

Rohbau – Ausbau

Professor Marc Angéilil

Professur für Architektur und Entwurf, ETH Zürich
agps.architecture, Los Angeles und Zürich

Rohbau – Ausbau

Rohbau = Ausbau

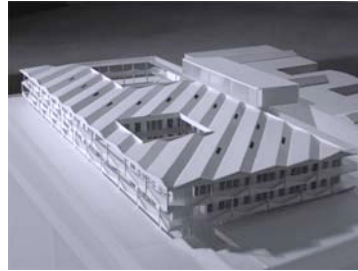
Rohbau



Airport Zurich



Zurich International School



IUCN Headquarters



B35

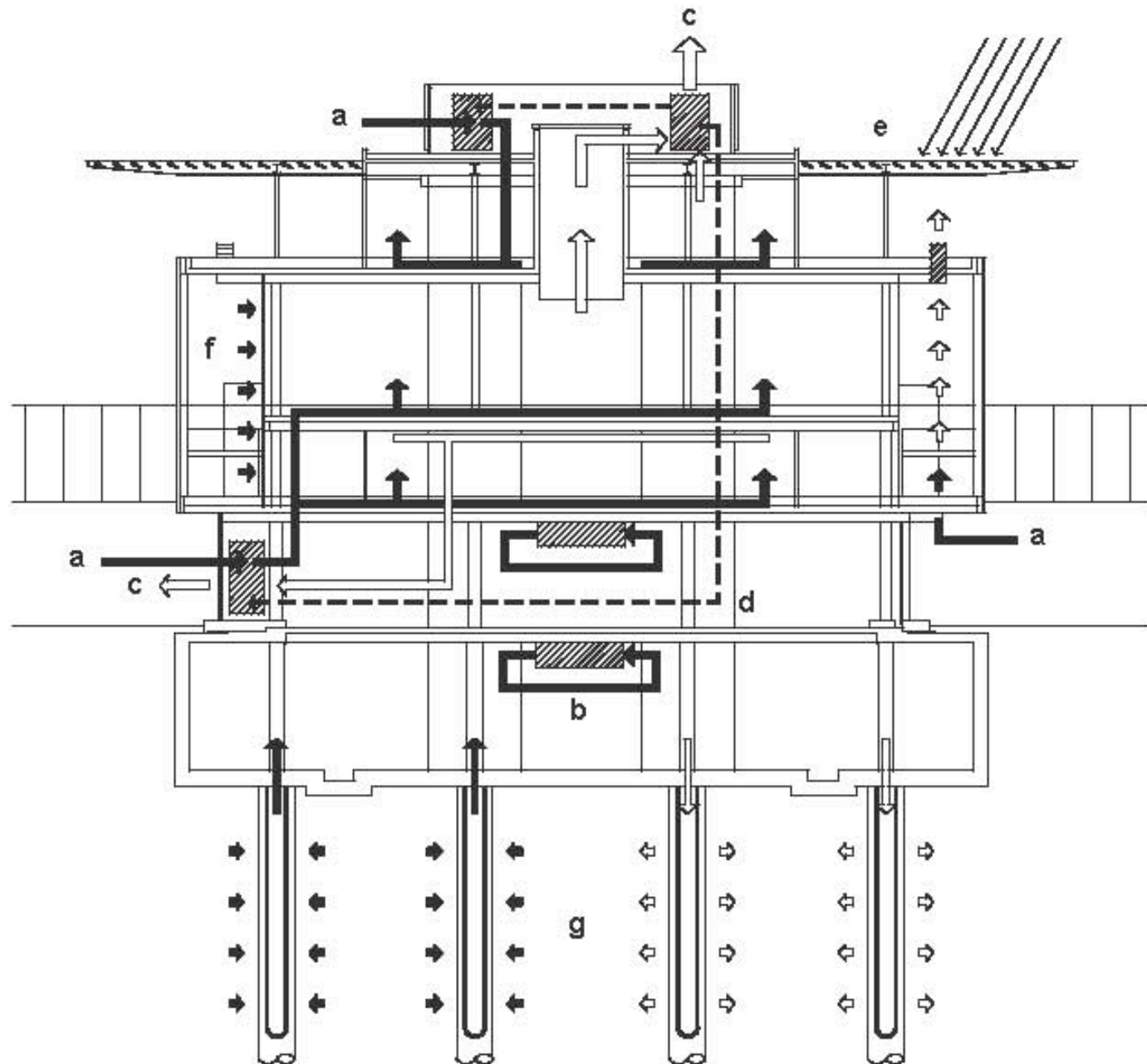


From The Ground Up

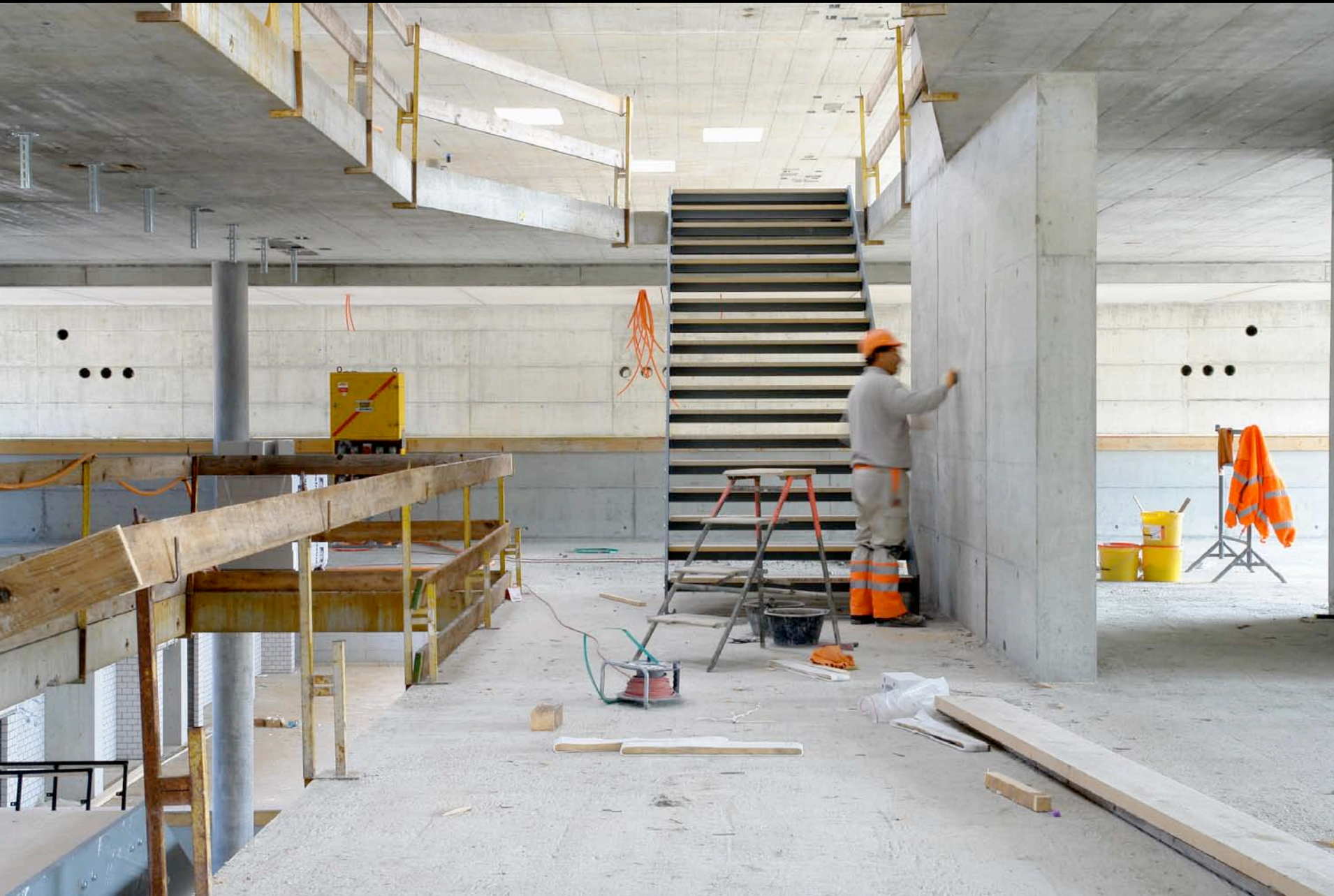








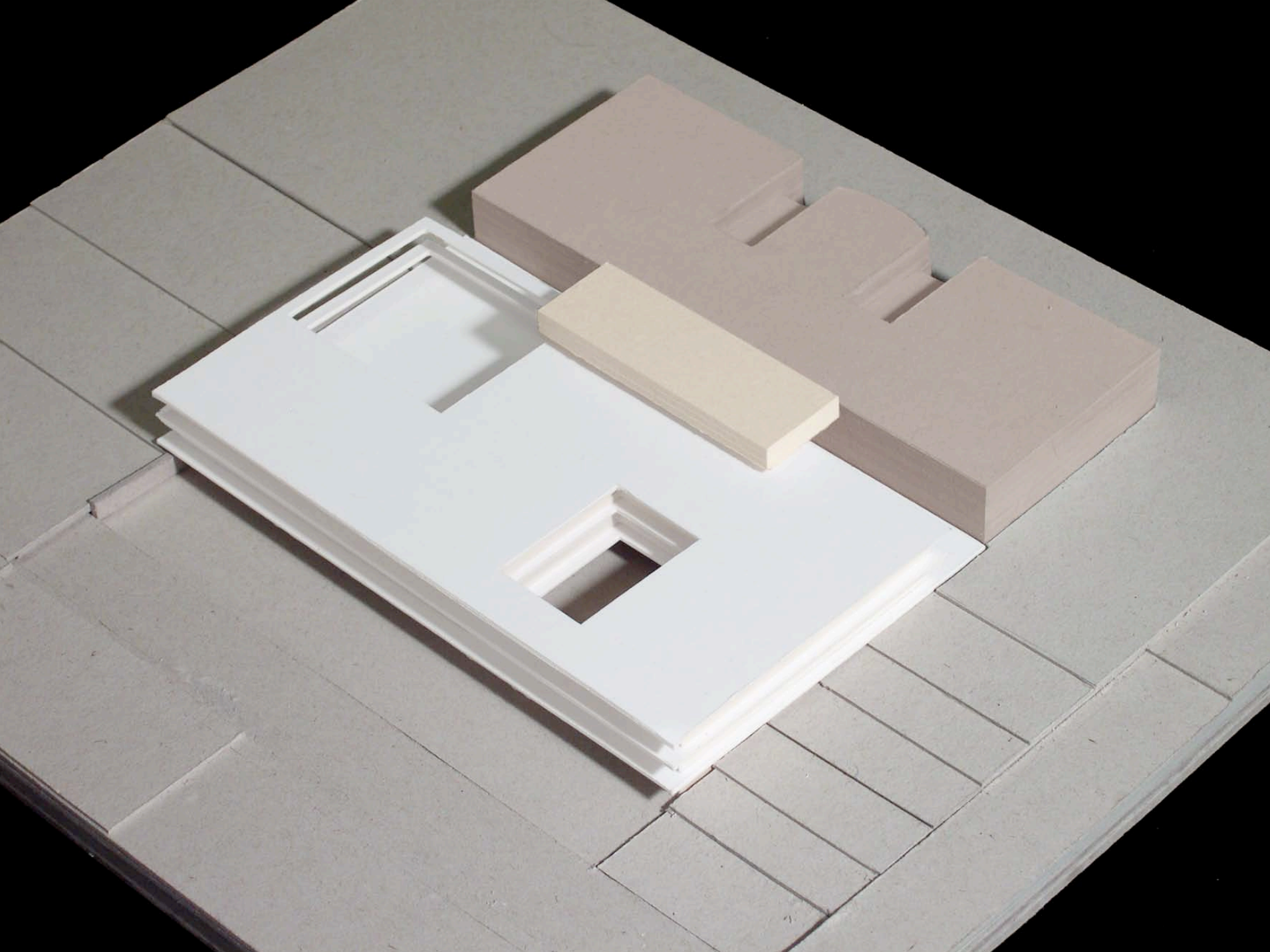














