



Sustainable Habitat Challenge 09
Media Pack

BACKGROUND

Sustainable Habitat Challenge 09

What - The Sustainable Habitat Challenge (SHaC) is a national project for multiple teams from around New Zealand to design, develop, and build sustainable housing in their local community.

Why - SHaC aims to make ideas and methods for low-energy, low-resource housing a reality for New Zealanders. By building better homes, we hope to show that a more sustainable life is practical, achievable and desirable. SHaC recognises that today's students, researchers, educators, planners and trade and industry professionals are vital to our shift towards sustainable living.

Who – SHaC is directed by a steering committee comprised of industry specialists from around the country. Teams are forming and to date there are nine.

SHAC is guided by a Steering Committee of industry and academic experts and managed by Tim Bishop, the SHAC National Coordinator.

When – SHaC is now underway and teams are working to a timetable to achieve specified milestones. The final judging for projects will be in November 2009.



MEDIA RELEASE

Sustainable Habitat Challenge Competition Underway

Nationwide Competition to Build a Sustainable Society
Thursday 5 June 2008

Nine teams from the country's leading tertiary institutions have signed up to the challenge of providing a more sustainable way of life for New Zealand home owners.

The Sustainable Habitat Challenge 09 (SHAC 09) is an Otago Polytechnic initiative. It's funded by the Ministry for the Environment's Sustainable Management Fund to foster communications, collaboration, and innovation in the area of sustainable design.

SHAC 09 is a nationwide competition, which has teams of tertiary staff and students, industry professionals and local government representatives joining forces to design, and build or renovate to create a sustainable home.

SHAC 09 National Coordinator Tim Bishop says the challenge is aimed at "producing real homes, generating new knowledge and building partnerships between people with the skills and resources to make sustainable living a reality."

"We want to give today's and tomorrow's professionals the chance to work together and explore their ideas about housing that supports sustainable living".

"Sustainable living involves reducing the use of costly and scarce resources while improving quality of life".

"We are throwing out preconceptions of what more sustainable housing should be like."

The SHAC teams are comprised of members from polytechnics and universities throughout the country, and include a diverse range of backgrounds such as engineering, marketing, architecture and filmmaking. They are supported by private individuals and businesses interested in contribution to the challenge.

The nine teams are: Unitec Sustainable; Unitec Te Hononga; Team Central Otago Polytechnic; Team Canterbury; Team Waikato; Zero Plus, University of Auckland School of Architecture and Technische Universitaet Berlin; Whareuku, University of Auckland School of Engineering; The Plant Room, Victoria University, Massey University and WelTec; and Dunedin.

The judges for the competition are Robert Vale Victoria University, Nick Collins Beacon Pathway, Maggie Lawton Braidwood Research and Consulting, Dave Cull television personality and builder and Nigel Isaacs BRANZ.

SHAC building sites are scattered throughout the country from Rangitoto Island to Clyde in Central Otago. The construction will range from mud brick and straw bale to practical improvements of conventional, affordable designs.

The SHAC teams meet regularly via national video conferencing to exchange ideas and support. They have begun work on developing their proposals to design and build sustainable housing in their local communities.

SHAC National Coordinator Tim Bishop is thrilled with the number of entries saying it was a reflection of the increased awareness around issues such as affordability, durability, energy requirements and carbon footprint.

Teams still need assistance from industry innovators. Team contact details are on the SHAC web site.

"These teams represent the best thinkers in the country. But even better than that, they're not just thinking about the problems, they're providing the solutions," Tim says.

For more information, photos and to arrange interviews, please contact:
Paula Hellyer
Sustainable Habitat Challenge
Tel 021 167 3656
Email paula@glowconsulting.co.nz
www.shac.org.nz



TEAM CANTERBURY

Canterbury University/ Lincoln University/Christchurch Polytechnic

Description: The team from Canterbury aims to transform the current relocatable home design that CPIT students construct annually into a sustainable, environmentally friendly and affordable housing solution.

