



# FRAMECAD™

NEW ZEALAND

## High-end sustainable homes with a heart of steel

Two new homes in St Heliers, one of Auckland's most desirable suburbs, represent the luxury end of green building. Highly energy efficient and carefully resourced, the premium homes utilise FRAMECAD steel framing because it's durable, recyclable and stays straight.

### BACKGROUND

About NZBuilt: Owned and managed by Paul Belcher, NZBuilt is an award-winning residential construction business based in Auckland, New Zealand. The company is committed to green building and is currently a member of the New Zealand Green Building Council.

About Podoko: Based in Manukau City, Auckland, New Zealand Podoko is a steel frame manufacturer that supplies building companies, as well as making its own range of transportable cottages and sleepouts. Owned and operated by Glen Tasker, Podoko uses the latest FRAMECAD technology.

In 2008, NZBuilt commissioned Podoko to manufacture steel framing for two luxury eco homes in the Auckland suburb of St Heliers. Paul Belcher's mission with the project was to: "Show a green build and how to do it. There are not many architects designing green houses, so we wanted to create an example of what could be done".

### SOLUTION

Paul Belcher elected to base the homes on steel framing because he believes it's the most eco-friendly framing system available. "It's lightweight and fully recyclable, and you can get greater spans than with timber", he said.

For Paul, it was something of a leap of faith to use Podoko and the FRAMECAD system. "We had tried steel framing with another company four years ago and it didn't go well, however I was still open to the idea that steel was a good product. Glen came across as a great operator."

In addition to the eco-friendliness of steel framing, Paul was keen on the rigidity of steel framing.

"We had some particularly long rafters in these houses and I was worried about flexion. Initially, I was only going to use steel framing for the rafters, to ensure a really straight ceiling, but after talking to Glen I chose to use steel for all the framing", said Paul.

Glen Tasker of Podoko used FRAMECAD Detailer to create detailed steel framing plans for the two houses, then proceeded to manufacture the frames using the FrameMaster F300i.

"Paul's previous poor experience with steel framing happened because the frames he was supplied with had been very poorly detailed", said Glen. In contrast, the detailing software developed by FRAMECAD is recognised worldwide as the best. With a script-driven backend and a simple user interface, FRAMECAD Detailer talks directly to the FRAMECAD manufacturing equipment through FRAMECAD Factory to produce framing that is accurate and very quick to assemble.



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## USER EXPERIENCE

The total house design was a tremendous success and won numerous eco awards. Paul Belcher was extremely happy with the materials being used. He describes working with FRAMECAD steel framing solutions as “a really positive experience”, and says he would use the system again on suitable projects.

For Glen Tasker of Podoko, working with NZBuilt was a coup, because generally New Zealand builders are wary of steel-framing.

“Just about everywhere else in the world, steel framing is recognised for its many benefits. You can use low-skilled workers to put it together and they can't mess it up. It's building by numbers - Meccano construction. Also, it's ant and termite-proof. But in New Zealand we have a very strong timber industry and a trades-based builder trainer system, where the apprentice learns from the master. It's hard to change builders' habits, even when the homeowners are keen on steel for the quality, economic, health and safety benefits.”

“NZBuilt is one of the progressive companies that's open to new ideas. They're willing to try it out and test it on its merits.”



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