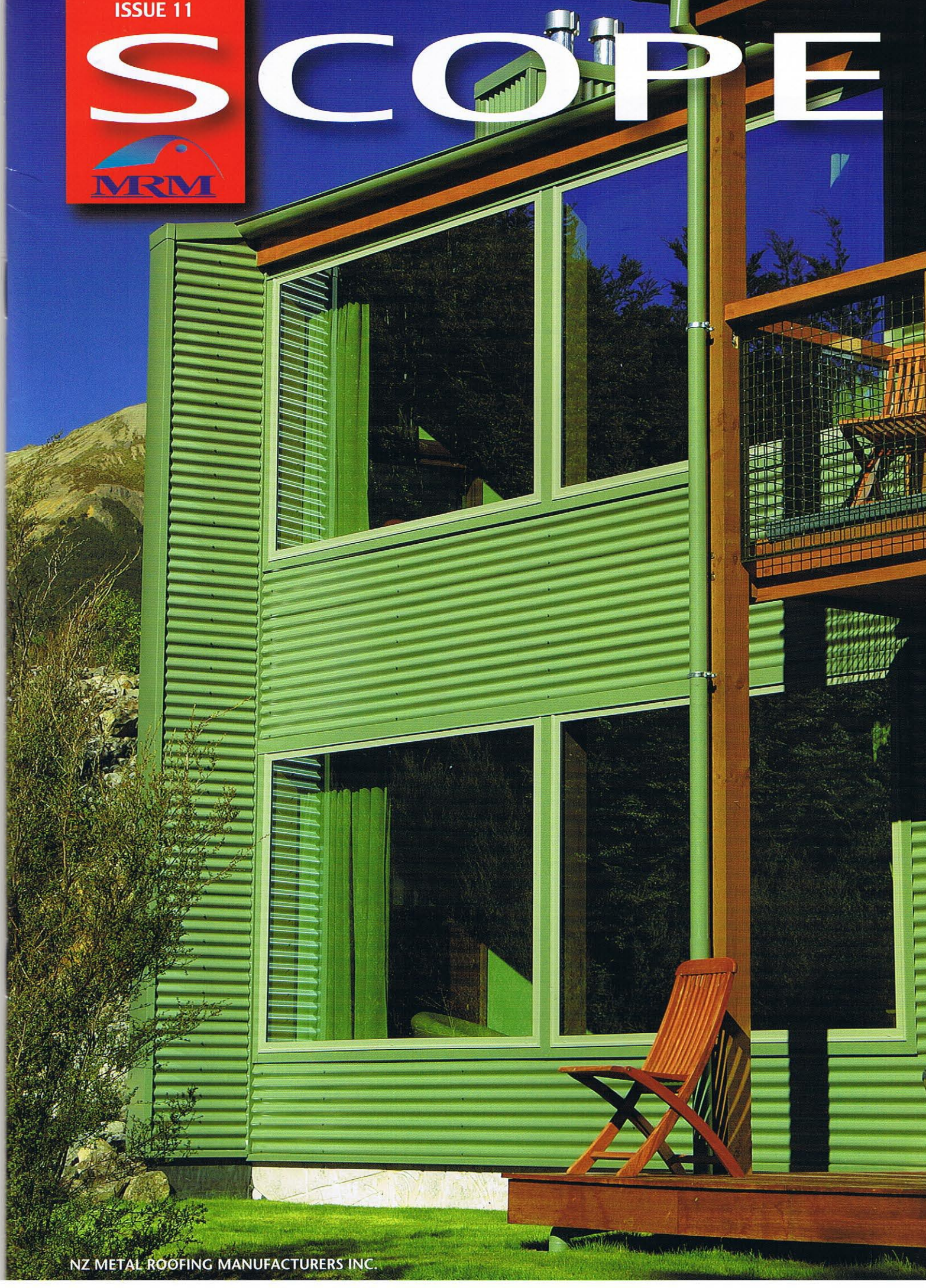
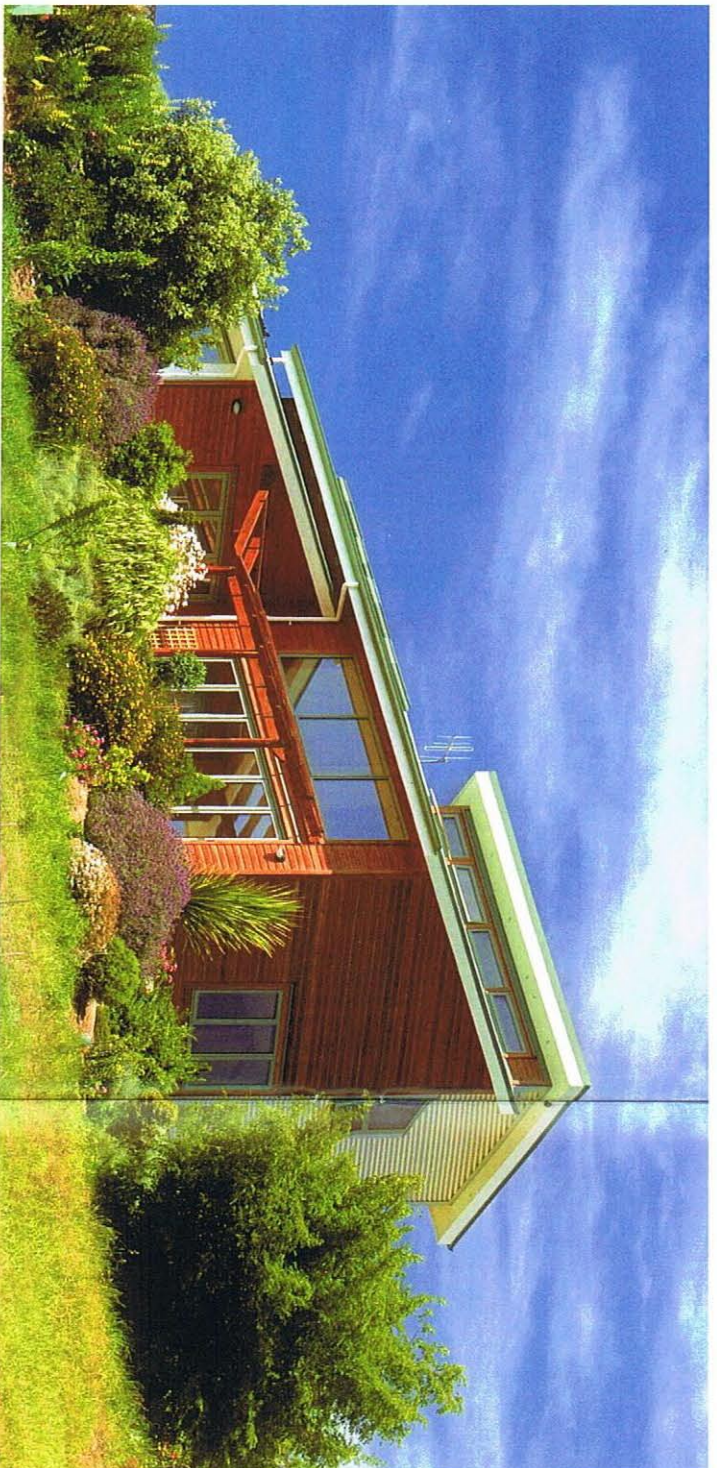


