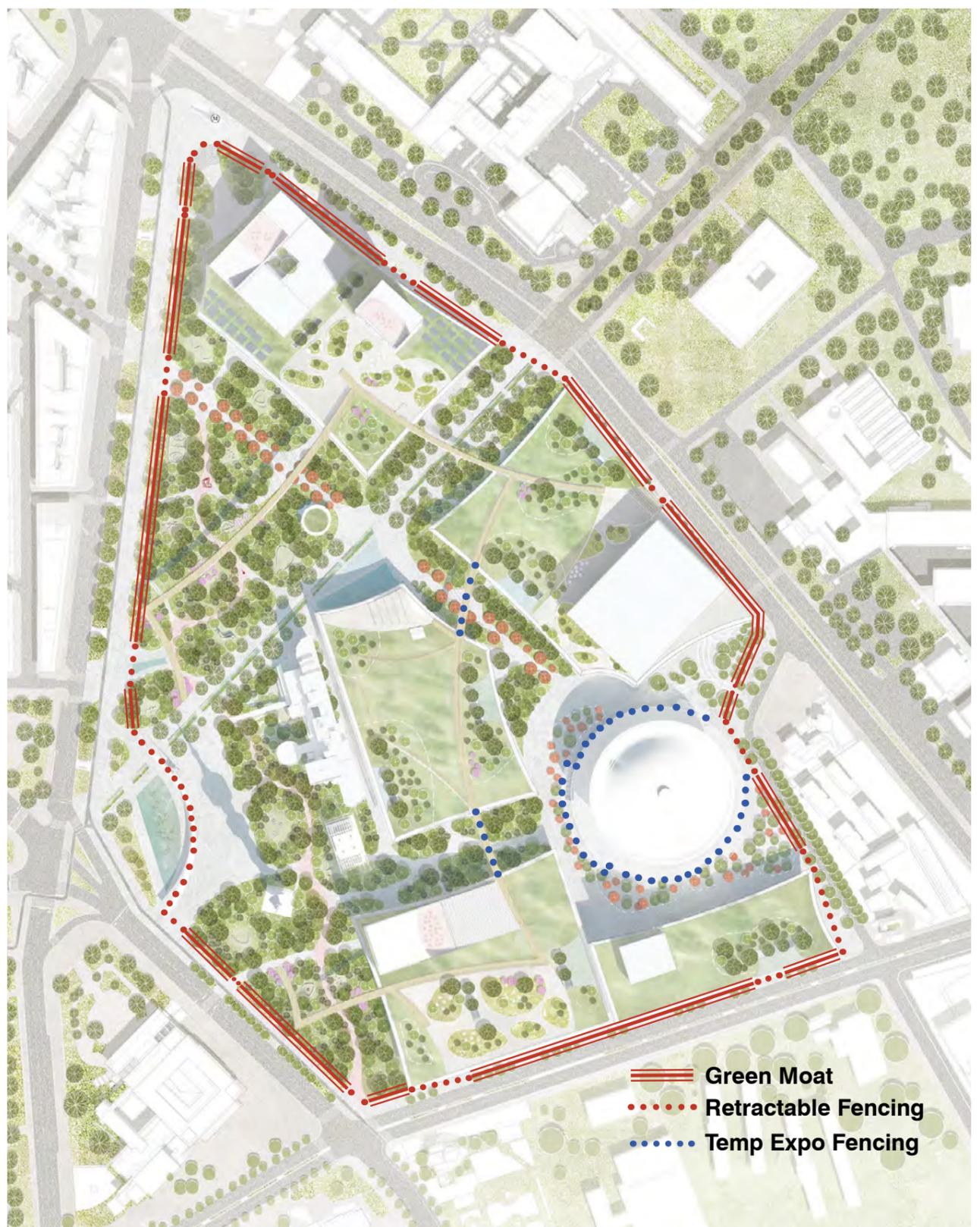
A second fencing system is employed around the Exhibition Centre. On occasions when there is an exhibition that requires access control, an ephemeral, temporary fencing system is placed around the open exhibition plaza. This is aligning with the parts of the elevated path and forms two gates where ticketing and security can take place. The AAMTH sports hall is excluded from this area and can, therefore, be accessed independently from Lampraki St. Several options based on technology applications can be employed for securing access to the Exhibition lobbies that are interconnected.

Economy of the project

The design team of TI³F has taken into account the provisional construction budget that was presented in the brief and the limited financial resources of the Organizer.

Several cost-effective design strategies have been employed throughout the project. The plan layouts are always following rigid grids that can accommodate prefabrication methods which can reduce cost. By reducing the actual visible high-profile buildings of the project to the 5 Gems, their building envelopes are also reduced. The façade of all the buildings below the green canopy can therefore be executed in a more cost-effective manner. In contrast to traditional parks that require high maintenance, the proposed urban Forest is conceived as a self-sufficient organism with minimal upkeep costs.

Overall, the design team is confident that the main design ideas and concepts of TI³F can be executed within the budgetary constraints of the project.



No	Description	SECTORS I & II				SECTOR III		SECTOR IV		SECTOR V		TOTAL	
		Plot Area (I) = 39.397,11 m ² Plot Area (II) = 16.339,68 m ²		Plot Area = 20.034,00 m ²		Plot Area = 13.971,22 m ²		Plot Area = 58.900,71 m ²		Plot Area = 161.769,04 m ²			
		Proposed by Competitor (SECTOR I)	Proposed by Competitor (SECTOR II)	Programme Requirements (SECTOR I & II)	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements	Proposed by Competitor
A. General Metrics													
A1	Above Ground GFA (m ²)	34,729	13,771	max 48.500	26,686	max 26.750	16,510	max 16.500	250	max 250	91,946	max 92.000 excl. preserved bldgs	
A2	Below Ground Parking use GFA (m ²)	17,670	11,346	-	16,954	-	15,710	-	61,680	-	-	-	
A3	Below Ground other Aux uses GFA (m ²)	6,115	4,656	-	1,982	-	5,714	-	18,467	-	-	-	
A4	Net Floor Area NFA (m ²)	27,783	11,017	-	21,349	-	13,208	-	73,357	-	-	-	
A5	Building Coverage ratio (%) & Area (m ²)	48,17% - 18.978m ²		63,23% - 10.332m ²	55,56% - 11.132m ²		80,41% - 11.234m ²		31,94% - 51.67m ²		max 45% - 64.000 excl. AAMTH – pres. bldgs		
A6	Gross Volume above Ground (m ³)	134,814	57,985	-	94,531	-	95,834	-	383,164	-	-	-	
A7	Foundations Footprint (m ²)	19,660	10,620	-	11,504	-	11,520	-	-	-	-	-	
A8	Façade (m ²)	10,034	4,028	-	10,027	-	5,512	-	184	-	-	-	
A9	Exterior Openings (m ²)	4,501	2,830	-	6,213	-	3,649	-	184	-	-	-	
A10	Accessible Roof surface (m ²)	3,493	1,842	-	5,035	-	7,358	-	0	-	-	-	
A11	Inaccessible Roof surface (m ²)	21,438	10,384	-	9,698	-	6,948	-	247	-	-	-	
A12	Green Roof surface (m ²)	12,727	8,813	-	4,857	-	6,643	-	247	-	-	-	
A13	Balconies / Open Covered Areas (m ²)	4,275	1,904	-	5,580	Hotel: max 40% of GFA	2,998	-	0	-	-	-	
B. Programme Area													
B1	Exhibition Center Area (m ²)	34,729	12,276	47,000	-	-	-	-	-	-	-	-	
B2	Administration Offices Area (m ²)	-	1,495	1,500	-	-	-	-	-	-	-	-	
B3	Hotel (m ²)	-	-	-	7,210	7,250	-	-	-	-	-	-	
B4	Commercial Complex / Retail-Recreation (m ²)	-	-	-	8,942	9,000	-	-	-	-	-	-	
B5	Commercial Complex / Offices (m ²)	-	-	-	7,022	7,000	-	-	-	-	-	-	
B6	Multi-purpose Hall (m ²)	-	-	-	3,512	3,500	-	-	-	-	-	-	
B7	Conference Center Area (m ²)	-	-	-	-	-	10,660	10,500	-	-	-	-	
B8	Luxury Exhibition Hall Area (m ²)	-	-	-	-	-	5,850	6,000	-	-	-	-	
B9	Cafeteria (m ²)	-	-	-	-	-	-	-	250	250	-	-	
B10	Underground Parking Area (m ²)	17,305	10,660	12,500	14,480	25,000	14,545	15,000	-	-	-	-	
B11	Underground Storage Area (m ²)	9,340	2,620	12,000	3,492	3,500	2,035	2,000	-	-	-	-	
C. Open Areas													
C1	Provide Area of Roadways (m ²)	-	-	-	-	-	-	-	449	-	-	-	
C2	Provide Area of Pedestrian Pathways (m ²)	-	-	-	-	-	-	-	12,338	-	-	-	
C3	Provide Area of other Hardscape (m ²)	-	-	-	-	-	-	-	4,627	-	-	-	
C4	Provide Area of green Landscape without underground buildings (m ²)	-	-	-	-	-	-	-	45,692	-	-	-	
C5	Provide Area of green Landscape over underground buildings (m ²)	-	-	-	-	-	-	-	0	-	-	-	
C6	Provide Area of other Landscape (m ²)	-	-	-	-	-	-	-	0	-	-	-	
C7	Provide Area of Water Features (m ²)	-	-	-	-	-	-	-	2,211	-	-	-	
C8	Provide Area of other structures (m ²)	-	-	-	-	-	-	-	1,243	-	-	-	



