

Scaffolding project

The new theatre of Macedonian Philharmonic Orchestra

Project Insights

The project of the new theatre that will house the Macedonian Philharmonic Orchestra comes in the framework of Skopje 2014, a wide urban modernization program that envisaged the construction of 40 monuments, sculptures and new buildings.

Despite the controversy around Skopje 2014, the under-construction theatre is one of the few buildings that has received positive reviews from the critics. The building astonishes with both its exterior and interior looks; it includes two halls – a large one with about 1000 seats and a small one for chamber concerts with 300 seats.

Different from all peer projects in Skopje 2014 for its bold modern architecture, as opposed to the usual neoclassical style, the new theatre was one of the first buildings to come to life, with the cornerstone having been laid in June 2009.

By the date of this article, the building is in its final phase and it is expected to be opened in January 2017.



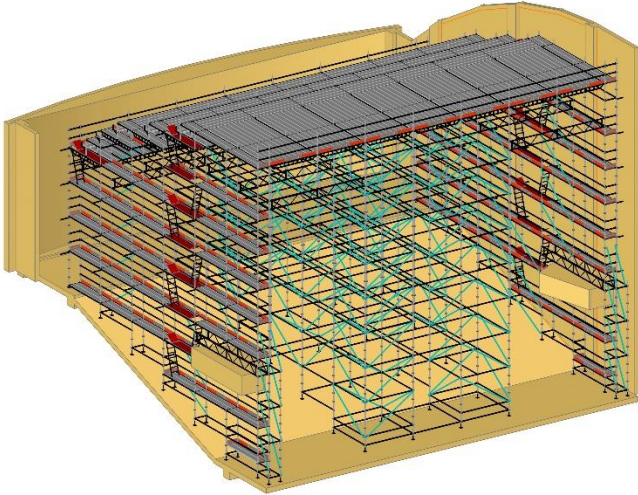
Scaffolding Requirements



Scaffold was required on both theatre halls to undertake ceiling works, and plastering and coating works on lateral façades.

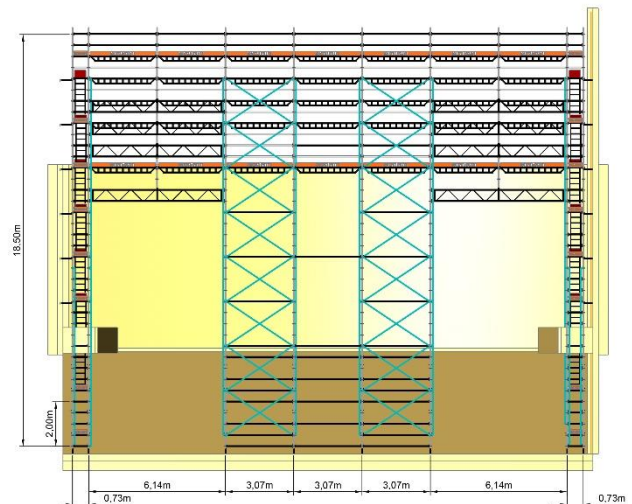
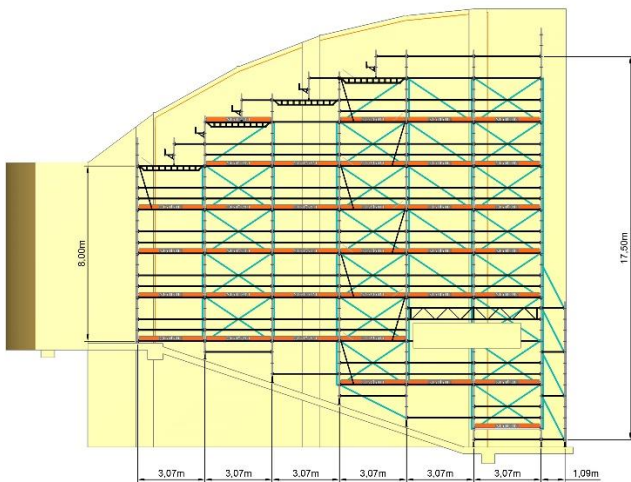
Hall 1

On the biggest hall (380sqm), the scaffold was first designed to cover the lateral façades, being latter added two central columns in order to build the top floor for the ceiling works.



