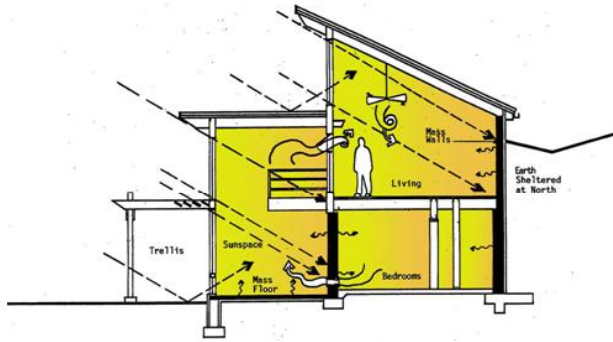
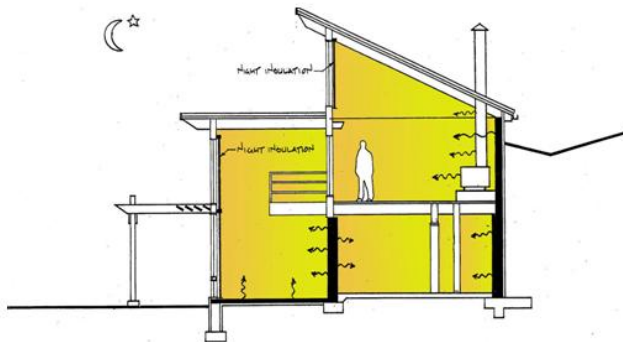


HELIOS PASSIVE SOLAR HOME



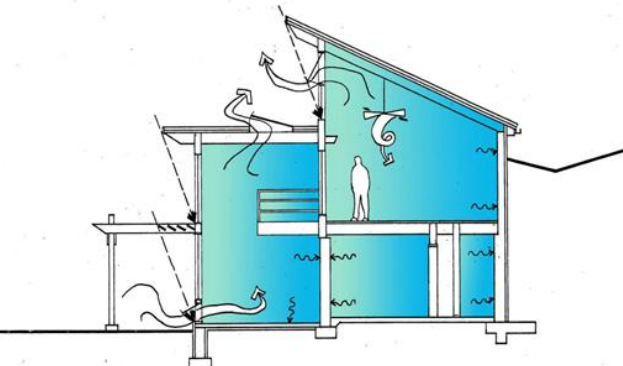
WINTER DAY

Direct solar gain to mass walls and floors.
Overhangs block out high summer sun.



WINTER NIGHT

Solar heat stored in mass walls and floors is re-radiated to the spaces.



SUMMER DAY

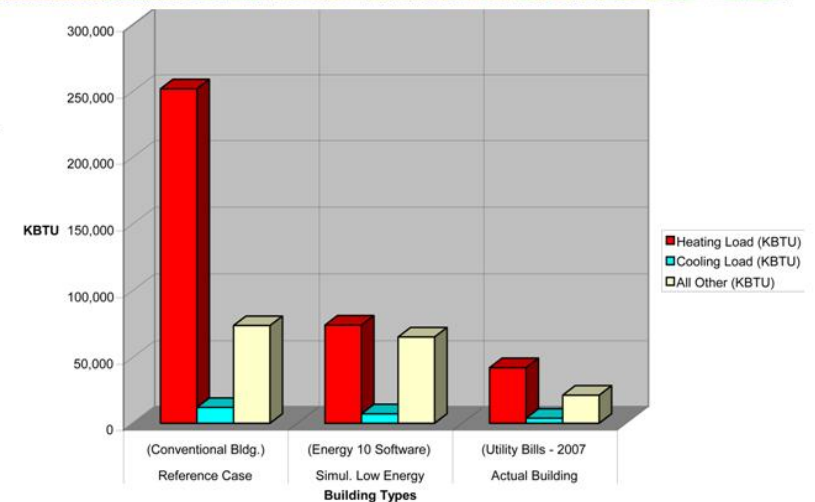
Natural convection induces warm air to rise and exit at high awning windows.

Passive Solar
Earth Sheltered
2-Story Sunspace
Mass Walls & Floors
Highly Insulated
Thermal Envelope

This 3,173 sq.ft. home in Lafayette, N.J. achieves 80 percent energy savings over a similar sized conventional home due to the south facing insulated glazing, partial earth-sheltering, two-story sunspace, mass walls and floors, highly insulated thermal envelope, and solar hot water system.

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ANNUAL ENERGY USE COMPARISON

Helios actual energy use compared with computer simulations of conventional and low-energy homes.