

LYCEUM AND HOTEL WITH CONFERENCE CENTER
COMPETITION IN VASARIO 16-osios STREET IN VILNIUS

017056



URBANISTIC CONCEPT

The site where new buildings of Vilnius Lyceum and a hotel are to be designed, is in the central part of the city, next to the river Neris and between the busy streets of A. Goštauto, J. Tumo - Vaižganto and Vasario 16-osios. The area is on the left bank of the Neris, offering wonderful views from the main viewpoints on the other side of the river and the White Bridge (Baltasis tiltas). The site is in the historical part of Vilnius city, called the New Town. The St. Jacob Hospital Building Complex located in the site is registered in the cultural heritage register. The complex consists of four buildings of heterogeneous construction and architecture, the layout of which forms the courtyard. The adjacent church of the Apostles St. Philip and James, which dominates the entire quarter, is of special importance for the site, as well as the buildings of the Dominican Convent.

The urban concept aims to create a homogeneous quarter by integrating existing buildings of the St. Jacob's Hospital Complex, to preserve the visual domination of St. Apostle Philip and James Church and Dominican Monastery and to incorporate new functions in the quarter.

The existing buildings of the former hospital are joined by an underground section, and a newly designed building completes the perimeter of Vasario 16-osios street. The newly created volumes along J. Tumo-Vaižganto Street are designed to form the street boundaries and open the view the Church. The elevation of A.Goštauto street is not closed, visual links with the church are maintained, as well as the flow of pedestrians from the White Bridge to the courtyard of the territory is extended. The courtyard connects Lyceum school and kindergarten and hotel complexes, dividing them by function but maintaining public access. A public space is created in the yard, which overlooks the right bank of the Neris River and the historical complex located in the projected territory.

ARCHITECTURAL CONCEPT

The main architectural concept is to reveal the beauty of the historically formed architectural ensemble, not obscuring it by new buildings and intricate solutions, but subtly complementing and completing the existing complex and forming an inner square at the heart of it. The square connects the monastery complex with the designed buildings of Vilnius Lyceum and the hotel, whose restrained façade expression is a reference to the adjoining monastery building. The square serves as a public space offering stunning views of both the church and the modern right bank of the Neris. In addition to its function as a public space, the square (courtyard) also meets the needs of both the Lyceum and kindergarten, which in its aesthetics resemble a baroque convent garden.



FUNCTIONAL DESIGN OF BUILDINGS

The designed complex consists of three groups of buildings:

1. Hotel with conference center
2. Lyceum buildings
3. Underground parking

Hotel with conference center

A conference center (800 sq. m. size) with a separate hall is situated on the underground floor, and a block of service facilities for the hotel needs is located nearby on the same floor.

A reception with a lounge and spa is being designed on the ground floor. From there all flows of visitors to the hotel complex are distributed. The first floor of the building is divided into separate blocks. The first one hosts the restaurant, which overlooks the courtyard of the area. The second block is used for hotel rooms, while the third one - for commercial premises, access into them being provided from the side of the Lukiškės Square. The rest of the space of the building - the third, fourth and attic floors - are used for hotel rooms with vertical links and service rooms. A total of 250 hotel rooms was designed.

The buildings of Lyceum

The Lyceum kindergarten and school are connected on the ground floor by a common space with an amphitheater. This space also distributes the flows to different volumes of the complex.

The existing building along A. Goštauto str. is dedicated to the kindergarten. The plinth floor is opened, and administration premises are designed there. Rooms for kindergarten groups and all necessary premises are located on the ground and first floors. On the top floor - the attic, a hall of 580 sq. m. is designed to meet the needs of both the kindergarten and the school.

Existing buildings along Vasario 16-osios st. are dedicated to the school. A total of 32 classes are designed in the buildings. The attic floor of the first building also has a small hall of 200 sq. m., and premises for school administration are located on the second floor. The one-story building on the inner part of the plot is dedicated to the dining room and kitchen.

Underground parking

The parking is designed in the central part of the site, underground, which is accessed through the southern part of the site. The underground parking is designed on four elevated levels, the traffic is organised two-ways. A total of 235 parking spaces were designed.

MATERIALS FOR BUILDINGS AND SITES

The finishing materials of buildings are of the following types:

1. The materials of existing buildings undergoing restoration are restored in accordance with the requirements of monument management;
2. Stone slabs are used for the newly designed square, the land next to the kindergarten is covered by special granular cover and natural lawn;
3. Newly designed buildings have finishing of concrete layer with matrix.

TRANSPORT AND PEDESTRIAN TRAFFIC SOLUTIONS

An important task in the design of the complex was to solve traffic and pedestrian flows so that they do not intersect. In total, three entrances to the territory are designed:

1. In the southern part, a two-way access to the underground parking is being designed;
2. A new building with an arc is being designed on Vasario 16-osios str. for special transport access;
3. A one-sided passage for a temporary bus stop and five "Kiss and Ride" stops for school needs are being designed in the north.

