World Intellectual Property Organization (WIPO)

New WIPO conference hall

Project – June 30, 2009

BEHNISCH ARCHITEKTEN, Stuttgart

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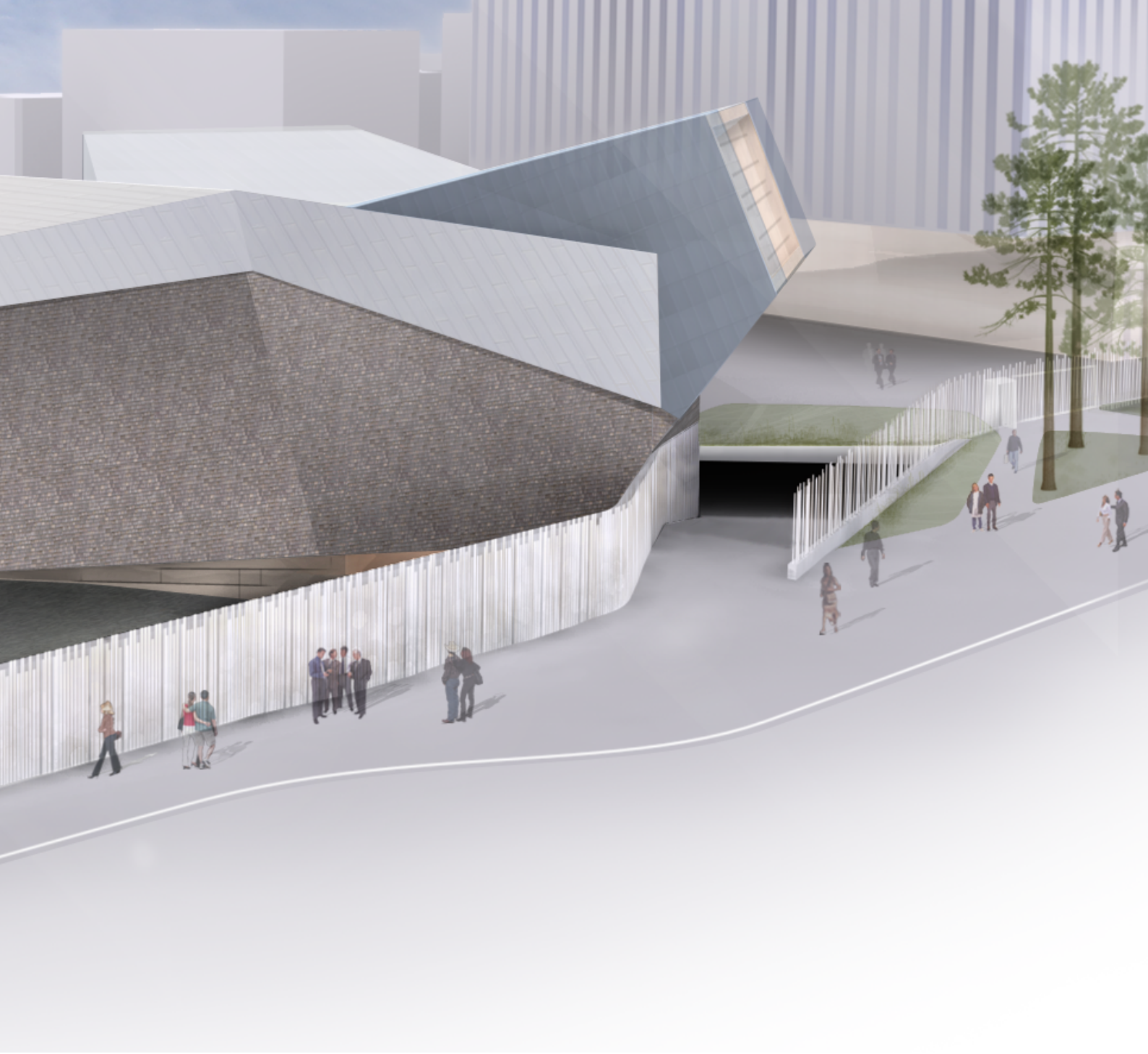

1. NEW CONFERENCE HALL

The new WIPO conference hall is a key element of the campus located close to the Place des Nations. In its capacity as a place where people gather for the main WIPO meetings, but also as a conference hall for the purposes of external use, the hall must play a role of representation for WIPO and, through its form and embodiment, serve as the clear expression of its opening onto the world and its spirit of modernity. Taking into account both its formal and technical characteristics, the new hall will be a precursor and an innovative construction broadly satisfying all the requirements of sustainability and comfort of use.

Above: The new conference hall seen from the Place des Nations

New WIPO conference hall

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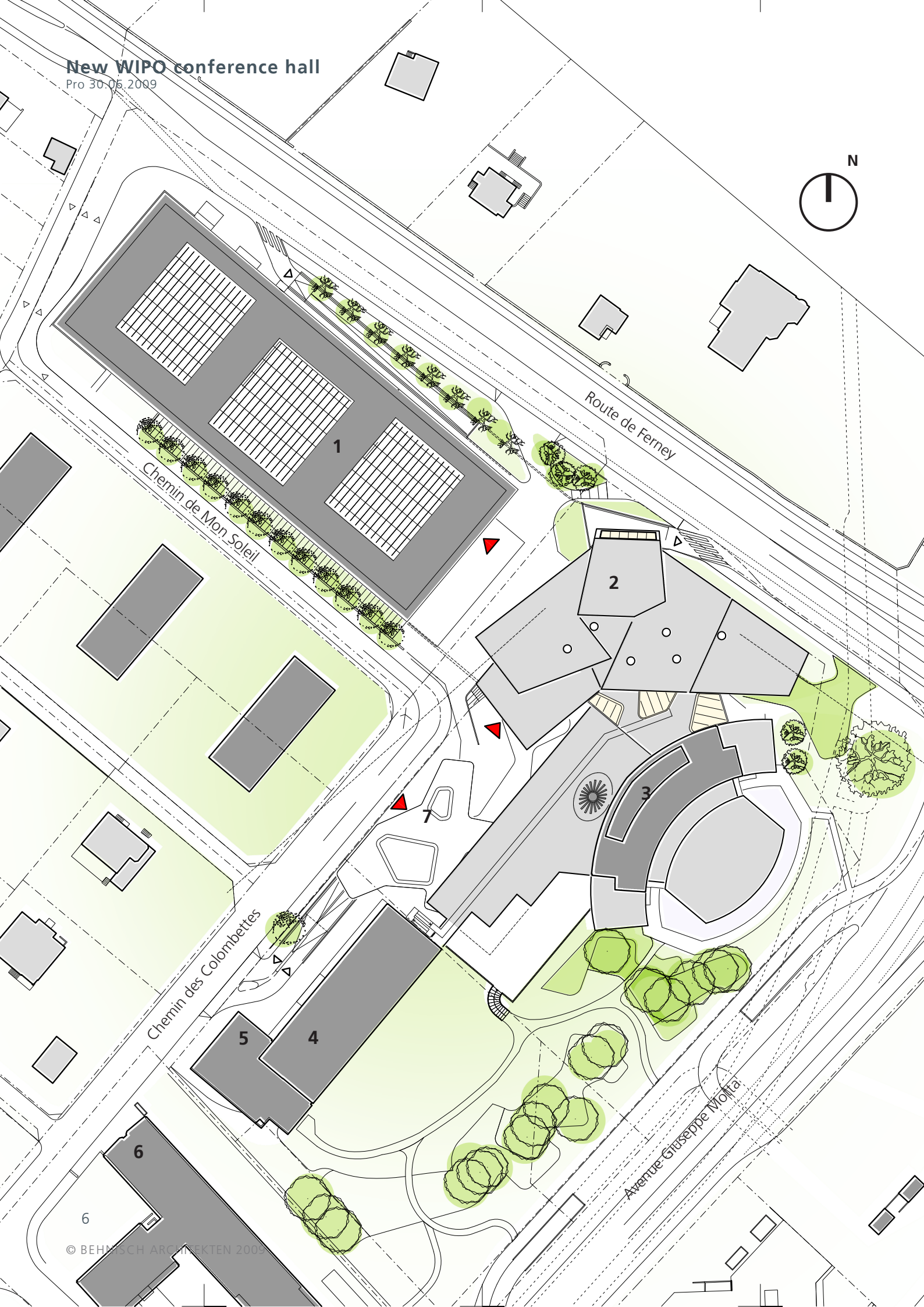

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Left: General layout plan

1: New construction
2: New conference hall
3: AB Building
4: GBI
5: GBII
6: PCT
7: Future access center

New WIPO conference hall

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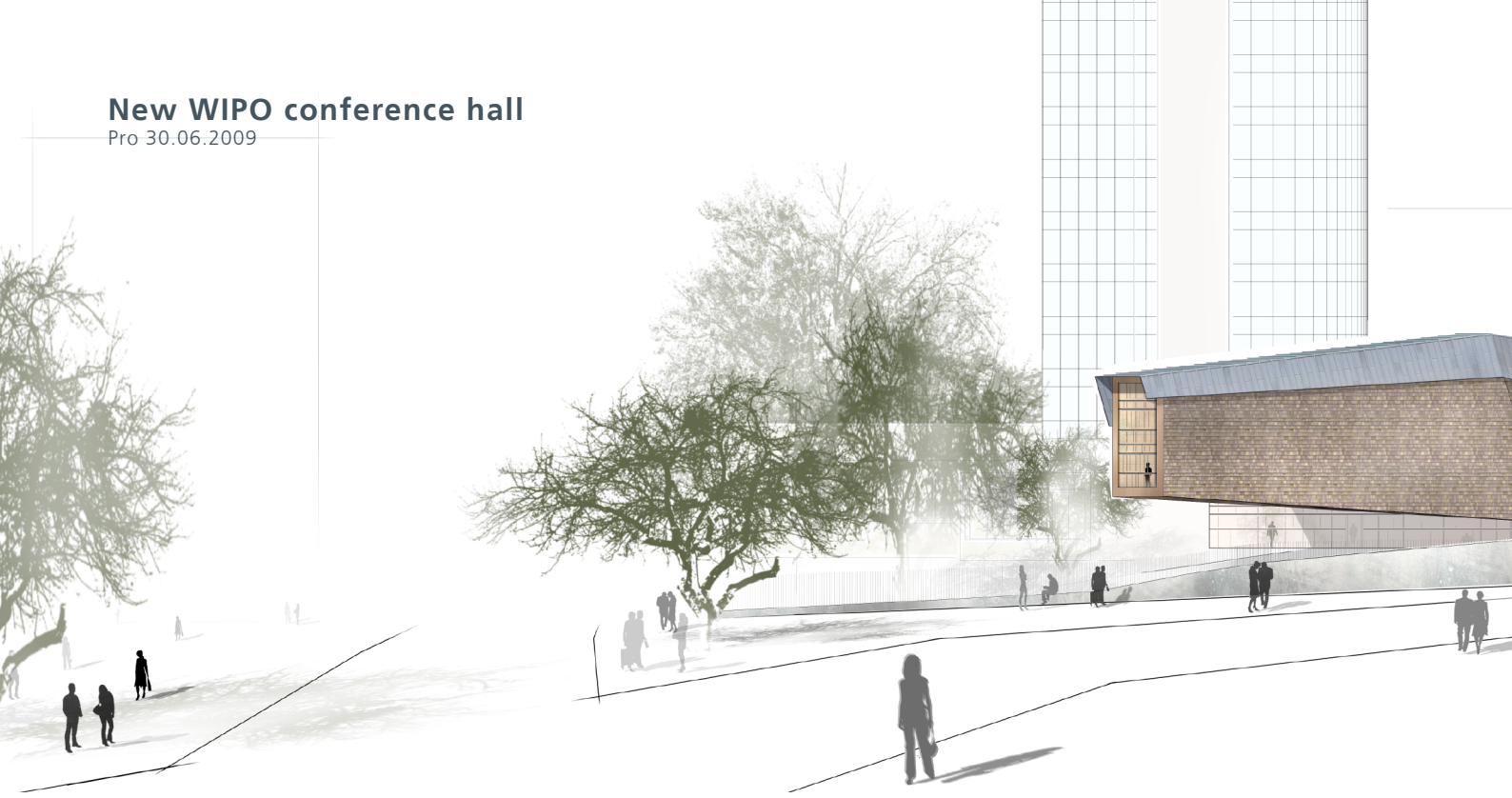
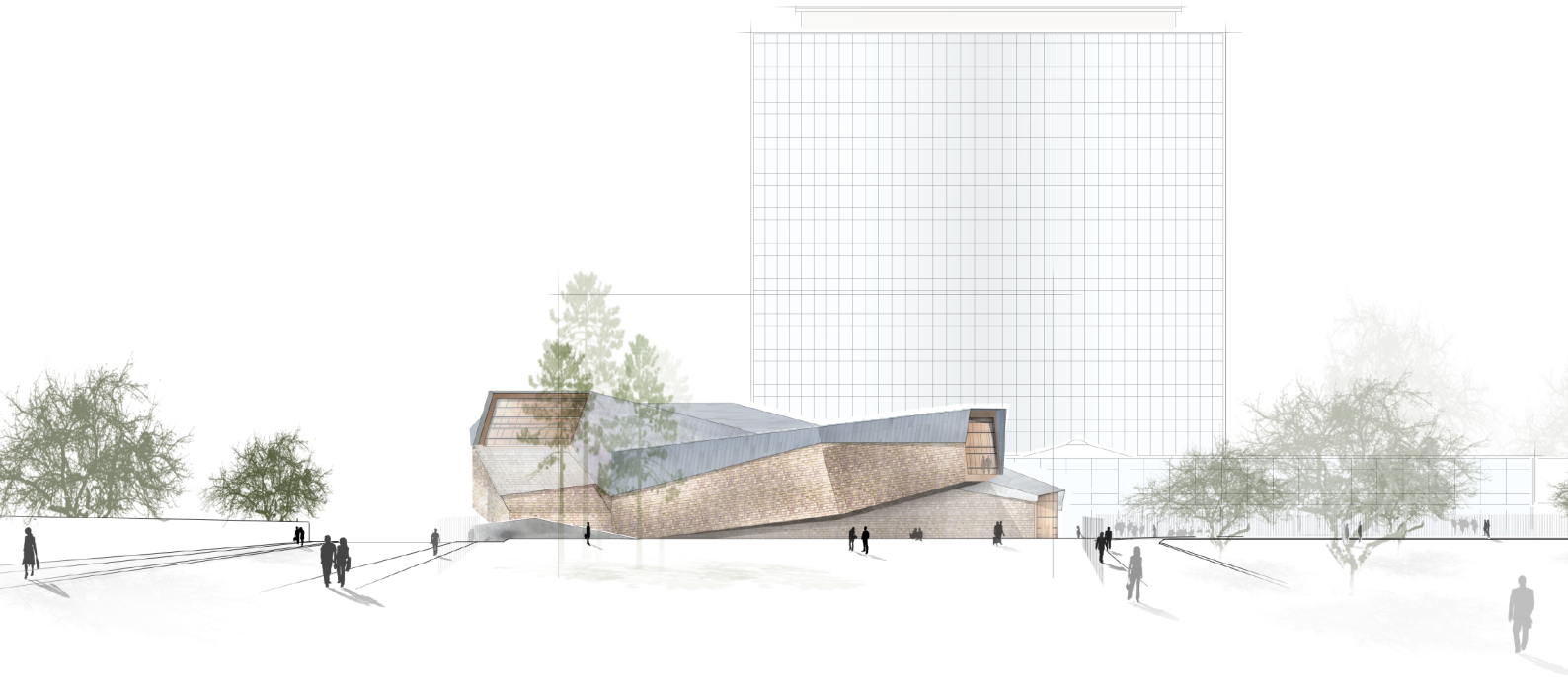
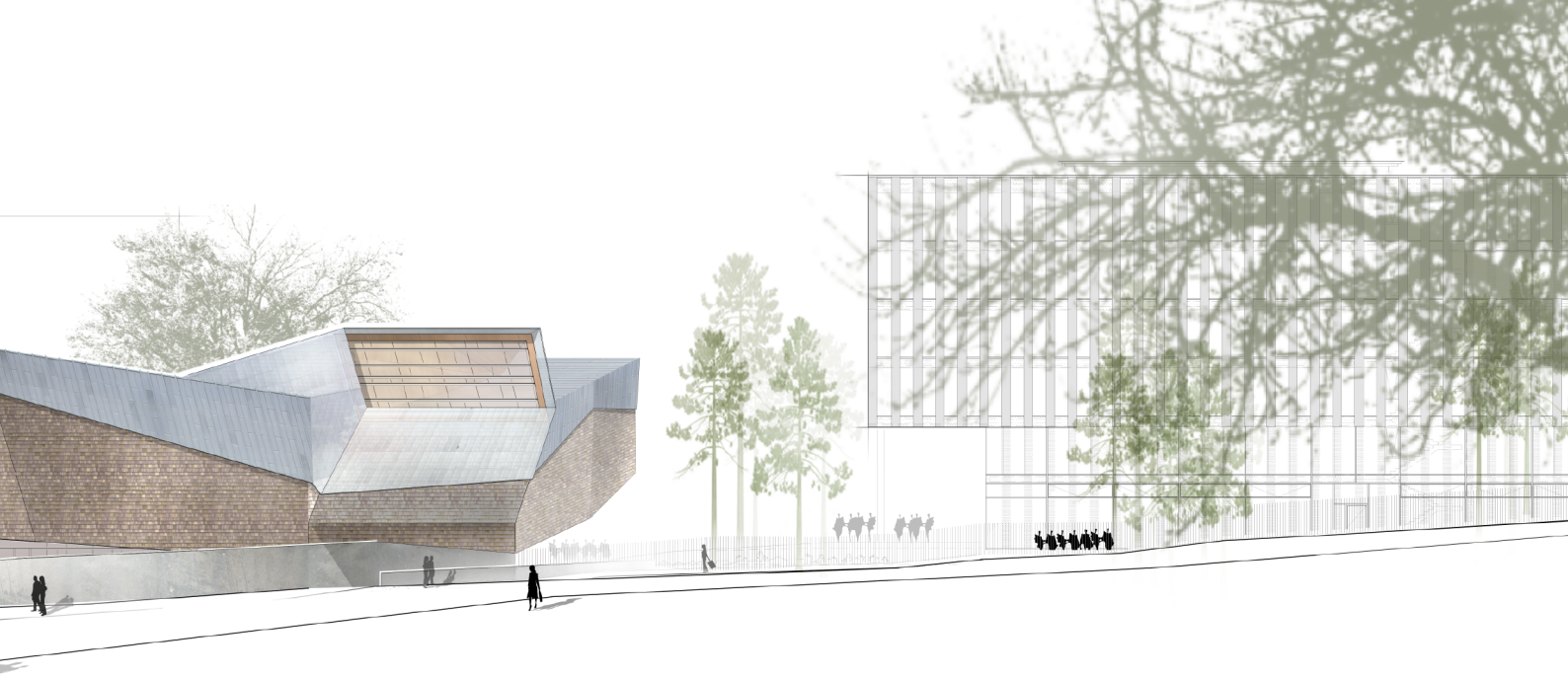






