



green BUILDING GOES MAINSTREAM

CONTRACTORS ARE MAKING BELLEVUE'S SUBURBS THE EPICENTER OF THE "BUILT GREEN" MOVEMENT. NOW, IF THEY CAN ONLY PROVE IT'S WORTH THE EFFORT.

AT FIRST GLANCE, the home on High Street in the Issaquah Highlands development appears to be your typical suburban nest. The living room has a warm fire burning; the table is set for dinner for six. In the bedrooms, the beds are made up tastefully, waiting for their occupants.

However, on closer inspection, there are tell-tale signs that homes in this neighborhood are actually involved in a revolution—a home-building revolution. They are part of a new movement that is rewriting the rules of construction and making your comfy old rambler a bit passé.

Your home may be obsolete because houses, as we have come to know them, are resource hogs. The heat radiates out through the roof and out the windows. The incandescent lights gobble up electricity. And the buildings are made almost entirely of wood—which means fewer acres of precious timberlands.

EASTSIDE ENVIRONMENTALISM?

THESE TRENDY Issaquah model homes are at the forefront of an environmental movement called "Built Green," which aims to fix much of that wastefulness. Using materials that are more environmentally friendly than those that have been used for centuries, Built Green homes are designed with healthy living in mind.

At the model home on High Street, such changes mean walls covered in a paint that does not emit smelly

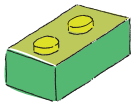
odors. The double-pane windows are filled with argon, an inert, environmentally friendly gas. The carpet pads contain recycled content. At other new houses in the area, the eco-friendly concept stretches outside, into the greenery surrounding the homes, too. One Seattle-area landscaper, In Harmony, designed several landscapes for the 2007 Street of Dreams featuring chemical-free, resource-efficient lawns and gardens.

You might be forgiven if you had missed this entire movement. Less than a decade old, it is heavily focused in the Pacific Northwest, specifically in many of the new housing developments that have filled in some of the last remaining big tracts of land where large housing communities can still be built.

That includes the Issaquah Highlands. The massive extension of suburban living onto the Sammamish Plateau can't be missed if you are headed east on Interstate 90. The planned community sits above Issaquah, just northwest of Tiger Mountain. The rows of townhouses and single-family homes overlooking the interstate are just the beginning; Issaquah Highlands stretches for 2,200 acres northward toward the Snoqualmie Valley.

Approved by the city of Issaquah in 1996, Issaquah Highlands will include about 8,000 residents and nearly 4,000 homes. The twist is that almost all of these houses will be Built Green. »

BY SCOTT WILLIAMS
ILLUSTRATION BY DUSHAN MILIC



JUDD KIRK'S VISION

THIS ENVIRONMENTAL building program is the brainchild of Judd Kirk, a University of Washington- and Harvard-trained lawyer and developer who has had an indelible impact on the local real estate industry. Kirk is president of Port Blakely Communities, which has developed the Issaquah Highlands area as well as other major real estate projects around the state.

Issaquah Highlands is one of the most visible examples of "New Urbanism," a movement that has taken root in Washington in recent decades. Long a center for environmental progressivism, the Puget Sound area enhanced its reputation with the 1990 Growth Management Act (GMA), which required local governments, the private sector and the public to develop comprehensive growth plans. One outcome of the law has been the concentration of residential construction nearer to urban centers, leaving rural regions either undeveloped or the domain of large homes on large lots.

The plans have manifested in a lot of roomy houses crowded together on relatively small lots; lawns are tiny or non-existent. It also means going back to an older lifestyle in which neighbors are nearby. So are the shops and schools and gathering places that have traditionally taken a car and a small fortune in gasoline to get to.

"We are going back to the way people lived 80 years ago," Kirk explains. "Since World War II, we've had whole patterns of development based on the use of the automobile. With cheap gas and endless highways, that made sense."

But laws such as the GMA changed all that. So did increasing pressures on the environment, high oil prices, congestion on the highways and, according to Kirk, the failure of local and state governments to build enough transportation infrastructure options to support the population growth that continues to clog the area.

In response, the building community has been constructing homes on large tracts as close as possible to major cities like Seattle.

And now, Built Green has added a new dimension.

CONFUSING TERMINOLOGY

CONSUMERS STILL experience a fair amount of confusion surrounding Built Green, including what, exactly, the term means and how it differs from other programs or trends with similar names.

