

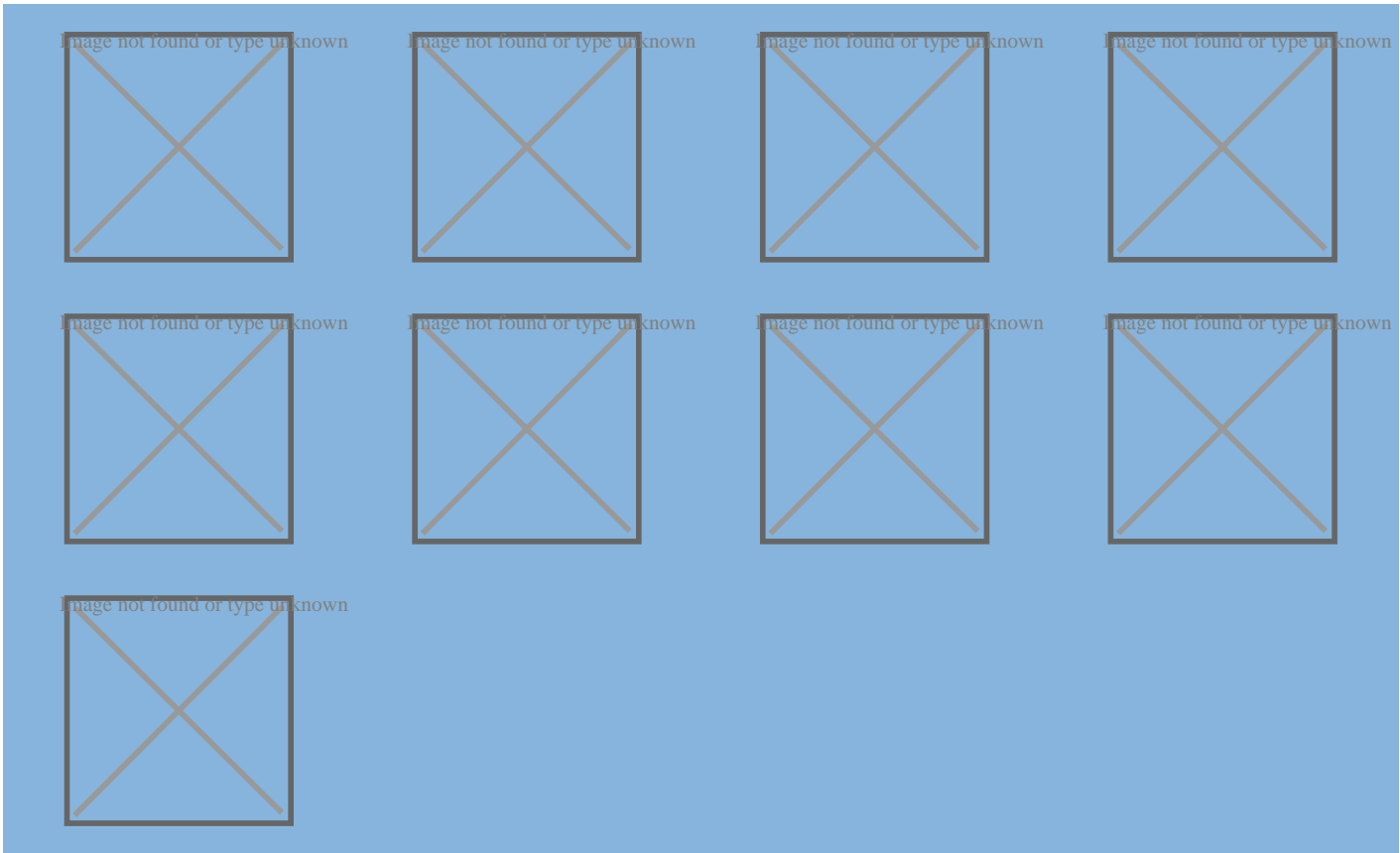
NURSERY SCHOOL - GIULIANO TEATINO (CHIETI)

A WOODEN SCHOOL BUILT IN 60 DAYS AFTER THE EARTHQUAKE

The Municipality of Giuliano Teatino, in the province of Chieti, was one of the places hit by the 2009 Abruzzo earthquake. multipurpose center that housed a new school building. To combine the desire for a modern, environmentally friendly and eco-sustainable building with the need to build the nursery school in a short time and in full compliance with anti-seismic criteria, it was decided to build a wooden building. Construction of the building began on August 6 and the school was inaugurated on October 4, after only 60 days. Establishment of the wooden nursery school and the laminated wood roof The elevation structure is entirely in wood, made using BBS glued and crossed layered panels, while the roof structure, designed with an original curved pattern to better integrate with the surrounding landscape, is made of curved laminated wood beams. Sistem Costruzioni, in addition to the execution of the wooden supporting structures, also provided for the subsequent insulation, the construction of the sanitary water system and electrical systems and the assembly of doors and windows with low-emission double glazing, to the roofing package.

PRODUCT SPECIFICATION

School
Localization: Giuliano Teatino (Chieti)
Intended use: Schools
Architetur and structural design: Arch. Barbara Serano
Total area: 440ft



BUILDING SYSTEM

Laminated and Solid



Reasons for choosing the Laminated and Solid system

This construction system guarantees **the creation of timber roofs of various sizes and of different levels of complexity** in compliance with specific static loading calculations and transferring vertical and horizontal loads to the foundations by means of conventional building elements, in certain cases.

A durable and versatile timber roof

The unique characteristic of laminated wood and the connections between the various elements make it possible to create roof spans of more than 30 metres and **to build roofs of very large surface areas without having to break up the ground plan of the building with awkward intermediate pillars.**

High levels of insulation and strength

Depending on the thermal requirements, the **roof** can be completed with an insulating package and outer covering. The joists of the web roof structure can be designed in accordance with a very diverse range of geometries: the ridge beam establishes the shape of the roof while the wall plate beam can be adapted to match architectural, static or application requirements. The nodes of the web support structure can be created with metal plates fastened to the wood with screws and pins, with wood to wood joints, or by means of direct fastening with normal screws or full-threaded screws. Because they are extremely slender elements, timber joists or rafters must be braced with timber or steel elements designed to prevent the occurrence of lateral out-of-plane instability.



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