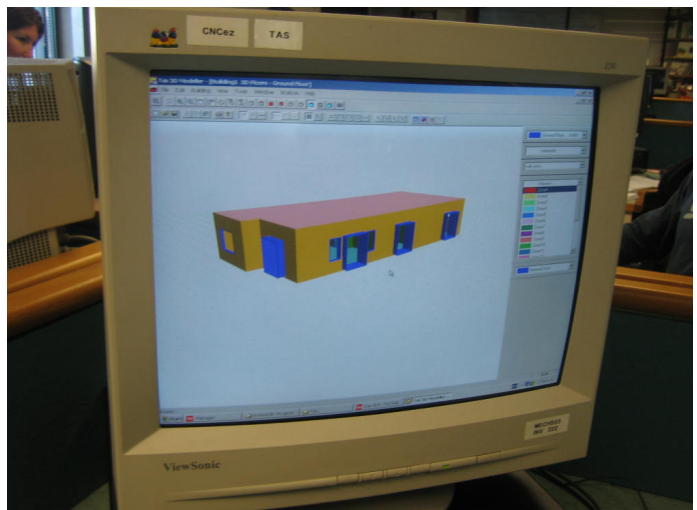
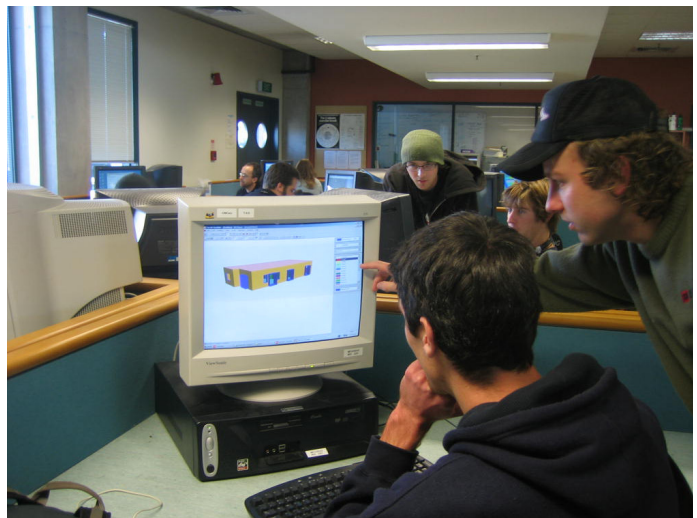
Media Enquires:

William Corke

0274549003

wfc18@student.canterbury.ac.nz

Team Members: 15



zero.plus

The University of Auckland, School of Architecture and Planning

Description: Based at the University of Auckland **zero.plus** is an international research initiative to design, build and monitor New Zealand's first Zero Emission House under international Passive House standards. The proposed living unit aims to offer new answers to needs and desires of occupants, while taking energy efficiency and carbon emissions into account as well as achieving a new level of Indoor Environmental Quality (IEQ).

Project Organization, Design, Construction and Monitoring: Dipl.Ing. U. Rieger, Dr. Paola M. Leardini, School of Architecture and Planning The University of Auckland [NZ]

Building Physics: Dipl.Ing. Kerstin Rosemeier [NZ]

PHPP Validation for NZ and Project Certification: Prof. W. Feist, Passivhaus Institut, Darmstadt [D] Universitaet Innsbruck [A]

Sustainable Urban Design Strategies: Prof. K. Zillich, N. Couling, B. Arch (hons), Institut fuer Städtebau und Architektur, Technische Universität Berlin [D]

Simulation Technologies, Timber Constructions: Prof. D. Schwarz, Institute of Architecture and Planning, Hochschule Liechtenstein [FL]

Solar Design and Renewable Technologies: Prof. A. Rogora, Building Environment Science & Technology Department, Politecnico di Milano [IT]

Consultant Architects and Engineers: Stephenson & Turner Architects Engineers, Auckland [NZ]

Media Enquires:

