Panathinaikos FC New Stadium

Zeit-Studie	**Budget (€)**	**Arbeitgeber**
2008 - 2010	82.00	Aktor S.A.
	Besitzer	**Position**
	Panathinaikos FC	Votanikos, Athens

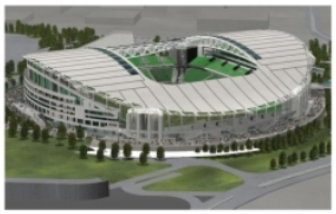
The new stadium has a capacity of 40.000 spectators, and the total of the grandstands is covered by the roof. The buildings housing the auxiliary installations are made of concrete and bear the stands' system, comprising of cast-in-situ beams and precast reinforced concrete stands. At each of the 4 corners, concrete pylons bear the steel roof, which is also supported on the perimeter columns of the grandstands' buildings.

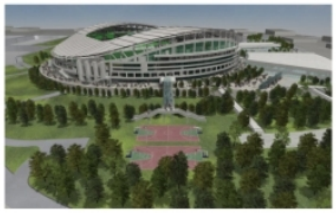
The stadium has a circular shape with external diameter 211.00 m. The steel roof consists of 4 statically independent parts, each one resting on a simply supported main space-truss beam and on the perimeter columns. Each space-truss arch-shaped beam is supported on the concrete pylon. The span of the large beam is 160m and of the small 110m. The pylons are founded on piles while the concrete buildings have a strip foundation.

