

Architectural Competition for the National Concert Hall “Tautos Namai” in Vilnius



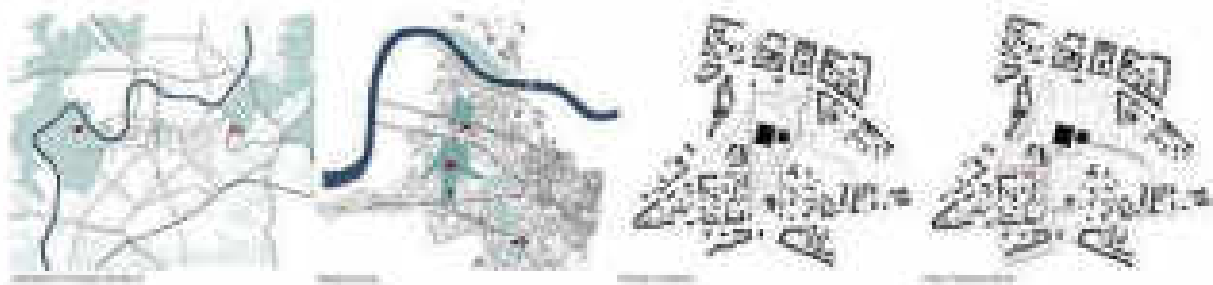
REPORT

01_Town-planning concept

The project intends to consider the new building on Tauras Hill not only as the scenic backdrop of the image of the city from the river, inserted in the network of important public buildings that define the heart of Naujamiestis "Eldership" of the City of Vilnius.

The New Concert Hall becomes the hub of a possible connection with the city to the south, able to build a new and unprecedented territorial link through this new re-thought space.

The project proposal thus provides for "breaking in two" the existing volume of the old building and giving birth to two main "bodies" crossed by a linear park that connects the Northern slopes of Tauras Hill to the former Evangelical Cemetery and the southern garden areas.



This solution makes it possible to achieve three main objectives:

- to link the presence of the new building to the urban structure behind it, in a southerly direction, avoiding the excessive monumentalization also thanks to a new access square to the New Concert Hall able to integrate and conclude the delicate system of open gardens and built spaces that make up the upper part of the hill, dominated by residential housing but also including various public buildings (foreign embassies, the Palace of Marriage, the Church of St. Constantine and St. Michael, a school), as well as numerous service industry and retail buildings;
- to allow the direct connection between open spaces, creating a new "suspended" garden through the volumes, able to introduce new integrated uses of the public space and enrich the experimental character of the building and its urban role;
- to maintain the nodal role of the building in relation to the park, to the slope and to the northern old city, through the articulation of its volumes, the scale of the new relationships that is able to foster and the iconic reinterpretation of traditional materials such as the majolica of its external image.



View from Mount Gedimino

The project area therefore plays an urban barycentric role by entering a wider system of public spaces and green areas within the consolidated fabric of the city of Vilnius. In particular, the relationship between urban elements is presented as a structure with a strong vertical and horizontal directionality. The project for the National Concert Hall in Vilnius is defined both as a node between the historic center and the new city center

north of the Neris river, and as a connecting element between Vingis Park and the Vilnius Castle Cultural Reserve Park.



Masterplan

The main paths take shape from the previous north-south position, increasing the accessibility and usability of the area. In particular, the generation principle followed for the composition of the northern elevation dissuades the visitor from directly accessing the building, favoring a system of paths generated by perspectives that connect the National Concert Hall to the surrounding landscape. The southern elevation, characterized by a strong connection with the historical pre-existences.

The historic staircase to the north-west, which guarantees more direct access to the National Concert Hall, is contrasted by a more articulated system of paths that welcomes flows from different directions. Within this network of routes there is a multi-purpose area intended as a play area or event space.

The paths follow the morphology of the terrain until reaching the highest point of the Taurus Hill. The main pedestrian flow is to be considered as coming from the former cemetery area, as the access is easier, towards the National Concert Hall, where a garden bridge crosses the building and ends with a lookout that connects the green space more panoramic with the former Cemetery and the city to the south.

The main square is characterized by a continuous pavement that surrounds the building and intersects with the V. Mykolasaitis-Putino and M. Valančiaus roads allowing access to buses and taxis and facilitating entry to the Hall for people with limited mobility.

02_Transport concept

The project separates the different mobility flows in order to reach the maximum transport efficiency with the least transformative impact on the current structure of the area. The choice therefore becomes that of removing the private transport from the new building, allowing only public and emergency vehicles to reach the new square.