2. INTEGRATION OF THE PROJECT IN CONTEXT

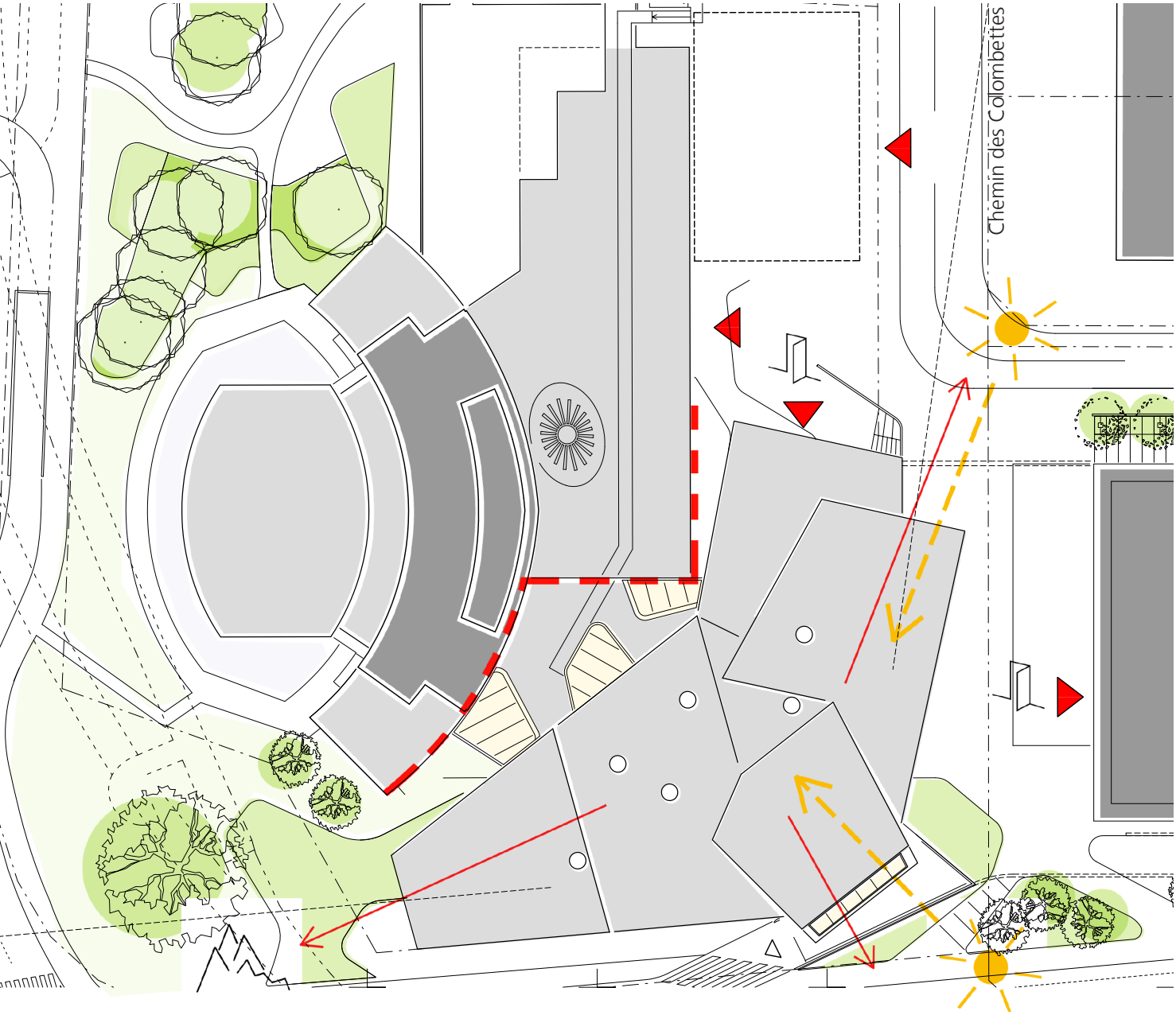
The area which extends around the Place des Nations is located on the edge of the center of Geneva and is marked by the large number of United Nations system organizations present there. The architectural void which characterizes the square is in clear contrast to the landscaped parks in which the administrative and representative buildings are harmoniously inserted. All bear witness to the essence of their functions and to the architectural heritage of their period of construction.

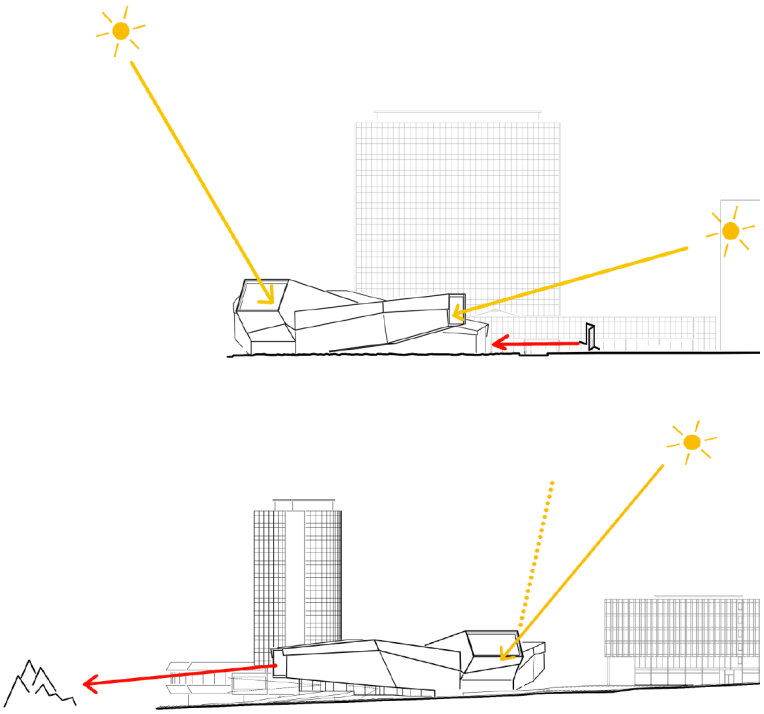
Enjoying a prominent position slightly above the level of the Place des Nations, the new WIPO conference hall serves as a bridge between the main AB building and the new administrative building. Taking into account this enclave position, the land available basically moves in two directions. Along the Route de Ferney, the wing of the new hall takes shape as a sequence of uniform volumes embodied as broad segments: the tower of the AB building, the new conference hall in the middle and the elongated configuration of the administrative building currently under construction.

The small number of villas on the opposite side of the road struggle to provide an effective structure for the area and to impose their personality, as a result of which they are unable to establish any kind of links or to act as references.
With its main entrance towards the WIPO campus and also therefore the conference hall, the side adjoining Chemin des Colombettes comes to life as a result of the varied nature of the neighboring buildings. The interconnected dimensions pleasantly exceed all orders of magnitude. The tower, the rows of dwellings, the chain consisting of the various WIPO extensions and the traditional detached houses stand shoulder to shoulder in a skilful mixture of typologies and granulations.
The need to react to the surrounding context and for a link with the inward-looking functions with which the new complex is endowed, and in keeping with its location, appears to be self-imposing.

Below left: Elevation Chemin des Colombettes

Above: Elevation Route de Ferney





A volume corresponding to site constraints

Through its functional and urbanistic characteristics, the new hall is joined to the AB Building and spreads out towards the plateau which turns in the direction of the Route de Ferney.

As a result of the additional height of the hall and the upward movement of the rows of seats which adorn the inside, the lobby serves as a link between the welcome area – onto which the main entrance looks – and the existing gardens designed by the famous Brazilian architect – landscaper, Roberto Burle-Marx. An internal landscape is therefore designed, giving rise to volumes and perspectives based on several levels by means of ramps and staircases, without limiting the broadness and immensity of the area which characterizes the lobby. Closed in on itself, the body of the hall floats like a monumental sculpture rising from the surrounding landscape, generates a feeling of security, and highlights the perspectives and orientations. The two main entrances to the hall and a band of attached areas to the north are the only points at which it is connected to the ground.

Above and left: A volume corresponding to site constraints

3. BUILDING OPERATION

With no transition and providing momentum through maximum opening, the new lobby lies side by side in the northwest with the lobby of the existing AB Building and heightens the expressive nature of that lobby. The use made of the architectural whole is unrestricted and offers a large number of alternatives. It can be used either as a whole providing a vast unit, or separately – in the case of external rental.

Above: Visualization of the new lobby under the hall

New WIPO conference hall

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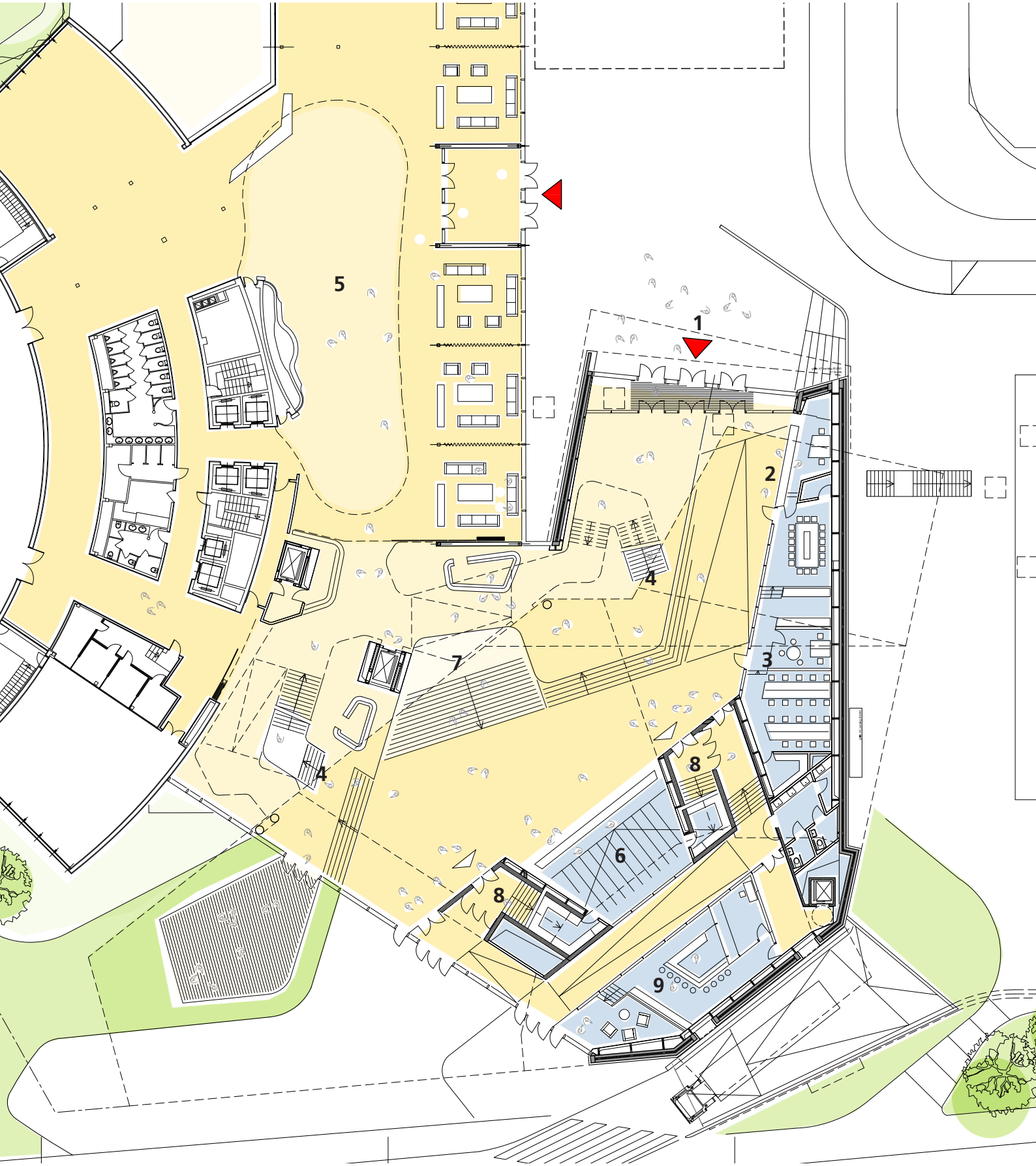

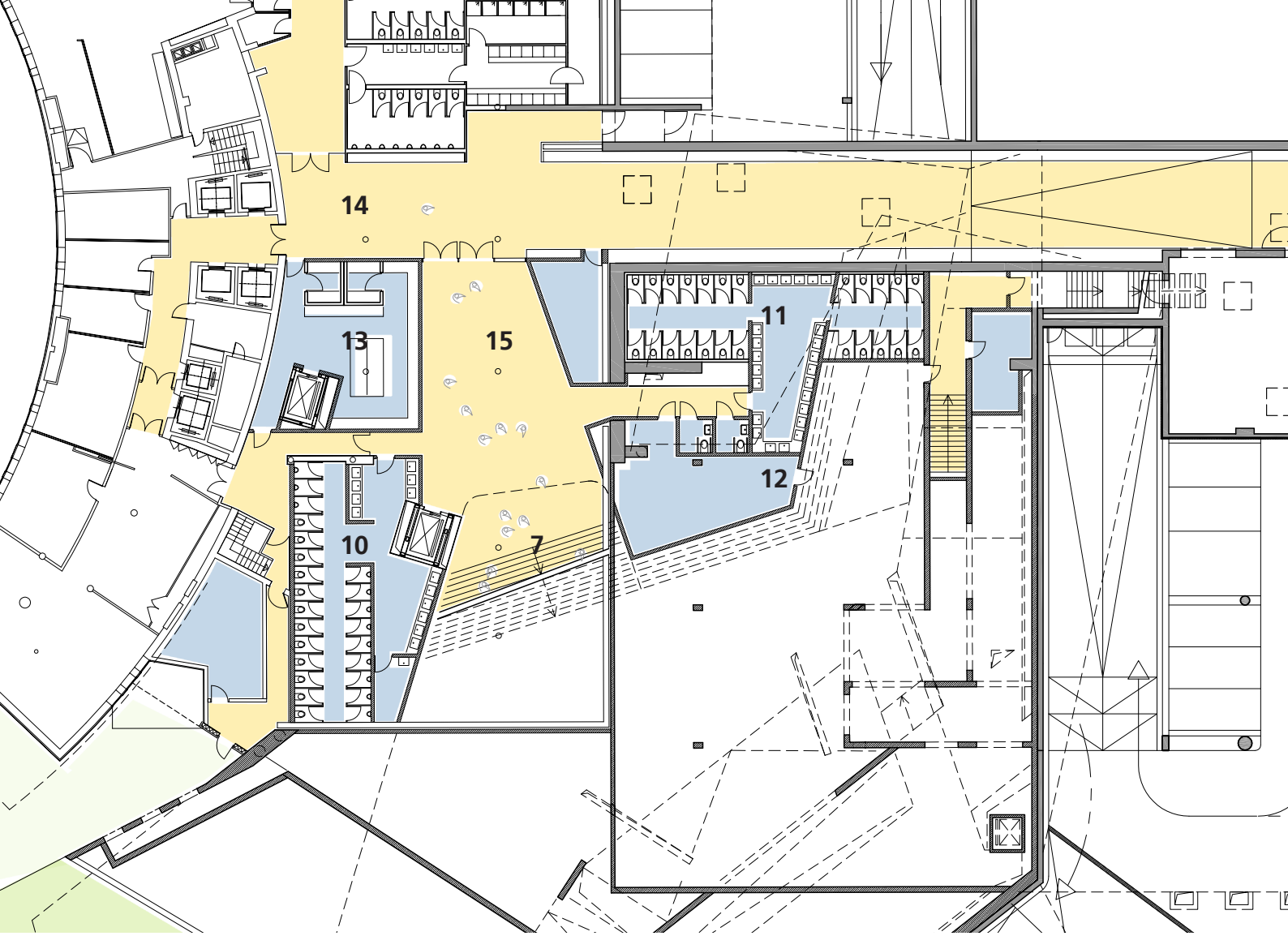

The lobby

To the left of the lobby, all the areas of use follow on directly from the wide main entrance which looks onto the welcome area close to Chemin des Colombettes. The reception hall, documents loan service, Internet terminal, press center, cloakrooms and offices come one after the other along a strip which appears to be separate in spatial terms from the lobby but provides easy accessibility. Like a path, the atrium then follows the natural topography of the places and descends slightly towards the Place des Nations. All access points and functional areas follow each other to form a long chain.

A vast stairwell which can also, where necessary, be equipped with wide steps where it is possible to sit, leads to the basement, thereby establishing a connection with the corridor linking the existing buildings with the new administrative building. The basement houses the toilets, different parts of the kitchens and certain technical equipment.

Clearly separate on both sides of the cloakrooms, two wide stairwells invite the visitor directly to go up in order to reach the inside of the new conference hall. They both open onto the middle of the hall, thereby helping to facilitate orientation.

Left: Ground floor plan

1: Conference hall entrance
2: Reception
3: Adjoining rooms
4: Mezzanine access
5: Existing lobby
6: Cloakroom
7: Towards connecting corridor
8: Room access
9: Lounge

Above right: Plan of first basement

10: Gentlemen's toilets
11: Ladies' toilets
12: Technical premises
13: Office
14: Connecting corridor
15: Lobby

New WIPO conference hall

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Above: Visualization of the inside of the conference hall

New WIPO conference hall

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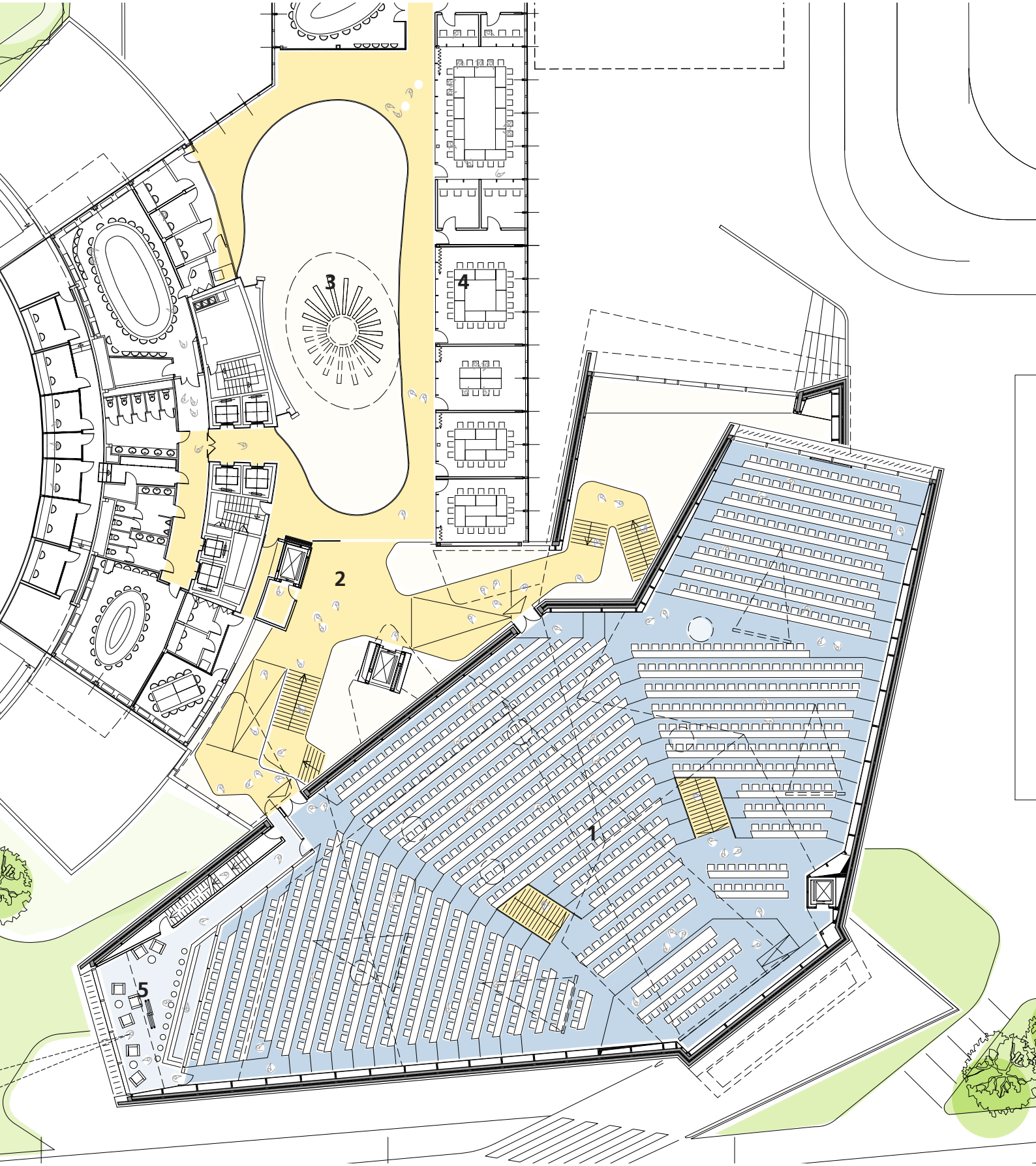