Regenerative Thessaloniki

aerial perspective of TIF area looking from the southwest YMCA square

An Ecological Revolution & a Cultural Evolution

At the very heart of the city, the new ConfEx Park is the project that will define the future of Thessaloniki. Not only because of its urban location and size, but also because of its place in the hearts of the city's residents and visitors. A strong factor for the city's development as a commercial centre, Thessaloniki's International Fair has also been, for decades, the link between local residents and the rest of the world. It was the place to find new products, to see new spectacles, to try new games and new tastes. As such, it has not only been a place of magic but also a place of culture, shaping the citizens of tomorrow. Having the unique opportunity to redefine this place and make it an integral part of the city again, one needs to ask the question: "What is the innovation that the city of the 21st century needs?"

In line with the ongoing greening strategies of cities around the world, Thessaloniki's Innovation Forest, or TIF, proposes an urban forest right in the heart of Thessaloniki. At the point where the urban fabric becomes narrower and the city's suburban forest comes closer to the Thessalic Gulf, the new ConfEx Park is envisioned as a place that will be more than a city park. Aspiring to become a model of innovative urban development, that can lead to a more symbiotic relationship between cities and the planet, TIF proposes a full urban forest, that will not only increase the 1.6 m² of green resident indicator, but will also create a new habitat of urban wildlife. A biodiversity hotspot right in the middle of the city, a forest to become the city's new public destination, a forest that will not only provide space for leisure and recreation, but that will also be a place of education and environmental awareness. Coupled with a state-of-the-art Exhibition, Congress and Business Centre, TIF provides for urban innovation in the power of 3; an Intelligent, Inclusive & Iconic new destination for the city of Thessaloniki, the Balkans and beyond.



Thessaloniki is a City of Layers & Gems

Gems in the Forest

Facing the challenge of transforming a huge amount of programme into a human scale space, our proposal looks at the city's DNA. Thessaloniki, a city with a rich history, a melting pot of cultures throughout time, a city of layers and gems. The layers of history are literally visible in the urban fabric, with monuments and fragments of antiquities sitting on different levels than that of the vibrant streets, while the monuments appear like hidden gems among the modern buildings, transforming a stroll around the city into an experience of discovery. Our design embraces the layered structure of the city and adds another layer on top of the history ones, the layer of nature and ecology. Translated formally into a thick forest and its tree canopies, our nature layer forms a green base. At the same time, the new Exhibition, Congress and Business Centre buildings form another kind of base, on top of which sits a canopy of green & publicly accessible roofs, and a series of smaller buildings with a public destination. Trees, canopies and roofs, form the new green layer, on top of which sit the city's new Gems.

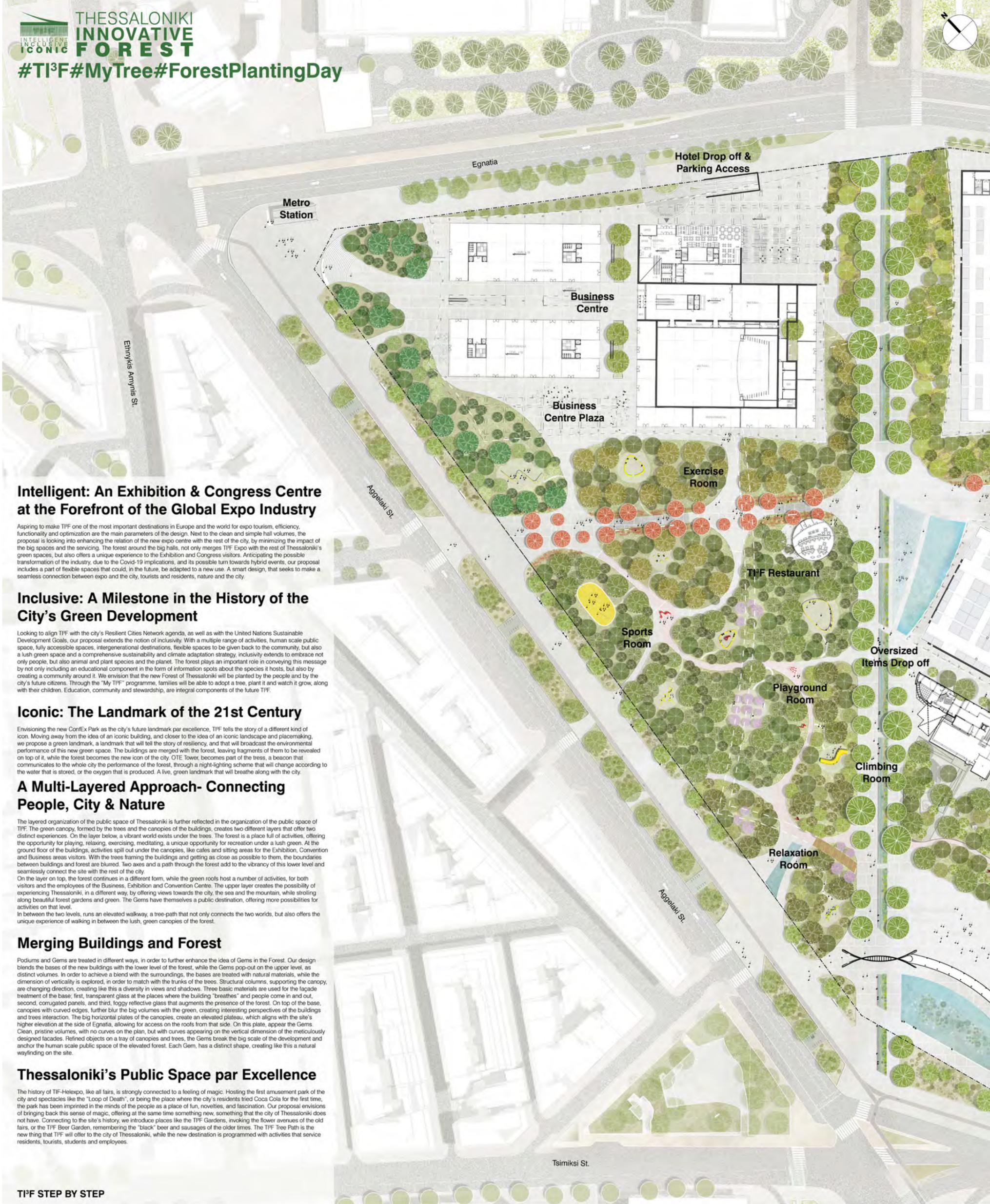
1417 newly planted trees
1226 meters of elevated tree path
408 meters of Green-Blue Axis
77.7% coverage of newly planted Urban Forest

Thessaloniki Waterfront



▲ Site plan - Scale 1:1500

▼ Diagrammatic Sections through the city - from Kedrinos Lofos to Thessalic Gulf



Intelligent: An Exhibition & Congress Centre at the Forefront of the Global Expo Industry

Aspiring to make TIF one of the most important destinations in Europe and the world for expo tourism, efficiency, functionality and optimization are the main parameters of the design. Next to the clean and simple hall volumes, the proposal is looking into enhancing the relation of the new expo centre with the rest of the city, by minimizing the impact of the big spaces and the servicing. The forest around the big halls, not only merges TIF Expo with the rest of Thessaloniki's green spaces, but also offers a unique experience to the Exhibition and Congress visitors. Anticipating the possible transformation of the industry, due to the Covid-19 implications, and its possible turn towards hybrid events, our proposal includes a part of flexible spaces that could, in the future, be adapted to a new use. A smart design, that seeks to make a seamless connection between expo and the city, tourists and residents, nature and the city.