energy concept

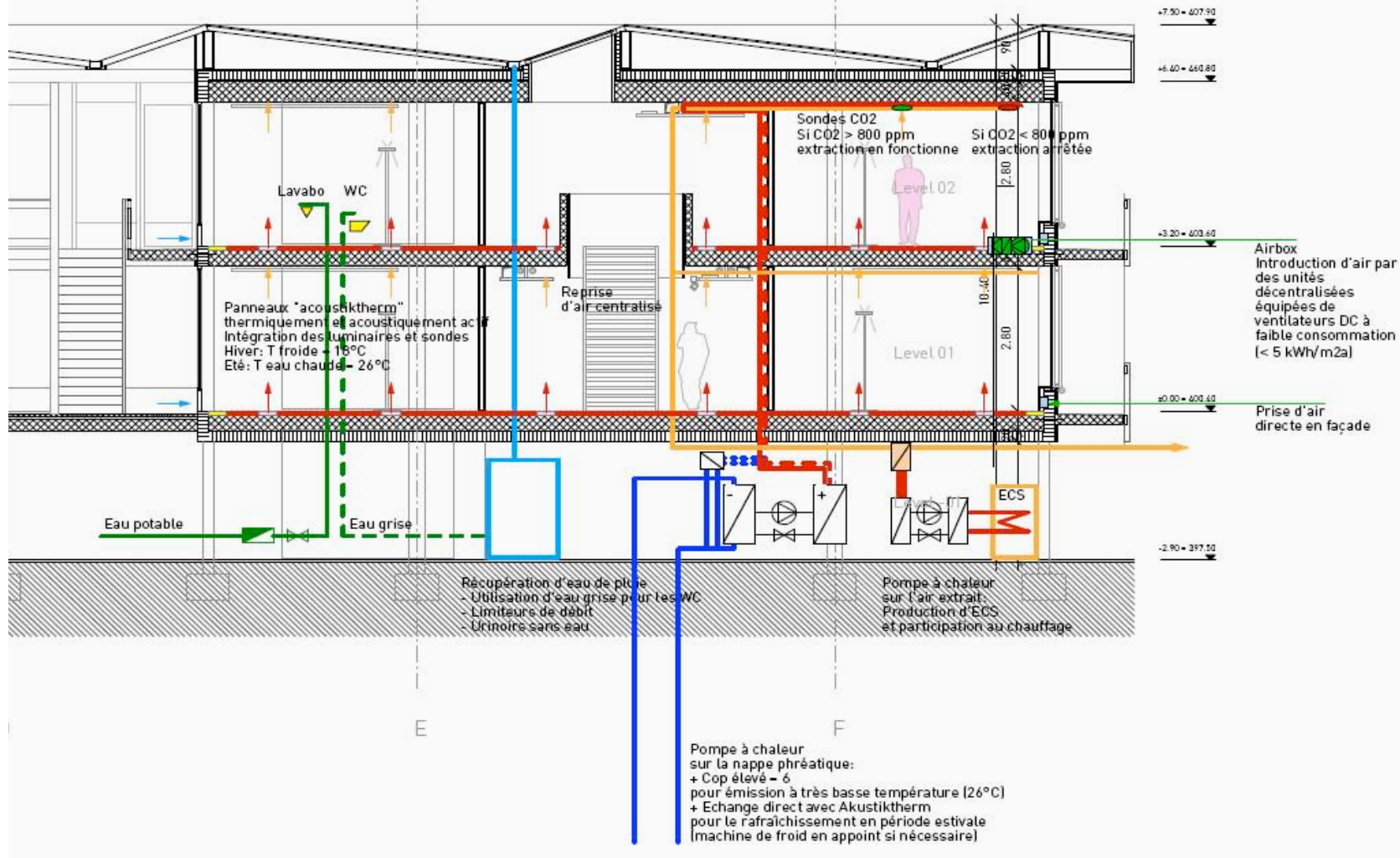
Bâtiment visant le standard
MINERGIE P
($Q_h < 14 \text{ kWh/m}^2\text{a}$)