Public Transportation:

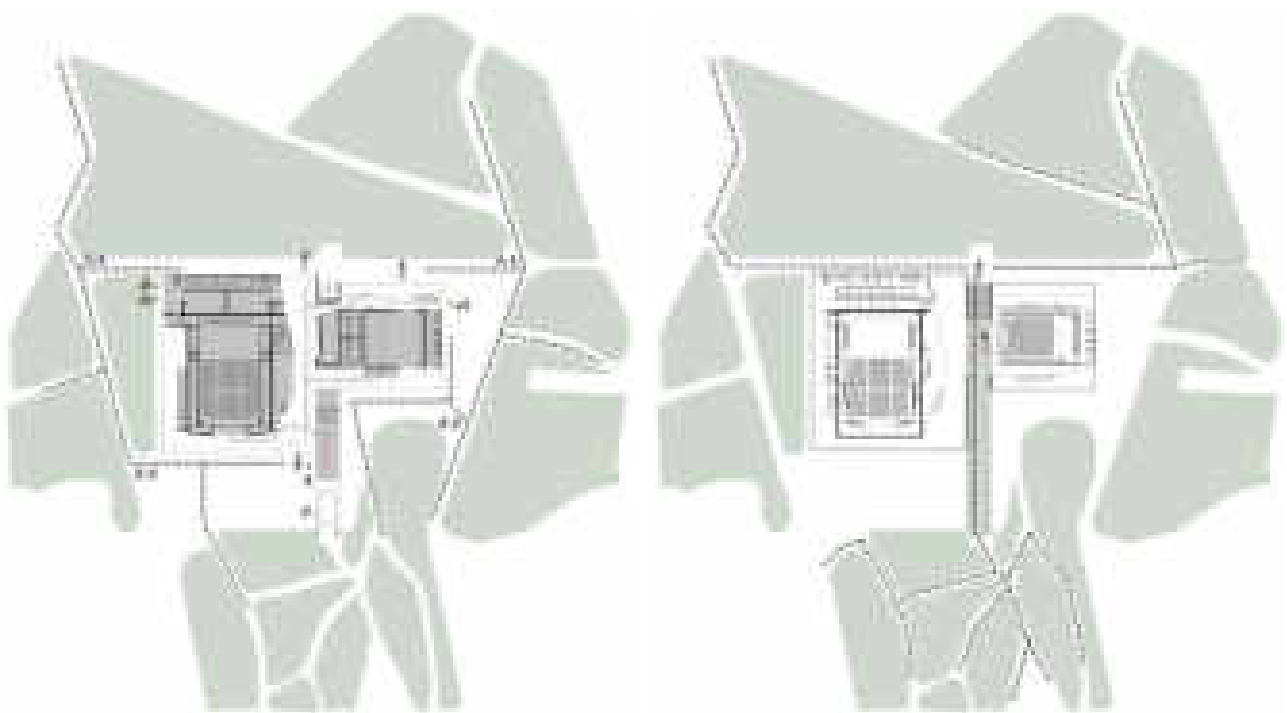
Bus and taxi lines can access the National Concert Hall via M.Valančiaus street, that is planned to be turned into a one-way street in order to minimize the risk of congestion. An appropriate drop-off spot is designed closed to the entrance plaza, from where it is possible to return to J. Basanavičiaus street in the south-east via V.Mykoliaičio-Putino street, thus forming a fluid public mobility circuit.

Technical suppliers

As the technical suppliers require a convenient access route for long and heavy vehicles (up to 12 m in length), we propose to use the Tauras road for this purpose. The existing road climbs naturally along the slope, therefore we redesign the caliber of the road, in a bidirectional sense, also providing direct access to the underground level forming an enlarged lane covered with vegetation, so as to maintain the direct connection, in the upper part, between the two parts of the park and between the cycle and pedestrian paths.

Pedestrian and Bicycles

A parking space for about 100 bicycles is provided at entrance plaza level, near the “glass” volume of the shop. It is set under the “green bridge” that crosses the building and provide a covering roof for the bicycles that can easily reach this point from the different surrounding paths.



Diagrams of pedestrian and cycle mobility at ground floor level and at “green bridge” level

Logistic

As regard to the logistics, the project defines loading bays in the underground parking lot designed for the transfer of the instruments, decorations or any other equipment to the stage of either hall via lifts.

The project provides trucks or mobile TV stations secure facilities in the underground parking lot beneath the building, where items and equipment could be conveniently loaded/unloaded in both winter and summer.

Parking

Concert Hall staff parking allows for 50 vehicles and it's located on the underground level.

03_Architectural concept

The building is the set of two principal articulated volumes. The two programs hosted inside the building generate different volumetrics, given the dissimilar practical requirements: the Grand Hall (with north-south direction) and the Minor Hall (with east-west trend), both connected to the ground floor by a complex system of common spaces and distribution paths.

The volumes containing the rooms are not completely prismatic: their facets depending precisely on the composition of the distribution paths.

These volumes are integrated into a casing covered by an external "skin" made up of majolica pilasters, black in color, with a Raku glazed finish.



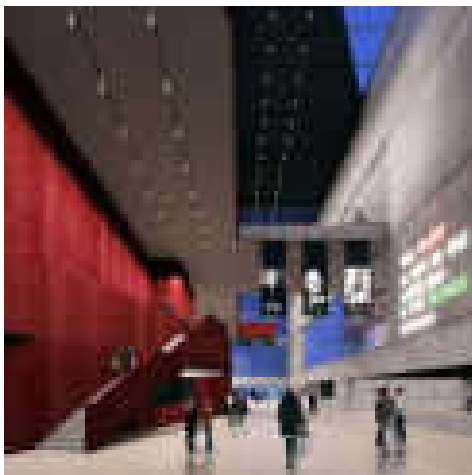
From today to tomorrow

The Foyer

The foyer is a passing space that connects the new square of the Concert Hall with the park along the slope of the Tauras hill.

