



Single Family House - Gstaad, Switzerland

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Solid timber wall

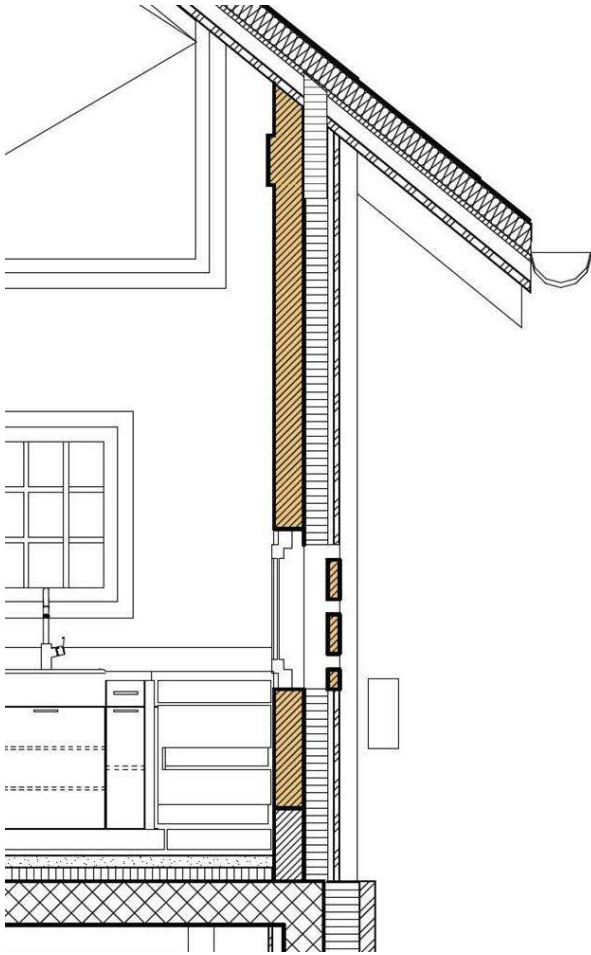
Walls

What is the solution?

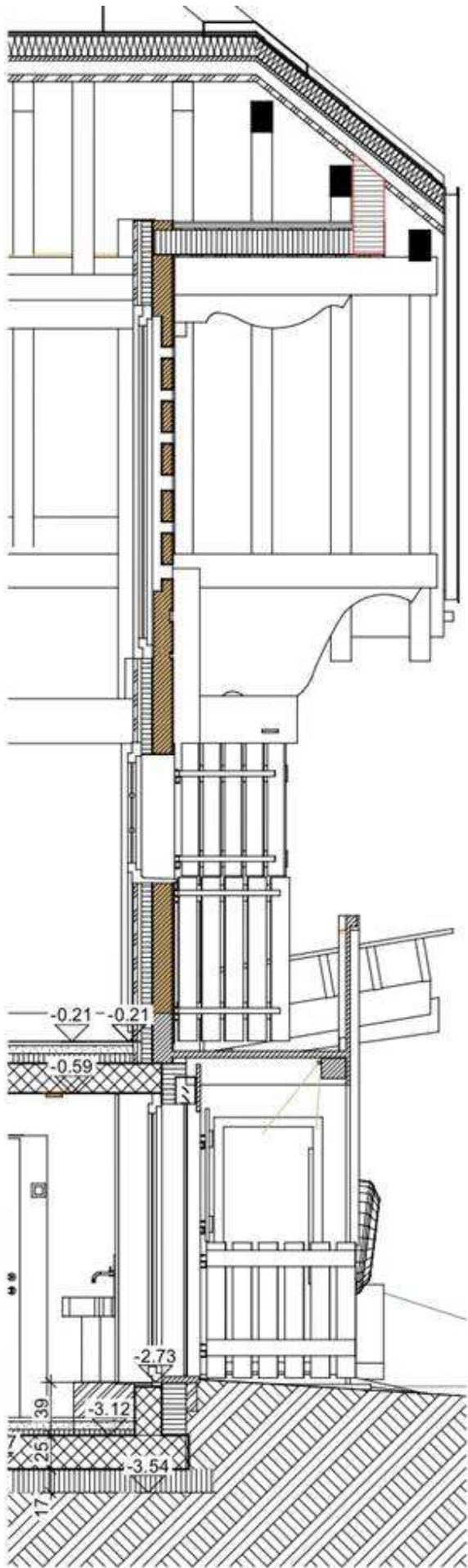
Three facades have been clad with external thermal insulation while the front one has been clad with a thinner inner layer to preserve its original external appearance. The construction is divided in two kinds of walls: solid timber for the biggest part and stone walls touching the ground. The U-value post intervention of the solid timber wall is $0.2 \text{ W/m}^2\text{K}$. There are no evaluation of the U-value before intervention, due to the previous function of the building. The original wall consists in a one layer timber wall, which has been partially maintained with the addition of other layers.

Cross section of the wall build-up, available pictures of the solution:

Solid timber wall in section - external insulation © Gehret Design GmbH



Solid timber wall in section - internal insulation © Gehret Design GmbH



S/03

LÄNGSSCHITT

1:50

This type of approach meets the preservation of the historical aspect of the building. Intervening in two different ways on the wall leads to possible complications (e.g. dampness). The necessary assessments were made and the solution was possible.

Type of data available (level of information, simulation):

Solaragentur Swiss Solar Prize 2019: 154%-PlusEnergie-EFH Matti, 3780 Gstaad/BE

Additional Information:

Climatic zone Cfb (Warm temperature, fully humid, warm summer)

Is there any related publication? If yes, please provide any available link or document for further reading



New wall © Daniel Baggenstos



Old wall © Gehret Design



Before renovation © Gehret Design

https://www.hiberatlas.com/smarteredit/projects/220/g-19-10-02_solarpreispub19_fueradag_v2.p081_1.pdf
Schweizer Solarpreis 2019 (German)

Link to best practice example (Hiberatlas):

<https://www.hiberatlas.com/en/single-family-house-gstaad-switzerland--2-220.html>