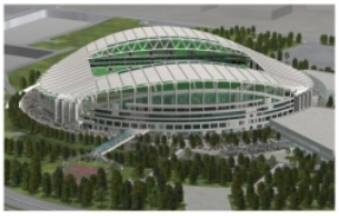
Architectural 3d view

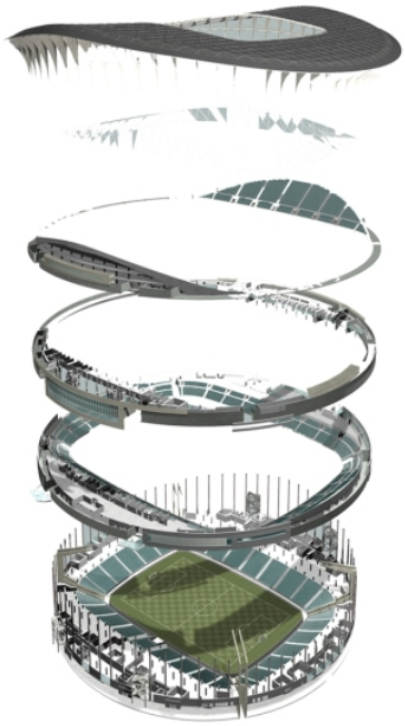


Architectural 3d view

