

Green Building and Design - Wed 9 - Thurs 10 September

DAY 2 Thursday 10th September

Time							
Time	Speaker	Topic	Time	Topic	Speaker		
8:00 AM Site Visits							
<p>Harmony 9 Home, Waverley Park, Victoria Williamstown High School Westwyck Village University of Melbourne Faculty of Economics and Commerce K2 Melbourne Convention Centre The Gauge Sustainability Victoria Green Office Umow Lai - 6Star Tenancy Registrations and Morning Tea</p>							
10:30 AM							
<p>Commercial Buildings Stream- case studies</p> <p>11:00 AM David Waldren, General Manager – Carlton Brewery, Grocon Grocon's Carbon Neutral Pixel Building Pixel will be the first Carbon Neutral office building of its type in Australia, and possibly the world and will be located at the Carlton Brewery site. The building will be carbon neutral, taking it a step further than carbon zero. Any carbon emissions used in the building's ongoing operation will be offset by renewable energy from large photovoltaic panels on the roof, as well as wind turbines. Over time Grocon will offset all of the carbon that was generated in manufacturing and installing the construction materials. The aim is for the \$6 million building to achieve a 6 Star Greenstar rating, and for it to exceed the points gained by any other development in Australia to date.</p>						<p>Residential Buildings Stream- case studies</p> <p>11:00 AM Towards a Sustainable Future - Mirvac's Harmony 9 Home Mark Allan, Development Director - Sustainability, Mirvac The Harmony 9 Home is the Mirvac's Group 9+ Star, carbon neutral house constructed at Waverley Park in Melbourne's south-eastern suburbs. The first house of its kind to be designed and built by an Australian commercial developer. Harmony 9 provides an insight into our low carbon future, where demand will grow for more energy efficient (carbon neutral) homes requiring less energy and water and producing less waste. The development of the Harmony 9 concept combines leading edge design with analysis of emerging market trends and is the latest achievement in Mirvac's sustainability journey.</p>	
11:25 AM							
<p>Damian Barker, Director, Jackson Teece Architects 39 Hunter Street - 6 Star Green Star Life for Heritage Buildings Increasingly, existing buildings are being refurbished to meet the requirements of building owners and tenants for improved environmentally sustainable performance as well as indoor air quality. This presentation focuses on the design strategies and building systems devised to upgrade 39, Hunter Street, Sydney, a heritage listed building, to achieve Australia's first 6 Star Green Star - Office Design rating for heritage buildings. This case study will identify the ESD initiatives implemented in the context of a commercially viable refurbishment of a heritage structure.</p>		<p>11:25 AM Lavola: A Case Study in Straw Bale Graham Crist, Senior Lecturer RMIT Architecture; Director, Antarctica Group Architects This small project is a case study in strawbale construction, and more broadly a case study in approaches to building which might be called green. That approach favours loose and low-tech over precise and technical solutions. It favours social and behavioural change over technical refinement as a priority for green design. As an owner built project for two families which included a house, olive shed, greenhouse and bakery, it provides lessons for mainstream sustainable design, from why it rated so poorly, to how it survived extreme weather.</p>					
11:50 AM							
<p>Warren Gujmer, Associate, Thinc Projects Closing the Loop - A Project Manager's Perspective of Sustainability and Green Building Warren will discuss the rapidly changing property market / environment and how the traditional project delivery model (including the focus on \$\$ in the short term, repeating what was done last time, short-term appointments, little/no link to performance, linear process, cheapest materials selection, etc) should be challenged and replaced by a new model which considers the longer term, people/planet/profit objectives, new technologies/materials, design linked with performance, end user requirements, continuous improvement, selecting and retaining the right team, etc.. Warren will go on to explore through several case studies how the principles of sustainability may be applied to projects in different ways.</p>		<p>11:50 AM Green Materials – reflections on the never ending journey Mark Sanders, Managing Director, Third Ecology Architects While much work has been done to assist practitioners to make the 'right' choices when it comes to more sustainable material selections, there still exists a veritable maze through which a practitioner needs to journey. This journey will be explored through a number of residential case studies spanning nearly 15 years of practice in creating more sustainable buildings. The journey has involved understanding the theoretical basis for green materials, the use of independent databases, interpreting supplier information and ensuring timely supply and contractor understanding of specified items (and what to do when things go wrong).</p>					
12:15 PM							
<p>Jenni Webster, Associate, Spowers Architects Your Choice: Australian Technical College Sunshine The recently completed Australian Technical College (ATC) in Sunshine, Victoria provides a new and innovative model for technical trade training facilities of this kind. 3600 sqm of floor area provide 350 students of year 11 and 12 with a variety of learning landscapes, workshops and recreational spaces. The building was designed and built to state-of-the-art sustainability criteria in a socially and environmentally harsh suburban environment. ATC Sunshine won the 2009 World Architecture News Award for the best education building against strong competition as well as the 2009 CEPEI (Council for Educational Facility Planners Int.) Award for the best new school.</p>		<p>12:15 PM Your choice: Making the case for energy efficiency: A lifecycle costing of housing performance improvement Dr. John Morrissey, Research Fellow, Centre for Design at RMIT University National and international policy is increasingly focused on clean energy, on energy use reduction and on energy efficiency as components of climate change mitigation strategy. However, policies for energy efficiency in housing are frequently met with strong resistance, and frequently the debate is presented as a trade off between affordability and sustainability. Evidence of climate change and rising fuel prices, when considered with trends such as the internalisation of environmental externalities through regulation and market mechanisms suggest that, rather than being mutually exclusive constructs, housing affordability and sustainability are becoming increasingly linked. This research aims to inform a more integrated policy approach by investigating this possibility. This paper presents findings from a lifecycle costing analysis which was applied to a number of representative case studies of 5 star houses from Victoria. The through life capital costs and operating costs of improved performance through materials additions were investigated. Outputs providing an evidence-base for policy approaches designed to achieve</p>					