Uwe Rieger
09 3737599 ext 88597
u.rieger@auckland.ac.nz
02102393271

Team Members: 10



THE PLANT ROOM

Victoria University, Massey University, Weltec

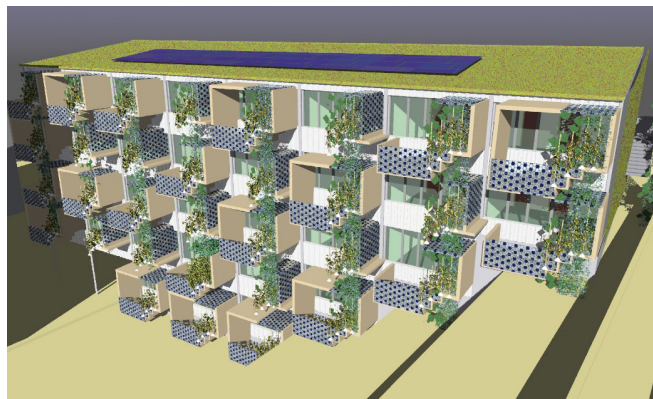
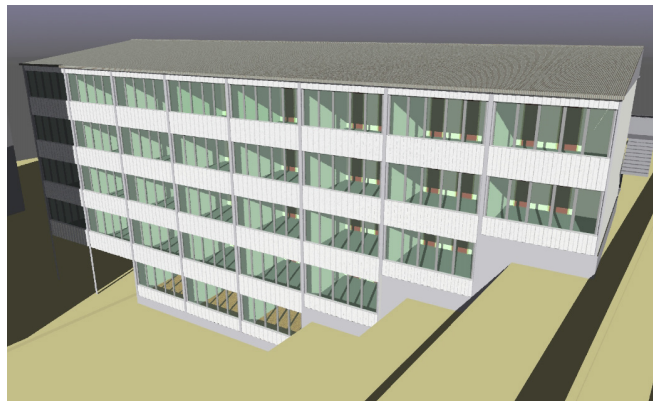
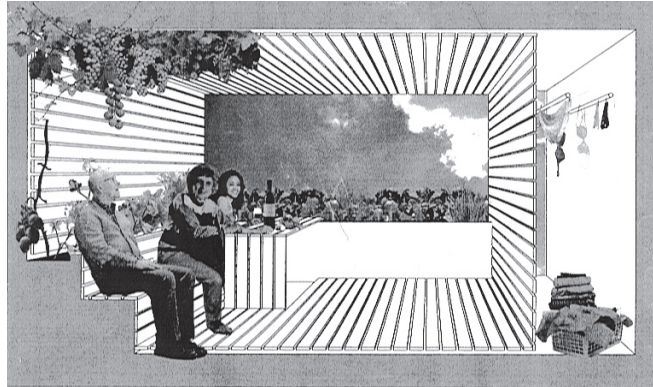
Description: Our regenerative habitat “The Plant Room” is an inner-city project that will generate energy, collect water, recycle waste and grow food whilst addressing urgent housing needs. It includes a series of linked outdoor “rooms” to enliven, improve and extend an existing building. Pre-fabricated elements will be configured to provide four typologies that build upon each other: micro - an edible garden window box, mini - a balcony space, midi - an outdoor room and maxi - a communal space. We will be using “living” and eco-system services, improving the existing building as well being a catalyst for change in the surrounding area.

Media Enquires:

Alex Hills
Acting Coordinator
021577135
04 9703660

Emily Swan
Marketing
021 02561123

Team Members: 30 (total) of which 16 are “Core” ShaC Team Members and 5 sub-group team leaders



WHAREUKU

University of Auckland

Description: The Whareuku team are a group of university students from various backgrounds with diverse interests. We have come together to achieve a scenario for sustainable living where the basic needs (social, cultural and physical) of each individual in the community are met. Parallel to this, we aim to follow aspects of kaikiakitanga of the land, natural resources and wildlife. Specifically, the Whareuku objective is to create a simple and affordable modular building system that local people can build from local materials, with minimal need to draw on outside expertise.

Media Enquires:

Gabrielle Chin
021 027 32615
gabrielle.chin@gmail.com

Team Members: 12



CENTRAL OTAGO

Otago Polytechnic

Description: The Central Otago teams objective is to create a public display centre for sustainable building practice, to show case processes, product and service. Private dwellings will be used initially to develop awareness during the timing of this project. We will be focused on one house and use this and others to engage the wider community in understanding the benefits of a sustainable approach.