It is an important continuous system because it favors the connection between these two parts of the city as well as the performance of all the traditional functions and services connected to the activities of the Concert Hall.

The foyer thus becomes the point of contact between the two halls, enhancing, on the one hand the role and the articulation of the spaces dedicated to informations, reception, tickets, wardrobe, etc., on the other, placing itself at the scale of the entire building: a full-height space that allows you to read the entire composition of the volumes and spaces that make up the new Concert Hall.



View from the Foyer



The "Glass Box" and the stained glass works

The stained glass works

Three stained glass works "On work and leisure" by A. Sotškus (1957-1961), located in the existing building of the Trade Union Palace and included in the national register for cultural values, will be inserted as "operating icons" inside the concrete wall that defines the full-height space of the foyer.

This way they will be transformed into "symbolic and iconic" elements, up there more than 12,00 meters high, they will be perceived as if they were the extraordinary windows of a Gothic cathedral.

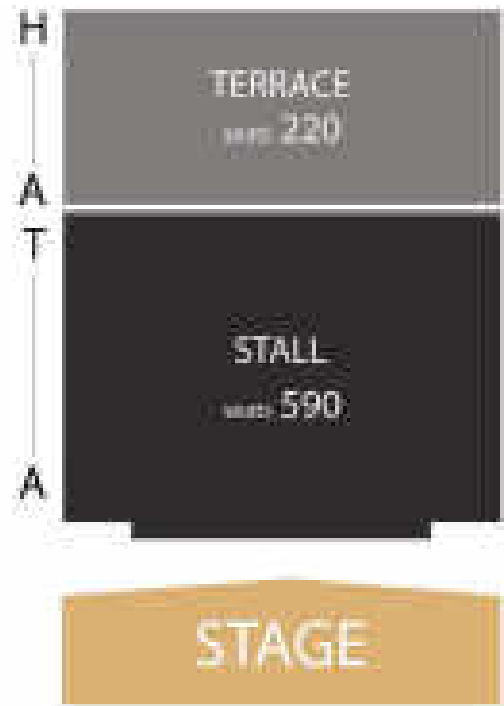
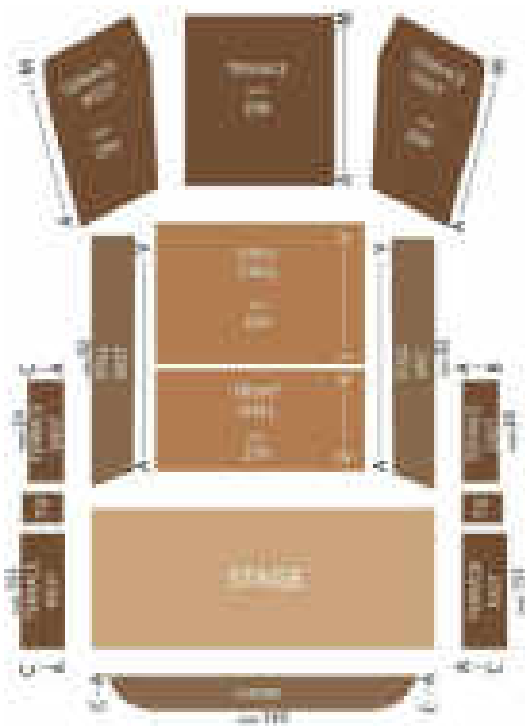
Away from the artistic windows, becoming a sort of background, a special room has been designed, suspended on the foyer: a "glass box" in which to conduct interviews or special events with artists, in total quietness and acoustic isolation but being "seen" "by the public crossing the foyer.

The Great Hall

The project, in some ways, chooses, as a proposal for the Grand Hall, a mixed solution, combining the remarkable acoustics of the halls with a rectangular configuration with the feeling of unity that is formed between the orchestra and the typical audience of the enveloping halls.

The hall has a capacity of about 1736 seats plus 120 seats for the choir. They are divided into three main orders: stalls, side galleries and upper gallery. The room is covered in light wood, suitably designed to offer the best acoustic performance. For the same reason, the silhouette of the room has a slightly curved shape that recalls the shape of the Lithuanian Kantéle, one of the instrument of the popular tradition. The stage is equipped with handling mechanisms to change its configuration from a flat surface to a stepped surface in order to create concerts with an enveloping audience.

The choir and the organ are placed behind the stage.



Set of the Grand and Minor Hall

The Minor Hall

The Minor Hall, with 500 seats (+200 around made in the balcony), is a totally flexible space of dark color, conceived as a real laboratory, with a movable floor and ceiling, and the possibility of intervening on the acoustic properties of the walls. It is a "technical space", flexible and adaptable, with an aesthetic and materials that give back these properties (for example the covering panels and the technical equipment left on sight).



