

## SPECIAL PROBLEMS CONCERNING THE ROOF STRUCTURE OF MUNICIPAL STADIUM IN CLUJ- NAPOCA

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This paper presents a proposal of a roof structure for the partial covering of Cluj-Napoca Municipal Stadium tribune. The solution has been elaborated in the feasibility study regarding the rehabilitation and modernization of the stadium, according to European Union norms.

On deciding the structural solution, for the partial roofing of the stadium tribune, the following criteria have been studied:

- choosing the optimal shape for the mechanical behavior of the structure, able to generate a minimal metallic consume (normal steel for constructions and high resistance steel for the cable stays);
- simple execution in the workshop, having selected plane elements obtained from laminate profiles and steel plates;
- subdividing the elements to obtain a minimum number of joints, at the building site;
- relatively simple joints, clearly organized on execution stages and without the risks of producing accidents on assembling the structure elements;
- safety during exploitation and easy maintenance, by avoiding the closed sections, inaccessible for cleaning and painting.

A special attention on choosing the structural solution has been paid to the aesthetic form of the building, taking into consideration that this structure besides the functional aspect – that of covering the tribune, also has an architectural function with respect to the area and the city.

