Extension of the primary school of Saint-Paul-de-Loubressac

by Jonathan Kuhry / 2014-11-04 16:43:58 / France / 7023 / FR

Primary energy need :

65 kWhep/m^2.an

(Calculation method : RT 2005)

ENERGY CONSUMPTION

Economical building *Building*

< 50	A	
51 à 90	B	B
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building Type : School, college, university
Construction Year : 2014
Delivery year : 2014
Address 1 - street : . 46170 SAINT-PAUL-DE-LOUBRESSAC, France
Climate zone : [Csa] Interior Mediterranean - Mild with dry, hot summer.

Net Floor Area : 184 m^2 SHON
Construction/refurbishment cost : 347 227 €
Number of Pupil : 50 Pupil
Cost/m2 : 1887.1 €/m^2

General information

Construction of a new building for the primary school of Saint -Paul-de-Loubressac, near the existing school. This extension hosts 2 classrooms, 1 office for the teachers, bathrooms and a covered courtyard.

The operation won the 2011 call for project "Efficient building of environmental quality" launched by ADEME (French energy agency) and the Région Midi-Pyrénées.

Sustainable development approach of the project owner

The extension was chosen over the construction of a brand new building which would have been located 1km away from the center. It participates in the revitalization of the town center after the building of the renovation of the Town Hall and the post office. The architect Boris Burzio's project won the 2011 call for project "Efficient Building of Environmental Quality" launched by the ADEME and the Region Midi-Pyrenees.
It was led by the desire to limit the environmental impact of the building and to provide comfortable and healthy classrooms.

Architectural description

The new building is only one level high, with a parallelepipedic shape. It relies on a constructive system made of holders boxes filled with straw for the walls and roof, pre-assembled in the workshop.
The company behind this technique is the only one not located in the Lot area (business Filiere Bois 41 - Cyril Natali), however they chose to work with a local

carpentry company, which hence had the opportunity to be trained to this original construction technique in France. All other companies working are from the Lot area or neighboring departments.

Building users opinion

Teachers and children are very happy with their new school.

See more details about this project

http://www.cercad.fr/Extension-en-paille-de-l-ecole-primaire-St-Paul-de-Loubressac-46
http://www.ladepeche.fr/article/2014/04/27/1871248-une-ecole-en-paille-ferme-comme-la-brique.html

Stakeholders

Stakeholders

Function : Designer

Boris Burzio

09 59 81 82 46

http://burzio-architecte.fr/

Function : Company

Charpente Traditionnelle NATALI Cyril / FILIERE BOIS 41

0254801593 - charpente.natali[a]free.fr

individual enterprise manufacturer / installer, recently established WOOD INDUSTRY SARL 41, prefabrication of society of timber frame walls insulated straw

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 65,00 kWhep/m^2.an

Primary energy need for standard building : 100,00 kWhep/m^2.an

Calculation method : RT 2005

CEEB : 0.0001

Envelope performance

Envelope U-Value : 0,29 $W.m^{-2}.K^{-1}$

More information :

External walls: wooden box girders filled with straw 35cm thick, braced by plates Fermacell in inner side and a lime plaster external face.

Indicator : I4

Renewables & systems

Systems

Heating system :

- Tape

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :
- Double flow heat exchanger

Renewable systems :
- No renewable energy systems

Environment

Urban environment

Urban context: rural
Exposure to noise: slightly sensitive area

Products

Product

Prefabrication wooden box girders filled with straw insulation (possibility to plan finishing, cladding, reservations, ...)

Cyril NATALI

0254801593

http://www.charpentenatali.eu/

Product category : Gros œuvre / Structure, maçonnerie, façade

Prefabrication of wooden boxes filled with straw holders of 35 cm thick with possibility to predict interior finish, outdoor, reservations, pre-wiring, etc ...

Prefabrication: 'industrialized' solution using bio-based materials.

Prefabrication ceilings insulated straw

Cyril NATALI

0254801593

http://www.charpentenatali.eu/

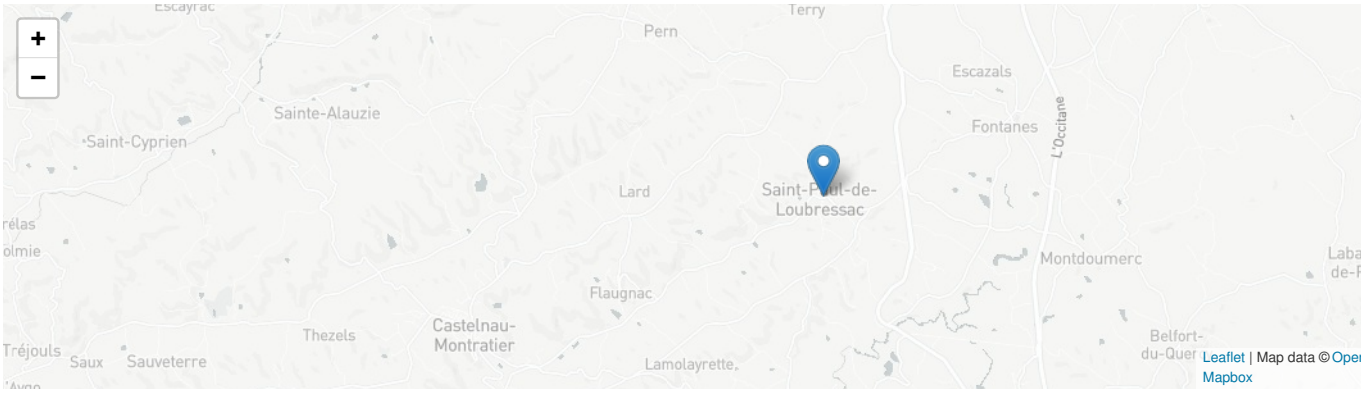
Product category : Gros œuvre / Charpente, couverture, étanchéité

Prefabrication of wooden boxes filled with straw insulation.

Costs

Construction and exploitation costs

Total cost of the building : 347 000 €




Tuquel de l'Aygo
Cazillac
Lamolayrette
Bouysset
Faillal-Haut
Montpezat-
de-Quercy
L'Occitane
L'Oustal Nèbe
Cazes-
Mondenard
Saint-Jean
de Perges
Montfermier
Lapenche