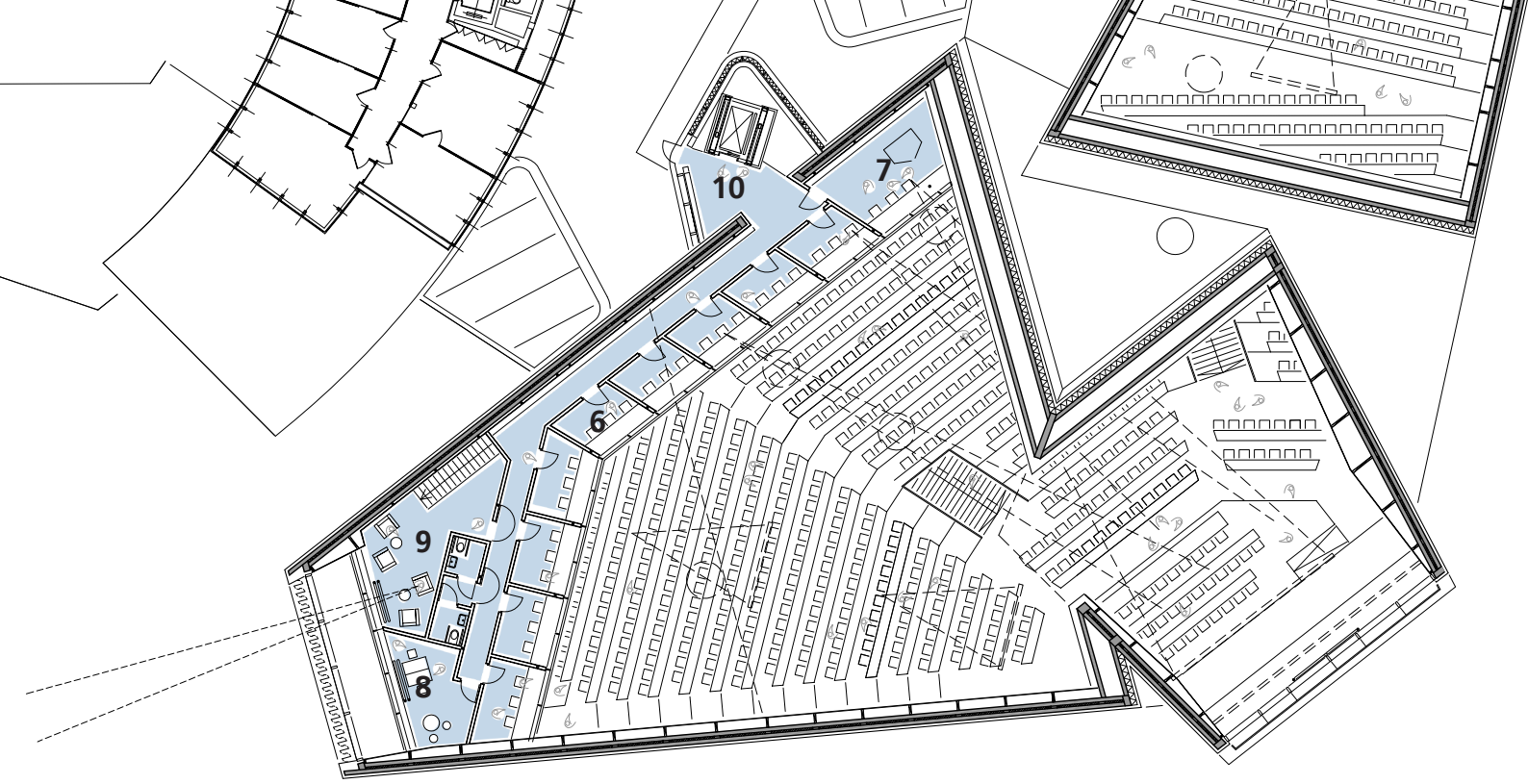

The hall

The configuration of the inside of the hall has been optimized in accordance with WIPO's requirements. 871 identical seats, designed to welcome delegates, are placed in a slightly circular arc pointing towards the podium.

Occupying the podium, the Chair constitutes the nerve center of the hall with nine places and 20 workplaces for the Secretariat of the International Bureau.

The rows, harmoniously distributed one above the other in the auditorium, are equipped with comfortable adjustable conference seats, fixed to the ground, together with desks perfectly optimized in technical and ergonomic terms, and satisfy all the international requirements relating to a modern workplace in a conference hall.

The direction of vision between the auditorium and the area occupied by the Chair, as well as the five projection screens equally distributed inside the hall, provide maximum quality of visibility and communication.
The interpreters may also benefit from this. They are installed in nine booths, aligned with each other one floor up. From there they have an excellent overview of the whole hall. From virtually anywhere in the auditorium, it is moreover possible to see faces and therefore to follow participants' gestures. The adjoining areas and relaxation rooms are grouped together in a compact manner in the same wing, thereby limiting the movement to and from of interpreters and guaranteeing users respect for maximum standards and optimum comfort.

Left: First floor plan

1: Conference hall
2: Mezzanine
3: Void on existing lobby
4: Meeting rooms
5: Lounge

Above right: Second floor plan with interpreters' booths

6: Interpreters' booths
7: Control room
8: Office of person responsible
9: Relaxation room
10: Lift and emergency exit

New WIPO conference hall

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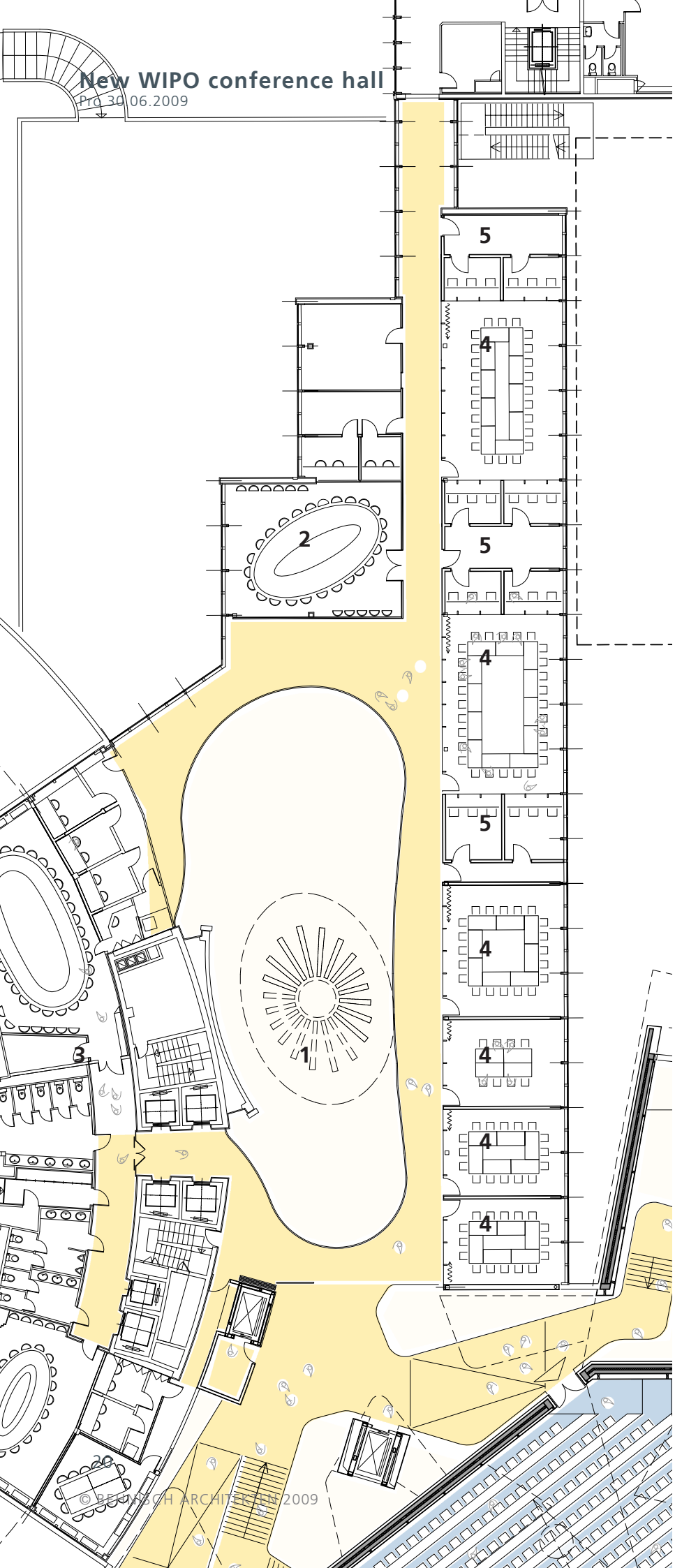

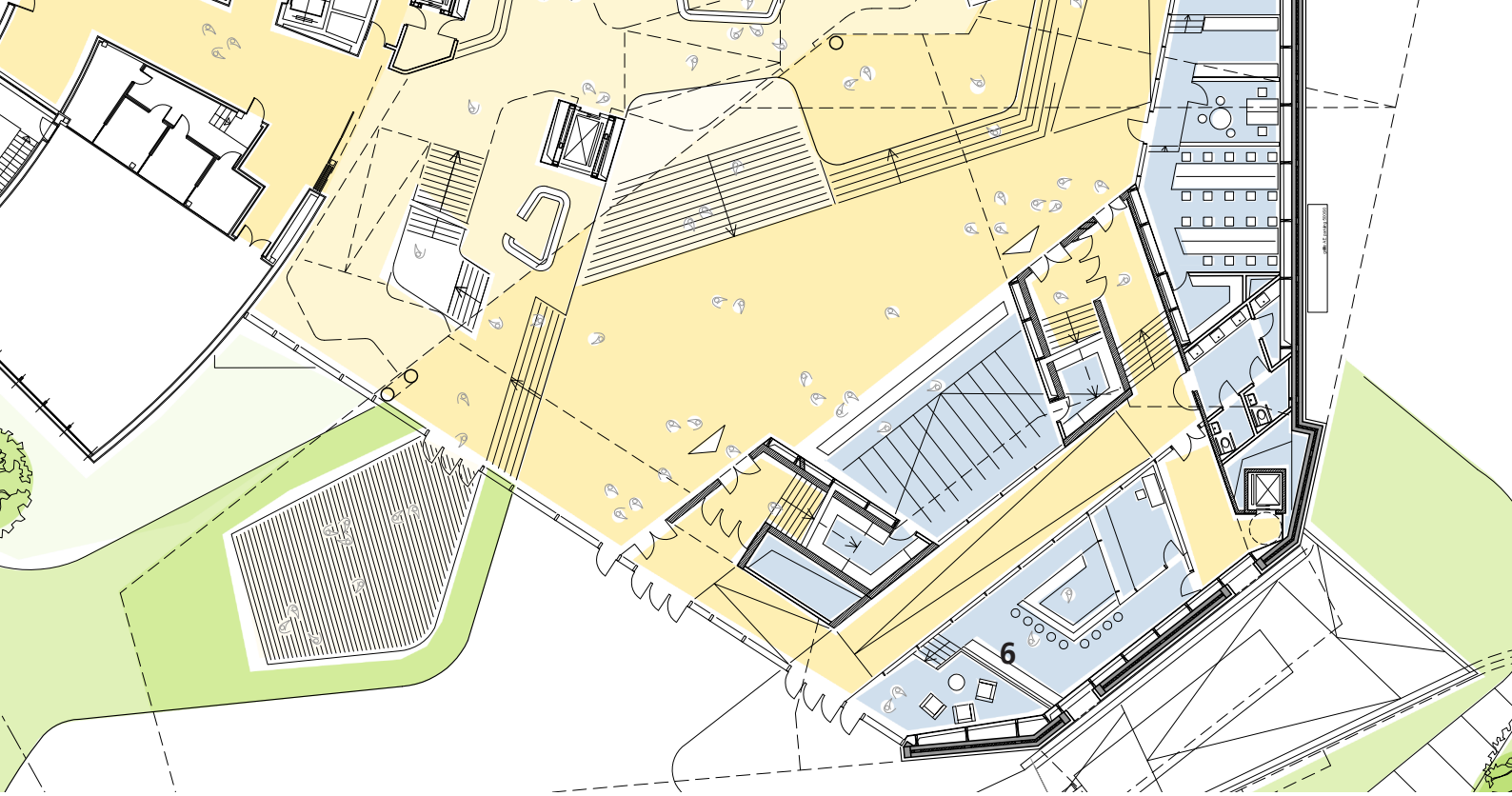

The mezzanine

The upper floor of the new conference center stands out in terms of the elegance of the curves of its stairwell and looks directly onto the ground floor lobby. It is reduced to a thin cordon which serves as a link or connecting point, and opens up additional access points to the new hall. Direct access towards the new meeting rooms fitted out on the existing mezzanine is also possible.

It is planned to fit the existing mezzanine with other meeting rooms of different sizes satisfying international requirements, where necessary with the space needed for simultaneous interpretation for meetings, in a maximum of four languages. Thanks to their windows which look onto the lobby and the welcome area, these rooms are bathed in light and are particularly convivial. In case of more confidential meetings, it is possible to draw the curtains provided for this purpose. Such areas allowing users to isolate themselves and gather together undoubtedly constitute an additional plus point in relation to the functionality of a modern conference hall.

Area reserved for speakers

A separate area allowing speakers and members of the Chair to isolate themselves is located directly under the podium and is accessible from the lobby by means of passages set at a slight incline. In this area fitted out in the style of a traditional lounge, participants are able to work, relax or have personal exchanges. Small offices which, where necessary, can also be made available to the conference management team as well as direct access to the garden complete the whole. A lift built into the hall wall provides a direct link with the podium.

Above: Ground floor plan

Left: First floor plan

1: Void on existing lobby
2: Bilger Room
3: Uchtenhagen Room
4: Meeting
5: Interpreters' booths
6: Lounge

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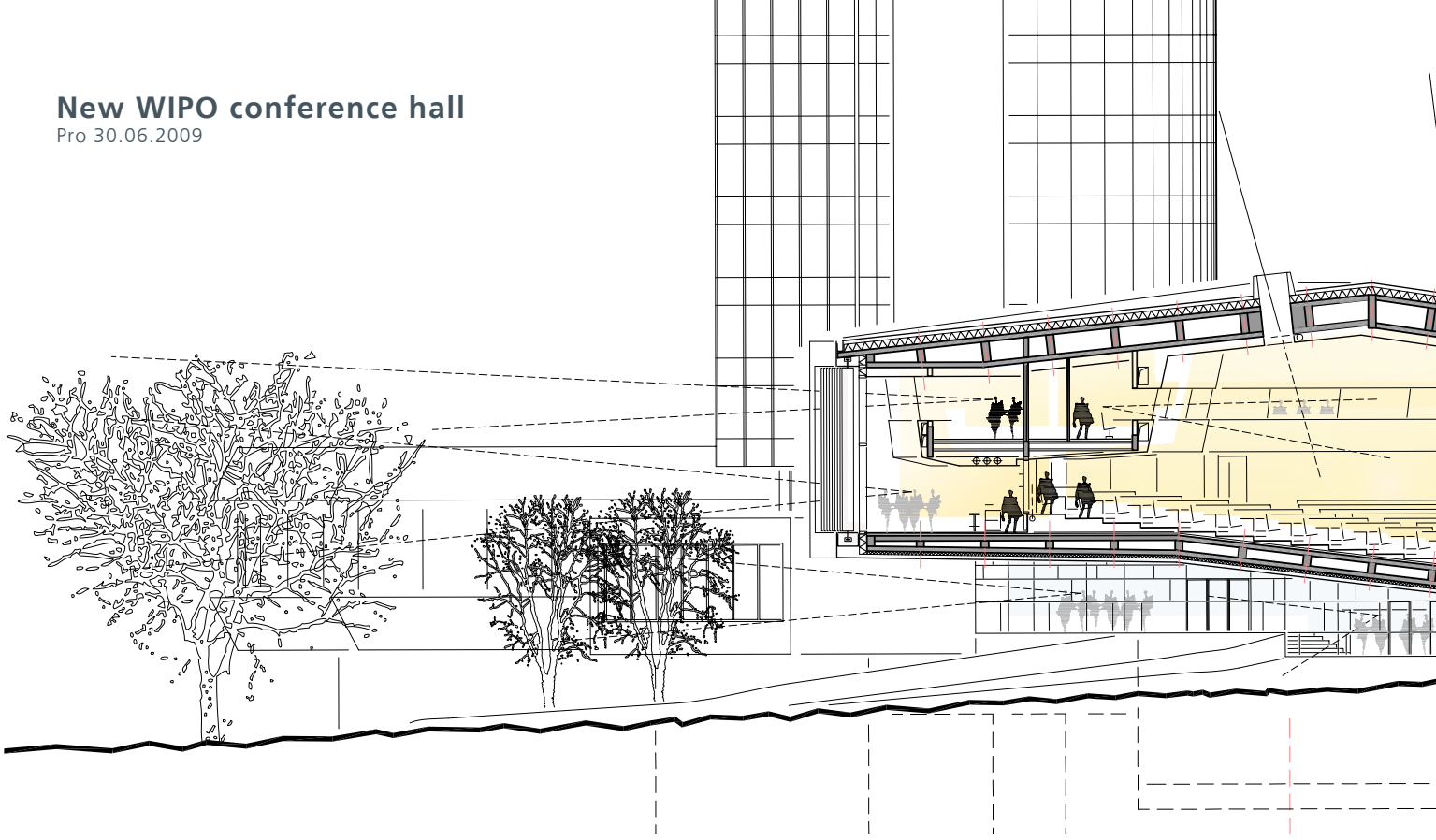
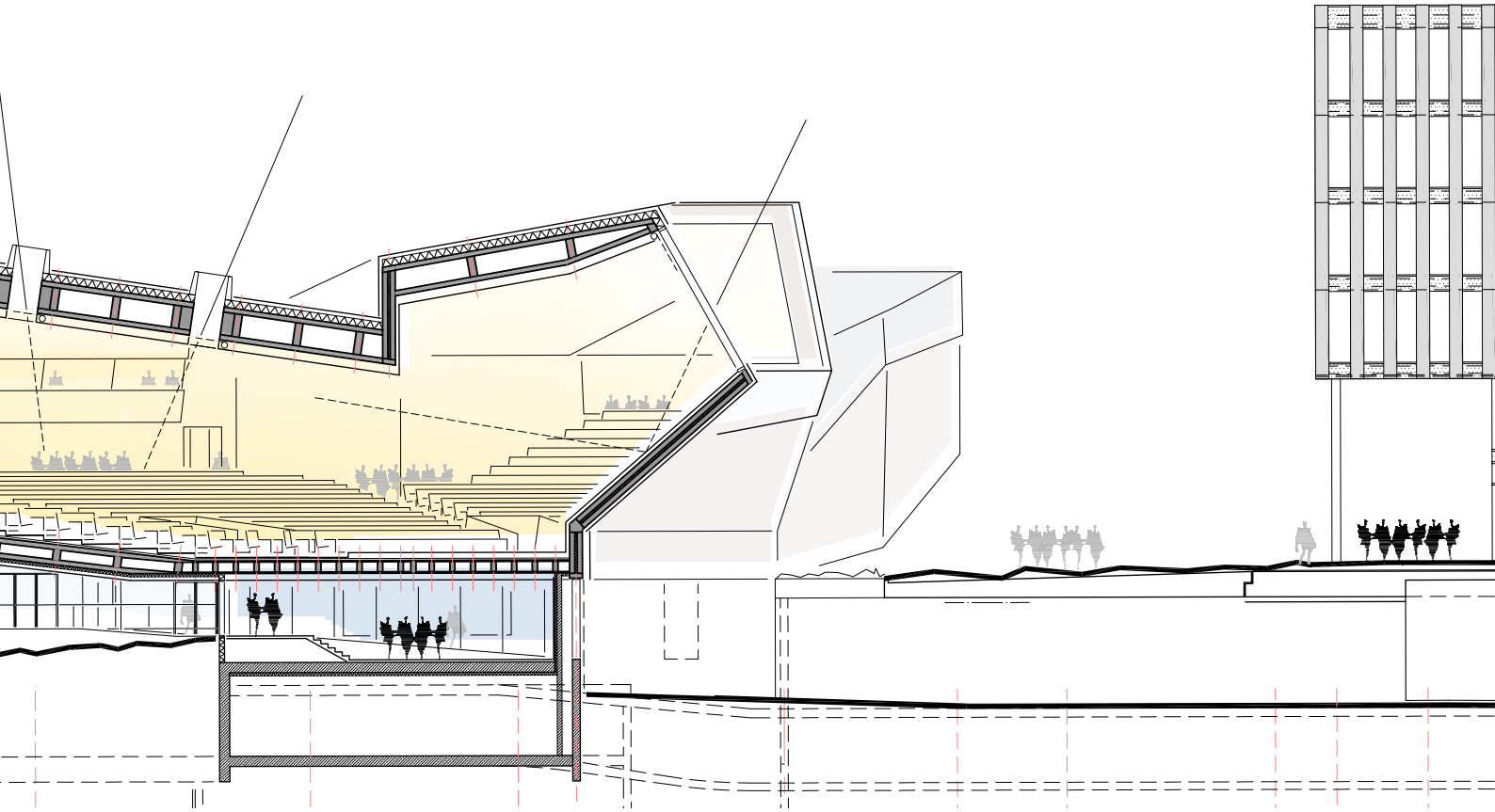