Inclusive: A Milestone in the History of the City's Green Development

Looking to align TIF with the city's Resilient Cities Network agenda, as well as with the United Nations Sustainable Development Goals, our proposal extends the notion of inclusivity. With a multiple range of activities, human scale public spaces, fully accessible spaces, intergenerational destinations, flexible spaces to be given back to the community, but also a lush green space and a comprehensive sustainability and climate adaptation strategy, inclusivity extends to embrace not only people, but also animal and plant species and the planet. The forest plays an important role in conveying this message by not only including an educational component in the form of information spots about the species it hosts, but also by creating a community around it. We envision that the new Forest of Thessaloniki will be planted by the people and by the city's future citizens. Through the "My TIF" programme, families will be able to adopt a tree, plant it and watch it grow, along with their children. Education, community and stewardship, are integral components of the future TIF.

Iconic: The Landmark of the 21st Century

Envisioning the new ConTEC Park as the city's future landmark par excellence, TIF tells the story of a different kind of icon. Moving away from the idea of an iconic building, and closer to the idea of an iconic landscape and placemaking, we propose a green landmark, a landmark that will tell the story of resiliency, and that will broadcast the environmental performance of this new green space. The buildings are merged with the forest, leaving fragments of them to be revealed on top of it, while the forest becomes the new icon of the city. OTE Tower, becomes part of the tress, a beacon that communicates to the whole city the performance of the forest, through a night-lighting scheme that will change according to the water that is stored, or the oxygen that is produced. A live, green landmark that will breathe along with the city.

A Multi-Layered Approach- Connecting People, City & Nature

The layered organization of the public space of Thessaloniki is further reflected in the organization of the public space of TIF. The green canopy, formed by the trees and the canopies of the buildings, creates two different layers that offer two distinct experiences. On the layer below, a vibrant world exists under the trees. The forest is a place full of activities, offering the opportunity for playing, relaxing, exercising, meditating, a unique opportunity for recreation under a lush green. At the ground floor of the buildings, activities spill out under the canopies, like cafes and sitting areas for the Exhibition, Convention and Business areas visitors. With the trees framing the buildings and getting as close as possible to them, the boundaries between buildings and forest are blurred. Two axes and a path through the forest add to the vibrancy of this lower level and seamlessly connect the site with the rest of the city.

On the layer on top, the forest continues in a different form, while the green roofs host a number of activities, for both visitors and the employees of the Business, Exhibition and Convention Centre. The upper layer creates the possibility of experiencing Thessaloniki, in a different way, by offering views towards the city, the sea and the mountain, while strolling along beautiful forest gardens and green. The Gems have themselves a public destination, offering more possibilities for activities on that level. In between the two levels, runs an elevated walkway, a tree-path that not only connects the two worlds, but also offers the unique experience of walking in between the lush, green canopies of the forest.

Merging Buildings and Forest

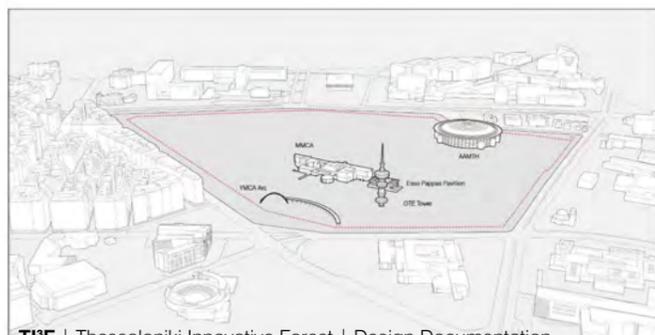
Podiums and Gems are treated in different ways, in order to further enhance the idea of Gems in the Forest. Our design blends the bases of the new buildings with the lower level of the forest, while the Gems pop-out on the upper level, as distinct volumes. In order to achieve a blend with the surroundings, the bases are treated with natural materials, while the dimension of verticality is explored, in order to match with the trunks of the trees. Structural columns, supporting the canopy, are changing direction, creating like this a diversity in views and shadows. Three basic materials are used for the facade treatment of the base: first, transparent glass at the places where the building "breathes" and people come in and out, second, corrugated panels, and third, foggy reflective glass that augments the presence of the forest. On top of the base, canopies with curved edges, further blur the big volumes with the green, creating interesting perspectives of the buildings and trees interaction. The big horizontal plates of the canopies, create an elevated plateau, which aligns with the site's higher elevation at the side of Egnatia, allowing for access on the roofs from that side. On this plate, appear the Gems. Clean, pristine volumes, with no curves on the plan, but with curves appearing on the vertical dimension of the meticulously designed facades. Refined objects on a tray of canopies and trees, the Gems break the big scale of the development and anchor the human scale public space of the elevated forest. Each Gem, has a distinct shape, creating like this a natural wayfinding on the site.

Thessaloniki's Public Space par Excellence

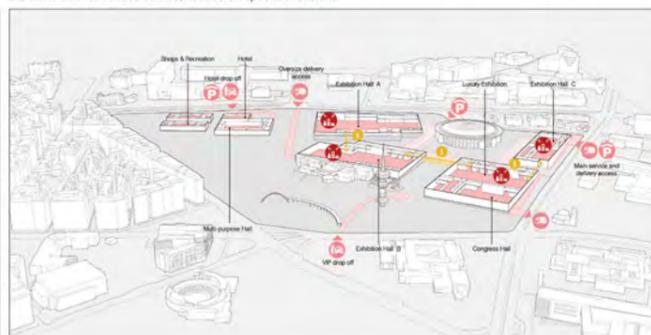
The history of TIF-Expo, like all fairs, is strongly connected to a feeling of magic. Hosting the first amusement park of the city and spectacles like the "Loop of Death", or being the place where the city's residents tried Coca Cola for the first time, the park has been imprinted in the minds of the people as a place of fun, novelties, and fascination. Our proposal envisions of bringing back this sense of magic, offering at the same time something new, something that the city of Thessaloniki does not have. Connecting to the site's history, we introduce places like the TIF Gardens, invoking the flower avenues of the old fairs, or the TIF Beer Garden, remembering the "black" beer and sausages of the older times. The TIF Tree Path is the new thing that TIF will offer to the city of Thessaloniki, while the new destination is programmed with activities that service residents, tourists, students and employees.

TI³F STEP BY STEP

Step 0: Preserving buildings and structures of unique architectural, cultural and historical value, on site.



Step 1: Optimizing the design of the Business, Exhibition & Congress Centre, by using functional & efficient grids. Minimizing the impact of servicing by a) placing the service access on 3rd Septemvriou and allowing for a seamless connection with the University of Macedonia, through a vibrant square around AAMTH, b) implementing an underground system, while allowing at the same time for surface service, needed on special occasions.



Step 2: Blurring the limits of built space and forest by a series of green canopies, which at the same time create an elevated plateau, a second level for public activities.