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SCOPE



NZ METAL ROOFING MANUFACTURERS INC.



SUSTAINABILITY WITH STYLE

Tom Evison, of Technical Press, reports on Susie Lees Nelson home, designed by architect Helen Richards and the increasing trend toward sustainable design.

Further evidence that stylish sustainability in affordable residential housing has become mainstream in New Zealand is presented by the latest home designed by acclaimed Nelson architect Helen Richards. Situated in Mapua, west of Nelson, the new two-storey passive solar house sits well with its rural surroundings. Incorporating many features to enhance the health of occupants and environmental performance, the building is designed for year-round comfort and warmth - almost entirely from solar energy.

Richards oriented this 3-bedroom home 30 degrees west of true north which, she says, is very efficient. Following principles of best solar performance, floors are concrete, extensive windows are north-facing and there is double glazing throughout. Cooling and ventilation are also passive through judicious use of windows and blinds.

The design incorporates rainwater collection, solar hot water and major use of sustainably-sourced materials including native timbers. Says Richards, "We've taken the level of comfort very seriously with this house. It also has environmentally very smart performance and will save a lot of money on energy costs for heating".

Despite frosts in winter, space heating will seldom be necessary and annual savings could amount to \$500. Provision is included for a solid fuel burner to be added if desired. Further features of sustainable design include management of noise, minimal use of materials

containing chemical toxins, and absence of mould due to continuous warmth and good ventilation. Maximum use is made of natural lighting to give the home a powerful "feel-good" factor. Coloured concrete flooring is insulated and provides passive heat storage. The low maintenance surface is sealed with a low toxicity hard floor oil from BioPaints. Toilets use minimal water reducing waste in the dry climate and grey water is recycled to feed trees in the landscaped area surrounding the house.

British-qualified Helen Richards attracted national attention for the first sustainable house she designed and built in New Zealand - a single storey combined home and office in Nelson. That building and the new two-storey home both offer a strong element of surprise while being contemporary, durable and minimizing greenhouse gas emissions.