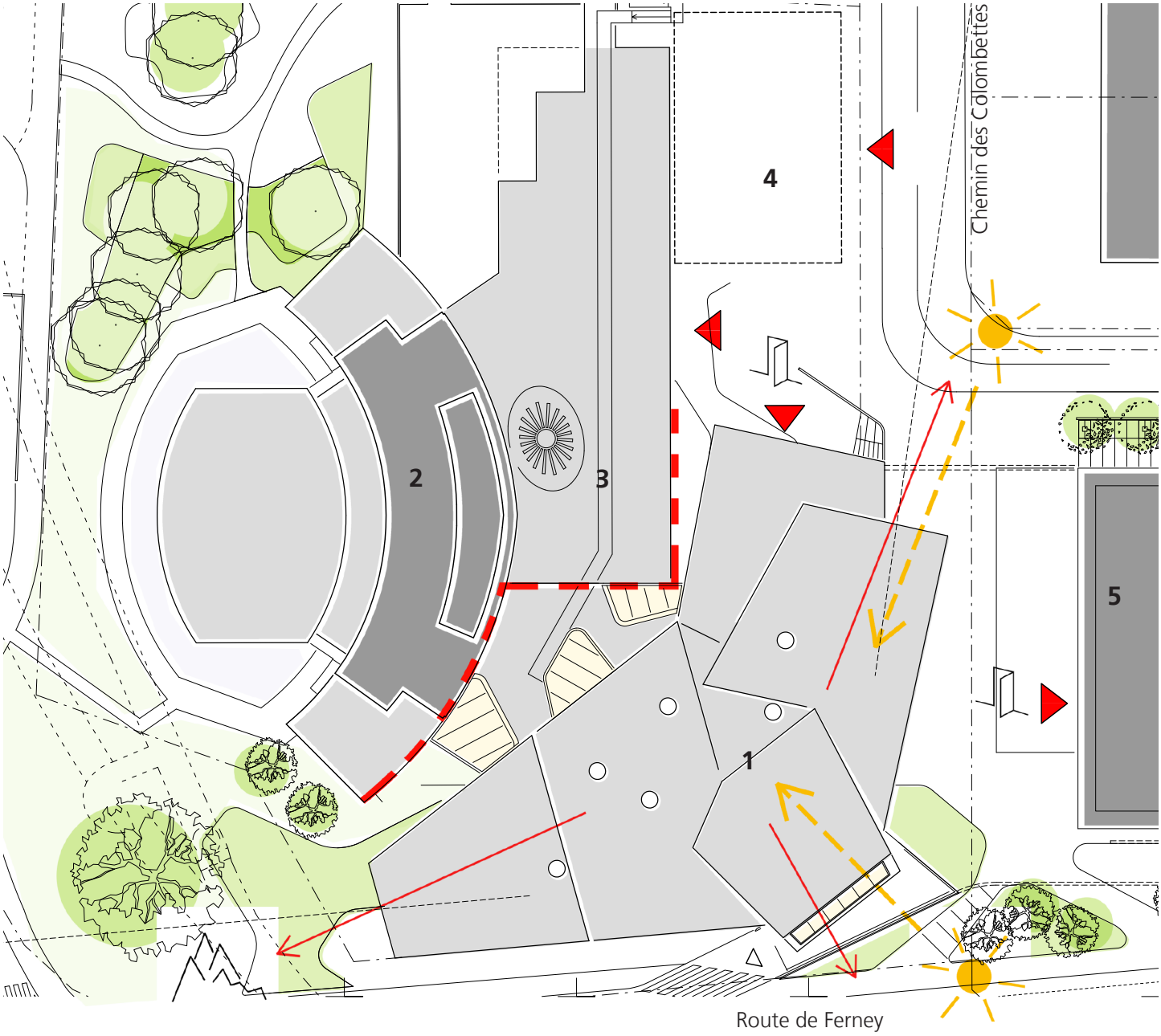


Accessibility for persons with reduced mobility

All the equipment in the new conference hall is accessible without barriers. The access points and different levels of the lobby are directly linked to each other. Persons with reduced mobility therefore cover the same distances and use the same equipment as all the other visitors, thereby promoting the same feeling of belonging. By using the first-floor mezzanine, it is possible to reach a large number of conference seats accessible without barriers and possessing the same formal characteristics as the others, but which, in addition, satisfy all the criteria required for reduced-mobility users. Other places are accessible without barriers in the first few rows via the podium entrance. The same is true for the seats reserved for the Chair. The number of places available broadly exceeds that imposed by the regulations in force.

Above: Longitudinal cross-section of the hall (G-G)

Left: Photo of mock-up



Links with the environment

In order to harmonize the rather introverted typology of the hall, both internally and with the urbanistic properties of the environment, various characteristic elements of the environment have been regenerated and a relationship created with the hall:

- Towards the Place des Nations, a wide opening frees up the view beyond the square as far as the imposing Mont Blanc mountain. A small lounge/bar area providing a calm and sound-proofed atmosphere, suitable for discussions, has also been planned within the opening.

- An opening towards the north guarantees the presence of natural uniform light inside the hall. The point of impact of the light above the podium strengthens the role of the podium as the nerve center of the hall. Devices to hide the light, which are top-of-the-range quality, also allow the variations in the amount of natural light, depending on the most varied requirements, to be controlled.

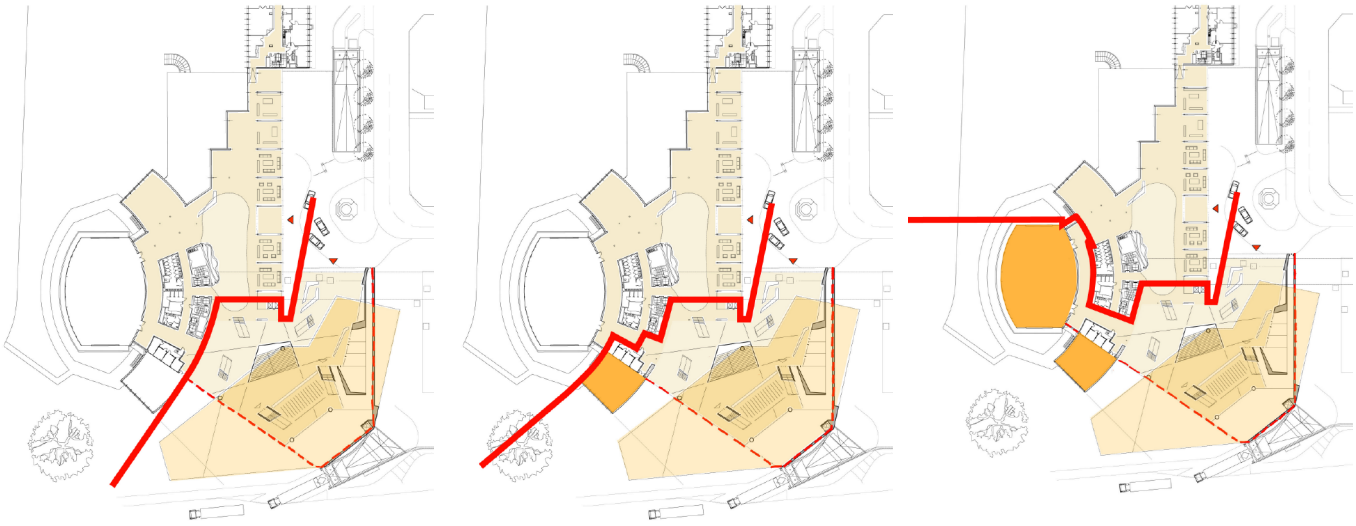
- Another light opening provides an additional area for other participants. Above the entrance to the lobby, this opening rises to give free range to a series of varied small volumes on the side of Chemin des Colombettes.

- The entrance is the only point in the hall which is set at ground level. A wide opening which, inside, hints at the fact that the volumes and perspectives match rises proudly to abut the main WIPO entrance and acts as a reception and orientation platform inside the hall.

The openings towards the Place des Nations and above the Chemin des Colombettes are also equipped with wide blinds which conceal the direct rays of sunlight at the most critical times and thus provide protection against the heat and the phenomena of dazzling.

Left: General layout plan showing links with the environment

1: New conference hall
2: AB Building
3: Existing lobby
4: Future access center
5: New construction



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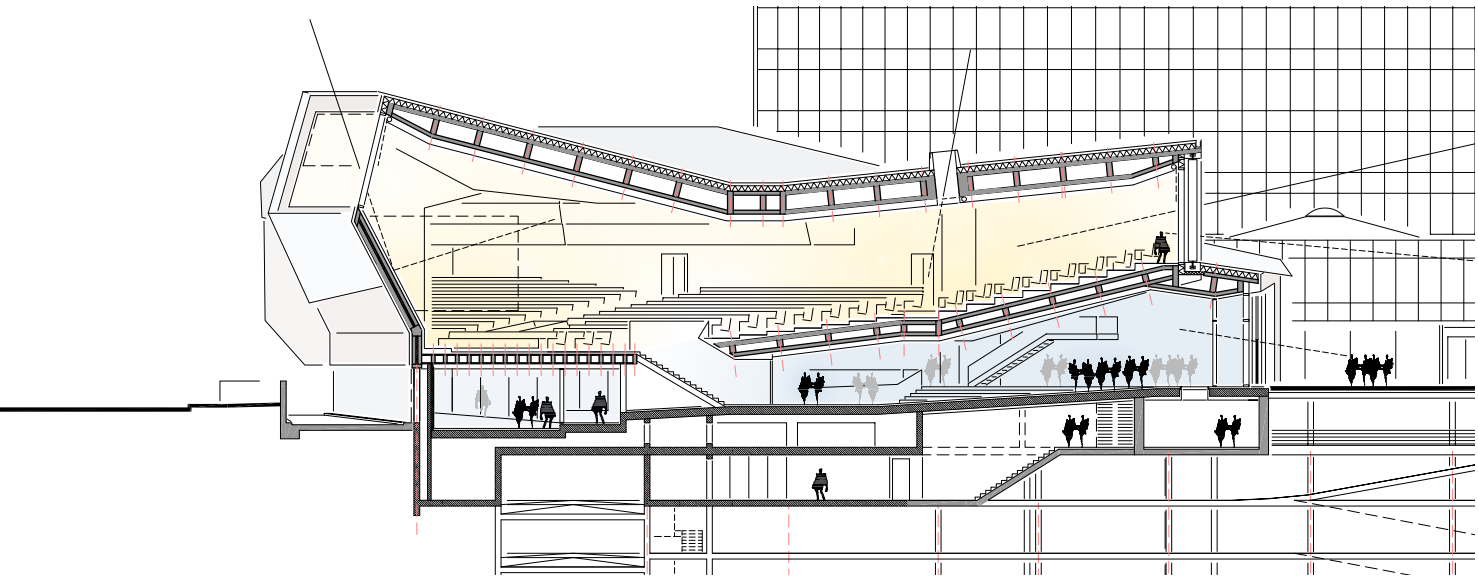

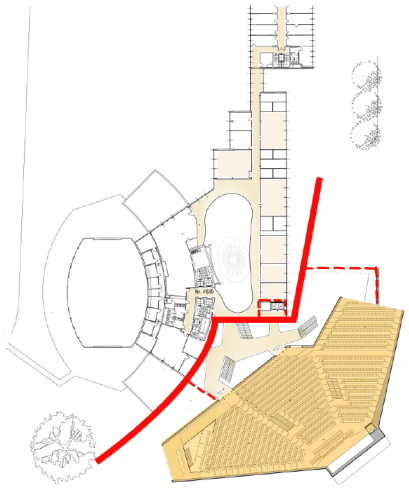

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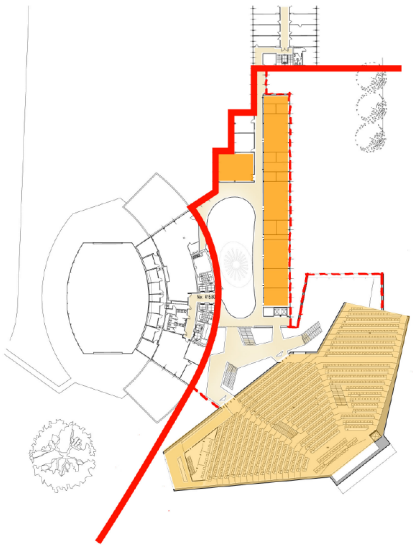


5

Different configurations

The extension of the existing structures with the new conference hall allows all the areas devoted to conferences to be refitted and to turn them into an extremely flexible entity with the maximum possible usefulness. Mobile partitions separating the lobbies, the existing rooms and new rooms allow the possible configurations to be increased to a capacity of between 900 and 1,300 people – both for own use and external rental – with no interruption of WIPO's internal operations. In the existing lobby, the façade looking onto the access area is moved as far as the outer edge of the building. Elegantly fitted recesses are also created to allow visitors to shut themselves off from the lobby and to enjoy quiet areas suitable for exchanges and discussions.

Security

The new WIPO conference hall is designed and studied to meet emerging risks, and will satisfy the safety and security standards recommended by the United Nations – the UN Headquarters Minimum Operating Security Standards (UN H-MOSS security standards), which have been taken into consideration since the time of conception – and by Switzerland. In case of emergency, clearly marked emergency exits allow the shortest escape route to the outside to be easily identified. Modern safety and security systems provide fire prevention and protect the hall. These increased requirements have been incorporated in the project with very great discretion, so as to reduce risk and protect future users of the hall.

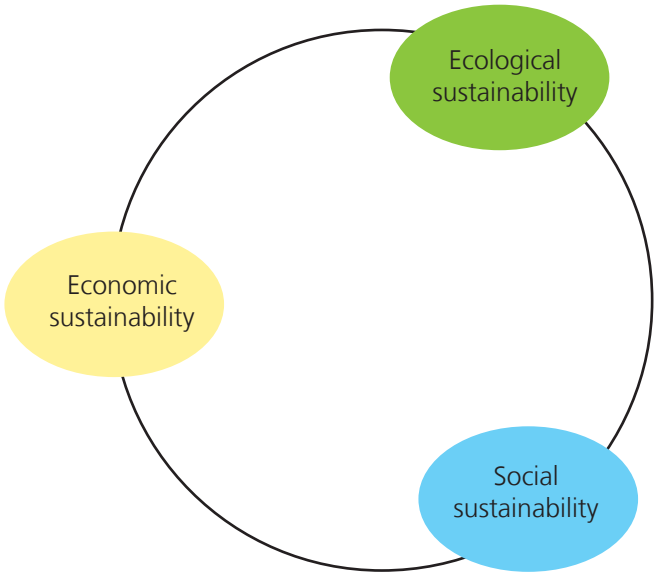
Above left: Possible separations on the ground floor

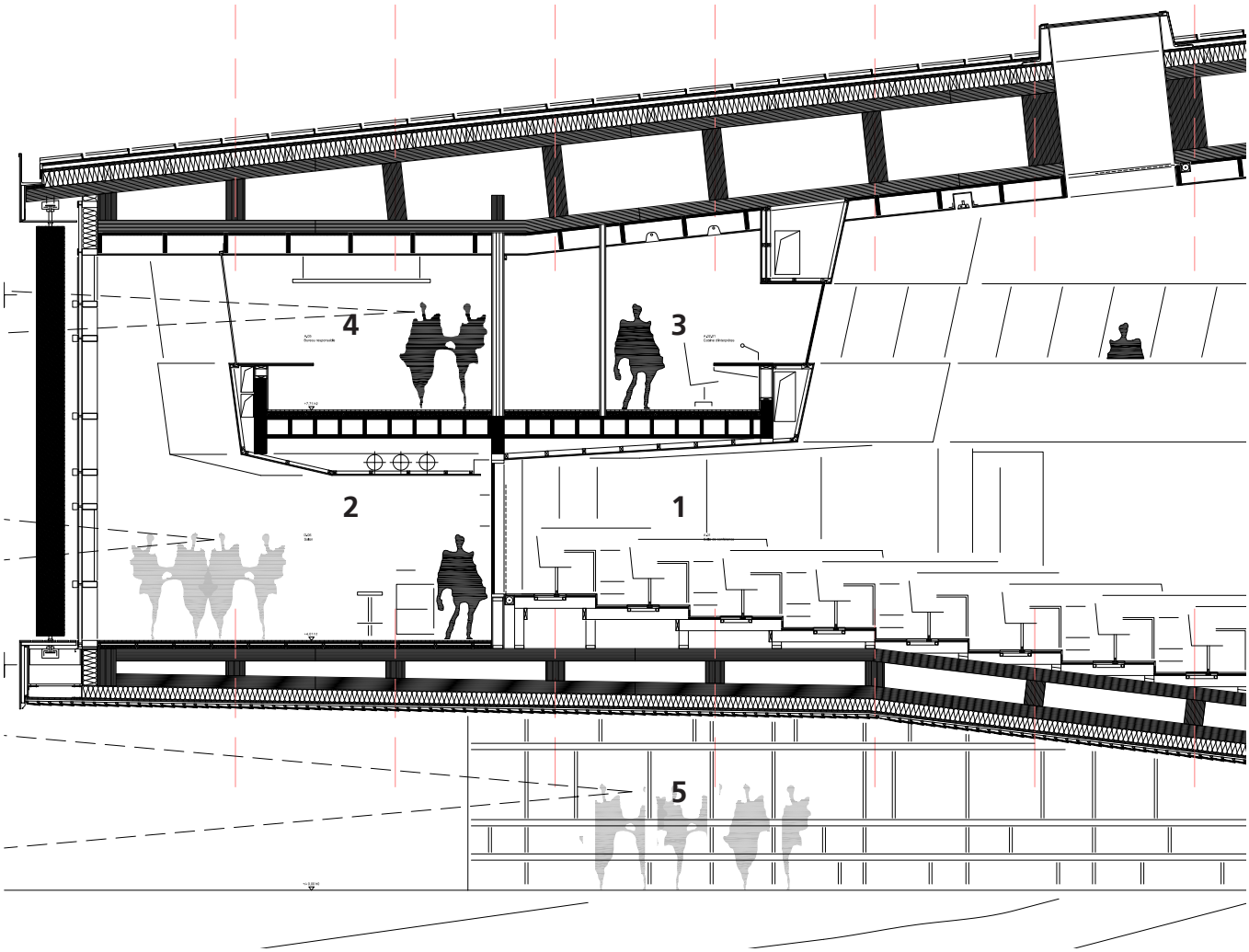
1: Independent use of the new hall
2: Use with Room B
3. Use with Rooms A and B.