Thessaloniki's Innovative Forest

View of the TIF Forest and Elevated Path

Towards a resilient future

The site is envisioned as a hotspot for nature, in the middle of the city, that aims to respond to the strong desire for green spaces expressed by the citizens. Far from the image of the traditional ornamental park, often underutilized and reliant on high maintenance, the proposed urban forest is conceived as a performative and self-sufficient organism, which will strongly contribute to the wellbeing of the local community, on multiple levels. Thanks to an integrated approach, the forest will provide several ecological services, including increase of local biodiversity, carbon footprint reduction, and climate resilience, while offering social and psychological benefits to the citizens. These include opportunities for learning about environmental issues, as well as local flora and fauna, thus encouraging a renewed bond with the city. For foreign visitors, the park will act as a living showcase, branding the identity of Thessaloniki and its rich natural and cultural heritage.

Urban scale approach

The design proposal sets the foundation on the large scale and aims at connecting to the wider green framework, in support of the local biodiversity. Triggered by the strategic location of the site, between sea and mountains, the design approach embraces the sequence of valuable green spaces emerging from the urban context along the N-W direction, by activating a new green stepping-stone, well anchored to the local green network, via robust trees corridors. Inspired by the Self-Sou forest north of the site, the new landscape icon of Thessaloniki will showcase a mosaic of woodland typologies, "broadcasting" live the evolution of the forest structure.



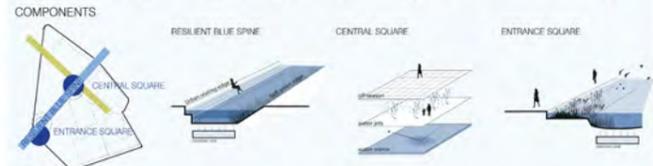
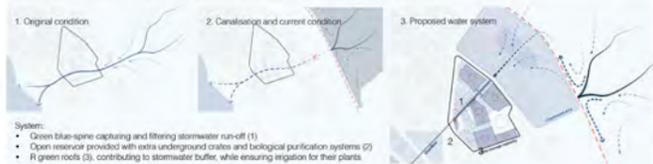
Water System

EVOLUTION OF THE LOCAL WATER SYSTEM

During the urbanisation process, natural water systems and relative ecological qualities have been replaced by more controlled and urban water engineering solutions, which resulted into limited flexibility towards the upcoming climate change. Already today, the excess of hardscape and the increase of extreme climate events cause severe urban floods in winter and excess of heat during summers.

THE NEW WATER MACHINE

The ambition of the proposed water strategy is to re-establish the buffering role of the stream, today disappeared, via a sequence of climate adaptive solutions, visibly integrated within the landscape areas.



- BENEFITS**
- Increased stormwater capacity, thus prevention of urban flooding
 - Provision of seasonal water storage to compensate for long dry periods
 - Renewed ecological qualities linked to the integration of wet environments
 - Heat mitigation due to the introduction of open water
 - Contribution to placemaking and social cohesion
- Combination of an urban edge with a soft bank, provided with water-loving plants
- Learning opportunity
 - Recreational opportunity
 - Ecological value
- Urban character and flexibility of the soft-spaces for a diverse experience
- Recreational opportunity
 - Heat mitigation
 - Place making
- Combination of an urban and ecological character
- Learning opportunity
 - Heat mitigation
 - Ecological value

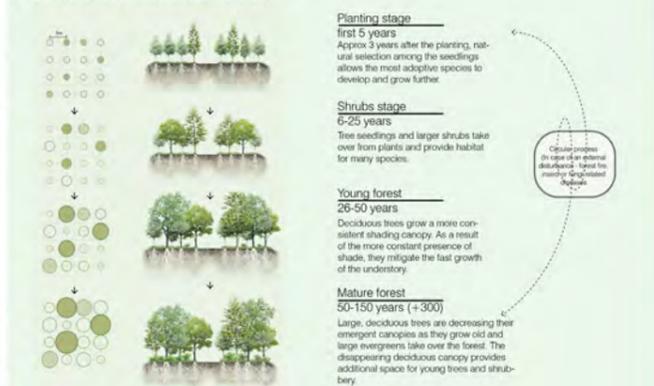
Green System

DESIGNING THE NEW FOREST

Based on the characteristics of the local ecosystem and climate, the design strategy aims at encouraging a natural evolution of the forest, resulting in a healthy and self-sufficient ecological system. By combining the plantation of new trees with more mature ones, and fast-growing species, an attractive and recognizable image of the forest will be achieved already in the short term.

The typical structural complexity and density patterns of the forest are replicated within the new park, allowing for the integration of transition corridors or more programmed areas.

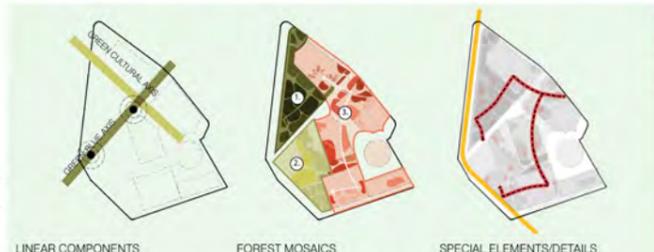
INSPIRATION: THE FOREST IN THE MEDITERRANEAN CLIMATE



2. SPECIES DIVERSITY



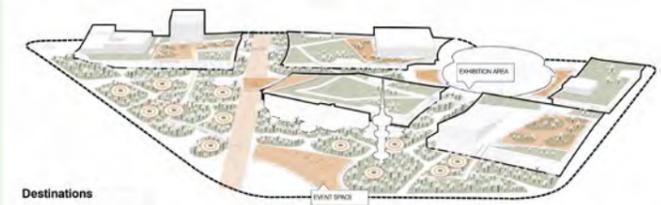
3. STRUCTURAL DIVERSITY



The Forest Experience

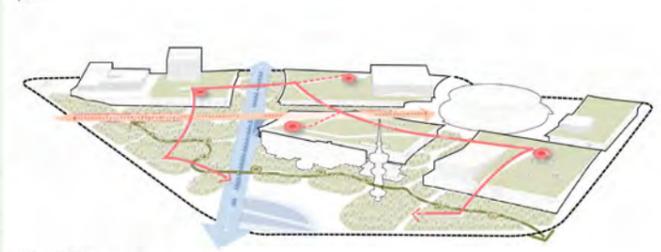
FOREST PROGRAM

The immersive forest experience, supported by meandering discovery paths, is complemented by designated areas with different types of programs, seamlessly integrated within the various openings of the forest. Hidden within the structure of the dense tree, these green rooms provide a range of activities for all age groups, including sport and play, as well as intimate gathering spots for leisure and formal orchards supporting the learning experience.



HIERARCHY AND CHARACTER OF THE PATHWAYS

The major urban axes from the city context extend into the site in order to ensure the preservation of relevant urban vistas, as well as a direct connection to important destinations. Each of the areas expresses a clear character, telling a chapter of the forest park experience: culture, environment, and nature, art. To complement the hierarchy of pathways, an elevated path provides a continuous route through the canopies of the forest, while giving direct access to the green roofs of the buildings. The unique experience of walking through the crown of the trees is marked by the smells and colors of signature species.