Views on the Grand and Minor halls

The “Green Bridge”

The two main volumes are crossed by a green bridge at level +5m. . It is a linear garden , with trees and shrubs, equipped with seats and lighting, which favors the connection between the two parts of the city and offers a second connection to the inner space.

In a southerly direction it ends up turning into the cover protecting the bicycle parking, integrating itself into the network of pedestrian paths of the garden of the former cemetery, in a northerly direction it ends with a staircase designed like a flight of steps for concerts that looks at the panorama of the new city and where it will be also possible to organize small outdoor musical events.



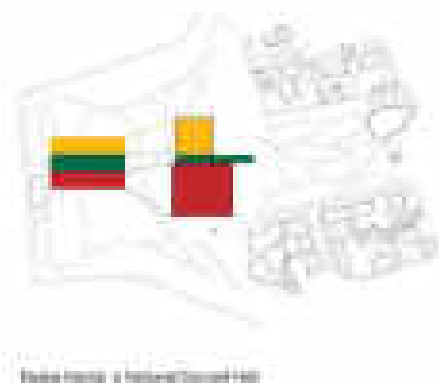
View towards the new city

Tauros Namai: a National Concert Hall

Indirectly through the articulation of the volumes and the chromatic combination of the elements, the project intends to suggest a reference to the national colors of Lithuania.

Thus the Great Hall is defined by an internal volume lined with red steel slabs and the Minor Hall with other ones.

The green bridge that passes between them and the plant context in which the New Concert Hall is located recall the continuity and value attributed to the natural environment that surrounds us.



04_Environmental concept

Climate

From a climatic point of view, the building appears as a glass "envelope" with a continuous facade of very high energy efficiency, with performances and solar factors suitable for a climate with average temperatures fluctuating between the 17°C in summer and the winter -5°C.

The protection of the architectural envelope through a "skin" of vertical ceramic uprights, contributes to the regulation of any temperature peaks (up to 35 degrees centigrade or up to -25 degrees winter), mitigating the impact of summer rains (up to 50 % of the yearly amount of precipitation).

Soil

The building uses the area previously transformed by the presence of the Trade Union Palace.

This means the creation of the appropriate foundation excavations and the construction of the underground levels of the new building, consequently removing the layers of fill material due to landscaping and construction of the Trade Union Palace (the top surface, from 2,2m to 4m, is mixed filling material, gravel, building debris and sandy soil).

Greenery

Since there is no greenery on the lot in question, the design solution wants to preserve and emphasize all the vegetation that's in the nearby territory where the predominant species of trees are the small-leaved lime tree and the Norway maple.

The project thus fits within the natural context without "hurting" it, in full harmony despite the contemporary and non-mimetic image offered by the architectural solution.

Utilities

All the necessary engineering systems are supposed to be provided at this phase of the design process. Explicit needs for engineering systems will be evaluated at a more advanced stage of the project.



View from the acces to the hill



View from the Municipality Tower

05_Funcional layout of the National Concert Hall

Underground

The underground space is articulated along the access direction of the private vehicles, logistics, services and TV / radio.

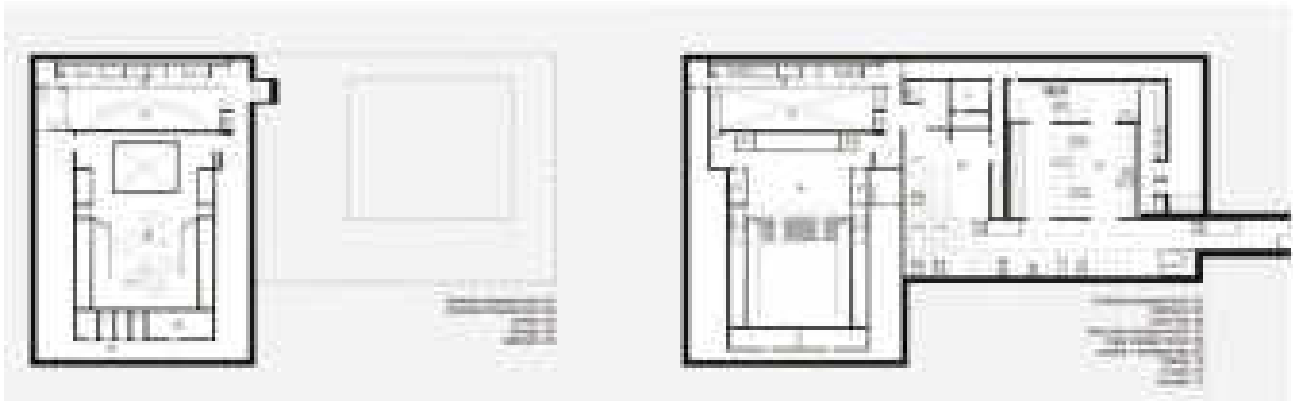
Once past the safety control area, private vehicles find a parking space for 50 seats on the right (with dedicated area and circulation) and to the left as well (row parking).