Above right: Possible separations on the first floor

4: Independent use of the new hall
5: Use of the new hall with the meeting rooms

Below left: Cross-section of the hall (4-4)





4. THE IDEA OF A SUSTAINABLE BUILDING

The aim of sustainable construction pertains above all to criteria of quality – with an overall perspective. Sustainable constructions must therefore combine economic profitability, respect for the environment and preservation of natural resources. They offer their users a sound level of comfort and a healthy environment, and fit in an optimum manner into their social and cultural environment. Thus, sustainable constructions lose none of their high value over time – either for the owners or for the users.

This long-term benefit is of prime importance for all the stakeholders. About one-third of the consumption of resources in Europe is accounted for by buildings; the same is true for CO2 emissions, the production of waste etc. Taking account of the aims of climate protection and the ever scarcer nature of resources, the legal and normative constraints in this area should increase considerably.

In this context, sustainable construction is designed firstly to guarantee top-of-the-range quality for buildings and the long-term maintenance of their value, and on the other to be adapted for preventive purposes to future developments. However, above all it enables the environmental impact to be limited and the social benefits to be enhanced.

The social integration of a place where people gather appears to be logical at first sight but is often more complex than it seems. Thanks to its close connection with its environment and the clear definition of the internal functions and procedures in relation to the exterior, the hall can easily be justified for those people outside and passers-by. It fits clearly into its environment and is a faithful reflection of the image of WIPO.

Inside, considerations are based on ease of orientation and correct understanding of the functions. The open nature of spaces and qualities of comfort which they provide promote communication between users and therefore strengthen the attractiveness of the place. Particular attention is afforded in this regard to the acoustic qualities of the structure as an essential criterion of user-friendliness. Visitors with reduced mobility must not use different ways of getting around but can be integrated into the normal procedures and ways of moving around, thereby making them fully-fledged members of the community.

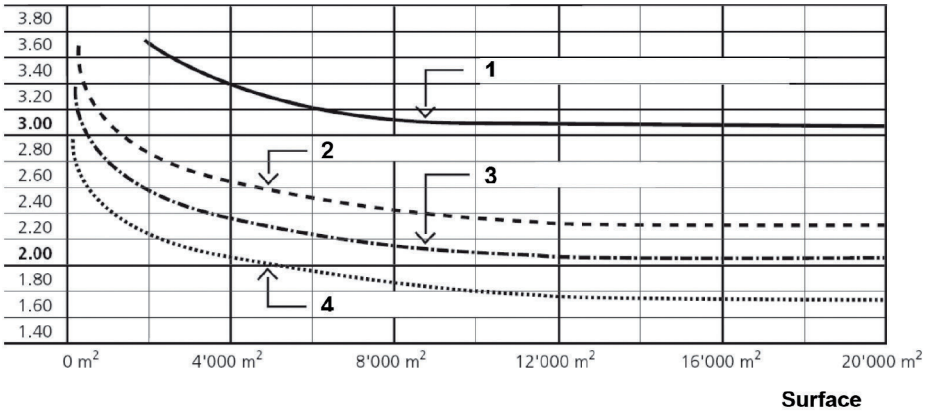
When considering the ecological sustainability of a structure which is not used on a permanent basis, the aspect linked to energy necessary for its construction (Embedded Energy) plays a primary role as it has a major influence on the overall use of energy.

Above left: Concept of a sustainable building

Below left: Detailed cross-section of façade

1: New conference hall
2: Lounge
3: Interpreters' booths
4: Office of person responsible
5: Lobby

GJ/m² Grey energy depending on the construction method and gross floor surface



The materials have been the subject of particular attention throughout the design process. The choice of wood as a construction material for the body of the conference hall is due not only to its excellent properties in terms of construction technique and fire resistant protection but also to other advantages: local untreated wood is CO2 neutral, requires only very short distances for transport and has excellent thermal insulation qualities.

The share of energy-heavy materials such as glass and concrete has been reduced to an appropriate proportion. All coverings both inside and outside are also made of wood. Only the roof requires a waterproof covering and is therefore made of zinc-titanium.

The creation of a connection between the hall and its geographical context, as well as its integration therein, also helps to reduce energy consumption. As part of the integrated design process, openings have thus been created in the direction of the sun, in cooperation with natural light specialists, in order to provide maximum daylight, and thereby reduce the costs of heating and electricity for the building.

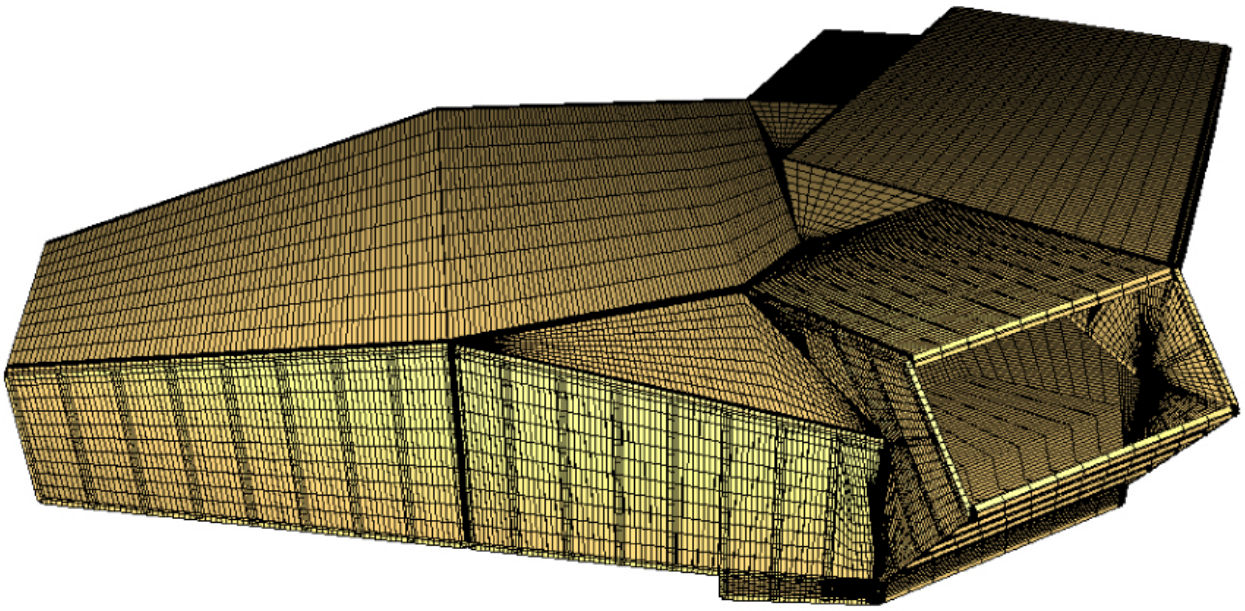
The very wide openings provided in the hall are swept by the wind so as to be able to provide natural airing without any mechanical support over long periods of the year when the structure is partially occupied.
An air-conditioning system operating with water taken from Lake Leman is also made available for the periods during which it is necessary to have air conditioning in the hall – and which, according to all forecasts, should cover the major part of the year.

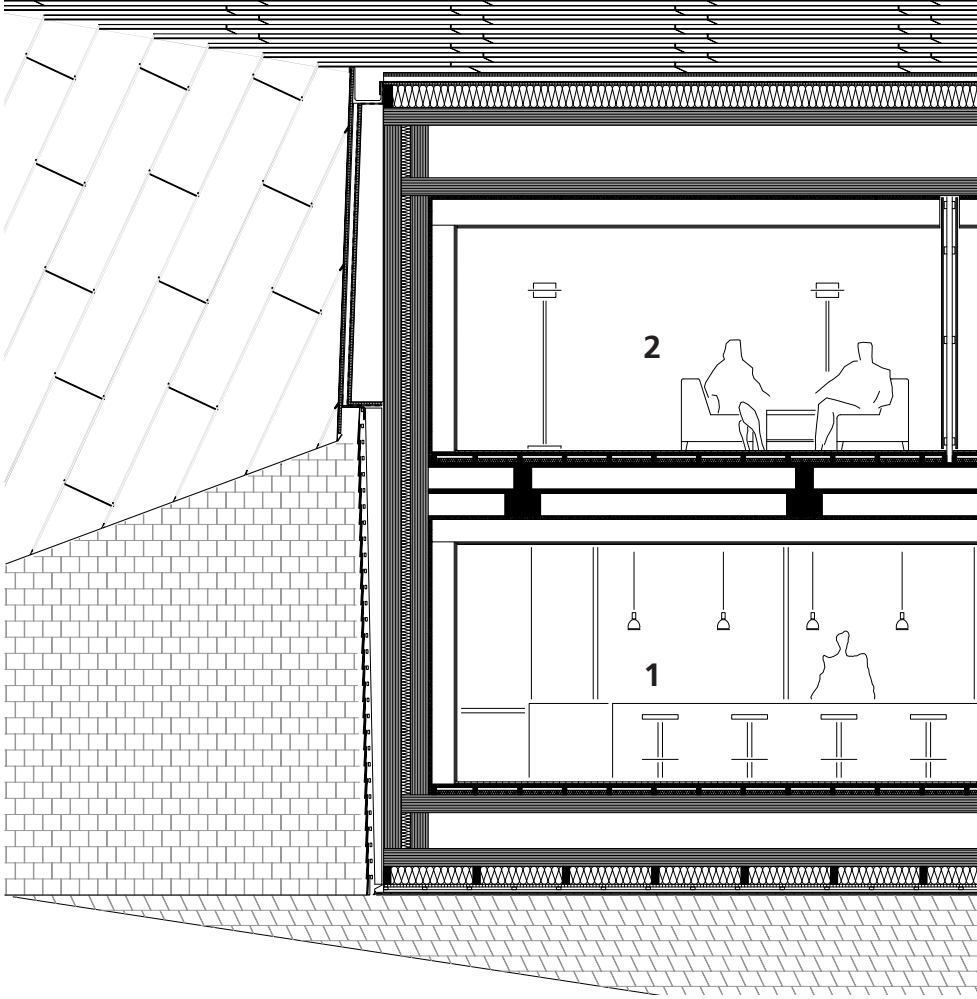
In addition to the ecological aspect, the choice of wood as a construction material also had other advantages in terms of security, appropriateness of construction and degree of prefabrication. The additional costs linked to security have thus been reduced, in the same way as the estimate for the construction period and the related costs.

The design process has therefore been guaranteed since the first day in an integrated manner, in cooperation with selected experts. The decisions taken as part of this process also and always take account of technical requirements. The optimization of the building in relation to technical, economic and energy-related performance, as well as in relation to functionality and user-friendliness, is a self-evident truth. This success is based largely on the close cooperation which has been established between all those involved in the design and the client.

Above left: Diagram of the energy involved in the construction

1: Mass construction with glass facades
2: Mass construction
3: Mixed construction
4: Light wood construction





5. TECHNICAL ASPECTS

The structure of the new WIPO conference hall

The form of the new WIPO conference hall, proposed by Behnisch Architekten, is characterized by the layout of four volumes in the form of boxes. The largest of them is cantilever over a length of 35 meters, along the Route de Ferney, in the direction of Mont-Blanc. This cantilever structure gives the impression that in structural terms the hall is freed of the laws of gravity. The boxes are assembled to form a large area free of posts, and its roof is supported only by the covers of these boxes. In fact, about two-thirds of the hall is raised above ground level by a column and a minimum number of supports fitted into the cover, under the platform and stairs, so as to be able to fit out the lobby below.

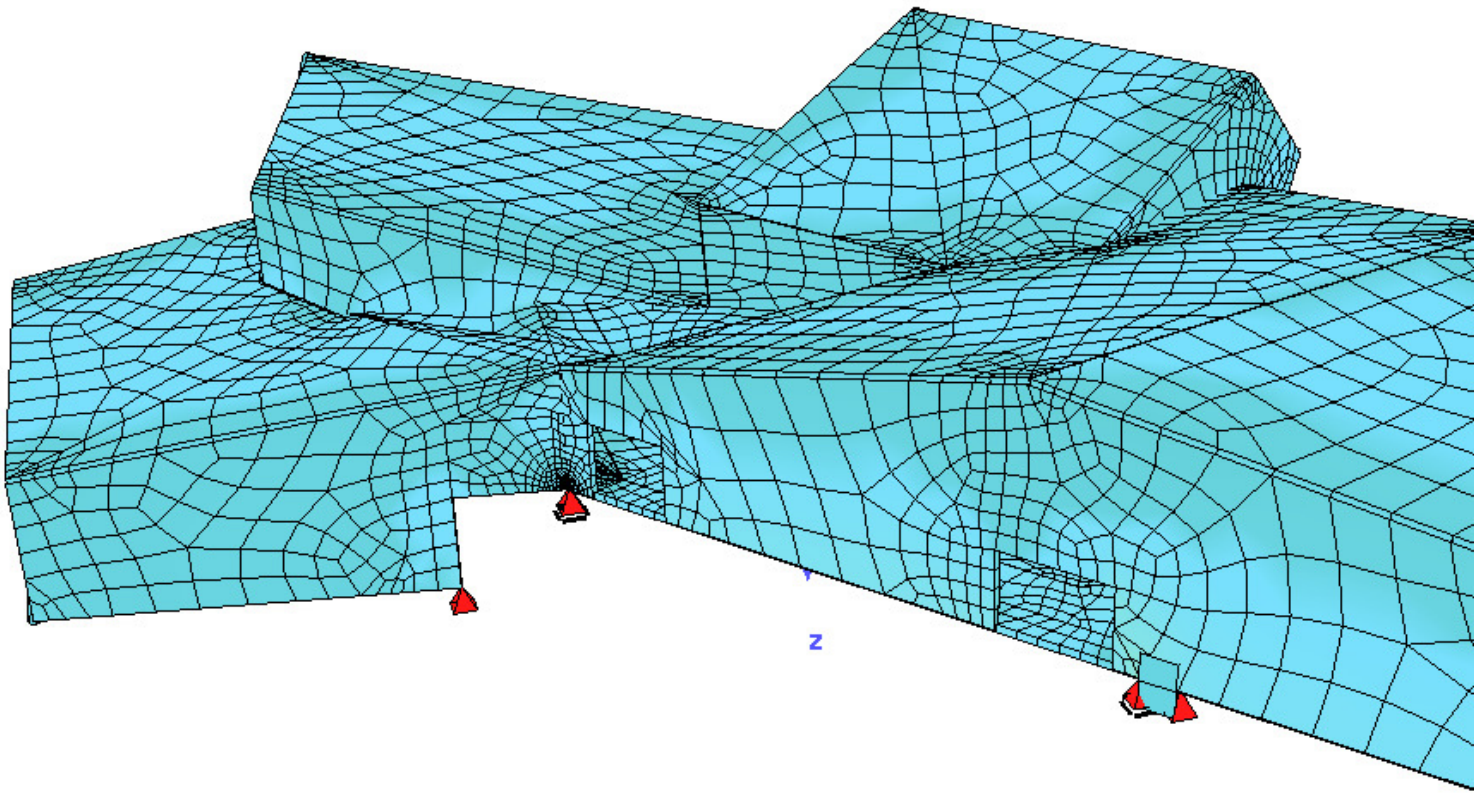
The structural system has been designed so as to highlight this architectural sensation that the whole structure is floating above the ground. At the same time, a study has been carried out into the materials so that the architectural concept and its functionality are conveyed directly in the structural system. The main concepts of the overall structural system and those which have led to the choice of material are summarized in the following paragraphs:

1) As most of the covers have no opening and the roofing is a full element, the braced box system is applied so that the architectural shape is used in the best possible way structurally speaking. All the flat components (roofs, slabs, covers) are used as continuous flat components which make the box act as a whole unit. In other words, the stability of the structural system is based on its geometry and on the rigidity in the flatness of the plate-like components. Three openings are braced by thin rods so as to optimize the way in which the box behaves in relation to the demands placed on it.

Above right: Detailed cross-section of façade

1: Lounge
2: Relaxation room

Below left: 3D model of the structure

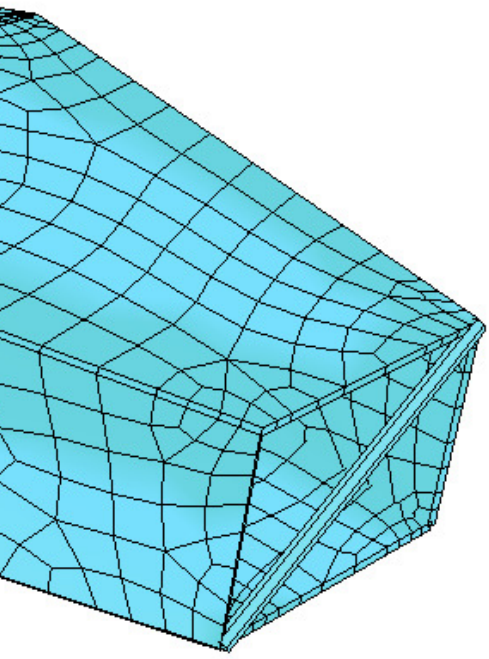


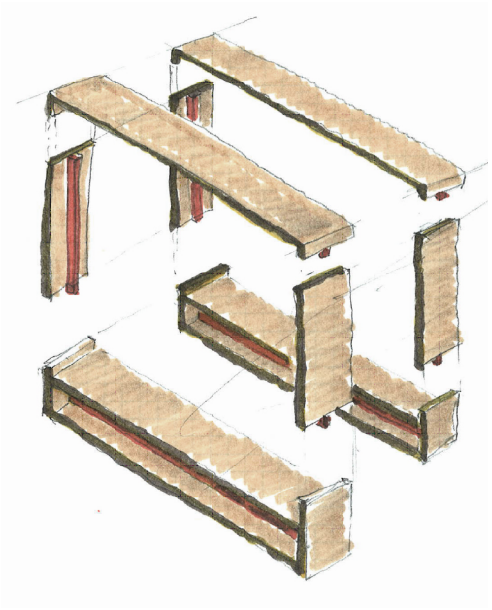
2) Faced with the action of gravity, this continuous-box structure behaves in principle like a simple continuous beam with three girders, the two ends of which are cantilever. The lateral forces are transmitted to the supports via the monolithic behavior of the box, and the diaphragm action of the roof and floors.