Special transport has access to the inner part of the site if needed.

Pedestrians moving from the White Bridge or Lukiškės Square have free access to the courtyard of the complex. The courtyard is divided into three parts: a public space for all people and hotel visitors, a separated green area for the kindergarten and a school area. These three zones do not intersect and are easily accessible to each group. Within the territory, pedestrians move around the pavement, access to buildings and interior spaces for the disabled persons is provided.

ENERGY SAVING SOLUTIONS

The new hotel with conference center and the Lyceum building have been designed with A ++ energy class. The project offers energy efficient solutions as well as the use of renewable energy resources. The main sustainability criteria are based on LEED, BREEAM and other good practices. The project proposes the following essential building and site criteria:

Transport and mobility

A movement strategy has been developed with particular attention to the separation of traffic flows, the separation of pedestrian flows, the movement of people of different ages and physical capacities and the disabled on the site. Inside and outside the parking area ensures safe movement of pedestrians from the parking area to the building. A bicycle storage facility for 20 vehicles was designed.

Energy and the environment

The project proposes not to use (CFC) -based refrigerants in HVAC systems. Instead, it is proposed to use renewable energy systems that cover > 5-10 percent of annual costs of the building. Exterior blinds or perforated roller blinds are provided in newly designed buildings for solar control.

Indoor microclimate

It is proposed to use mechanically ventilated spaces with recuperation in the building. Each vent chamber that supplies air to the premises has either particle filters (F7 class or higher) or air purifiers. This allows individual control of thermal comfort. Natural light is provided in all living and study areas, classrooms, lounges and conference rooms. The interior of the building provides good sound insulation and noise level of <40dB.

CONSTRUCTION SOLUTIONS FOR BUILDINGS

There are two types of constructive solutions for a complex:

1. Traditional solutions are used for the reconstruction of existing buildings - reinforcement of ceilings, replacement of wooden roof structures with metal structures.
2. Construction of newly designed buildings - prefabricated reinforced concrete framework. The foundations are drilled, the grilles are monolithic. Exterior walls of buildings made of prefabricated three-layer reinforced concrete panels. A high quality matrix is used for the finishing layer.

The main columns have a cross section of 400mm, internal stairwells, shaft walls, diaphragm monolithic or prefabricated reinforced concrete elements. Roofs - single layer reinforced concrete slabs, decoration - tiles.

PLOT AND BUILDING GENERAL INDICATORS

TITLE	UNIT	QUANTITY	NOTES
I. PLOT			
1. Plot area	sq.m	12210	
2. Plot intensity		0.9	
3. Plot density	%	42	
5. Number of parking spaces	unit		235 in the underground car parking 5 Kiss & Ride 2 for bus stops
I. BUILDINGS			
II. 1.1 Total area of all buildings	sq.m	14970	Below are the building areas for individual buildings
II.1.2 Common ground for all buildings of an area (without underground parking and newly designed underground parts of buildings)	sq.m	11125	Below are the building areas for individual buildings
II.2 Total building area of all buildings	sq.m	5100	Below are the building areas for individual buildings
II.3 The general volume of all buildings	cb.m	59200	Below are the volumes for the individual buildings
1. Newly designed hotel with conference center:			
1.1 target indicators			
1.2. total area	sq.m	9000	
1.2.1. useful area	sq.m	5340	250 hotel rooms

1.3. volume	cb.m	30500	
1.4. number of floors	unit	4+R+M	
1.5. the height of the building	m	19.3	upper alt. 114.80
1.6 building ground area	sq.m	2700	
2. Lyceum			
2.1 target indicators			
2.2. total area	sq.m	5970	
2.2.1. useful area	sq.m	3700	4 groups for kindergartens 32 classrooms
2.3. volume	cb.m	28700	
2.4. number of floors			
2.4.1 Kindergarten	unit	2+C+M	
2.4.2 1st Lyceum building	unit	2+M	
2.4.3 2nd Lyceum building	unit	2+R+M	
2.4.4 3rd Lyceum building	unit	3+M	
2.4.5 Canteen	unit	1	
2.5. the height of the building			
2.4.1 Kindergarten	m	18.5	upper alt. 114.50
2.4.2 1st Lyceum building	m	18.5	upper alt. 114.50
2.4.3 2nd Lyceum building	m	17.0	upper alt. 114.50
2.4.4 3rd Lyceum building	m	17.3	upper alt. 116.40
2.4.5 Canteen	m	7.8	upper alt. 107.30
2.6 building ground area	sq.m	2400	