Installation photovoltaïque:

Puissance = 100 kW / Energie produite = 102'000 kWh / Emission CO₂ = 0

Couverture des besoins pour

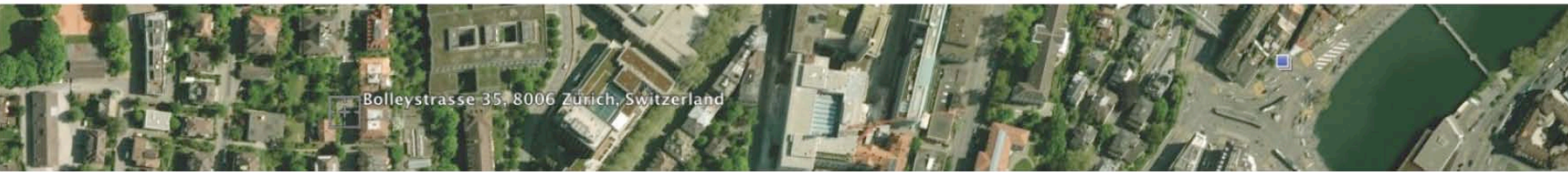
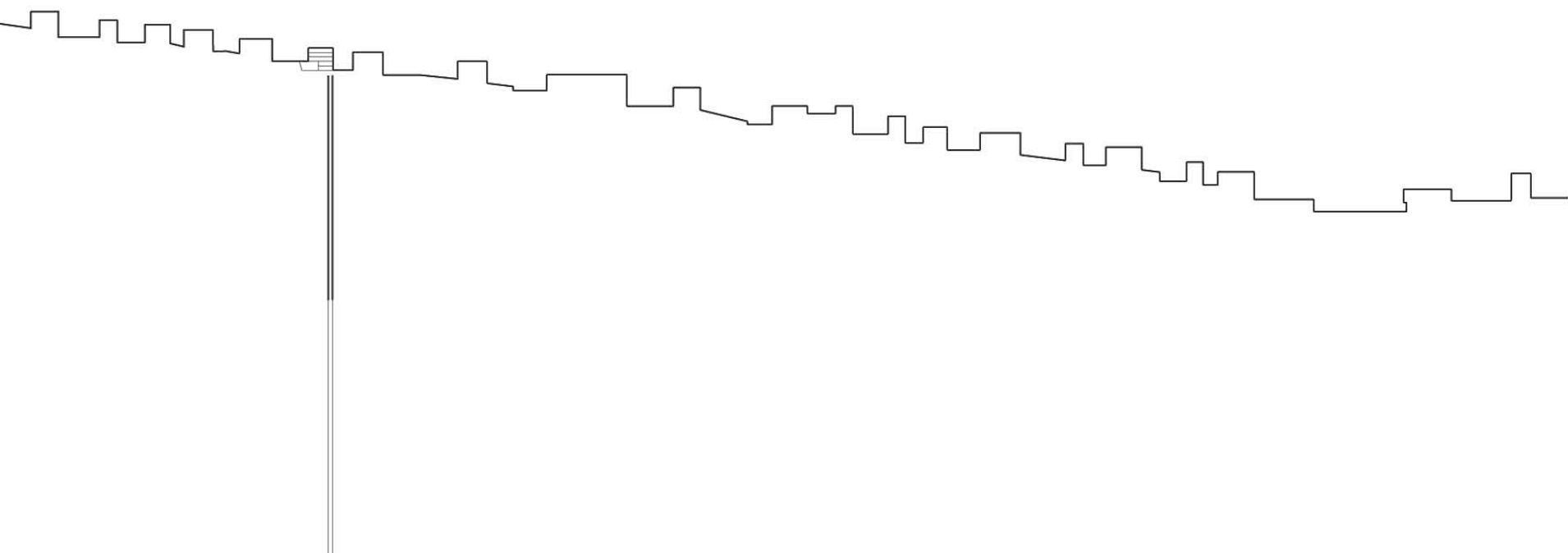
- chauffage
- rafraîchissement
- ECS
- Ventilation
- Eclairage
- Bureautique courante

