

SUSTAINABLE URBANISATION DOWN UNDER

GREEN ROOFS AND VERTICAL GREENING EFFORTS IN NEW ZEALAND

Text by Lydia Franken

Images courtesy of Natural Habitats Landscapes



New Zealand has recently experienced a marked interest and awareness in sustainability and all things green. Unfortunately, increasing awareness has not resulted in a proportional increase in the adoption of green technology.

This is largely attributed to the practicalities and capital costs of installing a green roof or wall. Unlike other countries, New Zealand lacks the governmental support via subsidies and fiscal incentives. These incentives play a pivotal role in advocating green technologies and helping to streamline their adoption in both the commercial and public arenas.

Although the initial costs of installing a green roof can be high, the energy savings are likely to pay for the investment within a few years. While sound, this logic has been ineffective in encouraging the implementation of green technology.



TOP & BOTTOM Marr Salon Green Wall, The Department Store: Voted best retail store concept in the world by Monocle Magazine, April, 2010.

The difficulty of promoting green roofs for New Zealand and commercial building lies in the absence of local cost/ benefit information based on sites where these roofs can be seen, and a lack of field-based information on local substrates and plants suitable for green roofs.

To rectify this, Landcare Research, in conjunction with Auckland Regional Council and The University of Auckland, set up a number of trial roofs, which are designed to:

- quantify the performance of three substrates and two substrates depths on the infiltration, detention and release of storm water and their ability to sustain plant growth
- identify the best plant species for green roofs (survival and growth)
- quantify the weed component of exotic sedums
- identify what insects live in green roofs

The rules of the game are changing for how we manage and develop our towns and cities. The New Zealand Urban Design Protocol seeks to make our cities healthy, safe and attractive places, where business, social and cultural life can flourish. As such, it calls for a significant step up in the quality of urban design in New Zealand, and a change in the way we think about our towns and cities. This change in thinking applies to all of us.

We must respond to the challenge of and quest for sustainable urbanisation. This means examining our building capacity to support better urban outcomes and also understanding building capacity in a more holistic and integrated way.



New Zealand's green building industry is currently working on delivering the following work streams that will help tackle some of these urban challenges, including those of affordable and efficient housing, sustainable infrastructure planning and improvement of our existing buildings.

At Natural Habitats, our purpose is to make New Zealand cities greener with ecologically intelligent design. We believe that collaboration across the realms of architecture and design, in conjunction with the combined efforts of many, is the key to effecting positive change.

Over the last 30 years, Natural Habitats has grown to become one of the leading design and construction companies in the green technology and landscape fields. We installed one of the first large green roofs in Auckland in 1994 and recently designed and installed two of our country's first green walls.

The awards and accolades that our green walls (The Marr Wall) and roofs (The Parc) have received have been beneficial in setting a precedent for green ideas and innovations; they demonstrate the effectiveness of new ways of doing things. Such credibility improves people's willingness to consider green roofs or walls in new or existing developments.

It seems New Zealand is slowly waking up to the advantage of giving buildings a living skin. The collection of green wall projects currently on our drawing board is a good indicator of a changing mindset. Auckland's Britomart development and The Novotel Hotel at Auckland Airport will both have green walls by February 2011 and New Zealand's first 6 star green building, due for completion in 2012, will also feature a Natural Habitats Green wall.

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TOP RIGHT The Parc, residential green roof: Awarded silver in residential category at NZILA Pride of Place Awards, 2010.

TOP LEFT Quay West Green Roof: New Zealand's first green roof installed over 15 years ago.

BOTTOM RIGHT Natural Habitats Green Wall: New Zealand's first native wall.