To Jim Noland, president of Noland Homes, the concept is fairly simple: "It's about energy efficiency. It's about indoor air quality. It's about preserving our natural resources and protecting the water."

That's the philosophical explanation. There are also specific programs that are more tangible. First, to be "Built Green" does not mean the same thing as to be part of the "green building" concept, explains Aaron Adelstein, director of Built Green for the Master Builders Association of King and Snohomish counties. "Green building" is a way to build that is friendly to the environment; "Built Green" is a program that has been trademarked and branded by the Master Builders' Association of King and Snohomish counties.

The program sets standards for new homes to conserve water, prevent erosion, reduce energy use, improve indoor air quality, and use recycled and locally manufactured materials.

Second, while Built Green is a program for King and Snohomish counties, homes built to those standards are going up in every county in Washington state, as well as parts of Colorado. What's more, there are similar programs across the country, all with different names.

Third, a separate program called "Northwest Energy Star" has a partnership with Built Green and also certifies homes that save at least 30 percent of the energy of a conventional home. A home built to North-

west Energy Star standards is estimated to keep more than one ton of gases that would otherwise contribute to the "greenhouse effect" from entering the atmosphere. That is the equivalent of not driving 2,244 miles or of planting 200 trees, according to program officials.

And then there is the "Zero Energy" home concept, a Noland Homes project that will involve constructing 10 special model houses at the Issaquah Highlands development. While the homes have the Zero Energy name, they won't be completely energy- and carbon-emissions-neutral. Instead, the homes will be designed to reduce water use by 60 percent and cut household energy costs by 70 percent by using many energy-efficient techniques, including installing solar panels and capturing roof runoff to flush toilets.

NEW URBANISM TAKES SHAPE

KIRK'S MOVEMENT came to the Puget Sound area after he led a trip with a number of local builders back East to a development in Kentlands, Md., near Washington, D.C. That was 1996. What the builders saw was one of the first New Urbanist communities, with narrow, tree-lined streets, homes packed in closely and neighborhoods where walking rather than driving was the preferred way of getting around. To Kirk, the design made sense. "This wasn't rocket science," he says.

Then, in 1998, Pacific salmon were listed as endangered by the U.S. EPA. The decision caused builders to see that many building practices were environmentally unsound, not only along creeks but also across much of the Pacific Northwest.

"The way things were being done at that time and, in some instances, are still being done, were detrimental to the development of aquatic habitat. It became obvious that some things needed to change," Adelstein says.

The Sierra Club and FutureWise, a statewide nonprofit involved in controlled growth, jumped in, and the result was the Built Green program, adopted in 2002 by the Master Builders. It has grown quickly, from early efforts simply to control storm-water runoff into a full-blown program with various levels of certification. Depending on the level of energy-saving materials, special appliances and other resource conserving practices used, new homes can earn up to a four-star rating. The Masters Builders are now talking about adding a fifth star level for the absolute highest level of environmentally sustainable building practices.

Built Green is still young, and its exact nature is evolving. But its impact on the Puget Sound building community can already be measured. The number of homes certified under the guidelines has grown quickly. In 1999, there were no Built Green homes. Since then, 11,700 housing starts in King County and Snohomish Counties have been certified under the program. "Annually, we are certifying about 20 percent of all King County new building starts," explains Adelstein.

Some people still refer to Built Green as a trend, but Adelstein says he thinks it's bigger than that. "I would call it a movement, one that will have traction for quite some time," Adelstein says. "One of the great things about sustainability is that you cannot unlearn it."

Kirk agrees. "I think it is really snowballing. The average person is not aware of the groundswell that is building right now."

BUT WHAT'S THE BOTTOM LINE?

TO THE AVERAGE homeowner, much of the decision about building a new home comes down to hard numbers. If I add all of these pro-environment features, how much cost will be added?

For years, builders have been unable to provide that cost-benefit analysis. The energy cost savings could be measured, but the impact of using recycled materials and high-efficiency windows and paint that

GREENING TO EXTREMES

LOCAL HOMEBUILDERS PUSH THE GREEN AGENDA TO A NATIONAL AUDIENCE ON THE HIT SHOW “EXTREME MAKEOVER: HOME EDITION.” BY JENNY LYNN ZAPPALA

THE PUGET SOUND region’s reputation as a center for “green” building got another boost in December when ABC-TV’s “Extreme Makeover: Home Edition” made a visit to Kirkland.