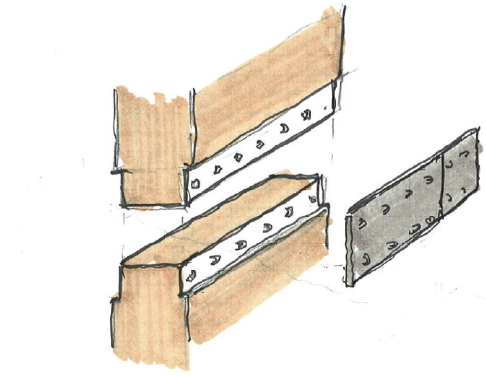
3) The multidirectional laminated wood is used as the basic structural material. Each level of the boxes consists of two layers of multidirectional laminated wood, which are linked to each other by means of visible components (comparable to vertebrae in biology), i.e. double T-sections. The thick slabs, 300 mm in total, have been chosen to provide sufficient rigidity to the cantilever portion, and the height of the visible components was determined to satisfy the performance criteria relating to the range between the covers, a maximum of 25 meters. Steel is used for the connections and partial strengthenings.

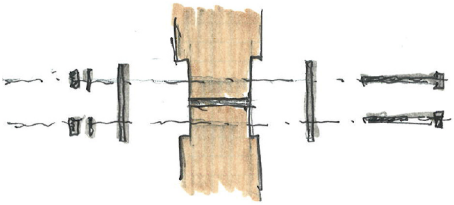
4) The connection systems, using Parker screws and self-perforating dowels, have been selected to maximize the qualities of the multidirectional laminated wooden panels and the effectiveness of the construction.

5) The thick layers of rigid wood for the walls, with a space left open to the air of 200 mm, help to satisfy thermal performance criteria without the need to use an additional thermal layer outside.









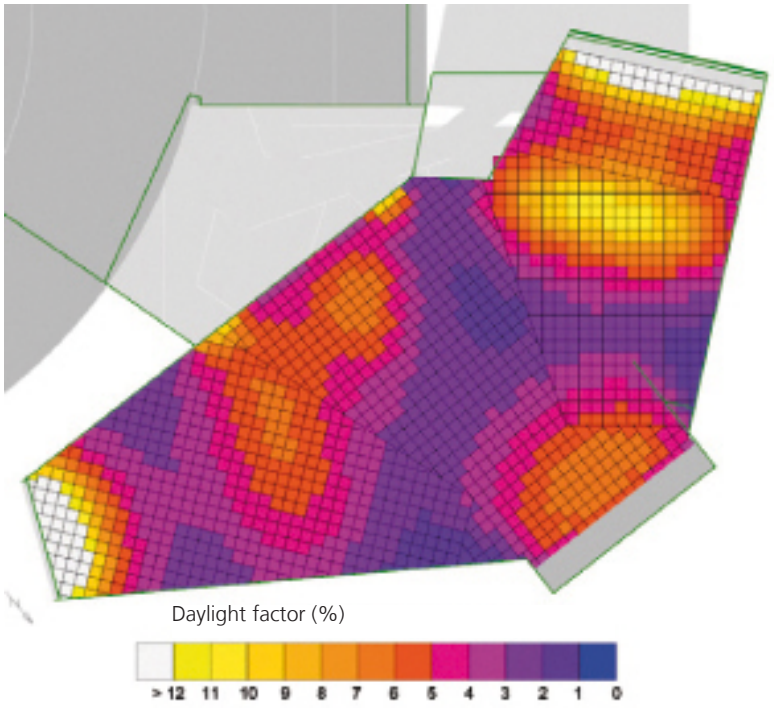
6) The joints at the corners of the box will be prefabricated so as to act as rigid joints, which will increase the rigidity of the braced box system. The sizes of each prefabricated part are limited by transport constraints and the lowering of loads in all conditions where a load is placed on the structure.

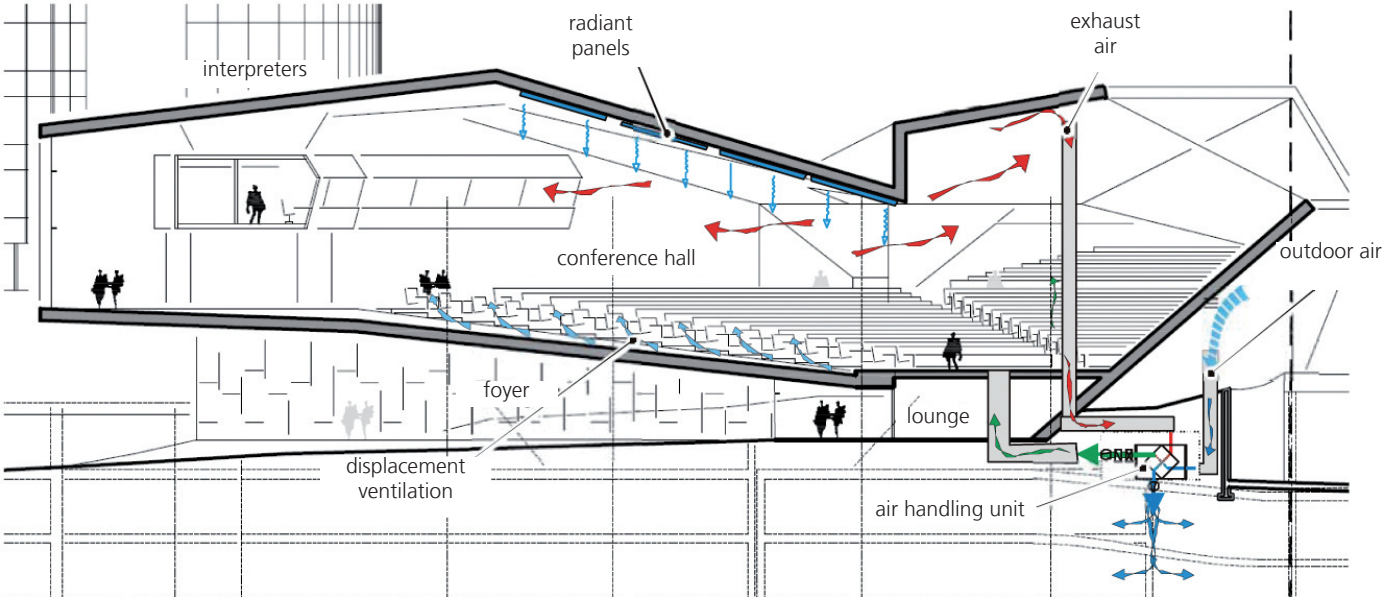
7) The structure is sustained by various types of support. The sliding and vertical supports are put in place so as to avoid any horizontal reaction that is too great owing to the parts which are cantilever. The horizontal force is, by contrast, transferred to the slabs. Thus, only the necessary quantity of material has been used for the whole building.

The examination of the structure carried out during the preliminary study shows that the braced box system with multidirectional laminated wood is a competitive choice in terms of structural efficiency for such an unusual form. Furthermore, the simultaneous and effective incorporation of architectural and structural functions provides remarkable advantages to make this building a reference for sustainable development.

Top left:
Structural model in 3D

Top right:
On-site assembly system





Heating, ventilation and airconditioning

The aim of the new conference hall is to facilitate WIPO's work, by providing a meeting place for the whole organization. Furthermore, this area must be an expression of the image and environmental awareness of WIPO.

The energy demands of a conference hall are directly linked to the frequency of use of the hall. Thus, the results calculated in this report have been based on certain assumptions fixed on the date this report was drafted and will change as soon as the frequency of use of the hall changes. However, the different performances of the options introduced with new assumptions will be relatively identical irrespective of the rate of use.

Despite a high hypothetical rate of use of the constructed area, the overall amount of energy used will be dominated by that required for the construction of the hall occupied occasionally.

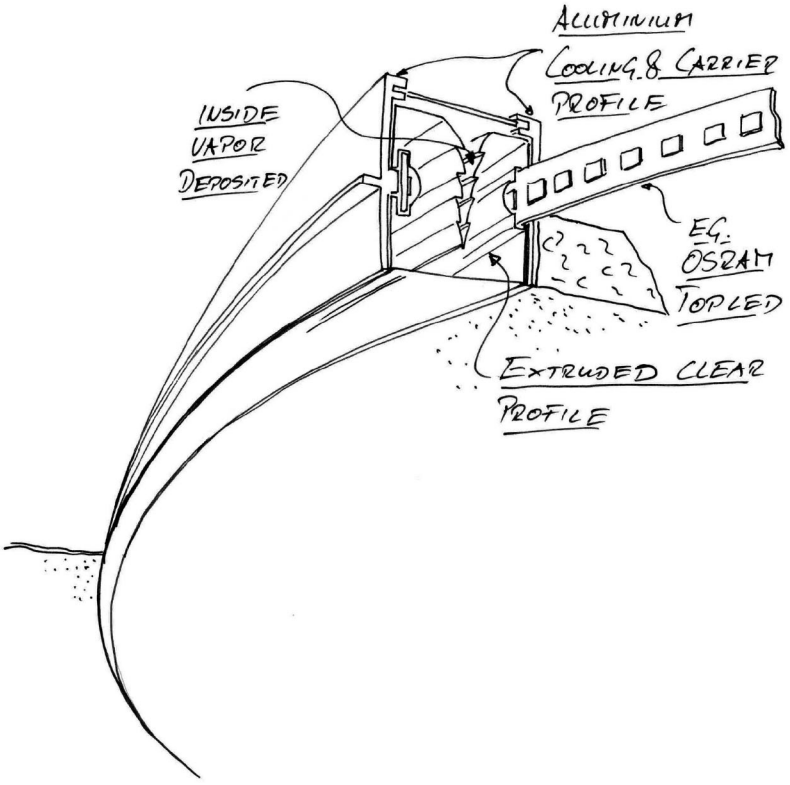
The measures described below will provide a high quality area by minimizing the impacts:

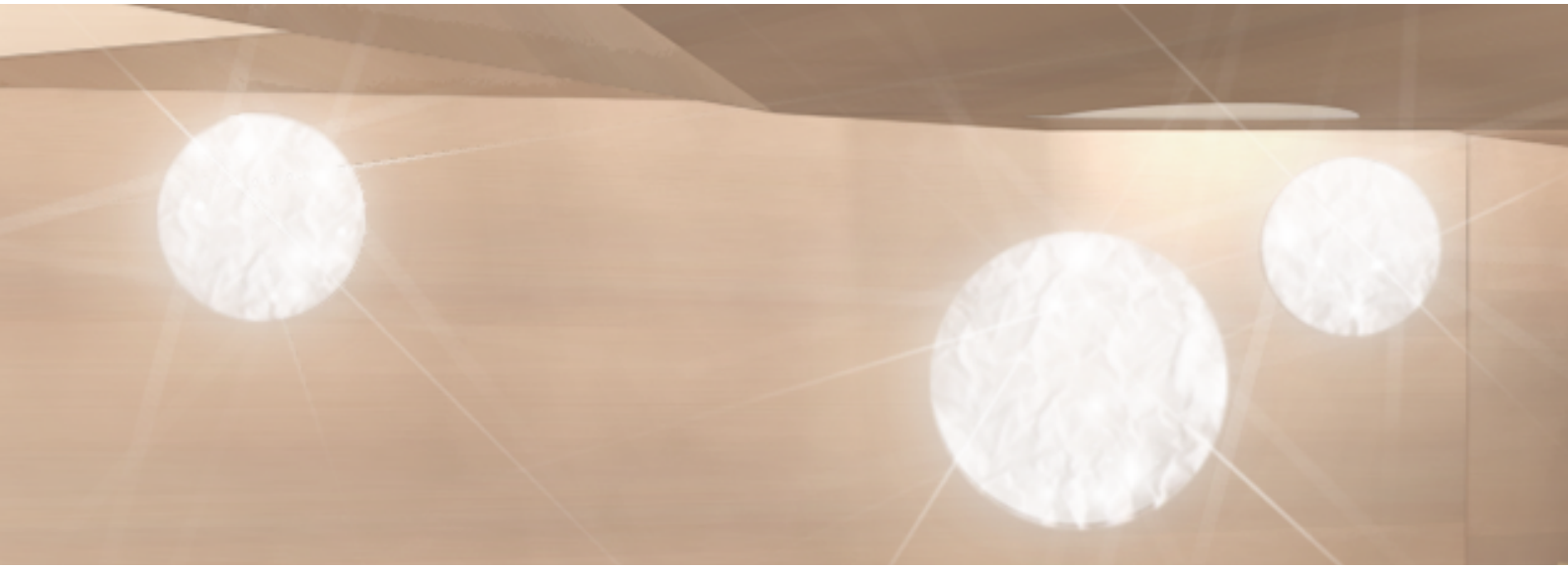
- Wooden superstructure, minimizing overall energy use;
- Hybrid ventilation, ventilation produced by combining natural and mechanical means;
- Displacement ventilation, high efficiency and high degree of comfort felt;
- Optimum use of natural light;
- Conditioning by means of radiant panels.

This approach, which is based on the main points described above, will help to achieve a high degree of comfort and flexibility of use of the area, and to minimize the environmental impact.

Top left: Daylight factor with zenithal lighting

Below left: Principles applied to the conference hall





Concept of architectural lighting

The provision of natural light is guaranteed by bay windows and the use of skylights in the roof. This process promotes contact with the external environment and reduces electrical energy needs for lighting.

The artificial lighting facilities will be designed so as to observe SIA standard 380/4, with high-performance sources and lighting (lighting efficiency of the sources and light output of the light fittings) coupled, where necessary, with electronic management. Particular attention will be paid to the problems of maintenance and upkeep (ease of access, life span of sources, …).

Top: Globular lights incorporating projectors to illuminate walls and ceiling, video cameras for interpreters, loudspeakers, video projectors, architectural effect with light surface

Bottom left: LED line

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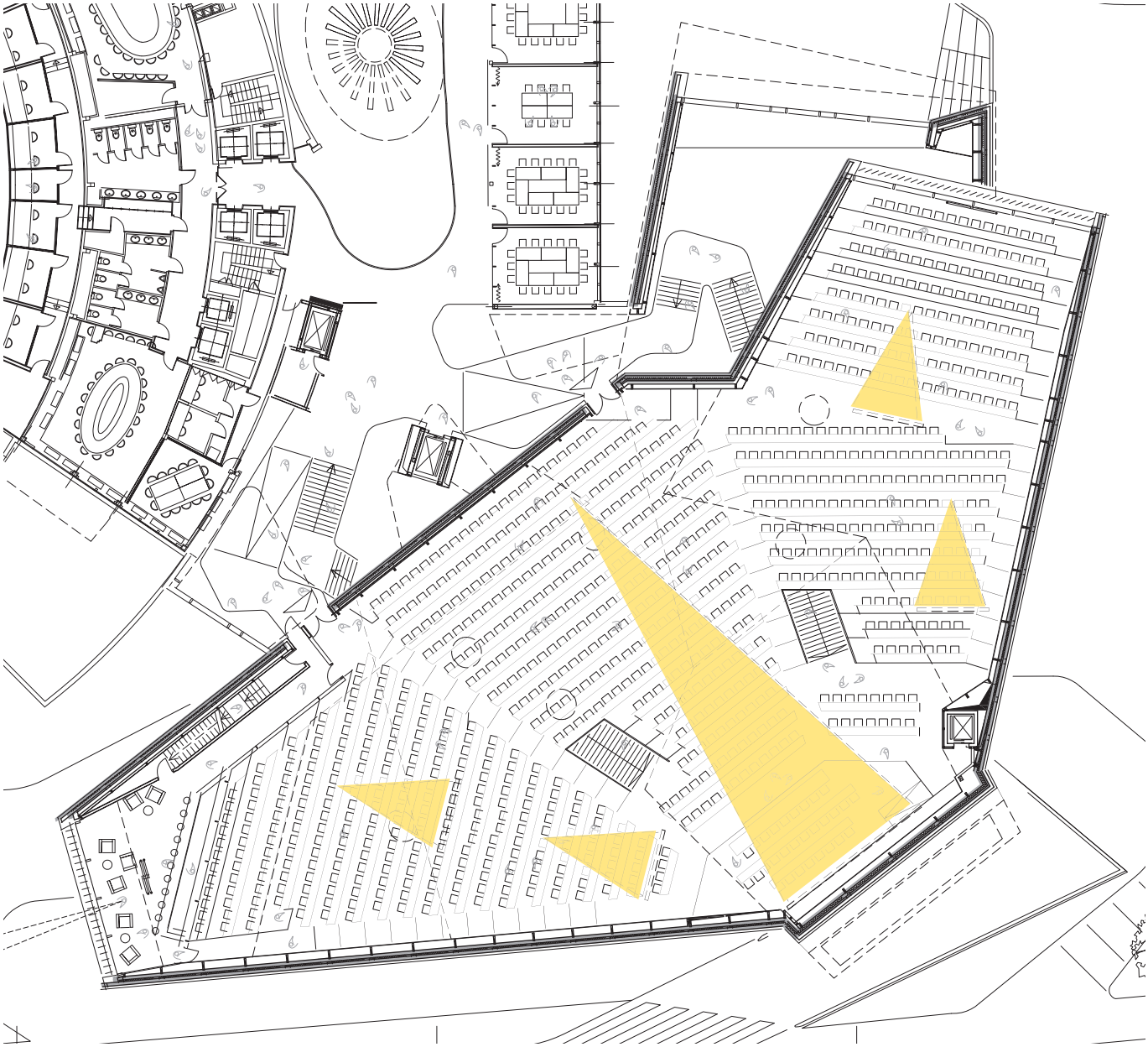
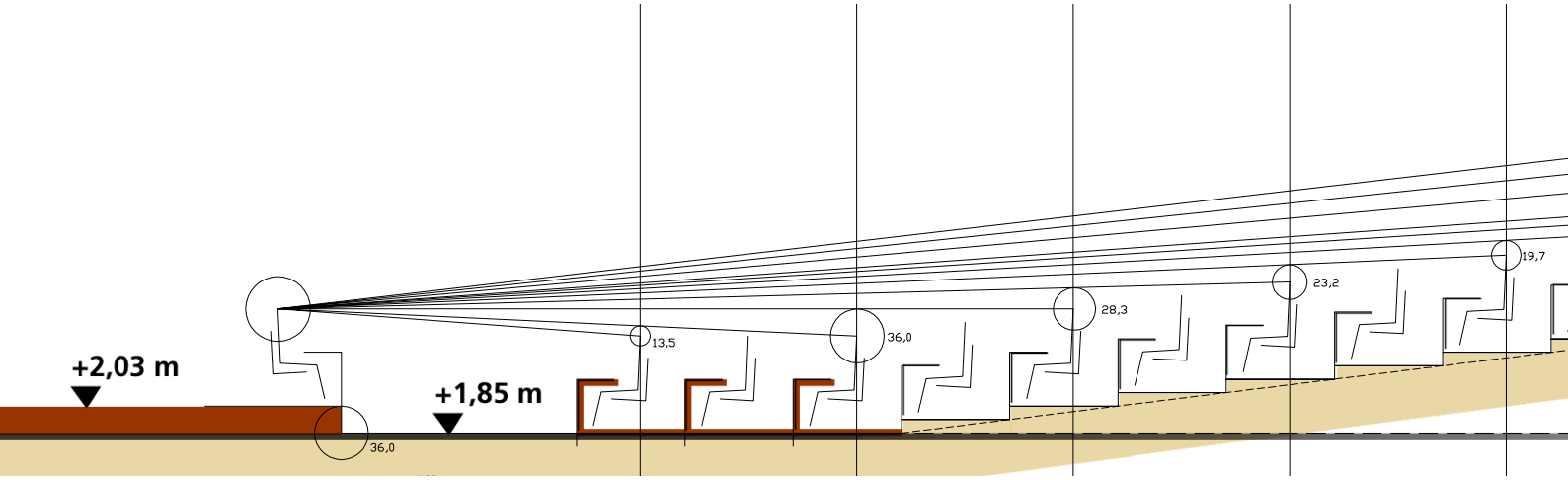


