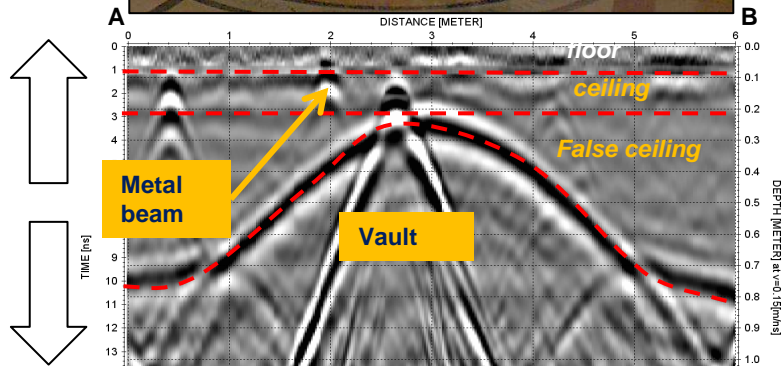


## DETECTION OF STRUCTURAL ELEMENTS IN HISTORICAL BUILDING GROUND PROBING RADAR



A

B



### project:

works of restoration and consolidation of a historic building.

### site:

Real Collegio Carlo Alberto, Moncalieri (TO) - 2006-2007

### The purpose of the survey:

Verify the geometric characteristics and the thickness of the floors of several rooms of the building, to design interventions for structural reinforcement

### Survey Design:

The survey was carried out with GPR method (grid lines 0.5 x 0.5 m) on the floor of several rooms with antennas from 400 MHz to 2GHz

### Results:

The survey has allowed to evaluate the thickness of the floors of the different rooms, as well as the presence of different types of structural elements inside the vaults (timber, metal rebar, etc.): in particular were identified beams, "frenelli" and reinforcing structures of various nature, reinforced concrete below many areas of the floors and small cavities. These information were crucial for the design of the consolidation works.

### Livello 4, quota +0.00 – AREA 1