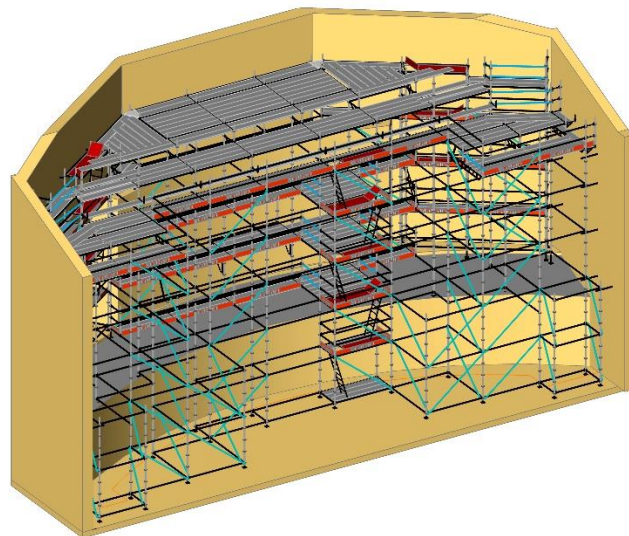
This made the scaffold took the shape of something like a double birdcage, covering an area of approximately 380 square meters with the floor at 17,5 meters at its highest point.

At the same time, Catari had to deal with the slope of the ground slab, which was around 30%. Access to the different levels was ensured laterally, on the façades.



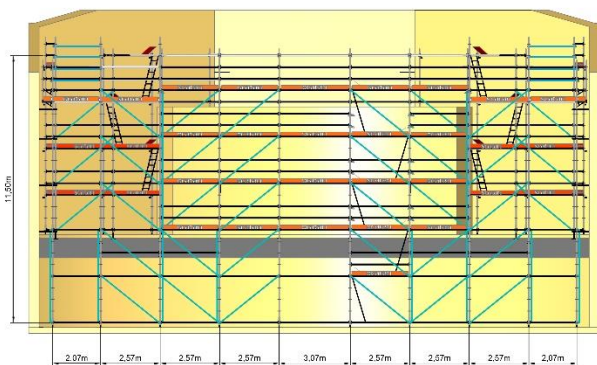
Hall 2

The smaller hall (72sqm) presented less difficulties, being the main one the half-moon shape, combined with the uneven floor slabs (the difference between the highest and the lowest points reached 8,0m).



Scaffolding designed with PON CAD software

Catari sees challenges as opportunities: even if the project bore undiscussable difficulties, the Portuguese company won the tender for the contract and succeeded in carrying out the work.



The peculiarities of the shapes of the building required a custom scaffolding solution, which has been drawn, engineered and managed with PON CAD software.

This powerful 3D tool allows to easily draw non-standard schemes: the complexity of the project didn't undermine the precision of the drawing. Indeed, the results were clear and meticulous, including accurate bills of material and detailed section views, useful for the assembling phase.

The software has been customized for Catari: this way it fully supports Catari's equipment and is completely integrated with the company's information system.

Context: “Skopje 2014”

Officially announced in 2010, Skopje 2014 initially envisaged the construction of 40 monuments, sculptures and new buildings.

Drawing inspiration from the architectural styles of Classical Antiquity, the revamp so far has given complete facade changes to the Government and Parliament buildings, and has seen the construction of dozens of new administrative buildings.



Since it was unveiled, the project has attracted controversy. On one hand, supporters state it will change the image of a city blighted by decades of dreary Socialist architecture and neglect that followed the 1963 earthquake. On the other hand, critics complain about costs and the transparency of the contracts given to the architects and designers.

The Macedonian Philharmonic Orchestra

The Macedonian Philharmonic Orchestra (MPO) is the latest of his kind, in Europe, with no dedicated building of its own. The Army Hall from the Ministry of Defence, that for decades housed the MPO, is in poor state of conversation and has considerable limitations in terms of acoustic and stage lighting.

In the words of Viktor Ilieski, President of the Association of Unions of Macedonian Philharmonics Performers, “Less than a month ago we almost stopped working completely. Only at the last moment we obtained some heating so that we don’t have to work in freezing temperatures,” while Aleksandar Gosev, president of the Philharmonic Union, said the acoustic problem is especially serious: “As hard as we try to sound good, the hall spoils it”.



The new facilities encompass two fully equipped theatre halls. One, with about 1000 seats, fully adapted to classical music concerts, and another, with 300 seats, fully adapted to host experimental music gigs.