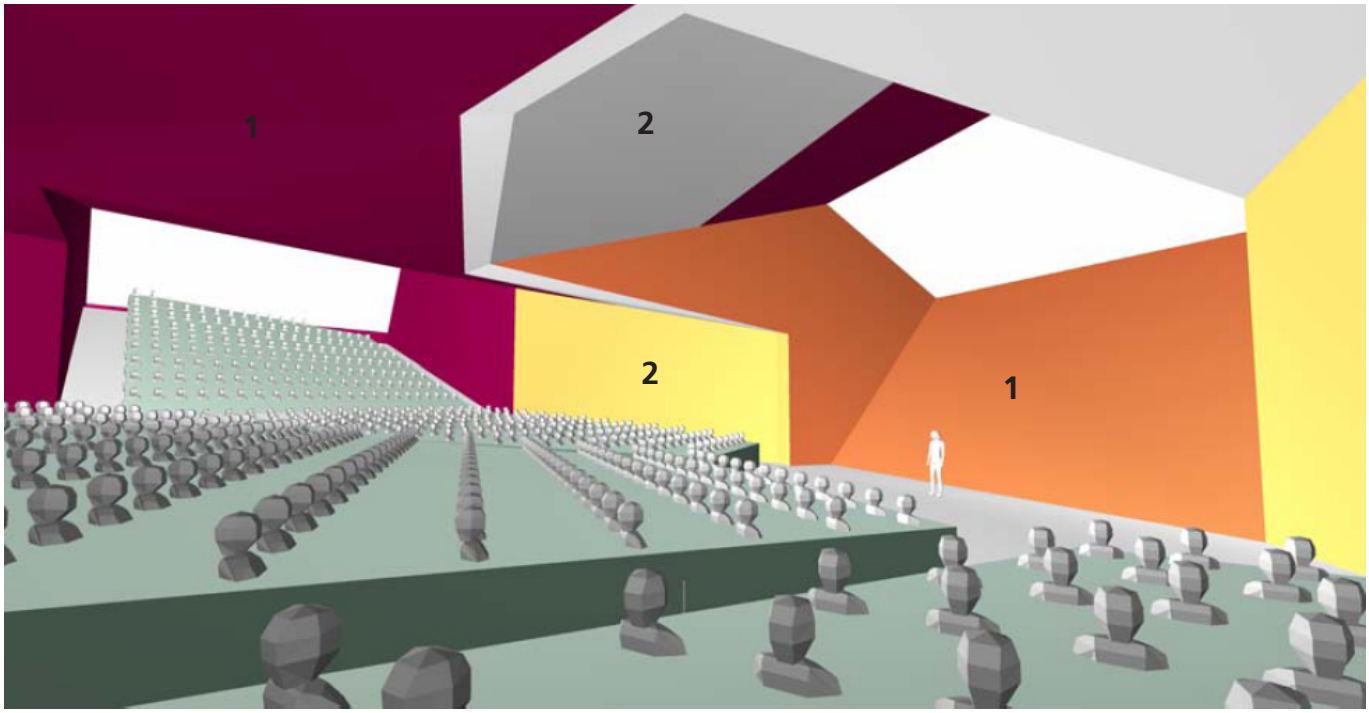
Projection facilities

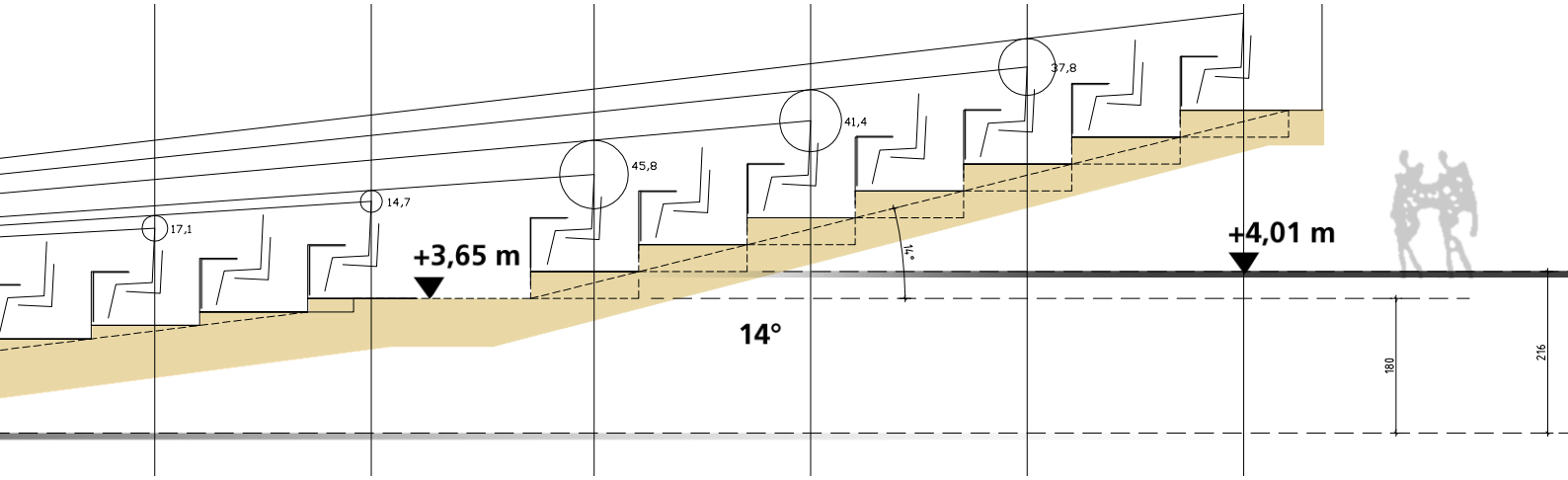
Installation of a main screen behind the Chair and intermediate screens smaller in size at the sides (two on each side); this topology would also offer good visual conditions for all places, but involves, for each place, detailed verification of the heights available and heights of screens so as to ensure that the Chair is never hidden. In this case, the main projector could be housed in a booth at the end of the hall and the four secondary projectors, smaller in size, placed on the ceiling. The projectors can be fitted on telescopic platforms with jacks so that they can be hidden in the false ceiling when they are not in use.

The installation of individual screens on tables was also evaluated; the cost of such an installation currently remains relatively high. However, the manufacturers are currently seeking to transmit video signals by means of the simultaneous interpretation network, which would help to reduce considerably the technical infrastructure; this technology could be ready within two to three years and its development will be monitored. This principle would open the way to the introduction of numerous applications and developments both in audiovisual and IT terms (Internet access, consultation of documents, etc.). The development of the architectural project allows these options to be kept open.

Left: Plan of projection screens







Audio installations

The hall will be equipped with the different modern systems required to hold important meetings and assemblies, with the possibility of disseminating sound and images by means of different media (dissemination in other rooms, on the Internet or on the local IT network, telephone stations etc.).

The different systems such as lighting, sound, simultaneous interpretation, audiovisual equipment etc. may be piloted using a media-control device with a touch screen providing access, by means of scrolling menus and screens, to controls and adjustment of all the facilities. By means of predefined scenarios, it will thus be possible to launch whole series of associated functions using a single control; during a projection for example, the screen and the blinds used to block out the light will be lowered, the level of lighting reduced gradually and the video projectors set in motion by means of a single action.

A high-quality sound facility adapted to the specific acoustic features of the hall will be set up; it will be able to disseminate both words (speeches and conferences) and the sound associated with projections or expressions of any kind.

The installation of a digital-type simultaneous interpretation facility will include three interpreters' stations per booth, a microphone and a listening selection device with headphones or an ear piece for each delegate's place, together with possible listening posts for other listeners; the central equipment including the central units and audio interfaces with the other systems (sound, telephone switchboard etc.) will be installed in the control room. The facility could be complemented by modules required for electronic voting if this function is so desired. Digital recording and archiving devices are also planned.

Technical aspects of acoustics

For the construction of the conference hall, the natural acoustic conditions for conferences to be organized must be adjusted so that high quality intelligibility can be achieved in the hall by using an electro-acoustic system.

Acoustic measures in the rooms are planned, by means of which it will be possible to satisfy the requirements in a room for very high quality intelligibility. Owing to the large dimensions of the hall, the use of an electro-acoustic system is essential and is part of the project.

Above: Lines of vision

Below left: Areas of walls and ceiling to be made absorbent and reflecting:

1: Absorbent
2: Reflecting

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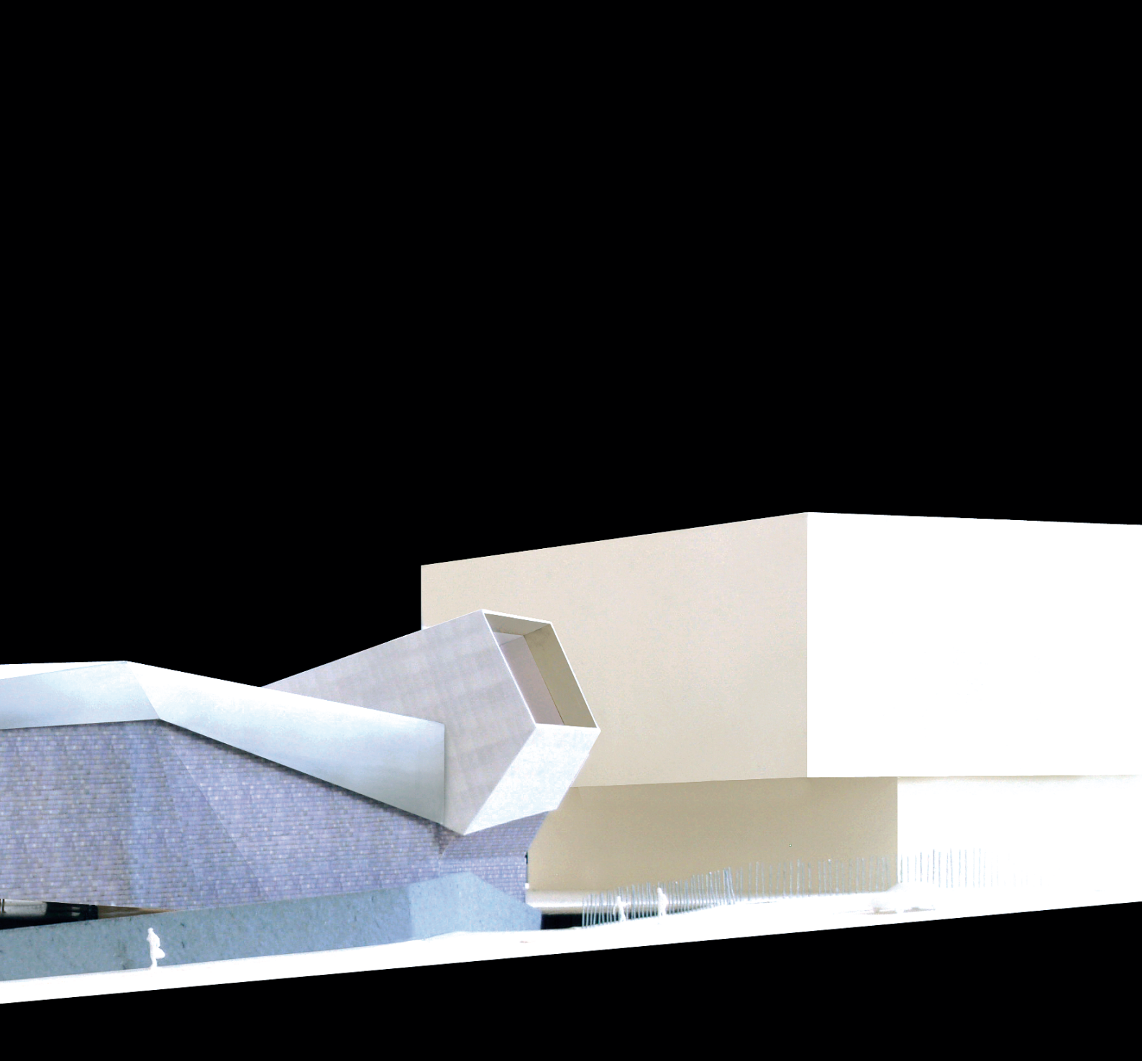

Above: Photo of the mock-up seen from the Place des Nations

New WIPO conference hall

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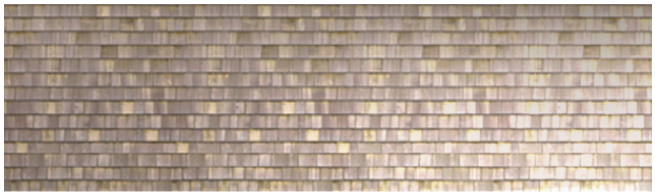
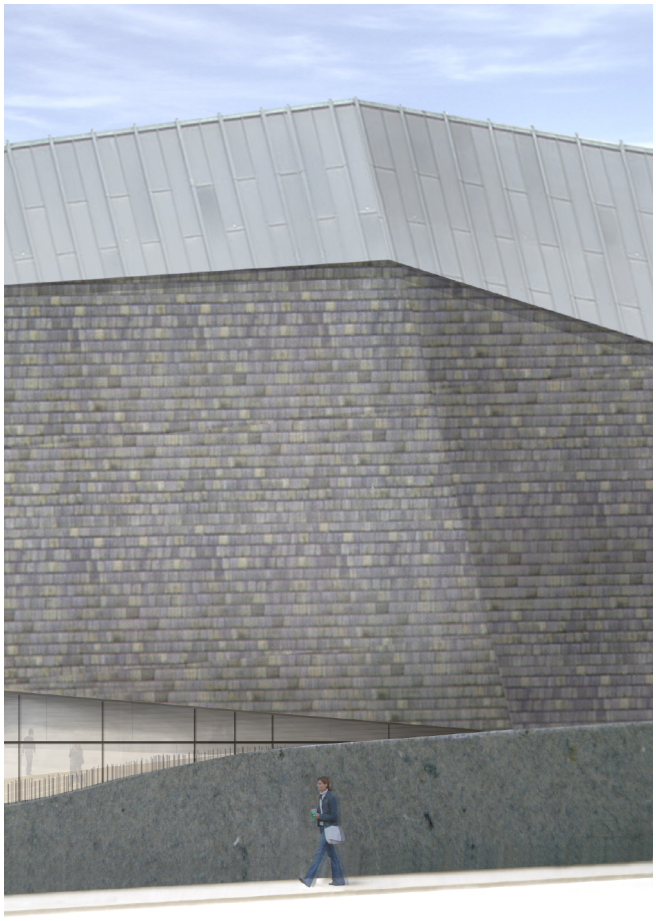
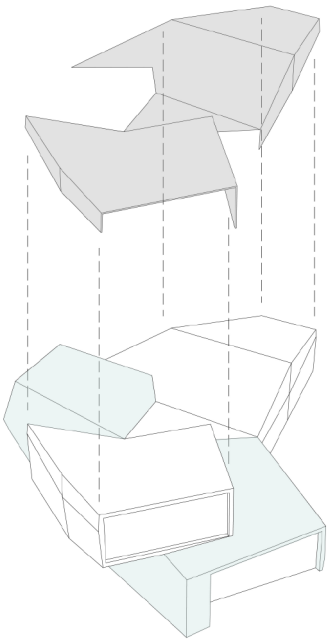
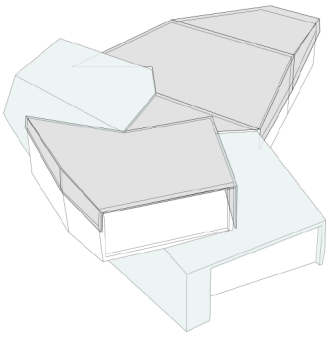








6. EMBODIMENT AND ARCHITECTURAL IMAGE

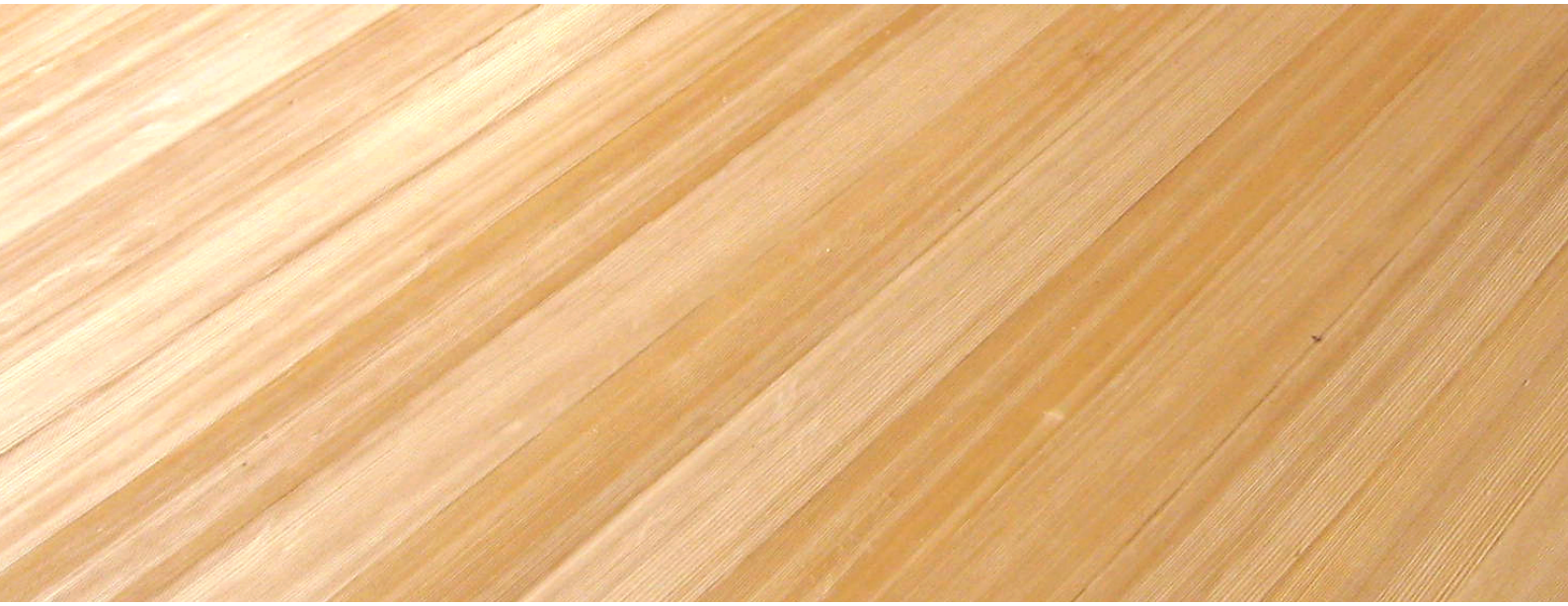
Despite its mass appearance and introverted character, the new conference hall conveys an impression of lightness and willingness to communicate. The significant projections and the transparency which emerges from the openings create an impression of sovereign elegance which would bring to mind a work of sculpture placed between two buildings in the WIPO garden.