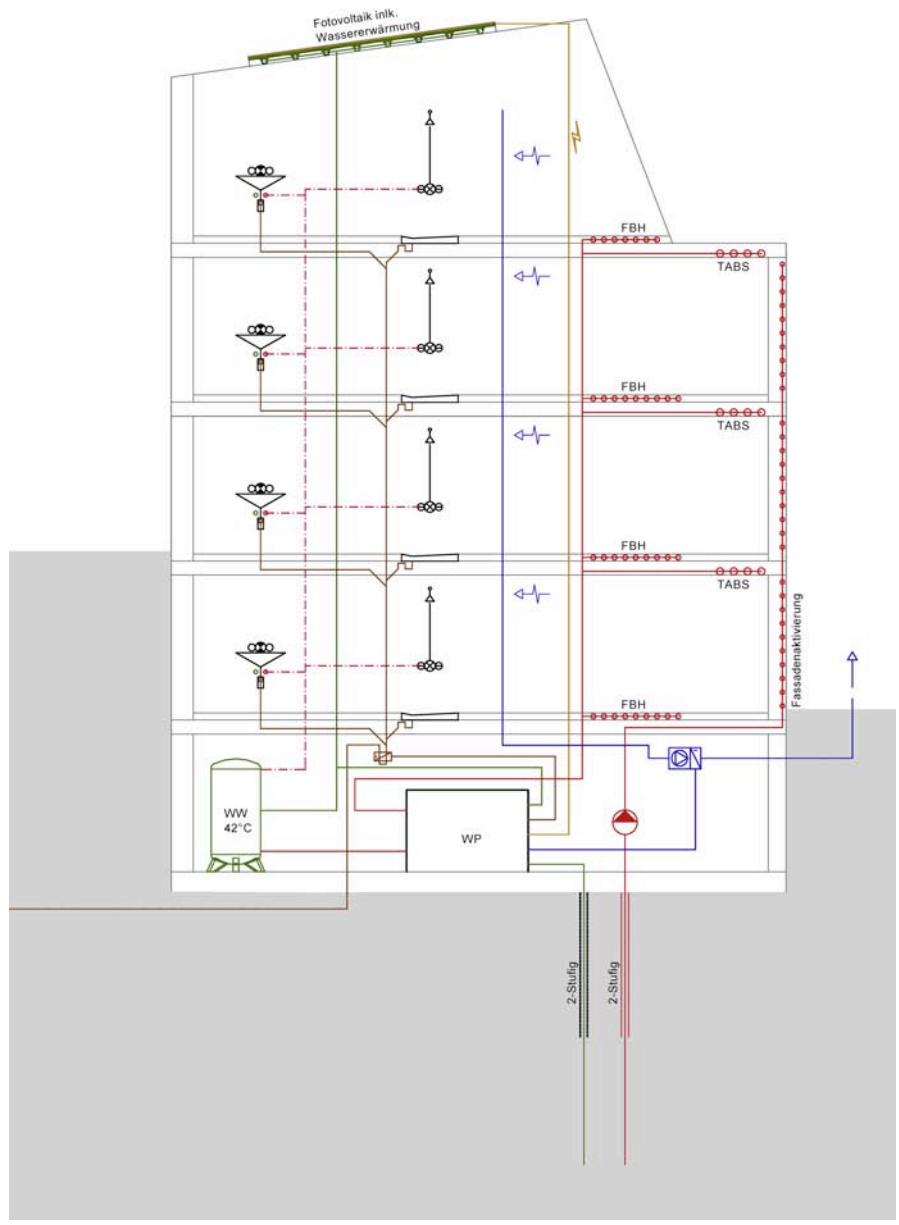




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- 1. Mine the City**
- 2. Wrap the Building**
- 3. Power the Plant**
- 4. Store the Energy**
- 5. Empower the Stakeholders**

Mine the City

reuse - reroute - recycle

How to address the construction budget of \$150,000 for a new building in a run-down neighborhood with real estate selling prices that are below \$50,000?

Consider mining the stock of houses for sale in Syracuse, i.e. consider buying an abandoned home in the region, transporting it to the site, transforming and reusing the structure. This proposition reduces material and waste flows by means of a reprocessing of the existing building stock – a sustainable strategy with cost-saving potential.



Near West Side Neighborhood / filling the gaps



standard transport of houses

Wrap the Building

enclose - enfold - encase

Existing homes are poorly insulated, wasting resources for heating and cooling and increasing the building's maintenance cost.

A new layer encasing the house is needed, a type of sweater that could perform at multiple levels. One possibility would be to build a greenhouse around the existing structure; a further option suggests a wrapper of recycled products, e.g. bottles, cardboard, or