

## CATHEDRAL OF ST. STEPHEN IN PAVIA

*Cathedral of St. Stephen in Pavia: Design; Work supervision; Restoration; Collective building*

### Client

Fabbricceria della Chiesa Cattedrale di S. Stefano Martire - Duomo di Pavia

### Project and works supervision

Studio Calvi Srl  
Project Manager:  
Prof. Ing. Gian Paolo Calvi; Prof. Ing. Gian Michele Calvi

### Classes and categories of works

E20,E22, S.04, IA.02, IA.03 € 5.470.000 circa

### Start of planning

2007  
2009

### End of planning

2007 Cathedral museum  
2012 Cathedral restoration

### Start of works

2008  
2009

### End of works

2009 Cathedral museum  
2012 Cathedral restoration

### DESCRIPTION OF PROJECT

In 1995 the Cathedral was closed to public, due to great damage occurred after the collapse of the Civic Tower. First of all, extremely urgent works were carried on in order to guarantee the safety of the building: monitoring of cracks and movements, structural reinforcements and metallic tie-rods in the arches of the northern nave. The dome was then shored up with metallic elements on micro piles in order to sustain the structure during the consolidation works. With the further works, a great survey/design campaign was realized: measures, in-situ and laboratory tests, pathology survey, material and structural survey, design with finite element models. After obtaining all the results, a complete restoration project was realized: roof consolidation and tile substitution, scientific restoration of the structure, realization of a metallic truss for the reinforcement of the chancel roof, strengthening of the dome with FRP fibers. The Cathedral underground spaces were addressed to museum centre after restoration works: realization of concrete ceiling roof and sustain concrete wall, insertion of ground skylight, construction of metallic boardwalk for the museum itinerary, consolidation of the masonry vault.



Above. Restoration works of the Cathedral museum

Opposite page, from above to below. Cathedral restoration. Total view of the central nave; Internal and external view of the dome; New high altar