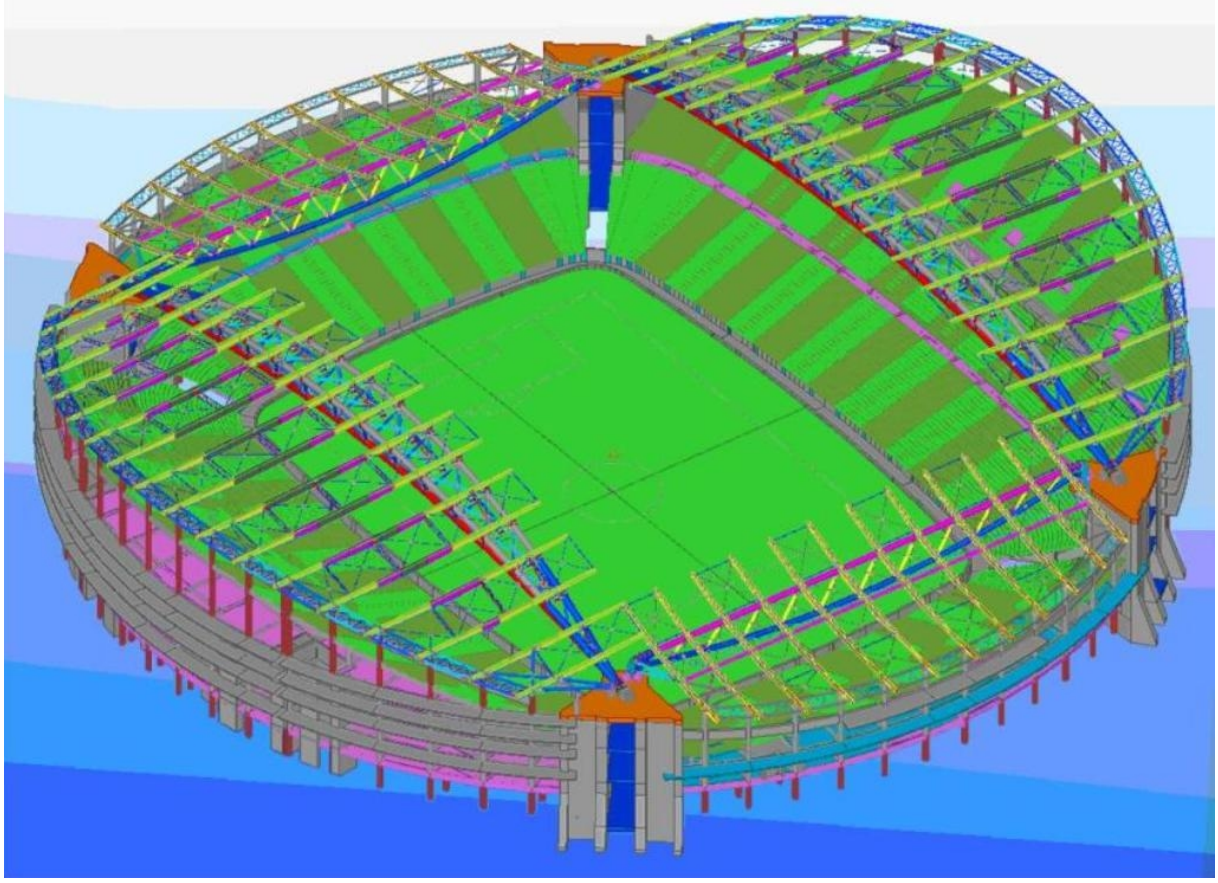




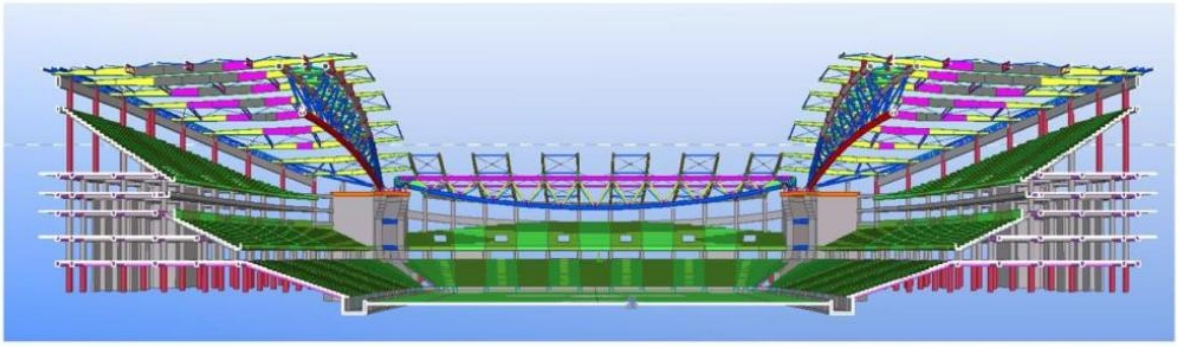


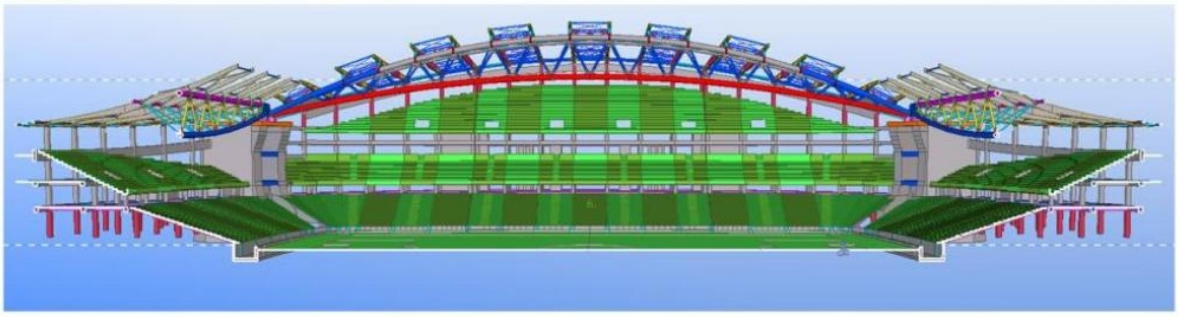


3d views of the stadium structural system