plastics; another idea would be to apply padding materials onto the building's enclosure. While the purpose of this layer is to reduce the ecological footprint, it re-frames the home's identity.



shrink wrap



loose fit



tailoring



moving-in



poché



naked



air layer



sun screen



thermal blanket



vegetal cloak



recycled assemblage

Power the Plant

re-energize - re-source - re-power

Existing houses generally use non-renewable energy sources. They consume rather than produce energy, they are dependent rather than self-sufficient.

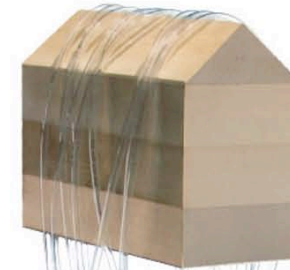
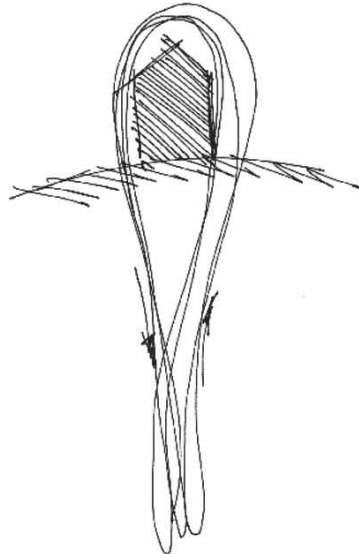
Consider the house as a power plant producing the energy it needs and potentially more. Taking the expression "from the ground up" literally, the proposition argues to use geothermal energy to power the building, i.e. to deploy energy stored beneath the earth's surface to heat the building in the winter and cool it in the summer. Such a measure can be supplemented by solar and wind power.



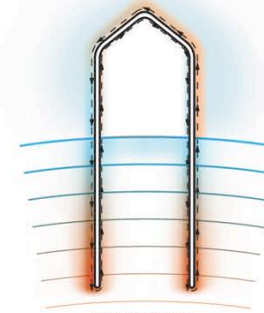
active use of solar energy: flexible photovoltaic cells



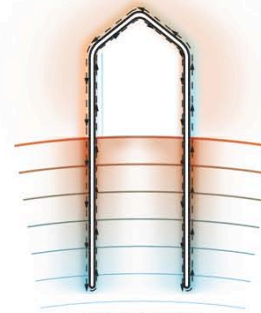
geothermal bore-hole digger



geothermal loops



winter / heating



summer / cooling