

CATEGORY 2

RENOVATED PARKING GARAGE

OBILICEV VENAC BELGRADE, SERBIA

LOCATION



Obilicev Venac garage is a public above-ground garage situated in the central urban core of Belgrade, with a direct access to the pedestrian zone



It is located near the public transportation spots, as well as the most important cultural monument buildings



RENOVATION PROJECT

BUILT

1975.

1978.

EXPANDED

RECONSTRUCTION
AND EXPANSION

April
2016

June
2017

WORKS COMPLETED

Garage was built in 1975

In 2016, reconstruction and expansion of the garage began

Works were completed in 2017



Four additional semi-levels have been built so that the garage now has 16 semi-levels and an area of **19 797 m²**

The existing structure has been rehabilitated and reinforced, protected from corrosion and fire

An elevator was installed



804
PARKING SPACES

The garage capacity has increased by 178 parking spaces



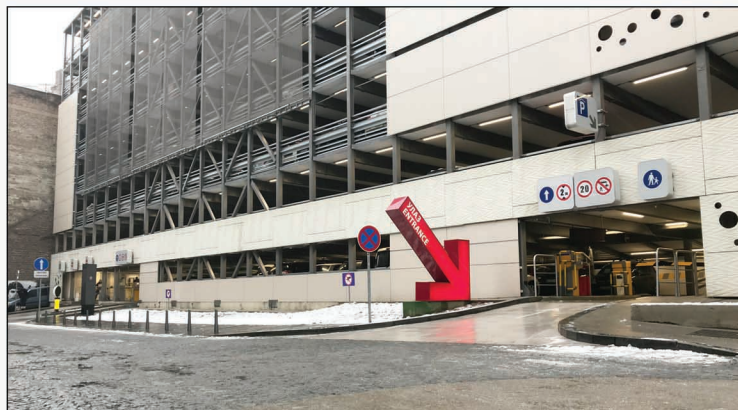
Complete replacement of all installations was completed and new systems introduced

*The area around the garage was also developed, and one of the streets was turned into a pedestrian-only street. Works on the reconstruction of the surrounding space were the subject of another project, but they significantly affected the functioning and appearance of the garage

IDENTIFICATION



SIGNALIZATION



For guidance to the garage, vertical signals were placed on the main streets near the garage. The installed signs show the current number of vacant parking spaces in the garage

In front of one of the two entrances, an illuminated indication was installed to guide the drivers

A totem was installed with information about the car park, the number of parking spaces, prices, possible payment method



Entrances to and exits from the garage are marked. Inside the garage, illuminated traffic signs were installed to direct the movement of drivers and pedestrians inside the building.

In the whole garage, the floor covering was replaced and a new horizontal signage was also installed

ENVIRONMENTAL IMPACT

We are witnessing a steady increase in the number of vehicles. It is worrisome that by 2030 the number of cars will double compared to the existing situation. All this indicates the need of applying the principles of sustainable construction.

Commitment of Parking Service to renewable energy sources shows that we are aware of this issue.



In recognition of all the implemented measures and the works performed on the building, in April 2018 the garage Obilicev Venac became the first certified **Parksmart** garage in Europe.

WWW.USGBC.ORG



The facade of the reconstructed garage balanced modern and classical architecture of the 20th century and put a significant mark on the urban landscape.

The facade was made of the state-of-the-art materials allowing natural ventilation of the garage



All steel elements were protected from corrosion and fire.

Walls and ceilings were painted with ecological paints with low content of organic compounds.

The numbering of each level is indicated in different color for easier orientation in the garage.



Waste sorting and recycling bins for 6 different types of waste are placed in the garage





ENVIRONMENTAL IMPACT



Solar power plant is installed in the building as the cleanest source of energy.

180 solar panels with power of 50 kW were installed on the building roof to generate electricity for supplying the garage. It is primarily used to power the lighting system of the car park.

The surplus of energy produced is stored in batteries for use in the evening.



Roof was constructed according to built-up roof system, and a part of the roof towards Obilicev Venac and Maršala Birjuzova streets was made lighter and was glazed to give the impression of a smaller height and mass of the building.

Top layer of the roof is a membrane used to achieve high level of reflection of the sunlight.

This directly influences the reduction of global warming



ENVIRONMENTAL IMPACT



There are 3 devices installed for simultaneous charging of 6 electric cars.

This is the first step of Parking Service to motivate the citizens of Belgrade to start using electric cars instead of fuel cars



The entire lighting system of the parking space and circulation routes was made with energy efficient LED lamps.

Lighting control is carried out through motion and illumination controllers and detectors.

This ensures maximum savings of consumed electricity, while at the same time the comfort of garage users is taken into account.



CONTRIBUTION TO THE LOCAL COMMUNITY



In front of the garage, in the pedestrian area, a meeting point sign was installed



A multifunctional area for the organization of exhibitions, educational and cultural events was established



Information boards were installed for easier orientation inside the garage



Within the garage, at the level of the pedestrian zone, there is a space for free parking of 40 bicycles.



Larger sized parking spaces were marked for persons with disabilities and family parking spaces



Compression station for checking the tires as well as a bicycle repair station have been installed

NEW SYSTEMS



Video surveillance system with monitoring 24/7 was installed, which significantly increased the safety of users



Public address system was installed in the staircase, elevator area and the next to the toll booths



LPR license plate recognition system was installed
On the entries/exits, LPR cameras were mounted, which reduced waiting time during entry/exit to/from the garage



Equipment was installed and free Wi-Fi internet activated to be available to users inside and in the vicinity of the garage



CUSTOMER BENEFITS

Users are able to pay at cash desks and toll booths. Payment is made by cash, payment cards. Toll booths adapted for persons with disabilities were installed

At the level XIII, ramps were installed and two last semi-levels were allocated to tenants from the surrounding streets, who can use monthly subscriptions at preferential prices



Debit parking cards, monthly subscriptions and time cards are available to users



The garage working hours are 24/7. At all times, there are 4 payment collectors and two security guards at the facility



The users of alternative fuel and hybrid vehicles, as well as the users of the shared transport system receive 20% discount on monthly subscription