Media Enquiries:

Jude Faircloth

ph 027 4710366

note: Jude works Tues and Wed on this project

Team Members: 15



BACH 101

Te Hira Whanau & UNITEC / ScALA / Te Hononga

Description: As a collaboration between the Te Hira whanau and Te Hononga we propose:

- 1 To develop a comprehensive design brief for the renovations / alterations to and implementation of new sustainable systems for a historic bach on Rangitoto island
- 2 To develop comprehensive designs for the renovations/ alterations using recycled and low embodied energy materials
- 3 To research appropriate alternative energy and waste disposal systems and make recommendations for adoption
- 4 To renovate the existing bach, build allowable alterations and install new alternative energy and waste disposal systems
- 5 To monitor over the new renovations, alterations and systems over the period of 1 year to assess their effectiveness and appropriateness

Media Enquiries:

Rau Hoskins
021 658 019
rau@designtribe.co.nz

Team Members: 20



UNITEC SUSTAINABLE

Unitec

Description:

- Explore a range of systems which have the potential to increase the environmental and economic sustainability of a basic, new New Zealand home in terms of construction, energy provision, water supply, waste disposal, use of renewable resources.
- To decide which systems are most appropriate and will work well together in one house.
- To design a sustainable house, using as a basis the design of relocatable houses currently constructed at Unitec.
- To investigate and resolve legal issues surrounding construction of the house including consents.
- To construct a sustainable house.
- To evaluate the performance of the house in comparison with an ordinary house built without the special features incorporated into the sustainable house.
- To promulgate the findings of the study.
- To engage with community and business in supporting and encouraging sustainable practice.

Media Enquiries:

Gina Morgan
gmorgan2@unitec.ac.nz
Ph: 09-815-4321 ex 7759

Team Members: 12



TEAM WAIKATO

Wintec

Description: Team Waikato propose to use the Wintec students from the School of Trades to design and build two transportable houses. One to the building code as standard construction, the other constructed from predominately renewable and recyclable resources, trialling the use of more environmentally friendly materials. This will include the use of timber/soy based SIPS (structural insulated panel system) that are not yet available on the NZ market.

Media Enquiries:

Rod Yeoman

Keiser Architecture: 07-827 3233

rod@keiser.co.nz

Wintec: 07-834 8800 ext 8067

rod.yeoman@wintec.ac.nz

Team Members: 6



TEAM DUNEDIN

Otago Polytechnic

Description: The Dunedin team is working on an improved design for their yearly auction house. Contributors include project management and architectural firms, the University of Otago, and the Otago Polytechnic. The new design will include conditions of sale that the house be sited with a particular orientation, allowing this relocatable house to be designed for the sun. A design team of students and staff will be guided by a local architect. The house will be constructed by Otago Polytechnic students with the guidance of staff.

Media Enquiries:

Katie Ellwood
Otago Polytechnic
0800 762 786



THE JUDGING PANEL

Robert Vale - Victoria University

Nick Collins – Beacon Pathway

Maggie Lawton – Braidwood Research and Consulting

Dave Cull – Television personality and builder

Nigel Isaacs – BRANZ



ROBERT VALE

Robert Vale is an architect, writer and researcher in the field of sustainable housing. He is currently Professorial Research Fellow at the School of Architecture, Victoria University of Wellington.

He studied architecture together with Brenda Vale at the University of Cambridge, and in 1975 the Vales published "The Autonomous House", a technical guide for developing housing solutions that are self-sufficient, environmentally friendly, and easy to maintain. The book has been translated into five languages and is widely recognized as a basic text in the field of green building.

Through the 1980s the Vales designed a number of very low energy commercial buildings in England, notably the thick-walled, superinsulated Woodhouse Medical Centre in Sheffield, and wrote "Green Architecture". In the 1990s the Vales completed the first autonomous house in the United Kingdom, a four-bedroom house for themselves in the historic town of Southwell. Their book "The New Autonomous House" documents the design and construction of this house, which is warmed and powered by the sun, produces its drinking water from rain, composts its effluent, and is consistent with its historic context. The house is completely off-grid except for the telephone line and a connection to the electrical supply for the exchange of solar electricity. They then designed the Hockerton Housing Project, five one-storey zero-emission terraced houses. This was the first zero-emission development in the UK and the government has recommended that the project be copied by developers throughout the country.

Since emigrating to NZ eleven years ago the Vales have completed two zero-emissions upgrades of existing houses, and also developed the National Australian Built Environment Rating System (NABERS) for the Australian government.



NICK COLLINS

As General Manager for Beacon Pathway Ltd (Beacon), a research consortium focusing on sustainable housing, Nick Collins brings not only twenty years experience in the building and construction industry, but also in-depth knowledge of the latest building research.

