



Rhonda Muir

Rhonda Muir specialises in commercial property valuations in Richmond & Nelson CBD.

Waimea House: The Future Norm for Buildings?

Home to Daines and Associates Architects on the top floor, Waimea House is the newly completed building at 74 Waimea Road that is believed to be the first commercial building in this region designed using the principles of the Green Star Building rating system, which takes a holistic approach to the entire building process and places particular emphasis on the quality of the internal environment and use of energy.

Architect Alisdair Daines has owned the site, located opposite Nelson College, for a number of years with the intention of redeveloping it at some stage. From the outset he wanted to design a building that was environmentally responsible and was a long-term investment. His interest in the Green Star Rating System grew the more he investigated it, and sustainability and environmental responsibility formed the basis of his design approach for the building, believing that many of these features will become the norm in the future and that by incorporating them now, will protect their long-term investment.

Some of the unique features of Waimea House are:

- An independent water supply from a rainwater collection system with pump, filter and UV treatment, which produces savings of up to \$600 a year.
- Solar hot water heating provided by a solar-panel system to provide hot water.
- Levels of insulation well above code requirements to reduce heat gain and heat loss.
- A centralised power supply and metering system for the entire building rather than individual connections for each tenancy, saving about \$6 - \$8 a day.
- Double glazed windows using high-efficiency glass and argon gas-filled centre.
- The use of low VOC paints and products (normal paints and finishes release low-level toxic emissions into the air for years after application. The source of these toxins is a variety of volatile organic compounds (VOC)).
- Exterior louvers limit direct sun into the building over spring to autumn, and the careful positioning of windows promotes natural ventilation and cooling in summer.
- Recyclable carpet floor tiles.
- High-efficiency light fittings that have a much lower energy consumption (all are T5 fluorescent fittings or similar).

- Lights are connected to daylight sensors so they automatically dim and switch off as natural daylight levels increase.
- Centralised rubbish removal and recycling.

While these design features have added 5% - 8% to the overall construction cost compared with an average-quality commercial building, the savings in running costs are significant, predicted at more than 50% saving compared to minimum building code requirements.

The interior work environment has exceeded all Alisdair's design expectations and so far the modelling is proving correct. The

building's lights have switched off by 9.30am, heating is turned on low or off most of the time, and the electricity bill has been much lower than their old premises that were less than



half the size of the new space and housed less equipment.

All New Zealand's "existing" office buildings, defined as pre-April 2007, are now also able to be rated by Green Star. Expansion to Green Star will encourage and reward building owners to include green building features when undertaking refurbishments. To achieve a 5-Green Star rating, upgrading works are likely to need to incorporate features such as rainwater collection, solar lighting, cycling facilities for staff etc.

As the number of existing buildings far outweigh those completed after March 2007, the long-term benefits to the environment of having green features incorporated upon refurbishment could be significant.