These car parks are connected to the lift systems to the lobby, the dressing rooms, the administration and the VIP room.

For the vans and trucks, a loading and unloading area is provided close to the storage spaces of the Grand Hall, and indirectly (through dedicated corridors) towards the vertical connections for the Minor Hall located on the first level.

Inside the first ones, isolated phonically from the room, which can be accessed anyway with large loads, there is an independent elevator that allows the movement of instruments towards the test room and the storage spaces in the second underground level.

On this level, there are numerous plant spaces and IT and server rooms.



2 Underground Level

1 Underground Level

Foyer

The Foyer is the main public space accessible both from the square and from the park, connecting the two systems at ground level and allowing total permeability of the building.

This space is basically open and practicable, cancelling the correspondence between open space and public space, thinning its boundaries and mixing the nature and the functional vocation of the spaces themselves. The full-height lobby has numerous views that emphasize the volume and complexity of the architectural body.

Large windows and a skylight allow the generous entry of natural light, as well as the visual permeability between the park, the "green" bridge and the sky.

Its size, and the high-performance insulation of the two Halls, allows the performance of small concerts and indoor events, which can be appreciated both from the same ground level and from the distribution balconies.

Bars, Shop, Educational

The proposal includes two bars and a shop.

The two bars have a different role: one is open to the public for coffee breaks or vernissages, the other is always open and faces the Tauras hill park.

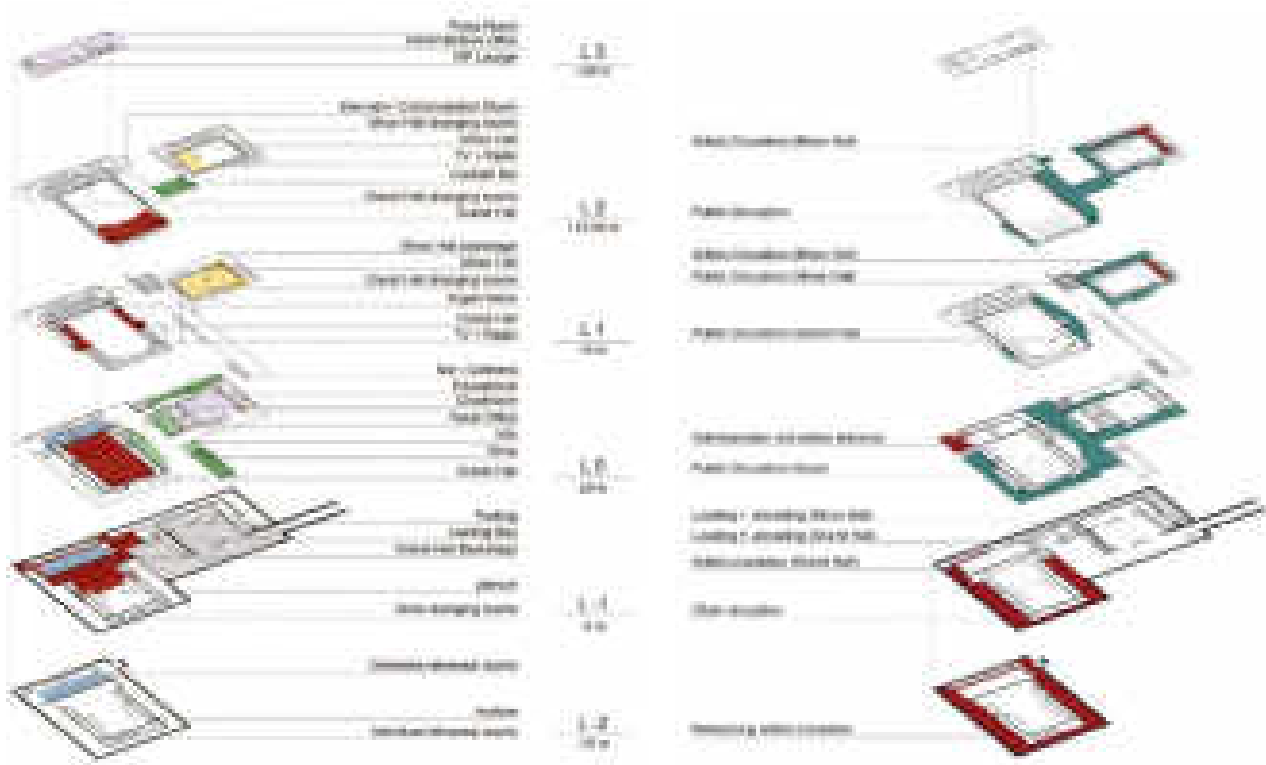
The first is located on a "glass bridge", suspended between the two rooms, at the level of + 12.50 m, inside and outside the building, and is designed as a cocktail bar, easily accessible from the balconies suspended above the foyer.

The Cafeteria is located on the ground floor connected to the pedestrian paths coming from the Tauras hill.

