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The Kahler residence, designed and constructed by Shospec (Pty) Limited using light steel framing systems, incorporates numerous Green building features, including a grey water system, thermal insulation, skylights, glass frontages, a solar geyser and a rain harvesting system

Green steel

Bjorn Kahler of Shospec (Pty) Limited is passionate about alternative building methods and has spent the last four years researching and upskilling the company on light steel framing systems.

His preferred construction method using the internationally approved light steel framing system is not necessarily a cheaper alternative to building with brick, it does, however, represent an option that is environmentally friendly and allows for a significantly quicker turnaround time.

"The real cost of building is determined more by the quality of the finishes, rather than by structural materials used," says Kahler.

The message conveyed is that a light steel frame luxury home is likely to prove as costly as a brick luxury home. The objective was never to introduce a cheaper alternative, but rather to anticipate people coming onboard who, like himself, are passionate about alternative building methods and subscribe more to the holistic benefits, as opposed to financial benefits.

Indicative of the resolute belief they have in their product, Kahler used the construction of his home as their pilot project and says he hasn't for a minute regretted it. "We are a company that specialises in shopfitting; I am extremely excited about adapting our capabilities to the light steel frame construction discipline."

The Kahler home was constructed using preformed 0,8 mm rolled steel lip section panels and trusses. Walls are cladded with fibre-cement and orientated strand board (OSB) externally with a 102 mm insulation in the cavity and 15 mm gypsum board internally. From beginning to end, the 500 m^2 home with high-quality finishes, took just five months to complete. Furthermore the system is SABS approved and the structure has met with NHBRC standards.

Kahler informs us that his house is 30% more energy-efficient than it would be had he built using brick. "It retains significantly less heat than brick and concrete, considerably reducing the need for air conditioning in the summer months."

During the construction phase there is minimal site waste and transport requirements are considerably less. In addition, the company has adapted a number of Green building innovations, which include a grey water system, thermal insulation, 10 skylights, glass frontage to maximise natural light and airflow, a solar geyser, and a rain harvesting system.

"Our company fully subscribes to the need for energy-efficient, resource efficient and environmentally responsible building alternatives. We are extremely pleased with our findings as well as with the quality of the end product and we will be entering it into the 2011 Excellence in Construction Awards," concluded Kahler. ■