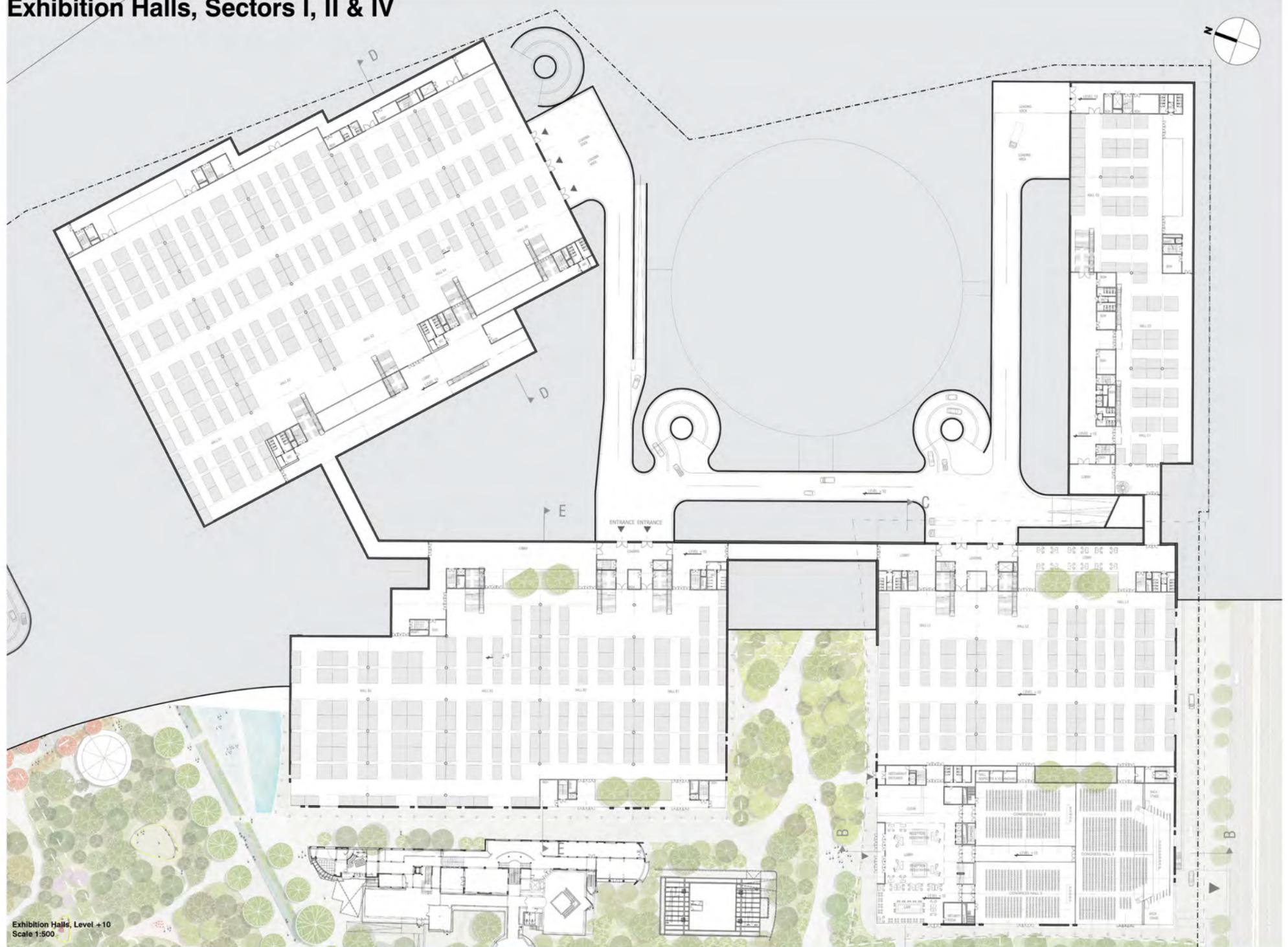




An Axis with Purpose

Aerial view from Thermoic Gulf

Exhibition Halls, Sectors I, II & IV



Exhibition Halls, Level +10
Scale 1:500

Exhibition Halls, Key Elevation
Scale 1:500

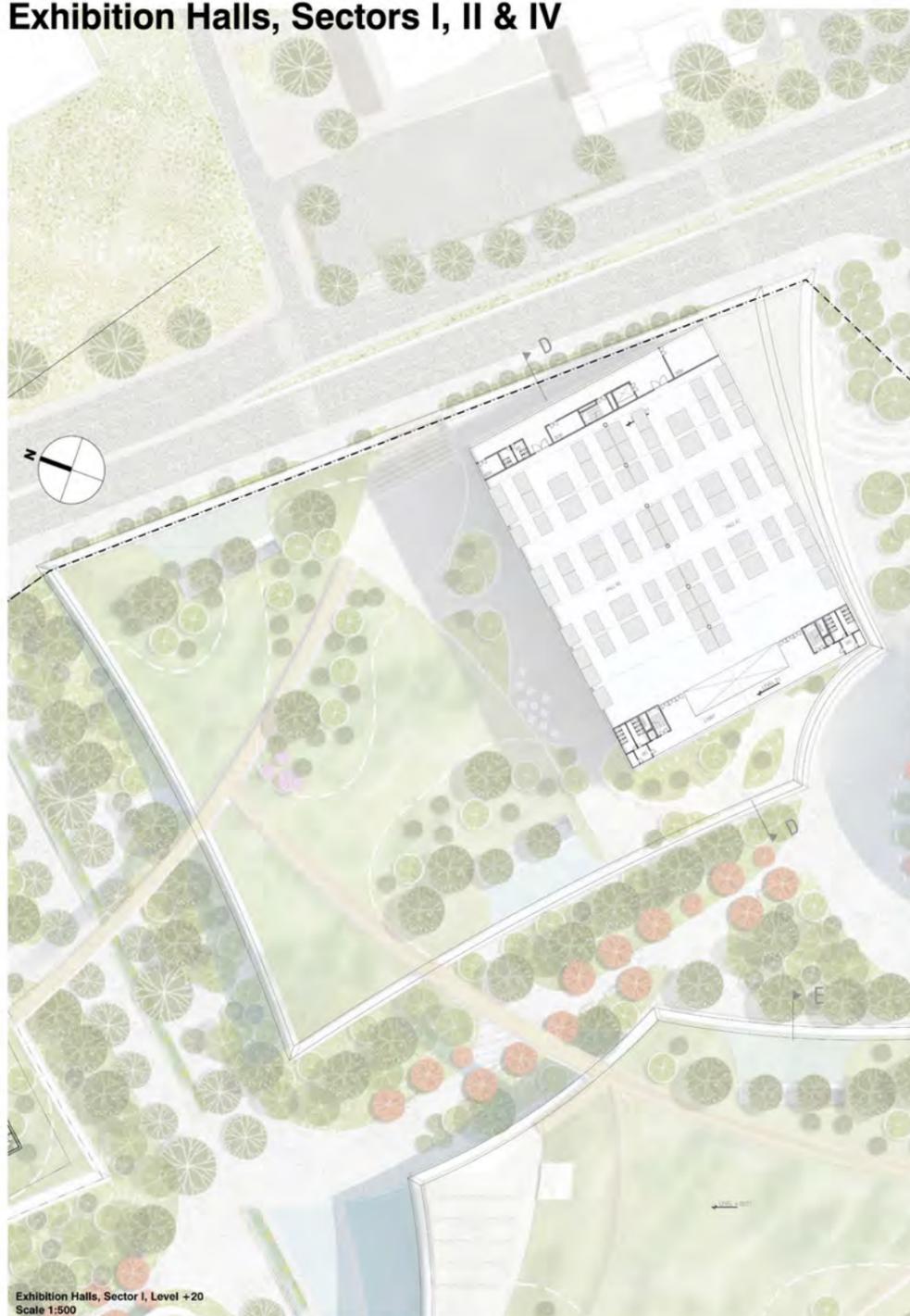




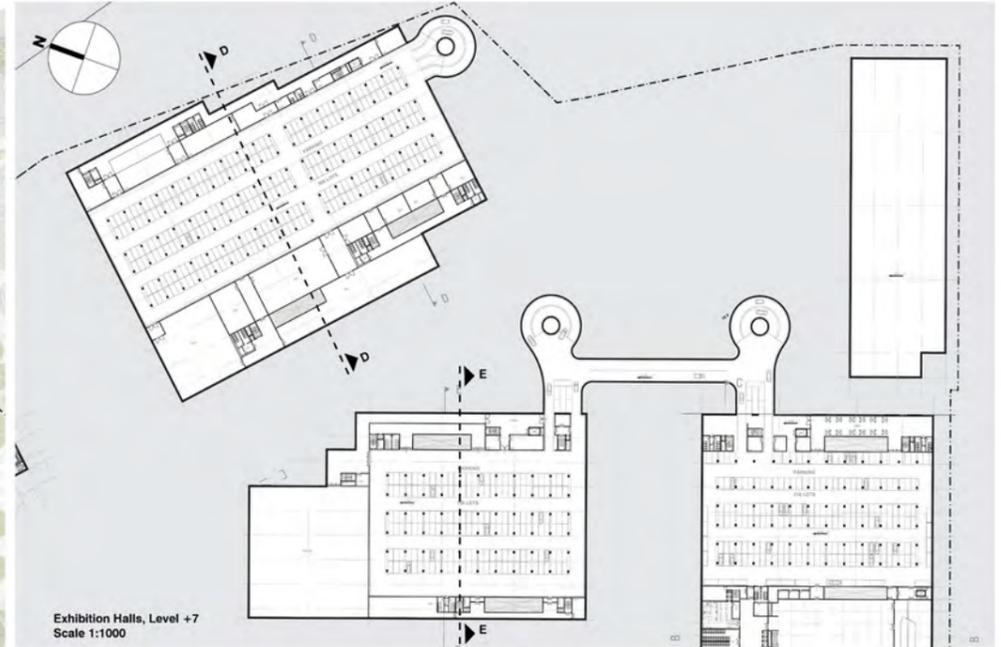
The Pomegranate Gem

Exhibition Halls and Outdoor Exhibition Area

Exhibition Halls, Sectors I, II & IV



Exhibition Halls, Sector I, Level +20
Scale 1:500



Exhibition Halls, Level +7
Scale 1:1000



Exhibition Halls, Sector III, Level +21
Scale 1:500

Exhibition Halls, Sector III, Level +27 (same as Level +30)
Scale 1:500



Exhibition Halls, Key Section DD
Scale 1:500



Exhibition Halls, Key Section EE
Scale 1:500



Congress Centre

Congress Centre

The Lavender Gem

The Lavender Gem: Placed on top of the Congress Centre, the Lavender Gem is designed as the final destination of the elevated TIF Tree Path and as the most public gem of all. With an accessible inclined roof that functions also as a seating area, it offers not only views towards the Ano Poli, but also a look-out point towards the Waterfront. Publicly accessible during day and night, all year long, it is an integral part of the upper level experience. The Lavender Gem hosts also the restaurant of the new Congress Centre, which is accessible from both the elevated path and the