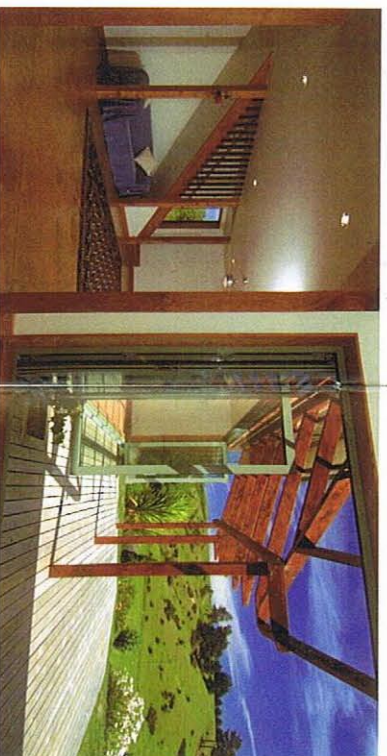
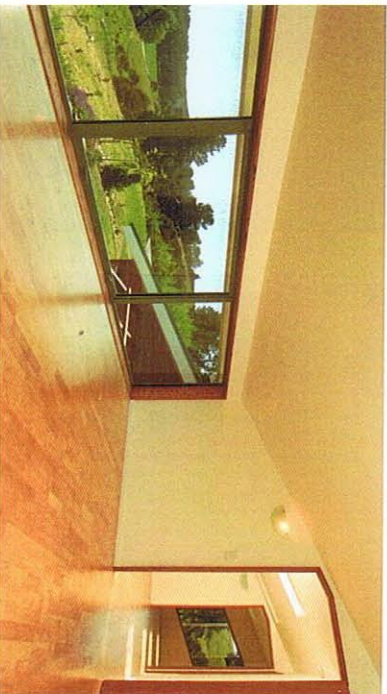
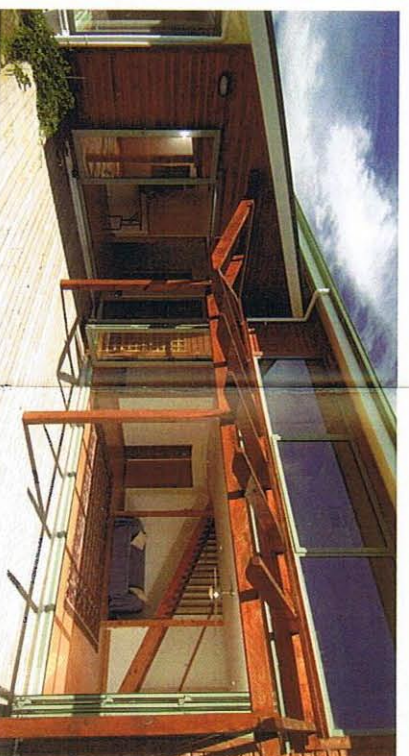
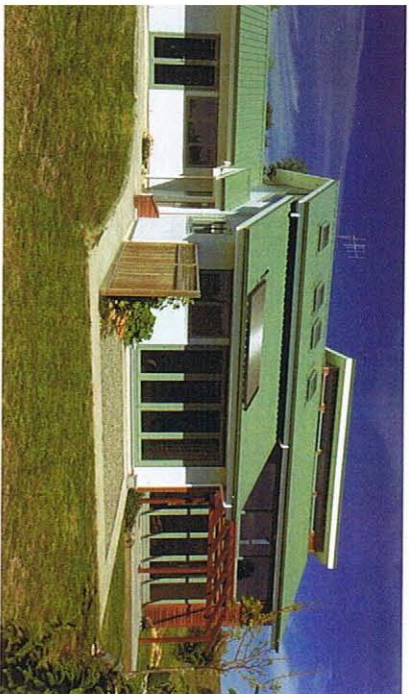
Data loggers are installed to provide statistics as evidence of high performance year-round. Richards' company, Powered Living Ltd, actively promotes the architectural design concept of her sustainable homes.

Client: Susie Lees

Architect: Helen Richards
 Powered Living Ltd
 Nelson, New Zealand
 Telephone: 03 548 1680
 Mobile: 021 436 314

Contractors:
 Kevin Mayes,
 Telephone: 021 139 1706
 Daniel Whitten,
 Telephone: 03 543 2676

Roofing and Cladding:
 Contour, Nelson
 Telephone: 03 546 4280
 Profile 5 Rib Colocote,
 and Zincalume® Corrugate.



Landscaped two-storey Mapua home packed with sustainability features
Passive light, heat and ventilation bring convenience and cost savings.