



The Green Architect

By Blair Seibert, AIA, LEED AP

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Prefab Doesn't Have to Mean Bad

Though prefabricated houses have signified something cheap and unattractive to many architects in the past, there has always been a small group of manufacturers and designers that have created aesthetically pleasing versions. I came to understand that prefab didn't have to be bad when a college professor described a neighborhood covenant as something that established limits to protect the aesthetics of an area. One of the rules in his neighborhood was that motor homes and trailers had to be parked in the back yard or in a garage UNLESS they were Airstreams. Though I'd never seen an Airstream I knew there had to be something different about them.

Prefabricated housing has been a necessary industry for owners whose properties are in remote locations or who have very low budgets. According to an *ABC News* report by Mark Lallanilla on April 25, 2006, a new group of architects, designers, and homebuyers has positively changed the image of prefabricated housing. Some of the interest is due to the enthusiasm for things green.

The many environmental advantages to prefab housing include the following:

- Construction waste is reduced to 2% from the 40% for traditional construction. Prefab buildings are typically designed within material modules making the best use of the materials. Most waste is reused.
- Considerable time and money is saved over stick-built methods. Less energy is required to produce the units. Labor is more efficient and effective when repeated modules are built.
- The reduced time spent on site reduces the likelihood of erosion and disturbance to neighbors and wild life.
- The manufacturing process goes through a rigid quality control process eliminating general contractor errors and deterioration of products on site due to weather-related issues.
- The air quality should be better because the likelihood of dust and mold in the components is greatly reduced and any volatile organic compounds (VOCs) can be aired out prior to delivery.

○ In addition, the units themselves are stronger than traditional construction, typically bolted and glued in order to withstand travel vibration and the lifting by cranes. Because of this, modular homes are better geared for liquefaction zones. Even some of the architect-designed units can cost less than a typical home, and costs can be clearly defined up front.

The first LEED Platinum certified home was installed on Highland Avenue in Santa Monica by LivingHomes. According to their website (livinghomes.us), LivingHomes "is a developer of modern, sustainable prefabricated homes designed by world-class architects." This first model was designed by Ray Kappe, FAIA. It was installed by crane over a prepared foundation in only eight hours. Future models will be designed by David Hertz and others.

The price per square foot was difficult to ascertain from the website but it appears that this first modular home was similar in price to a custom home. Future homes are expected to range in the \$ 150-\$250/sf, excluding foundation and delivery.