ground floor lobby. The restaurant opens its doors to a patio facing the forest, adding like this another stop, to the dining opportunities offered at TIF. All around the Lavender Gem, the Lavender Garden hosts a Beer Garden, as a reference to the past's Black Beer and as a connection to the Beer Festival organized every year at the TIF-HELEXPO grounds.



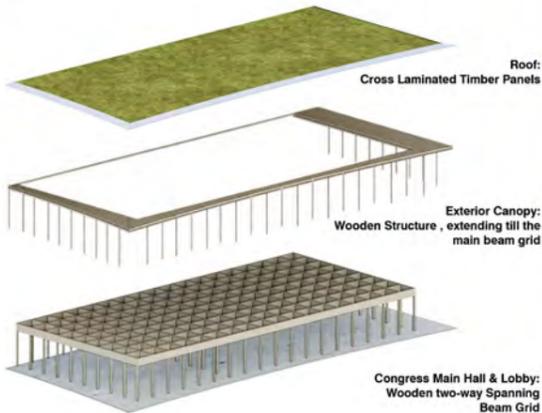
Congress Hall, Interior view

Structural Systems

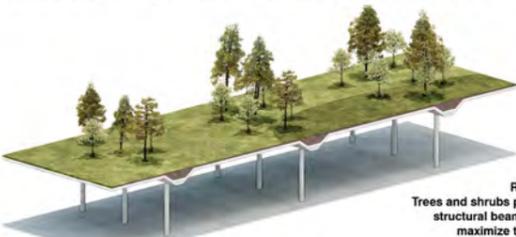
Within the TIF master plan there are two different structural systems used: The Congress Centre has a wooden structural frame while the Exhibition Centre and the Business Centre are relying on concrete structural frames.

CONGRESS CENTRE

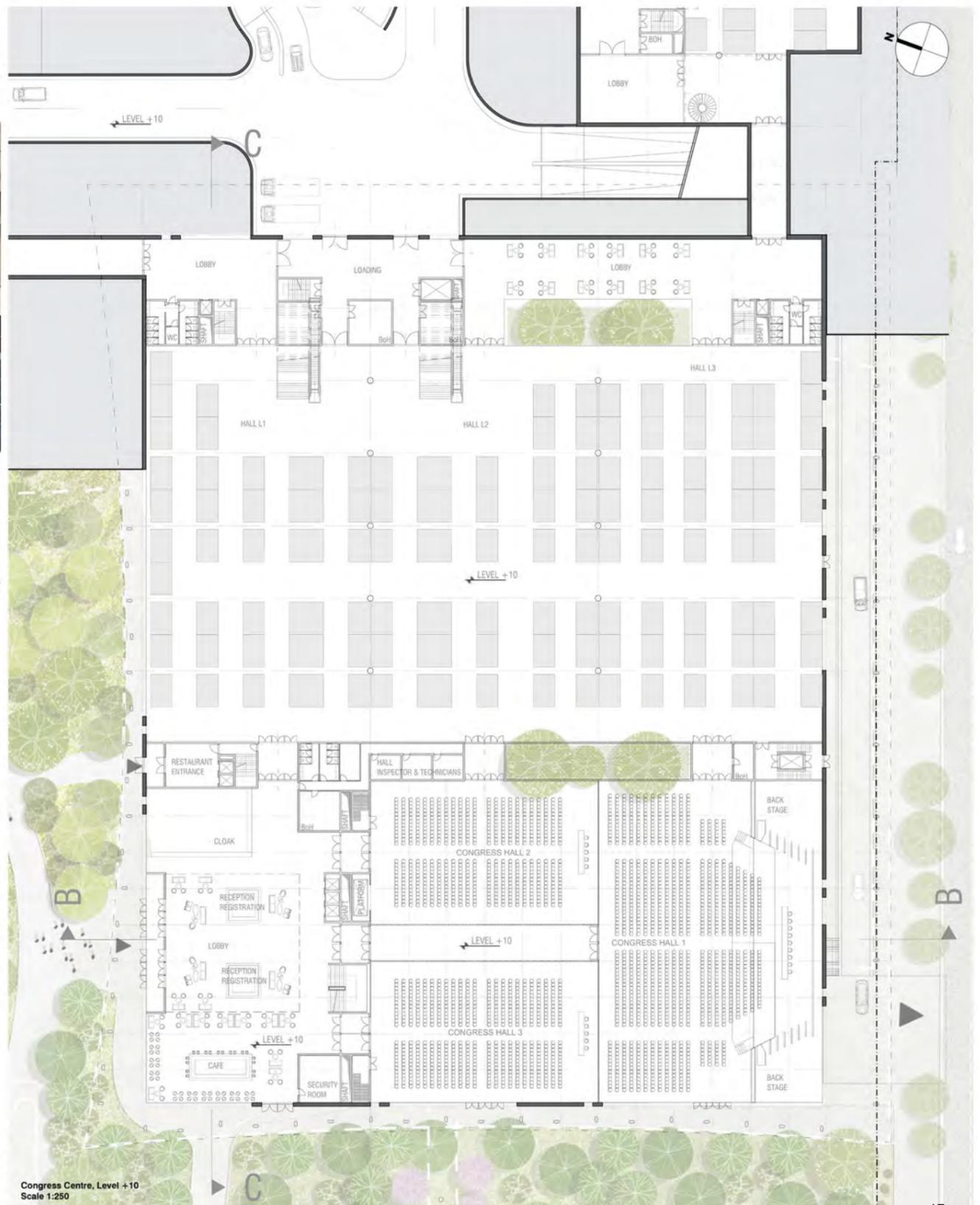
The roof structure for lobby and the main hall of the Congress Centre are formed by a two way spanning beam grid using glue laminated timber sections. All joints are designed invisible by using slotted plate/ drift pin joints at the beam intersections. The Fire Resistance F90 can be achieved without additional covers or coating considering the mass burning rate of the timber sections. The halls are covered by prefabricated cross laminated timber panels which are nailed to the beam grid in order to provide a rigid braced slab. All timber can be sourced from and fabricated by local manufacturer.



