



Bill Eastwood is

The kid with sun in his eyes

By CAROLYN BATTISTA

Sixteen-year-old Bill Eastwood of Guilford keeps piles of carefully-drawn house plans and a very strange-looking contraption in his room. There in there with his books, drums, tapes, speakers, collections and other teenage accoutrements. Because besides pursuing ordinary sixteen-year-old business like attending Guilford High School and playing his drums, Bill designs solar homes and is working with a Yale professor on a (strangelooking) solar invention.

Bill has liked building since his elementary and middle school days. He's produced a matched set of pine benches for his mother and built numerous sheds. In recent summers, he's worked — as a one-man crew for his brother, a contractor who builds houses in Killingworth. "I really wanted to understand what I was doing," he says. So he began to study house design, especially passive solar design. Soon he began to draw up his own

plans for houses that would be, in every possible way, energy efficient.

Passive solar techniques and design elements can reduce the use of conventional energy by putting sunlight to work or keeping cold out. Things like weather stripping and proper closet placement don't sound glamorous, but they accomplish much of the work.

"I'm a little frustrated," Bill says, "by people's idea that solar heating is expensive." Active solar devices, he readily agrees, can run into money, but many passive solar features need not add to building cost. In his plans, he notes, "The house itself is the heating system."

Bill's house designs demonstrate common sense and attention to detail. They call, of course, for good insulation. They include "lots of south-facing windows, double-glazed or with insulating panels. They may have stone floors in some rooms, since stone will hold heat. Storage devices such as drums of water are incorporated

into the designs. Large, 55-gallon drums may be tucked under built-in benches, or five-gallon drums may be stacked behind a wall. A roof might have glass on the bottom half, with styrofoam panels to slide down at night. Closets in Bill's designs are mainly on the north side of the house, and garages on the west, to break the wind. Some of his houses have sun rooms or greenhouses. Many have protected entry ways, that is, a small room that acts as an air lock. Many features are designed to meet federal requirements for tax breaks for energy conservation.

Several of the plans in Bill's growing collection show ways that a basic plan can be modified to suit an individual buyer's needs. A client can give him a list of specifications that he will work into a sensible, energy-saving plan. Because inflation and high mortgage rates have increased the demand for small, relatively inexpensive homes, Bill has made sure to have plans for such homes at the ready.

Bill points out that he's made heat loss calculations for his houses and can cite references to back up his claims for their efficiency. He also stresses that his ideas aren't original; he's simply done a lot of reading and has incorporated techniques proven to be effective. He apparently does a very good job of doing what anybody planning a house ought to do, but doesn't always.

So far, Bill has sold plans for two houses; the buyers hope to build in Guilford. His brother, who's strongly committed to building efficient houses, plans to build some of Bill's homes "on spec."

Bill uses the money from his sales to pay for advertising. His ads have brought him some phone calls and inquiries. An engineer who read one of his ads called to see if he might work for Bill. Bill grins. "He didn't realize I was a kid — and I can't exactly afford to hire anybody!" He was also invited to give a lecture on solar design to the New Haven County Builders Association. "I had to tell them I was too busy," Bill says.

This summer Bill took courses in solar design at Middin Institute in North Haven, a stint that absorbed most of his earnings from working with his brother. He'd like to take more courses.

When Bill talked to Joseph Pietrosante, his counselor at Guilford High, about his interest in solar design, Pietrosante introduced him to Everett Barber, Associate Professor of Environmental Technology at Yale's School of Architecture and president of Sun Search in Guilford, a research and development firm involved with solar-related hardware and software. Now Bill works as an intern, three afternoons a week, for Mr. Barber on the

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