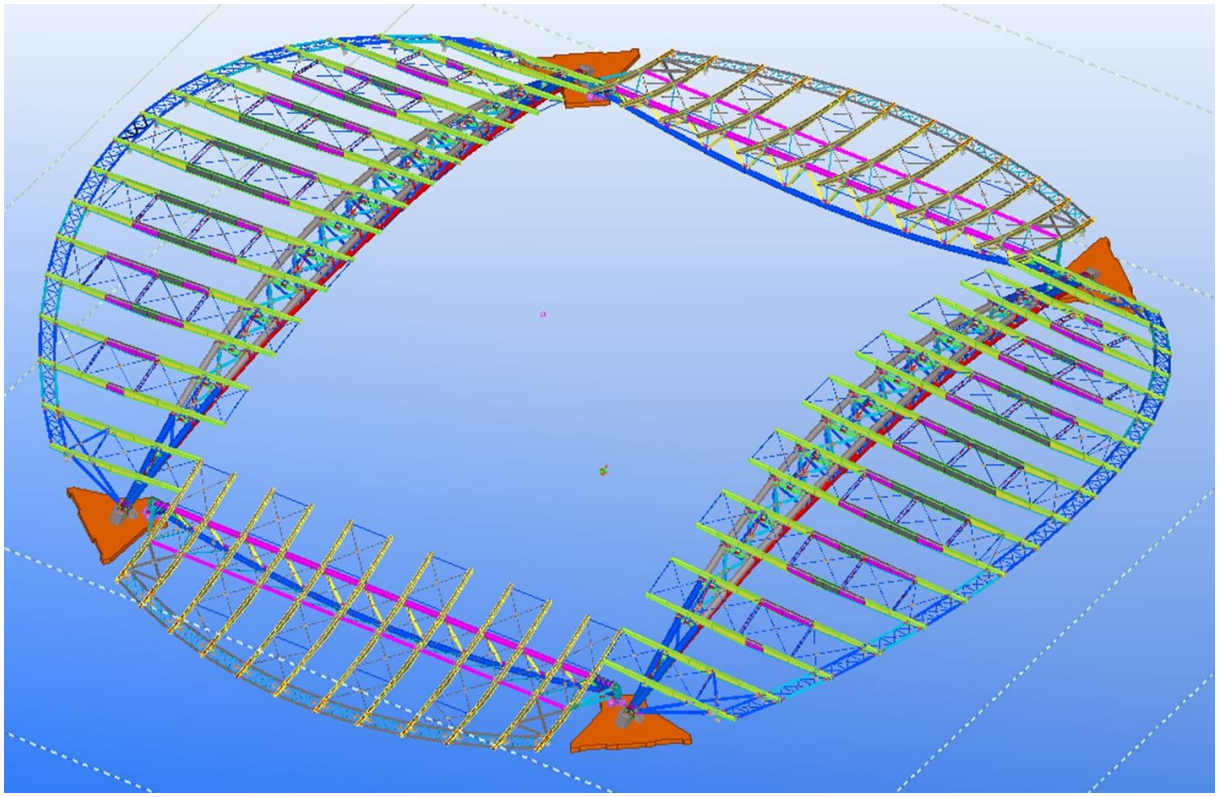


Sections of the structural system

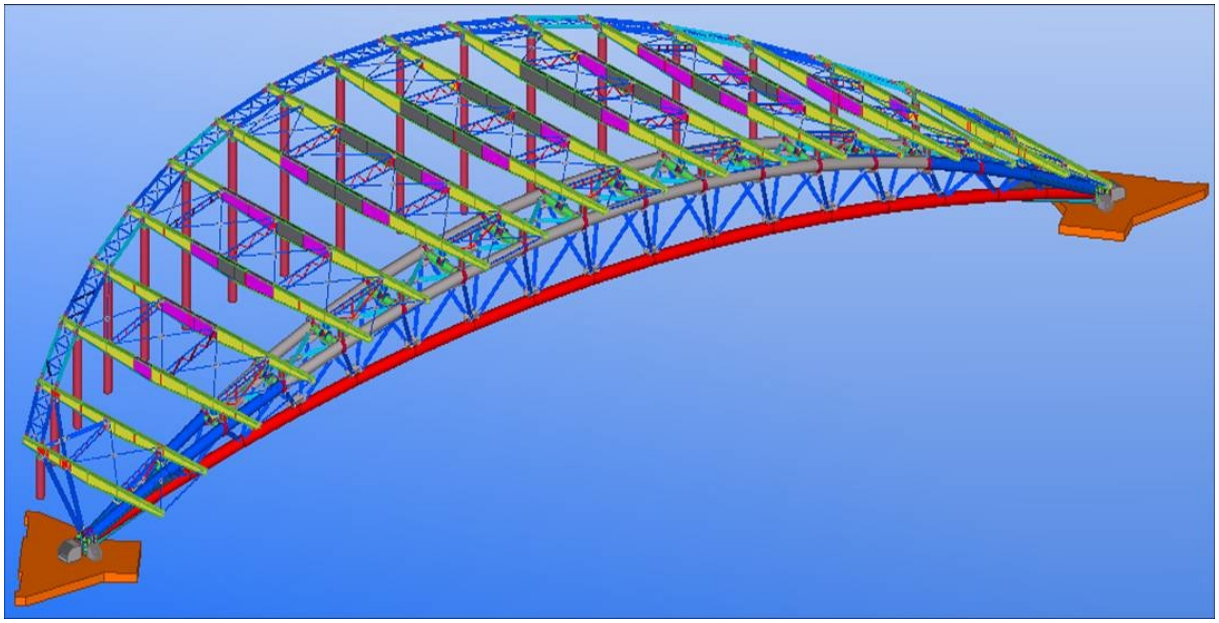




