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alternative level 2



bldg.

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3D 1



Existing sloping roof creates open and bigger space. Glass on the existing beams extends the view outside and directs the light (east/ south / west) deep into the house.

Big panorama windows with sliding doors offer the possibility to enter the deck.

By entering the house you are not direct looking to the kitchen area. Your view is orientated to the panorama view.

view from the entrance to the dining area





view from the stairs to the central hall



[.]



View from the dining area to the cooking area





alternative elevation entrance / south



-



alternative east elevation





- Colour proposal of architect in grey/ beige in contrast with the light plasterwork of the existing house. I do not understand the offered colourscheme by the architct. It is "fashionable" and has a depressive expression.





example: house with wooden cladding

example: house with smooth white plasterwork

materials and colours for the elevations in wood

By using wooden cladding in leech (not coloured) the house can be transformed into one shape and the house intergrates very harmonious with the landscape.

materials and colours for the elevations in plasterwork

When you want to refresh the existing plasterwork finish the plasterwork with a smooth surface in white.

It creates a nice contrast with the existing landscape. (see example houses in Austria and Switzerland with the same climate)

When the surface is smooth, dust will be washed by the rain from the surface.

one step beyond

Some recommendations

non technical

From sustainable way of thinking it is better to remodel/ renovate an existing house, than to build a new one. - calculation of life cycle analysis LCA -

When the shape and volume of a building is more concentrated, it has less surfaces. You need less energy for heating an cooling.

Windows should be orientated to the south, to get passive solar energy. This saves energy for heating.

Walls should be closed to the north with less window perforations. This saves energy for heating.

Natural ventilation of buildings can be reached by crossventilation. Windows on the first level and to open windows in the top of the roof. This saves energy for cooling.

Green layers on flat roofs preserve the watertight layers by reflecting the sun. Rainwater can evaporate. It is good for the environment.

technical

Solar panels produce energy, but the efficiency is not very high. (20% by ideal circumstances)

They have to be orientated to the south/west without any shadow obstructions. 1 m2 solar panel produces ca. 100 kw per year. A family in Europe needs ca. 4000-5000 kw energy consumption for lights, computers etc. This means a family need ca minimum 40 to 50 m2 meter solar panels for their personal energy consumption.

Thermal panels can help to warm the water for consumtion and heating. The efficiency is up to 30 % and can be seen as support and combination with classical steam boilers. The panels should be orientated to the west with the low winter sun.

The more natural daylight can be used, the less energy has to be produced for artifical light. Led light needs only 10 % of an electric-light bulb, which means in comparison with a standard 100 watt light bulb the consumption of a led light is only 10 watt.

There are lots of possibilities to save water. From the scientific point of view is this the most important and most efficient manner to preserve energy and the environment. In Europe a person needs ca. 128 liters per day. In the USA it is more than 250 liters per person / the day.