EXHIBITION HALLS
The Exhibition Halls are using a concrete structural system with a 30-meter spanning grid. In order to maintain the artificial forest on top of the halls, the 2-meter-high beams have a customized v-shaped section that allows, locally, 1.2-1



Roof Planting: Trees and shrubs planted along structural beams in order to maximize the soil depth



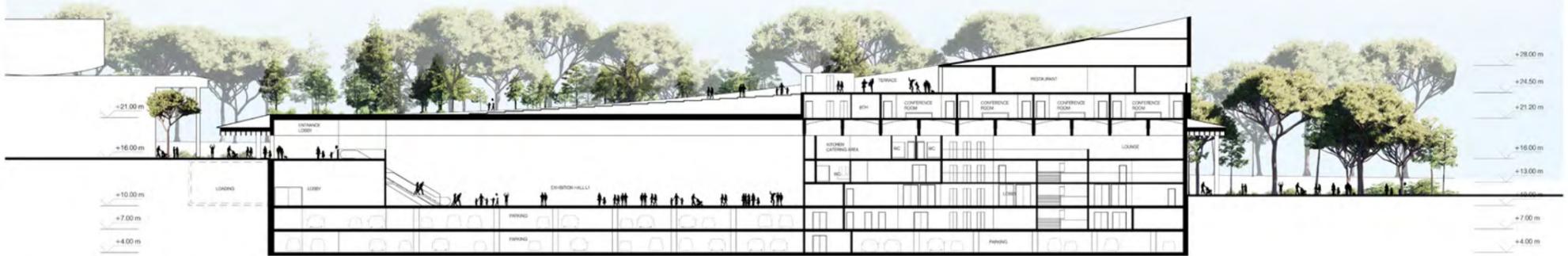
Congress Centre, Level +10
Scale 1:250



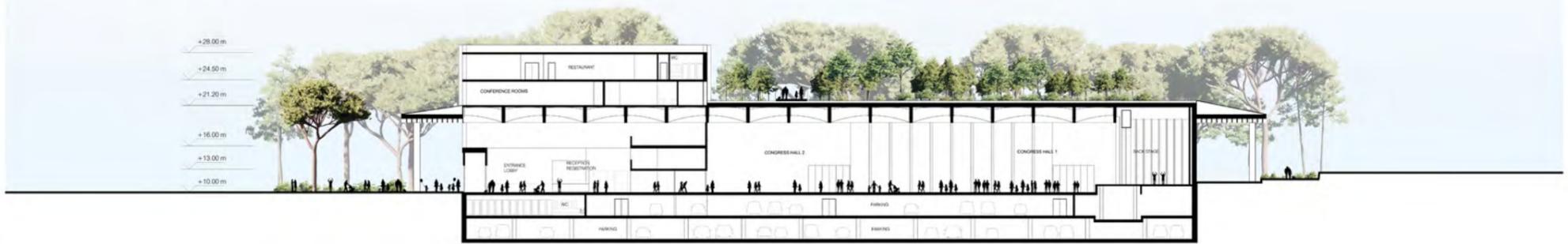
Congress Centre

Main Congress Hall

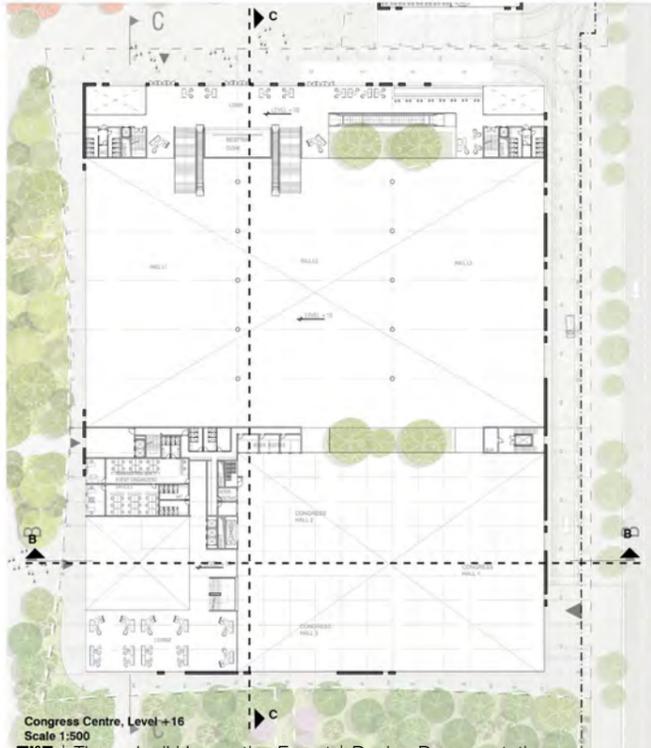
Congress Centre, Key Section CC, Longitudinal Direction
Scale 1:500



Congress Centre, Key Section BB, Cross Direction
Scale 1:500



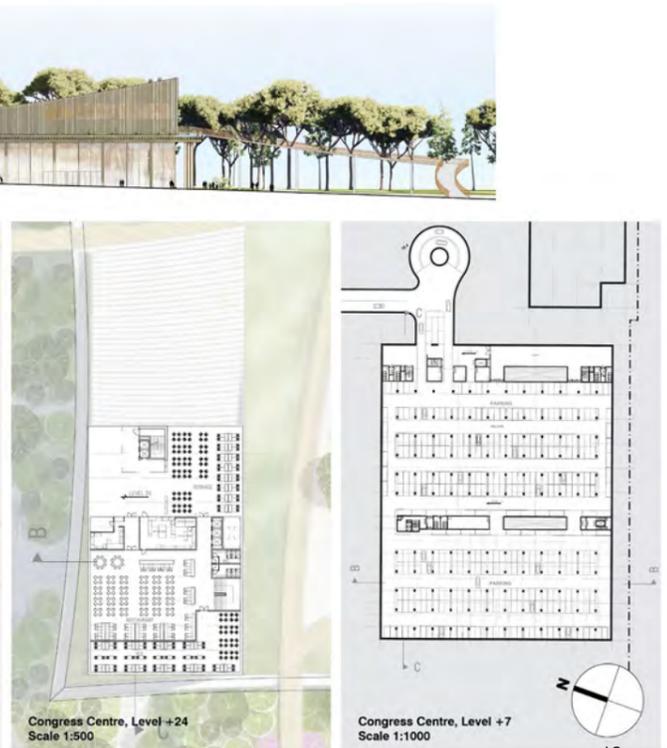
Congress Centre, Key Elevation
Scale 1:1000



