

GREEN TECH THE SERIES COLUMN FOR JULY 6, 2016
HEADLINE: TINY HOMES GOING MAINSTREAM?

This is the last of our series on “Tiny Homes” for a while. We will revisit the topic at some point, however, since this is a rapidly evolving home philosophy and there will be innovations in the future. We have covered the history, evolution and my thoughts on these homes. I expected corporate America to take notice and was not surprised when “84 Lumber” introduced their line of three tiny homes with a fourth model to come this fall. 84 Lumber is a family run chain of lumber stores and manufacturing facilities located in, as has it, the town of Eighty-Four, Pennsylvania. Started by Joe Hardy in 1956, they now have 250 stores in eastern US and concentrate their business on contractors and package products, hence the introduction of “84 Tiny Homes.”

One of my biggest hesitations with these homes was a lack of quality control and some form of standardization. The folks at 84 Lumber seem to have understood this, too, and have developed a nice package of homes. They are the first national retailer to offer these packages. Recently, Maggie Hardy-Magerko, President and Owner, was quoted saying, “Tiny homes have been popping up around the country as people decide to downsize for financial freedom, simpler living and lowering of their carbon foot print.” Their tiny homes can be bought three ways: they’ll give you the custom designed trailer and building plans; they will build to close up (a finished shell) or they can provide a fully finished tiny home.

One package, called the “Degsy,” starts with a custom steel trailer, aluminum rodent resistant underside, radial tires, trailer brakes and four leveling jacks. The leveling jacks are one feature I rarely see on home-built tiny homes and any RV owner will tell you how important this is. This model is assembled using 2x4 frame, fully insulated and wrapped, then covered in clear cedar siding. The roof is 26 gauge metal, colour coordinated. The list of interior features is long: LED lighting; ceiling fans; individual electric heaters and walnut flooring, to name a few. This model of tiny home contains mobile features like an outside water hookup, 30 gallon freshwater tank and a 50 amp electrical hookup. All wiring and fixtures are U/L approved. Smoke/CO detector and a fire extinguisher are also provided. Oversized windows allow ample passive light and the kitchen is the focal point with a solid surface counter, electric cooktop, energy star refrigerator

and an electric hot water heater. This model comes in at 160 square feet, a popular size in the tiny home market.

Their other models range up to 200 square feet right now and I suspect the fourth model will be larger. The first question is always price. You can buy the trailer and plans for just under \$6900 USD. A packaged shell on the trailer, ready to interior finish runs around \$25,000 and the fully finished package comes in just under \$70,000. The Shonsie model, which has a more “cottage feel,” comes in about \$10,000 less than that. While this is not cheap, based on some of the “backyard” tiny home builders, you do get the security of knowing that your home was built by one of the premier American Lumber Companies to a standard that they would have to be comfortable with to put their name on.

The 84 Lumber package arrived on my desk about a week after I got the information on what I feel is, finally a decent size, net zero smart “tiny home.” Working with the folks at “Green Builder,” Jim Gregory and his team at Shelter Dynamics are offering a tiny home package that smacks of quality, innovation and the use of advanced net zero installations, including PV for power. It’s called the “Arc House” and I had a brief back and forth with Jim about two weeks ago on this home. His reply is worth repeating, it covers most of the features. “Our solar is 2.5KW, using a Schneider charge controller and inverter and Adura lithium ion batteries; we have a two system plumbing, so water from the shower and laundry gets recycled to be used for toilet and landscape. The other goes to black water. There are tons of built-ins, which use all of the available space or other functions. The insulation envelope combines poly ISO and closed cell spray foam, for a combined R-40 around and under the floor. The ends are insulated with 4 inches of poly ISO for an R-24. The windows come from Alpen. Our standard is an R-5, but they are capable of producing an R-9. The HVAC is a 20 SEER Carrier mini-split unit.”

The “Arc House” is a prototype factory built 432 square foot home that is a knock out design. They started with 10 foot exposed arc beams (hence the name) in the ceiling, with multiple flexible built-ins. One wall is largely windows. This allows the openness that is missing on so many tiny homes, obvious passive solar values and, properly located, would allow a stunning view of your gardens or other setting. This prototype is built to meet the standards set by the California factory modular homes code. The fire protection system meets the standards of the National Fire Protection Association.

When I first got the information on this home it set me back in my chair. Finally someone has got it right in a single package: sustainable; net zero; resilient;

intelligent and elegant. Shelter Dynamics prototype was expensive to build as all prototypes are. Jim and his team are hoping to bring these tiny homes in at around \$160,000. In the nearly ten years I have written this column, this is by far the most evolutionary, practical home concept I have ever seen. Jim Gregory and his team are to be congratulated. I can only hope the “Arc Home” takes off. It’s time for a responsible sized, net zero home in North America and both sides of the border need this type of home... now. Go to “shelterdynamics.com/the-arc-house-project” for more information.

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