Nick has headed Beacon since 2004, responsible for developing a clear Strategic Plan focused on the key priorities to bring about sustainability in the residential built environment. Major projects underway include: building 100 NOW Homes® in partnership with group builder to drive uptake of sustainable new homes; and the NOW Home® Renovation project focusing on improving New Zealand's existing housing stock. Nick works with stakeholders from central and local government, industry, infrastructure and consumer groups to facilitate and encourage wider change.

Originally a geographer, with an MA (Hons) from Canterbury University, Nick has worked largely in the building products market, in companies such as Pryda Reid, Auckland Brick and Tile, and Monier Bricks. During this time he was instrumental in the setting up of a National Trade Training Qualification for roof tilers. In the mid 1990's he returned to the University of Auckland to complete an MBA to develop his financial / commercial skills.

Nick was invited to contribute to Auckland City Council's Mayoral Sustainability Taskforce in 2006, and oversaw the development of a web-based guide to sustainable building (www.smarterhomes.org.nz) for the Ministry for the Environment.



MAGGIE LAWTON

- Science background with a PhD in Chemistry
- 1995-2006; Science Manager and Operations Manager for Landcare Research gained a wide background in rural and urban development, climate change and sustainable practices.
- In 1998 initiated research into integrated water management in the urban environment, partnering with Waitakere City Council.
- In 2001 initiated and contributed to the concept and developed design of the Landcare Research building at Tamaki. Acted as internal and latterly also external project manager for the construction process giving practical experience in the construction of a sustainable building. It won a Green Ribbon award for sustainable design and an EECA award for energy efficiency. <http://www.landcareresearch.co.nz/about/tamaki/>
- In 2006 developed a business involving research and consulting in sustainable development and design.
- Currently involved in research into the residential built environment through Beacon Pathway. Leading their research in domestic water management.
- Developing strategy and policy in water management for Waitakere City Council
- Also holding workshops with councils throughout New Zealand in water demand management.
- Working with industry and local government on sustainable development strategies
- A Natural Step advisor



DAVE CULL

BACKGROUND

Born and raised in Invercargill

Attended Otago University: Degree in Politics

Worked as self-employed contractor and free-lance writer/broadcaster for some 25 years.

MAJOR INTEREST AREAS

- Housing, renovation, building, design
- Wine appreciation and NZ viticultural areas

TV, RADIO & VIDEO PRESENTATION

- Programmes presented Renovators, Open Home, Town and Country, Maggies Garden Show, Home Front, Master Builders House of the Year, Home and Entertaining House of Year, 5 O'Clock with Jude, Placemakers Home Front.
- 3 year stint on DIY talk back radio.
- Writes and presents commentaries for documentaries, and corporate and informational video presentations on wide range of topics.

SEMINAR PRESENTATION

- Numerous seminars at Home & garden XPOs.
- Wrote and presented 5 series of Placemakers Roadshow seminars on changes impacting the building industry.

SPEAKING

- MC at many conferences and seminars
- Dinner speaking engagements



NIGEL ISAACS

Since completion of his engineering degree, Nigel has worked in energy research. His work experience includes the running of his own research consultancy and research for Members of Parliament. Nigel worked on contract for BRANZ in 1982 undertaking a study of thermal insulation in houses.

Nigel has lectured and presented extensively throughout New Zealand, and internationally. He has appeared on television and presented three building science related radio series on National Radio. He is a Teaching and Research Fellow at the School of Architecture, Victoria University of Wellington. Nigel has particular research interest in:

- Energy in Buildings - data collection and analysis, experimental investigations, presentations and policy advice on: housing, offices, schools, hotels, hospitals
- Energy Efficient Buildings: Analysis, modelling, design support
- Renewable Energy: Solar water heating, passive solar design, wind and policy issues
- Thermal Insulation - in-situ measurement, calculation
- Building Energy Code - technical support for revision of New Zealand Building Code
- Building Evaluation - work undertaken on hospitals, courts, banks, offices. Assisted in the development of "Building Quality Assessment" sold in New Zealand, Australia and United Kingdom
- History of building technology - as well as lecturing he has a regular series in BRANZ's BUILD magazine and had an 8 week radio series on Radio NZ National.



KEY SPONSORS

Beacon Pathway, McConnell Property, IPENZ, Ministry for the Environment, Opus International, Victoria University, Otago Polytechnic, University of Otago, University of Canterbury

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