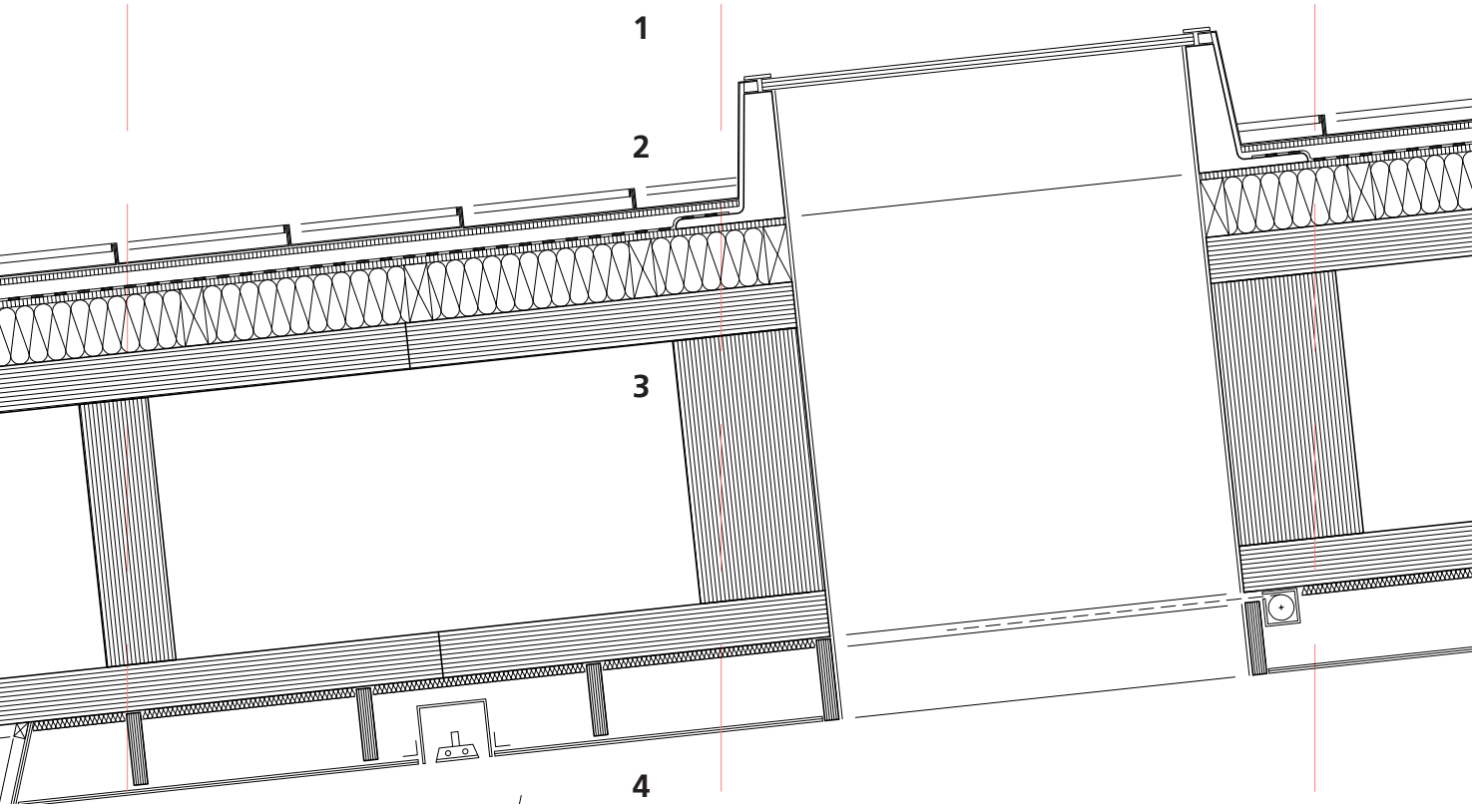
To continue with this image of the sculpture, particular attention is paid to the uniformity of the construction. The body of the hall is made entirely of local wood and shows its skeleton towards the outside and towards the inside. The inner space makes use of the softness and heat of the wood to produce a special place where it is nice to spend time. The clear and uniform structures of white fir wood on the floors, ceilings and walls emphasize the modernity of the hall and reflect the light down to its most remote depths. The inside of the wall constructions constitutes the backbone of the hall and in its hidden areas conceals all the technical facilities and equipment.

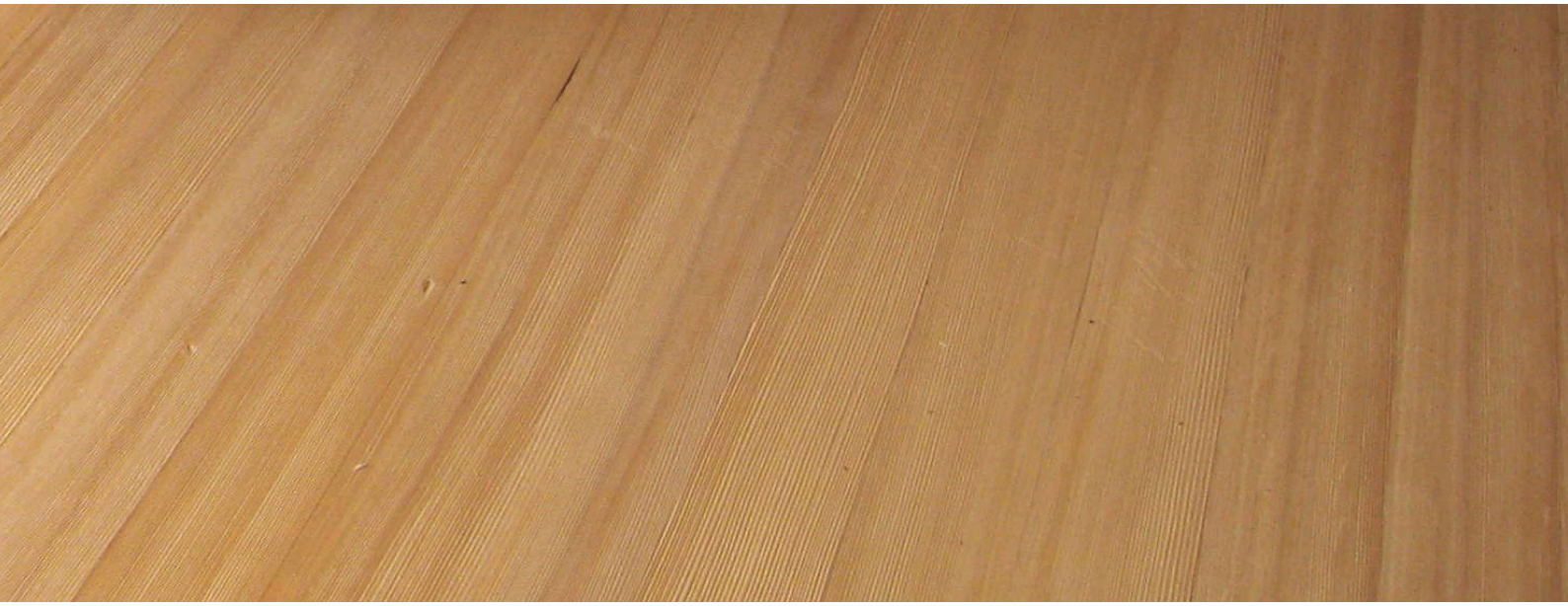
Top right: Diagram of roof envelope.

Top left: Materials used for the envelope: wood, metal and glass

Bottom left: Photo of the mock-up with lath coverings







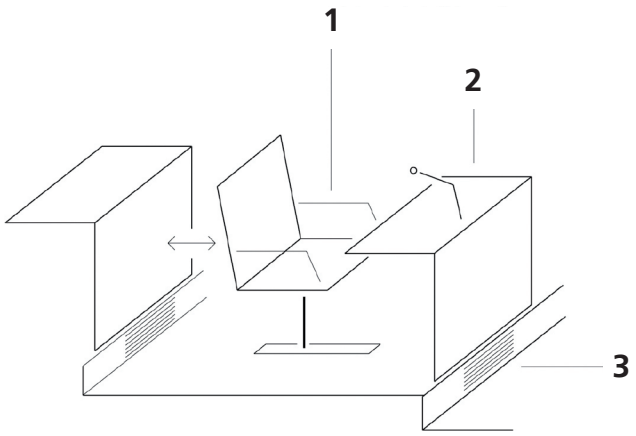
The sculpture wood must also be able to achieve expression on the outside. The references to classic wood-based forms of architecture with lathwork coverings may be transposed here in a contemporary setting and adapted to the scale of the hall with the same grain of the structures.
Of course, the wood is also present not only in the shell of the hall but also in the views from below. Only the roof requires good protection against bad weather and, in the same way as a tablecloth thrown on a table, has been covered with a glass and metal dome.

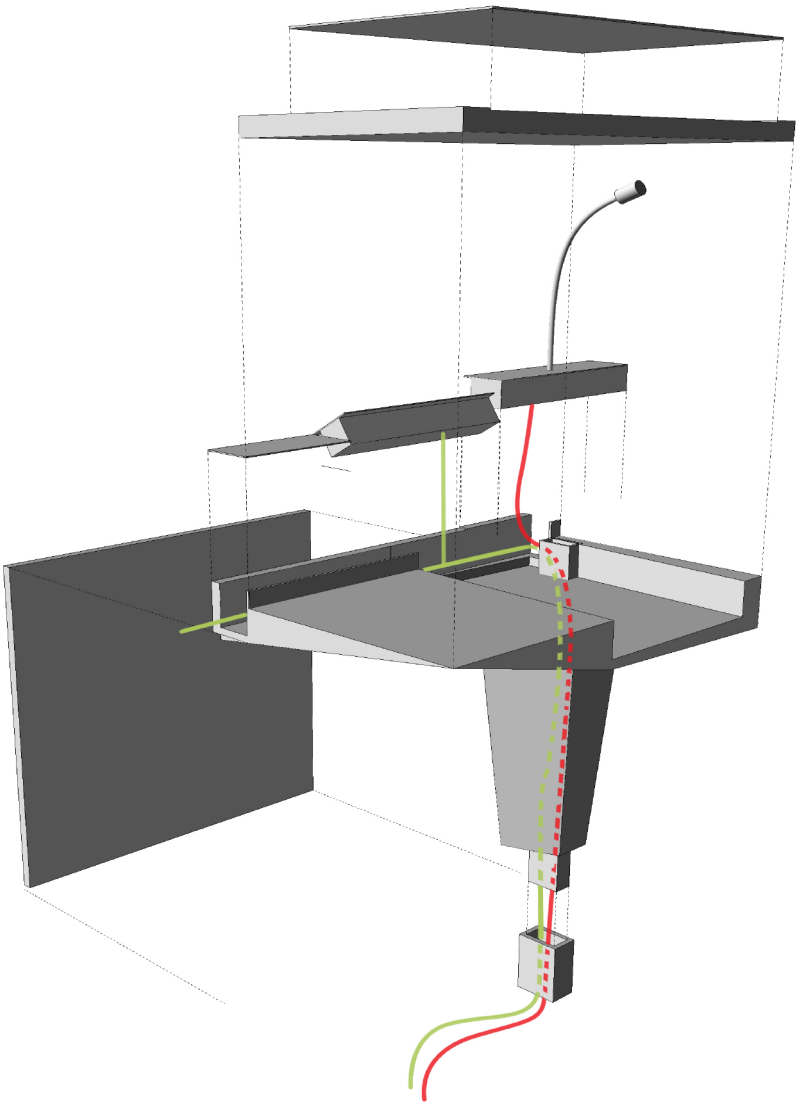
The glass panels present in the joints and openings of the hall are voluntarily detached from the wooden sculpture closed in on itself. They provide the greatest possible transparency and satisfy the requirements imposed both in terms of energy and security.

Above: Indoor white fir wood covering

Below left: Detailed cross section of the roof:

1: Skylight
2: Metallic roof
3: Wooden construction
4: Wooden covering





In the roof, round lighting hatches increase the share of natural light in the internal space and, taking into account the playful and random nature of their arrangement, are defined in a welcome contrast with the clarity of the hall's volumes. All the equipment present inside the hall, for example lighting systems, loudspeakers, cameras and projectors are either incorporated inside the suspended ceiling, or in enormous light bowls hanging from the ceiling and embodying an abstract interpretation of a classical chandelier.

The floor coverings in the lobby are in clear contrast to the sculpted hall. The materials used are closer to the world of the gardens, the outside space and the existing lobby, and consequently emphasize the idea of the continuous landscape and creation of connections.

All the furniture is top-of-the-range quality and must be made to last. It satisfies the current requirements of ergonomics and has, in part, been specially designed for the WIPO conference hall project.

Above left: Diagram of hall furnishings

1: Pivoting chair fixed on a rail
2: Desk
3: Displacement ventilation

Above right: Integration of audiovisual networks in the furniture

Below left: Visualization of a desk in the hall

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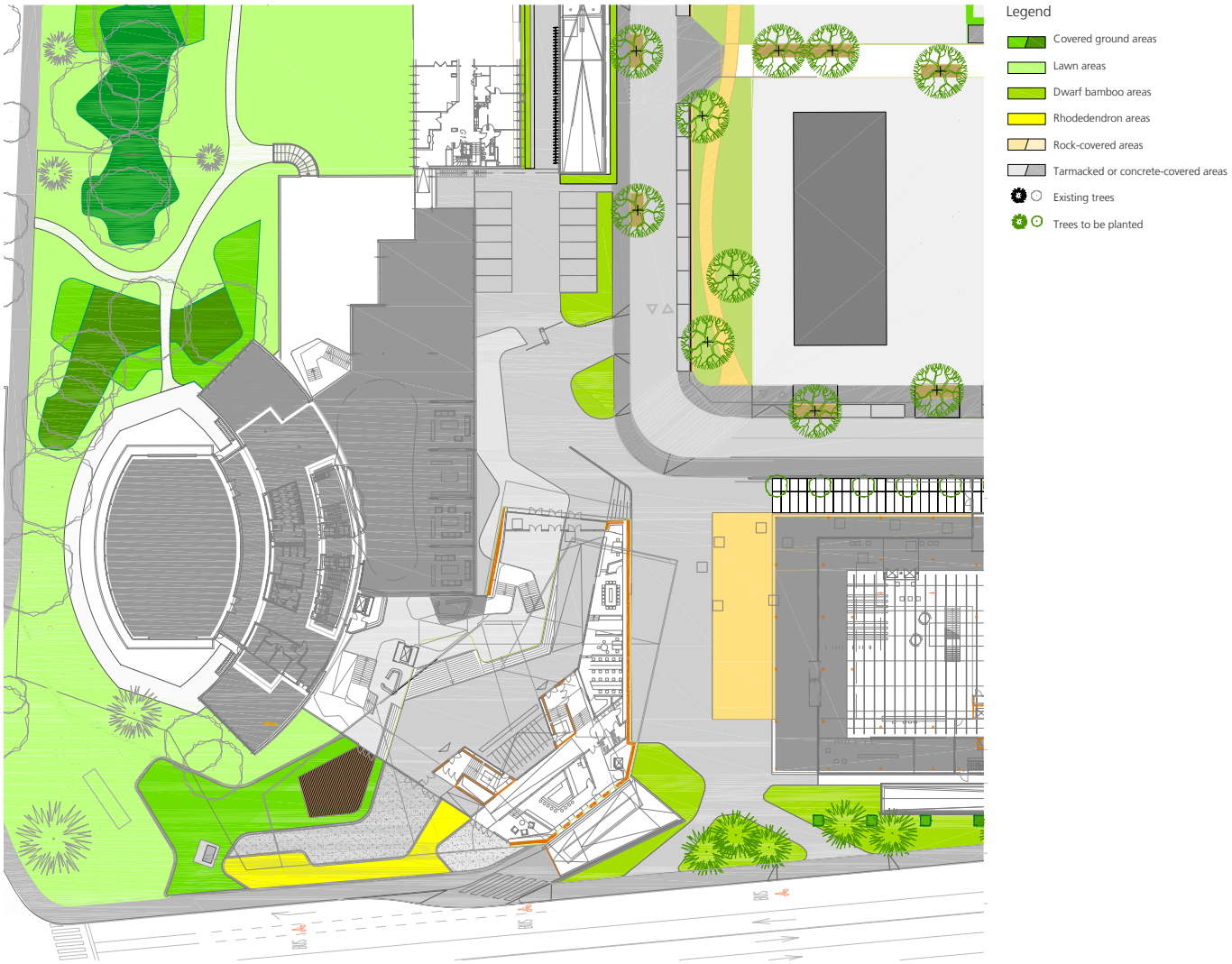

7. LANDSCAPING CONCEPT

The landscaping arrangements in the north east of the plot are designed:

- based on the installation of the new WIPO conference hall,
- according to the access constraints for public domain technical facilities,
- according to the internal distributions and facades of the planned building,
- in the continuity of a slope which develops from the inside outwards,
- and finally, in the spirit of the master landscaper, Burle Marx, author of the 1979 landscaping arrangements, expressing fine sobriety.

In the alternative chosen, the two cedar trees and two large magnolias close to the monumental fountain are kept on a large stretch of lawn.

Opposite the bay window of the new conference hall, there is a clear view onto the Place des Nations and the Alps through the creation of a rocky area, on the scale of the buildings, which is formed in the same way as a mineral waterfall extending the internal spaces. This hard surface is limited by the expanse of a jigsaw mat made up of ground coverings consisting of plants with golden hues and a plantation of yellow spring azaleas, designed according to "Burle Marx".

At the entrance and the foot of the north façade, a fleece of bamboo covering the ground incorporates, in visual terms, the future conference hall in the external areas of the existing buildings or those under construction.

The large conifers initially planned in the place of the future conference hall could be planted in the small island at the end of the open area in front of the new WIPO construction and along the Route de Ferney. At the end of the view greeting visitors arriving from Chemin des Colombettes or Chemin Mon Soleil, this place is located on an embankment and not on slabs.

By considering in more overall terms the landscaped areas of WIPO, it would appear fair to take up the initial layout of the flowerbeds of the Brazilian landscaper in the southern part of the property, in order to recreate the originality and character of a landscaping project devised by one of the recognized artists of the 20th century.

SUSTAINABLE DEVELOPMENT

The project gives priority to full earth plantations which are more sustainable and require less water. As far as possible, the areas are treated where the surface is permeable so as to bring the water back to the natural soil more directly.

A solution involving use of a recycled material will be studied for the production of rocky areas (for example: rubble produced from the digging of tunnels in Switzerland). According to the quality of the rubble, part of the excavated volumes for the construction of the conference hall could be used to create terraces.
The wood used for the outdoor terrace would bear the Forest Stewardship Council (FSC) label.

Above left: Roberto Burle Marx Park at WIPO

Below left: Plan of external fixtures and fittings

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Behnisch Architekten, Stuttgart

Civil engineers consortium
Schlaich, Bergermann + Partner, Stuttgart
T-ingénierie SA, Genève
Erricos Lygdopoulos, Genève

Heating and ventilation engineers consortium
Transsolar Energietechnik GmbH, Stuttgart
Riedweg & Gendre SA, Genève
Sorane SA, Ecublens

Electrical engineers consortium
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Sanitation engineer
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Landscape architect
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Natural lighting
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