It also offers a bistro service with up to 80 seats, which can be increased by taking the terrace towards the park as a "dehors" during good weather. This location also provides direct access to the loading and unloading service.

The project also includes the presence of a 300 m² shop, which acts as a junction between the inside and the outside, extending its space under the "green" bridge.

Ground floor hosts a flexible educational area with independent access, of about 600m², which can be extended to the south, where it is possible to organize conferences and exhibitions, workshops for children and adults, meetings and independent events.



Services

The design solution envisages the presence of public services on the ground floor and on different levels. The ground floor houses the ticket office, with a maximum of 10 workstations, a wardrobe, an infopoint, both connected to the activity of the pavilions and to the offer of the city, a room for first aid, lockers and lounges. On the ground floor there are 14 bathrooms for each sex (including two disabled boxes) all with adequate equipment.

At +12.50 level there are additional toilets closed to the Halls (10 per gender, distributed in two rooms appropriately equipped).

Dressing rooms and service

The project includes three dedicated groups of dressing rooms and spaces for artists: two for the Grand Hall and one for the Minor Hall. The main system of the Grand Hall includes 32 multiple dressing rooms (for couples or groups), 6 individual and a couple for VIP. They are arranged on four levels at the back of the hall, accessible through dedicated vertical links. Each level has common areas, bathrooms and tool storage. The system also includes two groups of dressing rooms at the underground level, with independent access to the choir tribune.

Technical spaces and broadcast

Each Hall has been provided with a system of technical spaces, linked to the management of the hall and the broadcast of events.

The Grand Hall includes: two stage manager offices under the choir stand, a pick-up / direction booth on the ground floor at the back of the hall, two TV stands on the side stands and a cavity dedicated to TV, radio and theater direction, as well as to the taken at level +5.

Other technical cavities are foreseen at the +12.50 level and the structure allows to host systems above the roof.

A passage for maintenance of the organ is planned at +5. The second room has a pick-up / direction booth at the +5 level at the back of the room, and the entire length of the room houses direction booths and a +12.50 level outlet.

Circulation

The proposal foresees two distribution blocks, one for each hall, integrated with independent ascents that relate the main levels and functions.

These volumes, placed on the bottom of the halls, include:

Main Hall block: two elevators, two stair systems, two elevators. In combination, there are also toilets.

Minor Hall block: two elevators, a stair system, two elevators.

Both blocks reach underground levels, allowing the instruments to be unloaded in the area protected from the weather.

The main block of the hall also connects the administration and the VIP room level.

The independent vertical connections that surround the volumes of the halls, become a generative instrument of shaping and integrating the spaces of perimeter deambulation of the halls themselves.

06_Acoustic solutions of the National Concert Hall

The ceiling of the room is used as a reflector in the parts that can give rise to useful reflections also thanks to a system of suspended acoustic reflectors, suitably positioned and shaped, with a progressive inclination upwards, proceeding towards the back of the room, in order to address harmful reflections outside the area occupied by the public.

The use of discontinuous reflective elements suspended below a reflective ceiling also allows the desired value of the ITDG (Initial Time Delay Gap) without excessively penalizing the reverberation time due to a reduction in the volume of the room.

The ideal ITDG can be considered the smallest 0.02 seconds. The project intends to reduce the ITDG as much as possible because the intimacy will be greater, since the auditory system tends to mix the direct and reflex sounds if they arrive separated by less than 0.02 seconds, otherwise the sounds will be heard separated or with an echo.

The use of panels, suspended from the ceiling, will also contribute to the reflection of the sound by decreasing ITDG, without sacrificing the reverberation time. The panels, arranged on two levels, produce an ITDG in the center of the floor <of 0.02 seconds.

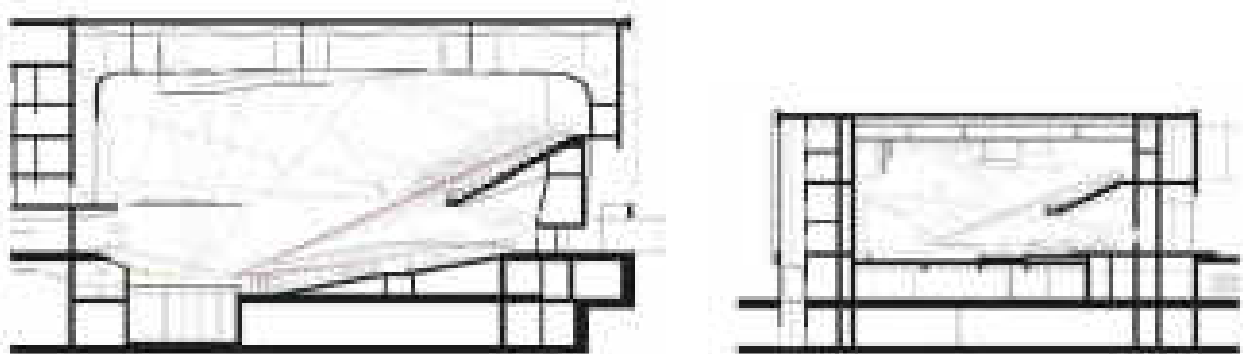
A reverberating room is a "living" room.