12:30 PM							
12:45 PM							
<p>Commercial Buildings Stream - material studies</p> <p>1:45 PM Michael Shaw, Associate Architectural ESD Consultant, Meinhardt New Materials and Products for Facades - Quantifying Benefits The presentation will introduce emerging green materials and products from around the world, and suggest how these materials should best be employed in the design of building envelopes. It will take into account materials with light transmitting, thermal storage, insulating and sun-blocking properties. Building envelope design choices impact on a building's environmental performance. In this talk, a number of these emerging materials will be applied to real world facade design solutions, quantifying pay back, glare, daylight, heating/cooling energy, thermal performance values and occupant comfort.</p>						<p>Residential Buildings Stream - material studies</p> <p>1:45 PM The recyclable house Joost Bakker, artist Trent Alexander, Liquid Lines In The Greenhouse, a temporary structure constructed entirely from recycled and recyclable materials, Joost Bakker has realized his vision of a house with zero waste. Using straw bales and steel, reclaimed materials for finishes, furniture and even crockery, roof top vegetable patch and strawberry walls, he has successfully created an example of a building with a minimal environmental footprint. Joost Bakker will demonstrate his journey towards greater sustainability in building materials by showcasing his latest Greenhouse projects in Perth and for the Milan Triennale 2010.</p>	
2:15 PM							
<p>Stefan Preuss, Associate, Manager Sustainable Design, Spowers Architects Specifying Green - practice and outlook Green Materials specification is an essential part of optimising projects' health, productivity and environmental outcomes. A series of stringent procedures including internal audits ensure that the materials' impact in not only specified in the beginning but followed through in construction. Internal and external tools assist with the selection and innovation processes. The future of materials and building components in construction will be significantly influenced by full life cycle assessment and costing. Currently the base is being built in Australia to enable an integrated approach. International examples show how respective processes can be embedded in rating systems. This will enable a much more comprehensive and less prescriptive approach to measuring the building's impact on the triple bottom line of sustainability, environmental, social (including health and well-being) and financial.</p>		<p>2:15 PM Housing Innovation Workshop Professor Ron Wakefield, Professor of Construction and Head of School, School of Property, Construction and Project Management, RMIT University Professor Wakefield will discuss offsite fabrication and its potential in green building. Topics covered will include timber panel prefabrication, precast concrete, sandwich panels and pod based construction. Construction process issues, design and building performance will be illustrated in both the commercial and residential sector. Integrated approaches to facility delivery will be described including material efficiencies, process time reductions and improved outcomes. Energy performance of prefabricated housing from the US will be compared with traditional building approaches used in the local context.</p>					
2:45 PM							
3:00 PM							
3:30 PM							
<p>Dr. Robert Wimmer, Chairman and Chief Executive, GIAT – Gruppe Angepasste Technologie/ Center for Appropriate Technology, Vienna, Austria S-House - Innovative Use of Renewable Resources for buildings with minimised environmental impact (video conference) Planning and realisation of the office and demo building S-HOUSE is based on the results obtained from the research work conducted by the Center of Appropriate Technology within the framework of "Building of Tomorrow" at the Vienna University of Technology in cooperation with various partner organisations. In the course of their fundamental research studies, the technical, legislative/political and organisational scope of utilising renewable raw materials in building systems were envisaged and tangible designing solutions were developed. The planning and constructional implementation of the S-HOUSE demonstrate the fact that modern architecture and structural engineering can be ideally integrated with the principles of solar construction and the use of building materials derived from renewable raw materials. Next steps are Zero Carbon Solutions providing energy self sufficiency.</p>							
4:00 PM							
4:15 PM							
<p>Panel discussion • What initiatives has industry undertaken to reduce the whole of life impact of their products? • What should be considered in practice when using a material/ product to ensure an optimum environmental outcome?</p>		<p>Facilitator: Elena Bondareva, Sustainability Advisor, Thinc Projects</p> <p>Speakers: David Sharp, Chief Executive, Building Products Innovation Council Roger Crowley, National Manager, Product & Systems Development, Boral Plasterboard Gary Smith, Marketing & Technical Manager, Australian Window Association Sophi MacMillan, Chief Executive, Vinyl Council of Australia Ross Maher, Research, Technical & Government Affairs Manager, Think Brick Australia Bohdan Dorniak, Director, Bohdan Dorniak and Co. Pty. Ltd. Architects Dennis D'Arcy, Insulation Manufacturers of Australasia (IMAA)</p>					
5:30 PM							
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