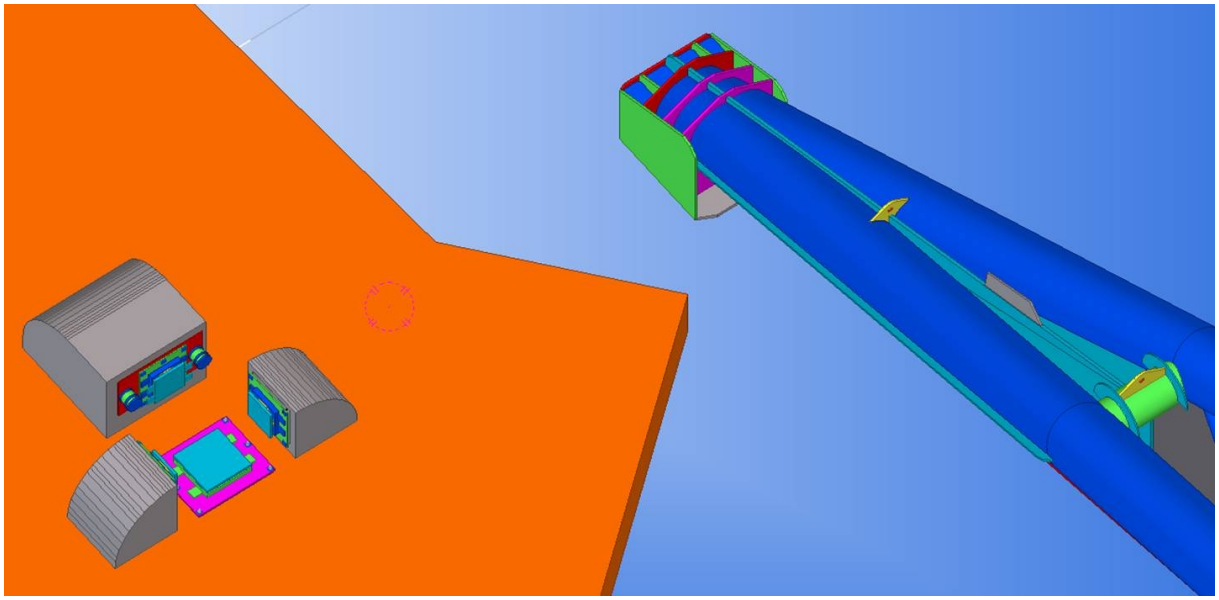
Steel Roof General Arrangement



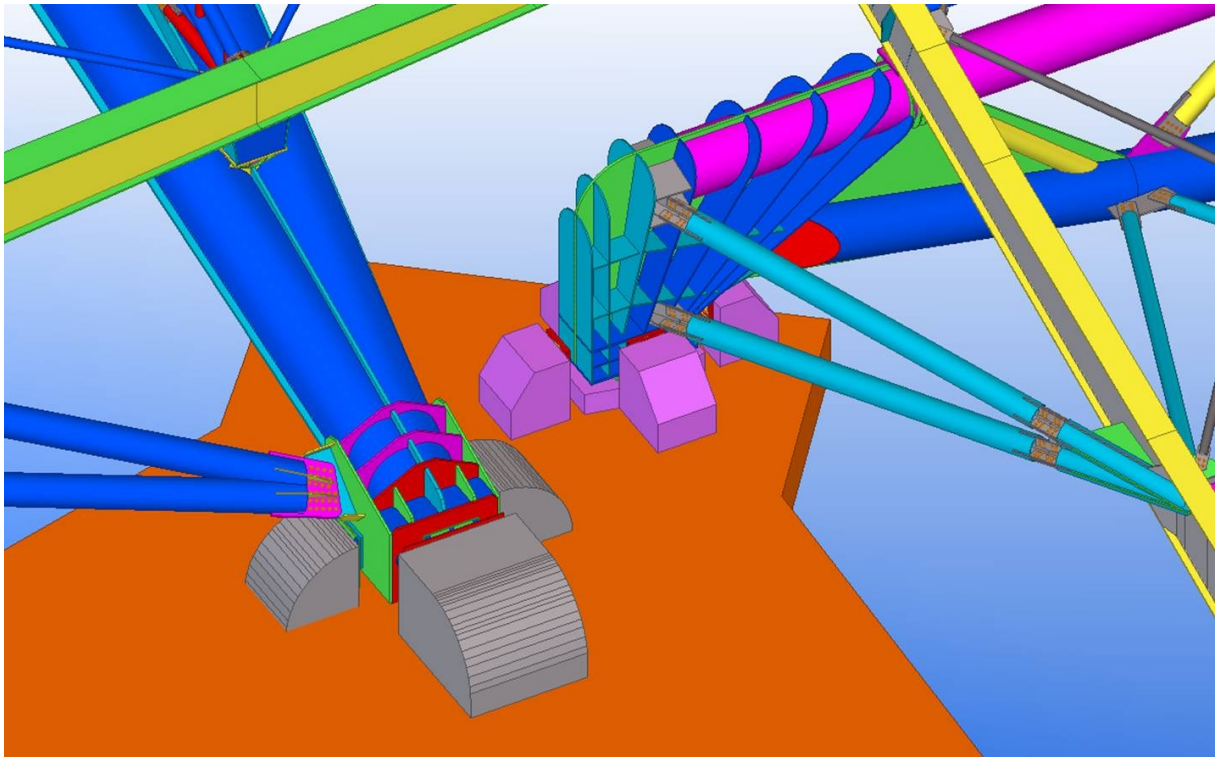
Large Roof Structure General Arrangement