Vividness, "liveness", closely linked to reverberation to medium-high frequencies, in a room adds greater fullness of tones to the music, contributes to the comprehensibility of "crescendos" and "decrescendos". One has the feeling that the sound is distributed throughout the room and does not come from a single source.

To improve the clarity of the space, the project intends to increase the first sound energy, that is the one that arrives within the eighty thousandths of initial seconds, to the detriment of the one that arrives later. For this reason, the most distant surfaces from the source are more harmful. Yes, that is, that the structure is caught up in the energy audience in the form of reflected waves (one at 80 ms).

For this reason, the surfaces furthest from the source (room bottom and bottom sides) are sound absorbing so as to decrease the amount of "harmful" energy.

In other words, the structure is prevented from re-introducing negative energy into the audience in the form of reflected waves that reach the viewer with excessive delay (over 80 ms).



Technical section of the halls

07_Engineering and technical systems of the National Concert Hall

Audio and light Systems

Amplification systems can be installed and removed in both halls, in form of stage amplification or linear arrays systems. Spatial sound systems can be installed, by acting on the performative walls of each hall. The required sound engineers rooms are provided, both front of house and separate. Staff rooms have been provided near the stages.

Performance lights are provided in both halls. The grand hall features a fixed system mounted behind the technical acoustic ceiling, providing the typical performative angles. The minor hall features a double line of lights mounted on the sides of the hall, together with a movable spatial support hung on the ceiling. Both halls are provided with service lights on stages, bridges and other spaces. Auditorium lights are provided for both halls. All lights can be operated from dedicated spaces.

Video Reproduction System

Large video projectors are provided in both halls, integrated in the ceiling system. Videos can be broadcast both in the park, the plaza and the foyer, with temporary screens, or projecting on plain surfaces. TV broadcasters areas (both loading+unloading and control rooms are provided).

Technical and Misc. rooms

IT rooms are provided, as well as other spaces. Recording studio is provided, facing the stained glass windows. Lower stage machinery is provided in the basement of the grand hall (hydraulic lifts), in order to mobilize the stage allowing various conformations, while a space on top of the hall is provided to host various machineries. The minor hall features stage pantographs to produce multiple conformations and a machinery room is provided on top of the hall.

08_Building finish materials

An Iconic Architecture

The materials chosen allow us to read the "spirit" of the place according to different perceptive plans.

The first, and fundamental, concerns the position of the building at the top of the hill, which in fact constitutes a scenic background for the entire historic city, for those observing from the Neris river.

For this particular condition we have imagined covering the glass core that includes the Concert Hall spaces with a system of black robust double-walled ceramic slats with steel core and joints with precision connectors.

This choice puts the project in continuity with the other "black" elements that constitute the crowning of important buildings of the city (bell towers, domes, etc.).

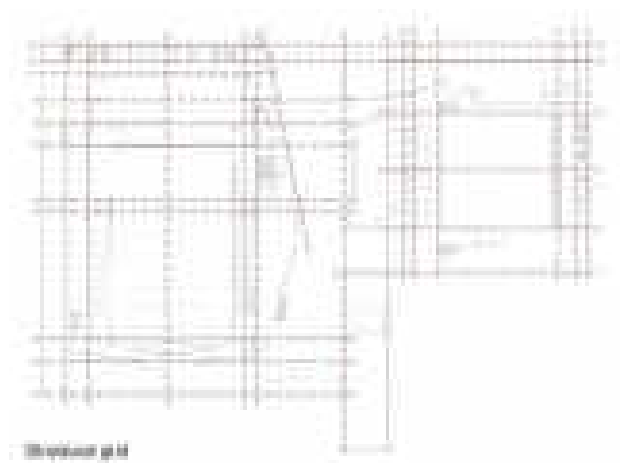
The building somehow becomes the crowning of the Toro hill which constitutes, so to speak, the "body" on the urban scale.

