



# Saving space and energy

Compact Christchurch apartments are big on energy-efficiency, writes David Killick.

Apartment living is the norm for millions of people around the world. Space is often at a premium. In New Zealand we often seem to treat space as unlimited, but not everyone wants or needs a huge section in a subdivision or multiple bedrooms. Compact houses and apartments can sometimes offer a practical and more affordable alternative.

The best designs maximise available space. They ensure privacy but can also provide shared areas for residents to enjoy.

Matipo on the Green, a new apartment development in Riccarton, reflects European ideas on compact design, adapted for New Zealand.

Tom McKenzie, an engineer who has a masters of science degree from London specialising in environmental energy efficient architecture, was determined to build an attractive high-density development. He expects the apartments will appeal especially to young professionals and rebuild workers.

“Quality design makes them warm, safe, and secure.”

The development has been awarded the highest possible eight-star Homestar rating for energy efficiency.

Designed by architectural designer Mitchell Coll, eight two-storey units take the place of one old single-storey home that used to occupy the site before the earthquakes. Each unit measures 130sqm and packs in five bedrooms, each with an ensuite – four up and one down.

Residents share living, dining, and kitchen areas. There are no

garages, although there are

parking spaces; residents have secure bike parks, compact courtyard gardens, and a shared vegetable garden and fruit trees. Other trees have been planted in landscaped common areas and



**Shared space:** Residents share a large living and dining area and kitchen.



**Safe and secure:** Bike parks take the place of double garages for cars.



rubbish and recycling bins are screened off behind trellises.

Apartments are all fully furnished and rental includes electricity and internet. That's very European.

Construction is Easypanel – made from a lightweight concrete fly-ash – over a timber frame, combined with decorative cedar detailing.

Windows are smaller than the huge picture windows typical of many New Zealand houses. That is also very European. The PVC-framed double-glazed windows from Warm Windows do just as the same suggests, not only keeping the apartments warm in winter but also cool in summer by helping prevent overheating.

Extra insulation for heat and sound and shared internal walls between apartments also keep apartments comfortable. Insulated polished concrete floorpads provide thermal mass, storing heat and evening out temperature variations.

A brise-soleil (literally, sunbreak), or shade, above the downstairs courtyard lets through the lower-angled winter sun while screening out the high-angled summer sun.

A skylight in the roof opens to keep apartments cool. It is fitted with a rain sensor and motor that closes the skylight automatically when the skies open – which they did when I visited.

Heat pumps and panel heaters provide extra heating when needed in winter, though McKenzie expects little will be needed and power bills will remain low. Electricity is on night-rate. Korean-made Monster showerheads keep water use low,

while a heat exchange system stops hot water and extra dollars from going down the drain at the same time.

Other energy-efficient and space-saving features include automated air extractors in the kitchen; laundry cupboards fitted with low energy and water usage F&P washing machines; and nifty fold-down beds that double as spacious desks.

Feltex EcoTiles, a form of carpet tile, are highly practical and can be easily replaced as needed.

■ [matipoonthegreen.co.nz](http://matipoonthegreen.co.nz)



**Foldaway spacesaver:**

A large desk swings down to convert into a bed while retaining contents in place.



**European inspiration:** Matipo on the Green apartments in Riccarton, designed by architectural designer Mitchell Coll, are designed to maximise space and comfort. The development has been awarded an eight-star Homestar rating for energy efficiency — the highest possible.