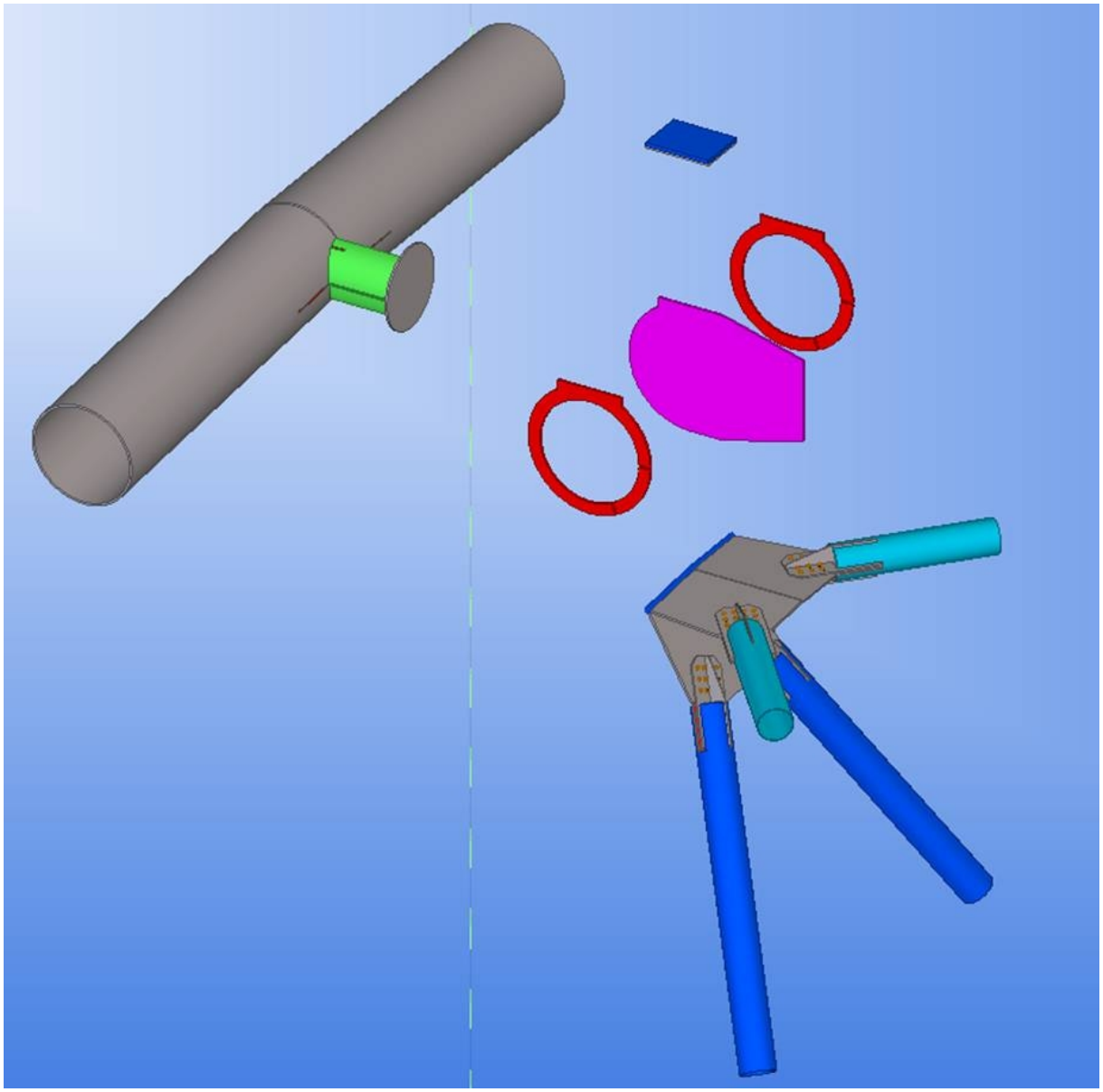
Roof supports on pylons



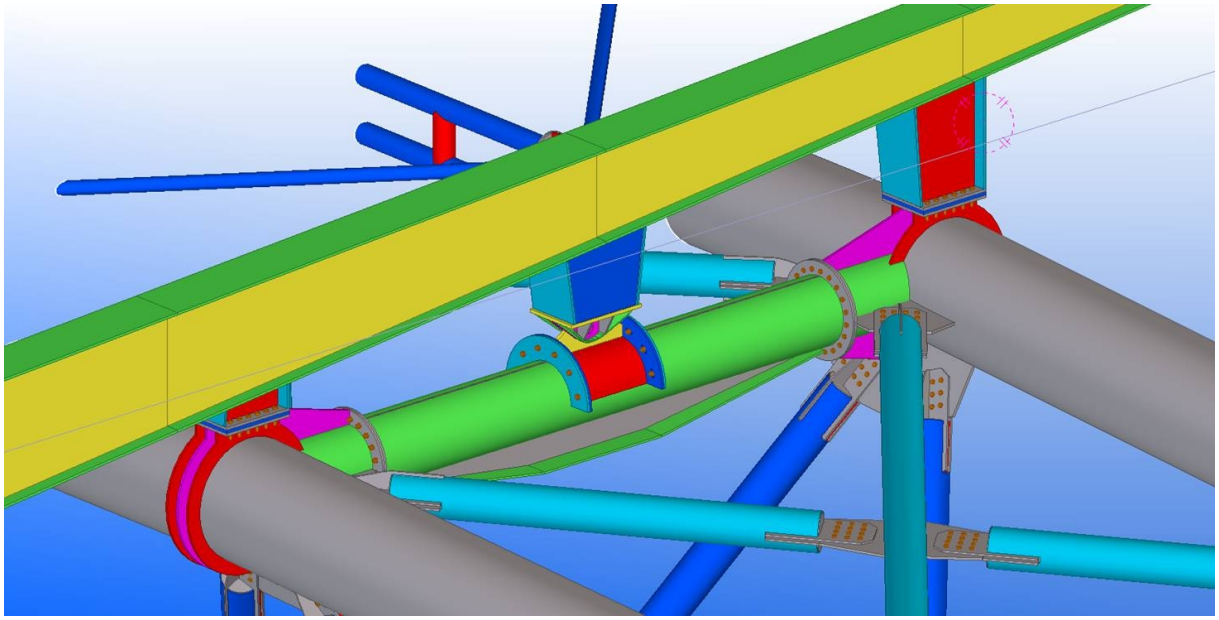
Support of Large and Small Trusses on pylon