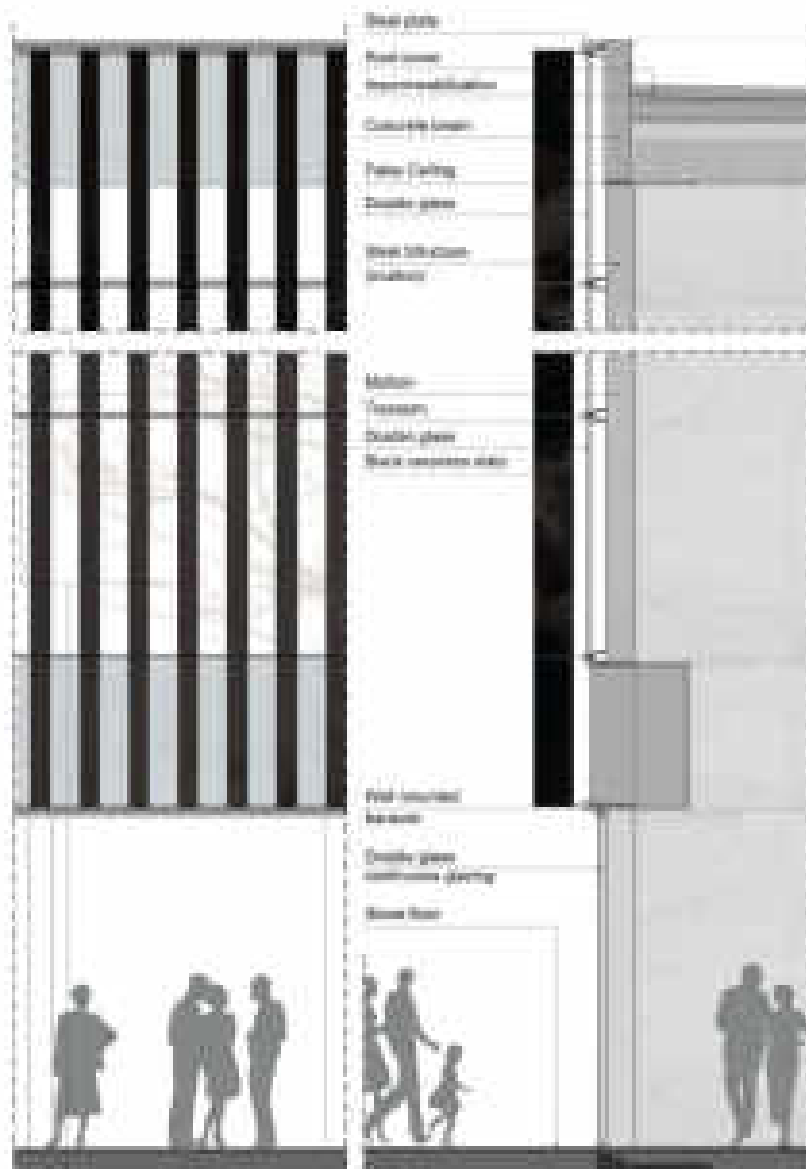
09_Structural concept

Under the structural point of view, the building is realized of a series of reinforced concrete bearing walls that sustain a system of warren steel trusses able to carry both the weight of the layers that compose the steel-plate roofing, and the ceilings that define the interior shape of the halls.

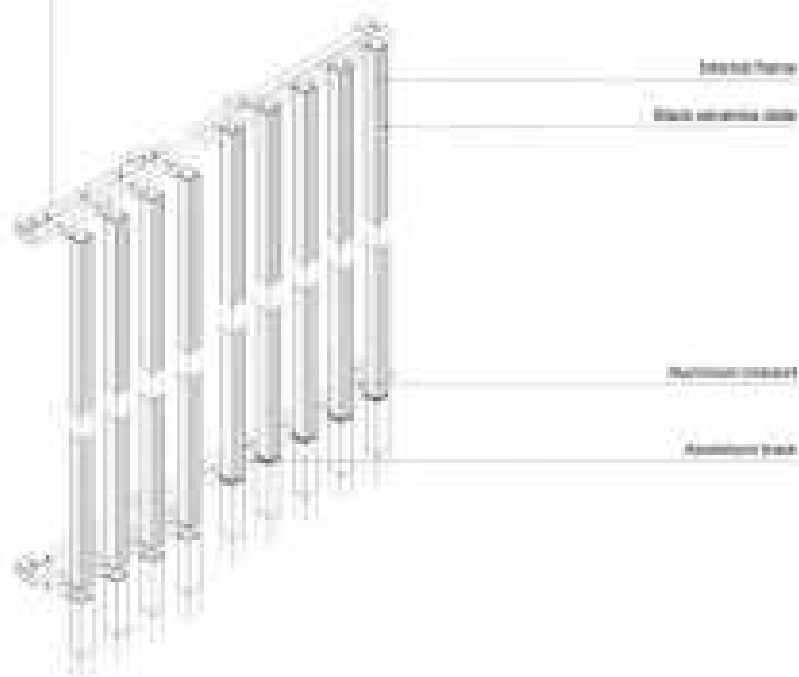
The continuous façade, as mentioned above, is composed of a self standing curtain wall, composed of a mullion/transom steel structure (of box-shaped section profiles) and continuous glazing, upon which all exterior cladding is hung.

The basement of the building provides stiff foundations for the structure.





Detail | Scale 1:50



NATIONAL CONCERT HALL „TAUTOS NAMAI“

V.MYKOLAICIO-PUTINO G. 5, VILNIUJE

INTERNATIONAL ARCHITECTURAL DESIGN COMPETITION

KEY PARAMETERS OF THE BUILDING

Project Code: AO8672

Total area (netto) of the building	16.739,00 m ²
Footprint size (bruto) of the building	7.650,00 m ²
The maximum building height	25 m
Number of the Grand hall seats	1736 seats
Grand hall area	1.258,00 m ²
Number of the Small hall seats	810 seats
Small hall area	557,00 m ²