The show’s mission was the same as usual: demolish and rebuild the sagging home of a deserving local family in just seven days. But this episode offered viewers a slightly new twist. The main players in making over the home—the Building Industry Association of Washington (BIAW), Doyle Custom Homes and consulting firm Green Dog Enterprises—had decided to go “extreme green” and use the most earth-friendly building practices, materials and products.

According to Daimon Doyle, owner of Olympia-based Doyle Custom Homes and leader of the construction project, the massive undertaking involved 750 skilled construction workers, who gave a combined total of about 8,000 hours to the project. An army of volunteers spent about 10,000 man-hours helping to complete the home by the deadline.

Dick Box, the production manager for Doyle Custom Homes, maintains that green homes lower utility bills, save water, create healthy indoor air and have a higher resale value. He also says they allow less storm water runoff, which is a contributing factor to floods, mudslides and sewage spills.

The new Chapin house—a 3,500-square-foot, Craftsman-style bungalow with six bedrooms, three bathrooms, a new swimming pool and a



carriage house—will use half the energy of a usual house of its size because of special low-energy appliances and light fixtures, weather-tight doors and windows, and a high-efficiency gas furnace. Yes, some green products cost more, but buyers weigh the higher costs against health and environmental benefits, Box says.

After the 79-year-old house was demolished, volunteers separated real trash from reusable materials. Guided by Re-use Consulting of Bellingham and Olympia Salvage of Olympia, workers diverted about 250 tons away from the landfill, including 160 tons of concrete recycled by Nuprecon’s ReNu of Snoqualmie. Cedar Grove Composting of Maple Valley recycled 700 cubic yards of topsoil and added 200 cubic yards of compost to the new site.

For the driveway, volunteers installed 3,000 square feet of Eco-stone pavers, provided by Mutual Materials of Bellevue, which allow rainwater to soak into the soil and prevent stormwater runoff. Core Design of Bellevue and Nature Perfect of Lacey created a landscape of

drought-tolerant plants, instead of grass.

To create healthy indoor air, workers used formaldehyde-free insulation and building products; paints and finishes low in volatile organic compounds; and nontoxic adhesives, caulks and sealants. Outside, the siding is made of HardiPlank, a composite of wood pulp and concrete that repels insects and mold.

As viewers saw on Dec. 16, the eco-friendly house was a major success. Connie Chapin, a single mother of four, cried tears of joy as the show’s bus moved out of the way to provide her family the first glimpse of their new home.

“If this many green features can be incorporated into a project that had as many challenges and as tight a schedule as this one, it shows what can be possible when there is a sincere desire to create a home that is going to perform well,” says Pam Worner, “top dog” of Green Dog Enterprises.

To see more construction photos of the project and a list of participating companies, visit greenextremehomemakeover.com.

doesn’t emit gases was tougher to gauge.

Generally, a \$550,000 Built Green home is estimated to cost up to \$20,000 more to build than a regular home, according to Kirk. The impact on the most basic of changes (energy-efficient windows and appliances, more insulation, etc.) can add between \$5,000 and \$7,000 to the price. Many green building materials—stone tiles in floors to retain heat, products made of recycled materials, triple-pane windows, low-energy light bulbs, solar panels, etc.—are simply more expensive than traditional building materials. But some experts have estimated that the added cost would be recouped through lower energy bills.

However, those numbers are still rough estimates. The truth is that figures on savings for Built Green homes are still difficult to pull together. For some time, builders have been left with their main sales pitch: Remember the positive impact your home will have on the environment and your health.

While the impact of Built Green and the other programs on home-

building costs might still remain amorphous, the true bottom line will be each home’s resale value. When a Built Green home goes on the market, how much will a buyer pay for the added environmental value?

That information is currently being assembled by people at Built Green following a recent decision by the Northwest Multiple Listing Service to add the Built Green credentials as a separate category of information. With time, that data will begin to show the real value of the program. Still, compiling the information needed to assess whether certification substantially changes the value of a home is expected to take two to three years.

“This is a huge step. Before, you could appeal to people’s environmental priorities as the reason they want to do it. You could say without actual evidence that Built Green was of higher value, but it was all anecdotal,” Adelstein explains. “We still don’t have the catalogue of information that Built Green is worth more. But now folks who want to sell a [Built Green] home have some real leverage to advertise the home as environmentally friendly.” **SBM**