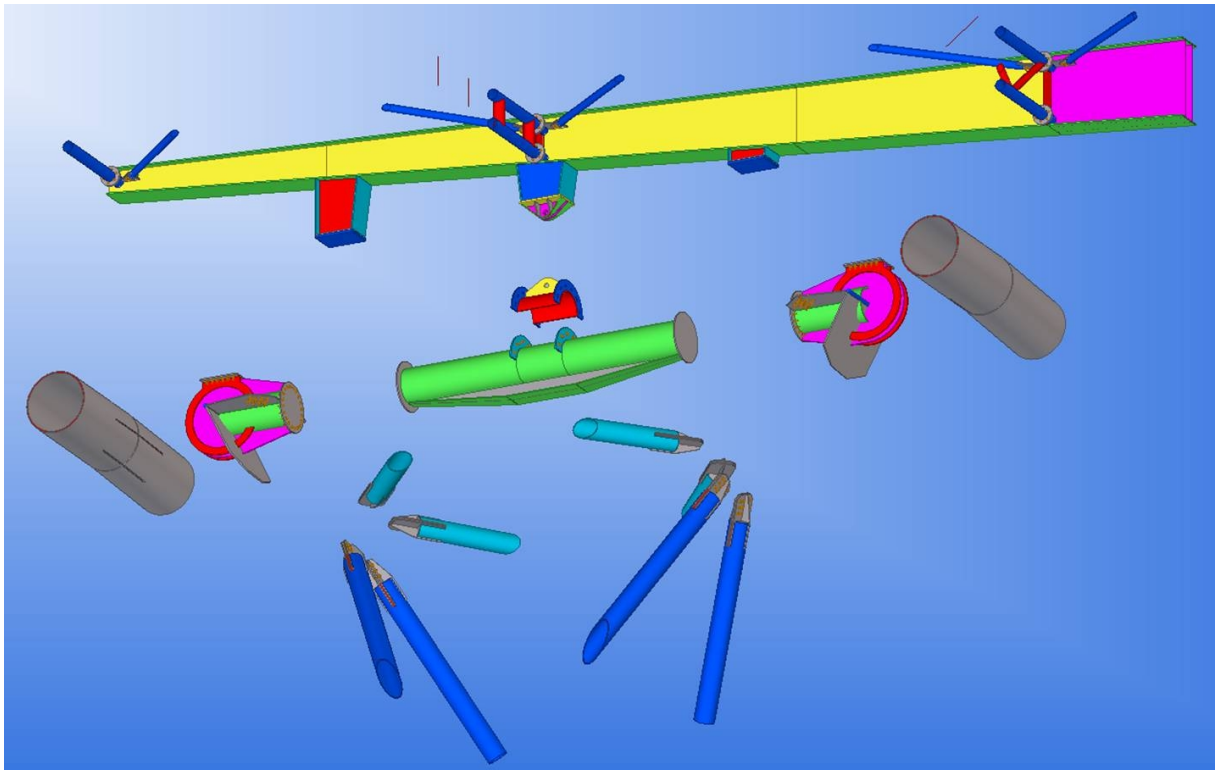
Connection of upper chord members



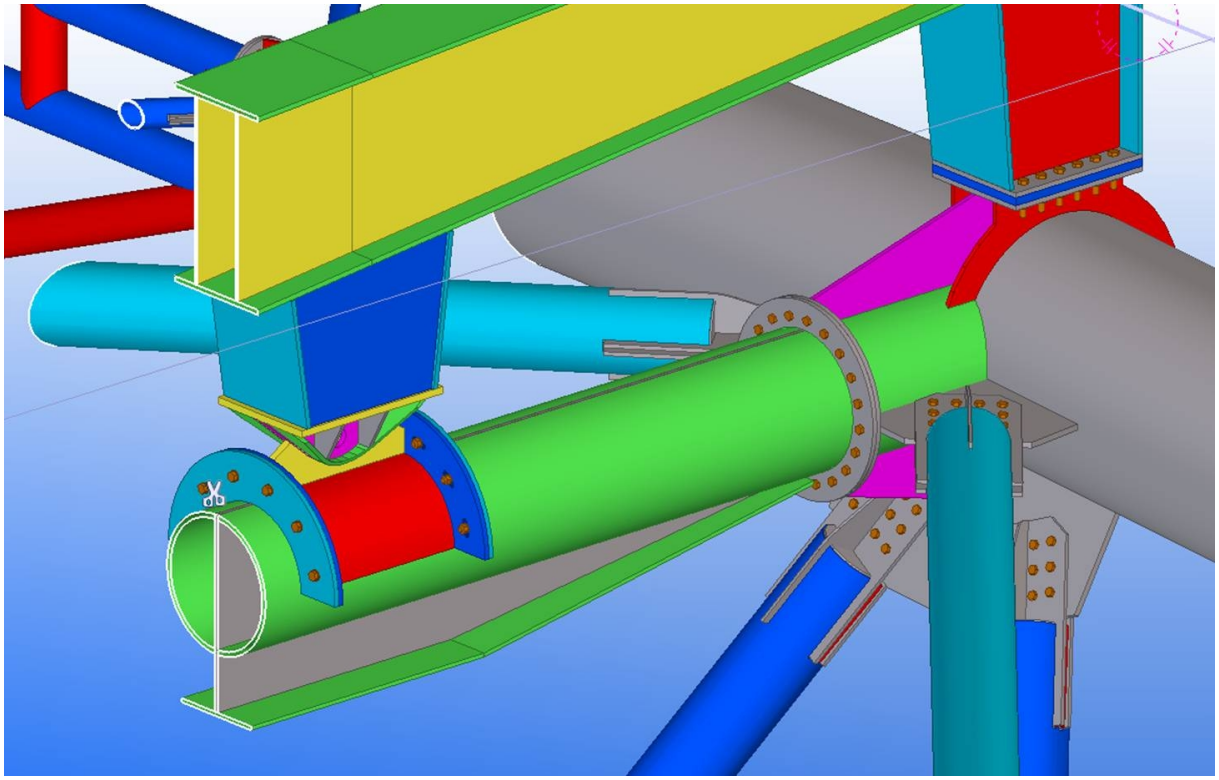
Support of main beam on the truss



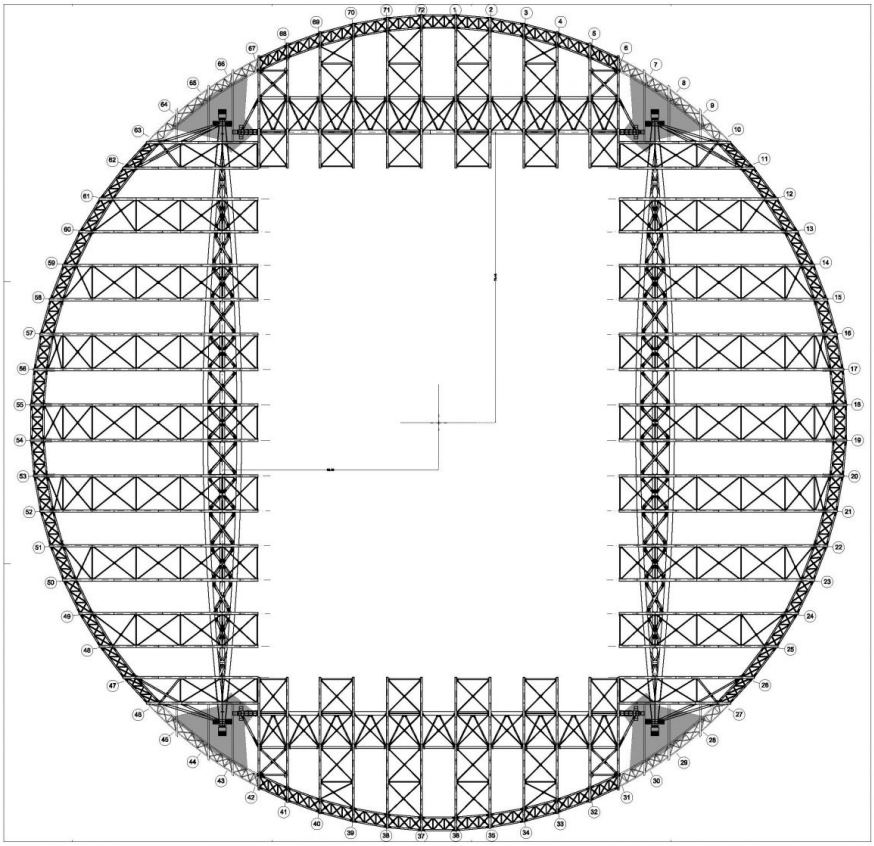
Support of main beams on the truss-Detail



