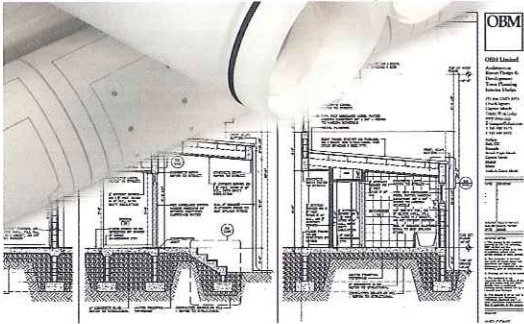


# Building Green: welcome home

This is the second installment of OBM International's series, "Building Green." This month's article features a future green homeowner.



As more homeowners become aware of the environmental crisis, they turn to their design professionals for the best possible solution for their project. With many innovative, eco-friendly technologies currently on the market, as well as proven design techniques that aim to significantly reduce the negative impact on the environment, "going green" is becoming easier and more popular.

Earlier this year, the National Association of Home Builders (NAHB) and McGraw-Hill Construction conducted a survey among green-homeowners, which found an astoundingly high percentage of customer satisfaction. Moreover, these buyers were motivated by the lower operating and maintenance costs that come with energy and resource-efficient homes.

## Another Satisfied Customer



Krishan Welcome, the soon-to-be owner and occupant of a green home in the Cayman Islands, echoed the sentiment. "Building a green home was something I've always wanted to do. Not only is it important to take measures to protect the environment, but it makes sense, fiscally."

An associate attorney at one of Grand Cayman's largest law firms, one can sense that Welcome is a woman that knows exactly what she wants. And when she purchased her piece of land, she knew that it was the perfect location to

build her dream, green home. The home will feature three bedrooms and three baths, one of which will be a wet room, totaling about 2,400 square feet. The design is very modern with simple and symmetrical lines to suit her taste. From the materials that will be used to the design of the windows and roof, every possible measure was taken to conserve energy, reduce heat gain and spare no details in luxury, comfort and style.

## Material World

Building a green home has much to do with the extra care taken in choosing the right materials during the design process. For instance, reinforced concrete will be used for the walls, floors and foundation of the home for maximum insulation and hurricane resistance. The same criteria were used in the selection of windows. Hurricane rated and insulated glass will be used for the casement-style windows that are strategically placed to catch the breeze when the A/C unit is not in use.

The roof is a hurricane rated "R" panel system, which is the top-of-the-line product in insulation and design. This technology has a proven

track record in reducing heat gain, which requires much less energy to cool the entire home.

## Energised, Naturally

Since the most abundant natural resource available in the Caribbean is the sun, it is only natural that the home will feature photovoltaic panels. Although the initial costs of purchasing and installing the equipment may be slightly higher, the payback period for this clean, quiet and maintenance-free equipment is currently around nine years, thereafter providing free power. Welcome explains, "With the looming threat of hurricanes and the increasing cost of foreign oil, it makes a lot of sense to aim to be as independent and self-sufficient as possible."

The system can be scaled to suit the needs of the owner, and can be expanded over time to increase the supply. The owner can start with simply heating water or running low efficiency lighting and grow into cutting their electricity bills substantially. Although these systems have not been widely adopted in the Caribbean, they are becoming more commonplace, and are another way of reducing energy costs, offsetting and paying back the initial investment in a two to three year period.

## Bottom Line

Careful consideration of the location and orientation of the building on the site, maximisation of natural ventilation and natural lighting, and use of shading elements were all implemented in Welcome's project. These measures will actually reduce building costs. Yet, the most obvious area of potential savings is in the reduction of operating costs, through optimal performance and peak efficiency. At maximum efficiency, Welcome's green designed home will use less than half of the power it takes to run a standard home.

When asked if she would recommend this process to other homeowners, Welcome said, "When benefits such as reduced running costs and enhanced indoor and outdoor environmental quality are taken into consideration, as well as the knowledge that your home's overall environmental impact has been minimized, any owner will feel confident that in choosing to 'go green', they are making the right decision." ■

## Next month...

In the next installment of the Building Green series, the design team for this project will be featured.

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