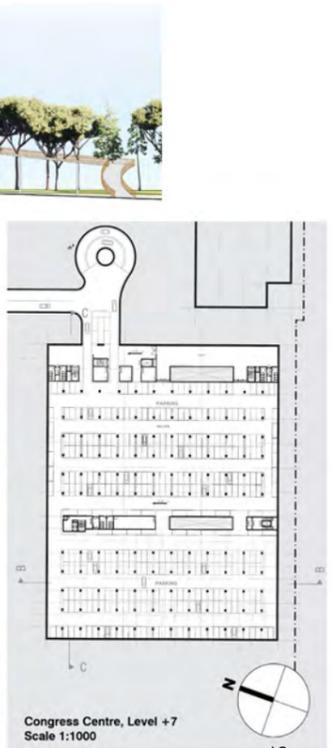
Congress Centre, Level +16
Scale 1:500



Congress Centre, Level +21
Scale 1:500



Congress Centre, Level +24
Scale 1:500



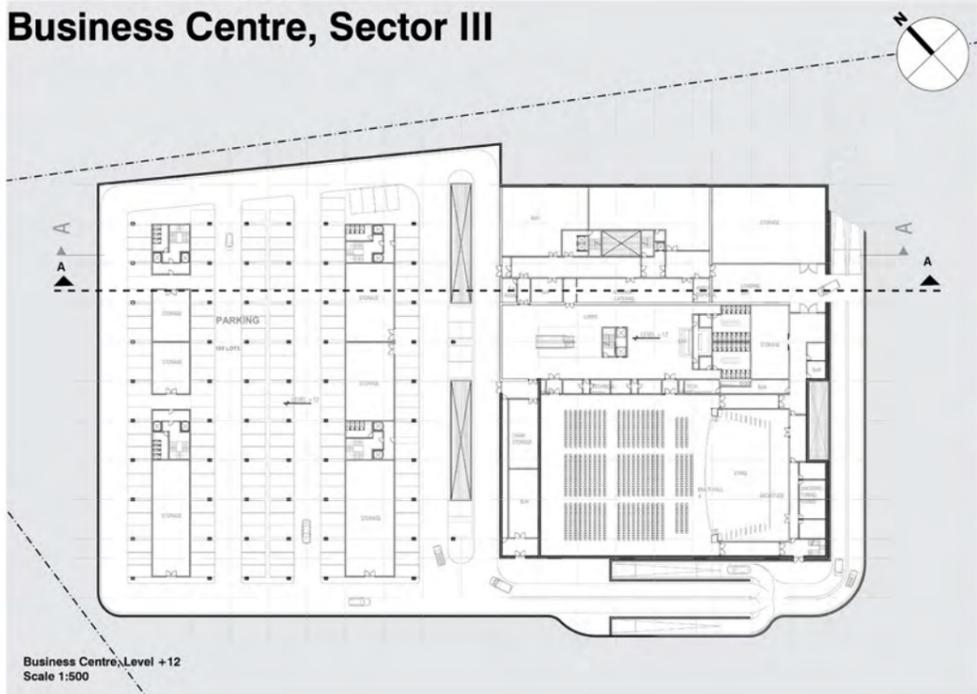
Congress Centre, Level +7
Scale 1:1000



Business Centre: The Chestnut Gem

TIF Approach from the Siniavni Square

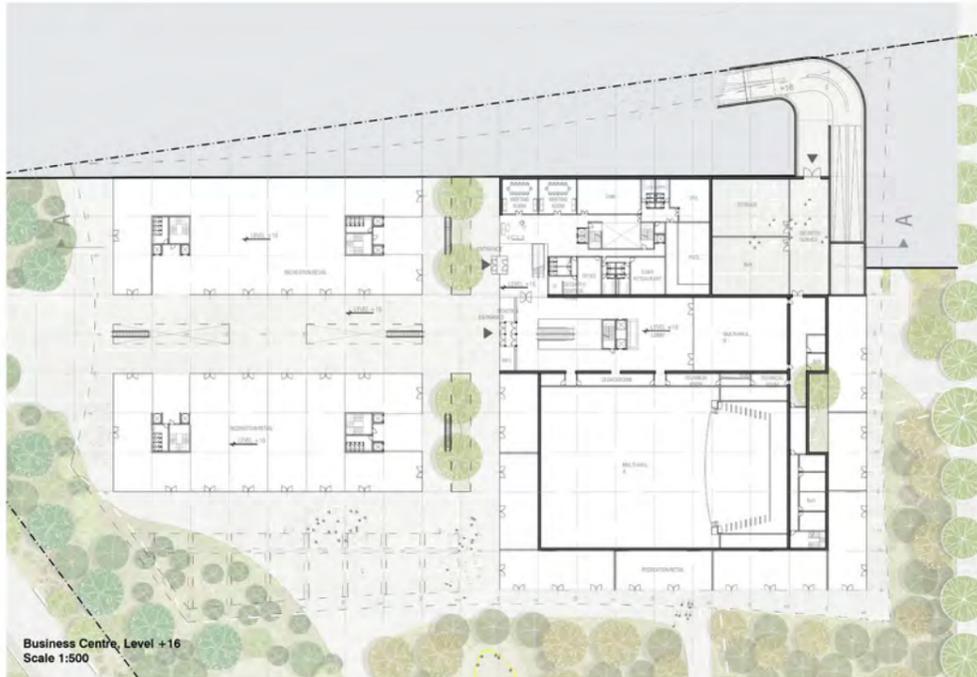
Business Centre, Sector III



Business Centre, Level +12
Scale 1:500



Business Centre, Level +20
Scale 1:500



Business Centre, Level +16
Scale 1:500



Business Centre, Level +24
Scale 1:500



Business Centre, Key Elevation
Scale 1:500



Business Centre, Key Section AA
Scale 1:500



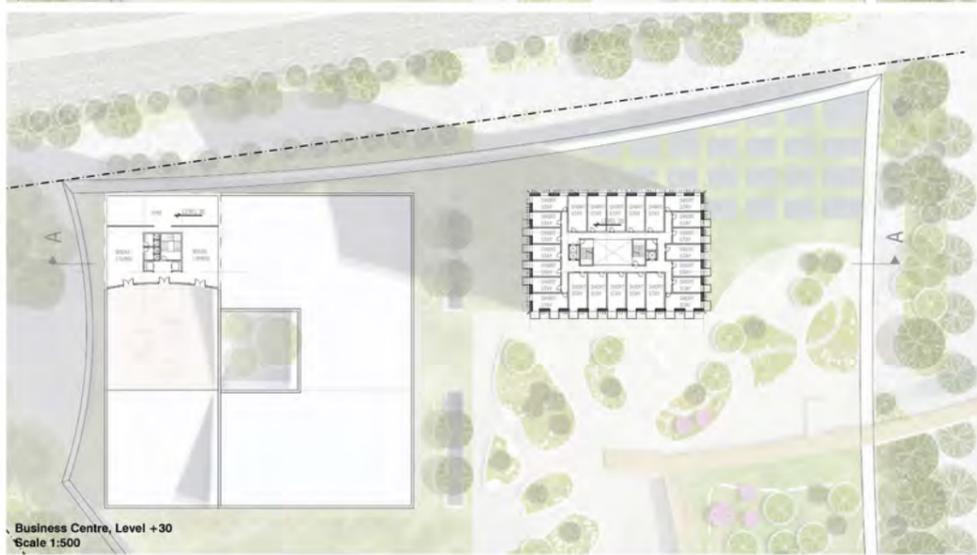
Business Centre: The Oak Gem

TIF Business Centre

Business Centre, Sector III



Business Centre, Level +27
Scale 1:500

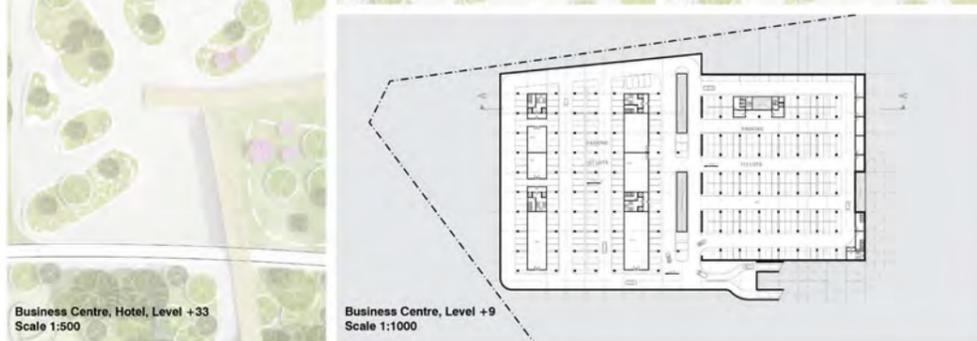


Business Centre, Level +30
Scale 1:500



Business Centre, Hotel, Level +36
Scale 1:500

Business Centre, Hotel, Level +42
Scale 1:500



Business Centre, Hotel, Level +33
Scale 1:500

Business Centre, Level +9
Scale 1:1000

TIF Sustainability

The redevelopment of the CortexPark region within Thessaloniki provides a prime opportunity to improve the sustainable performance with the revised design. Not only of the site itself, but also of the surrounding neighbourhoods and the city as a whole, without harming the historical gem structure. Through a holistic and systemic approach the site can serve more than its own needs, and extend services towards the city itself. These services are diverse in nature, including environmental (ecosystem services), social (public services), and financial (commercial services).

It is for this reason that the strategy towards a holistic and systemic approach is built upon three pillars: The Landscape, The Community, and the Buildings. Each of these pillars is again subdivided into different service subcategories. The Landscape pillar for example focuses on four specific services, including Water Management, which helps the city manage urban flooding and drought events, Urban Comfort, helping reduce thermal stress in the urban fabric, Recreation, serving as an urban retreat, and Urban Biodiversity, strengthening the local ecosystem. Each of these subcategories are investigated for potential and practical solutions to be integrated into the design.

With this approach the challenge is addressed holistically, and guaranteed to get as much sustainable value out of the site as possible. Under the Natural Capital framework by the EU this value could potentially be quantified as well. Creating a resilient, autonomous, and equitable space within the city of Thessaloniki.