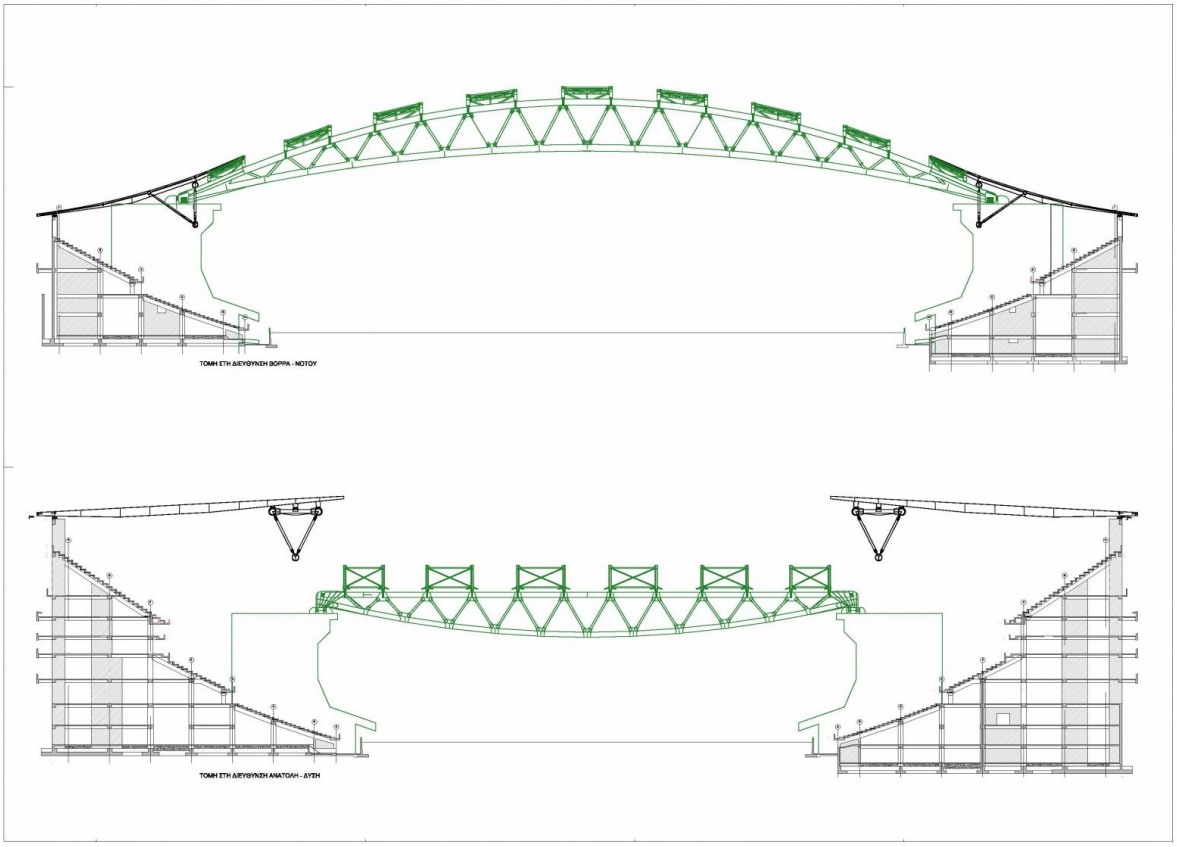
Support of main beam on the truss



Steel Roof General Arrangement



Sections


ΤΟΜΗ ΣΤΗ ΔΙΕΥΘΥΝΣΗ ΒΟΡΡΑ - ΝΟΤΟΥ
ΤΟΜΗ ΣΤΗ ΔΙΕΥΘΥΝΣΗ ΑΝΑΤΟΛΗ - ΔΥΣΗ