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BREAKING NEWS

## Green roofs just “fluff” for many architects

**LIVING ROOFS MUST BE INTEGRAL FROM DAY ONE: EXPERT**

BY GEMMA BATTENBOUGH

Green roofs are being added as “fluff” to finished designs when they should be integral, according to an expert.

Architects need to stop adding living walls and roofs as an afterthought or simply to meet DA requirements for landscaping and start integrating them in the first stages of design, Sidonie Carpenter, president of the not-for-profit Green Roofs Australia, said.

“The truly sustainable benefits come from integrating green roofs back into storm water management, grey water recycling, increasing capacity of solar output, reducing energy costs of running air conditioning units. When they are totally integrated into the design will really start to make a difference at that sustainable level and not just as a marketing tool,” Carpenter told Architecture and Design.

But this problem is institutional, said Carpenter. Landscaping has traditionally been left until the end of a project, often as “a token”, she said.



Up to 19 different professions can be involved on a commercial green roof.

“If we’re serious about integrating green roofs and green walls into the structure it needs to start on day one. It needs to be integrated into the total design and that’s when you get amazing results.”

Up to 19 different professions can be required to design, install and maintain a green roof on a large commercial project, and communication needs to be improved, she said.

Australia is lagging behind the rest of the world when it comes to green roofs and living walls. While

Germany has been working on green roofs for 60 years and North America has notched up 20 years’ experience, Australia has only been making green roofs for three years, Carpenter said.

“There’s a limited skill in terms of installation and construction. It’s very easy to compare ourselves to North America and Europe but we need to remember that in those countries the building codes, construction methods, climate, clients are all different.

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## Rock and roll buildings survive earthquakes

ENGINEERS HAVE designed self-righting buildings that rock during earthquakes and realign themselves when the shaking stops.

The new earthquake-resistant structural system has just been successfully tested in Japan. The system will not only help a multi-story building hold itself together during a violent earthquake, but also return it to standing up straight on its foundation afterward, true and plumb, with damage confined to a few easily replaceable parts.

Researchers at Stanford University and the University of

Illinois led the team of designers. During testing on a massive shake table, the system survived simulated earthquakes in excess of magnitude 7, bigger than either the 1994 Northridge earthquake or the 1989 Loma Prieta earthquake in California.

“This new structural system has the potential to make buildings far more damage resistant and easier to repair, so people could reoccupy buildings a lot faster after a major earthquake than they can now,” said Greg Deierlein, professor of civil and environmental engineering at Stanford, who

led the team that designed the new system.

The system dissipates energy through the movement of steel frames that are situated around the building’s core or along exterior walls. The frames can be part of a building’s initial design or could be incorporated into an existing building undergoing seismic retrofitting. They are economically feasible to build, as all the materials employed are commonly used in construction today and all the parts can be made using existing fabrication methods.

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## When houses go feral...

Detroit has as many as 10,000 abandoned structures at any given time. These images show exactly how far nature can go in reclaiming the built environment.

These photos by James D. Griffioen show houses disappearing behind ivy, eroding into dust and being torn up by tree roots in urban decay.

Detroit recently made it onto Forbes' list of the top 10 fastest dying cities and has an unemployment level approaching 10 per cent.

Photographer Kevin Bauman has also recently captured 100 abandoned houses in the city, subverting the idyllic landscape tradition and charting the city's urban decay.

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## Building costs to rise in Melbourne, Brisbane

DEVELOPERS ARE being encouraged to lock in low construction costs before prices rocket, new research predicts.

Research by property and development consultants, Davis Langdon, indicates that while construction costs will remain low into the future, moderate price increases are approaching.

"We expect that over the next three months or so, developers who are looking ahead will be trying to lock in contracts at today's low prices to better place them to be competitive when the economic recovery starts to impact on the high-rise market," said Davis Langdon's national research manager, Rachel Kelloway.

Davis Langdon's tender level index, which measures the movement in construction prices associated with high-rise residential projects, decreased by 2.3 per cent over the past 12 months as competition for projects increased as a result of the economic downturn.

Government incentives, including the National Building Economic Stimulus package, have contributed to Davis Langdon's forecast that tender prices will rise by 2 or 3 per cent in the next year.

"With the government stimulus packages now in full swing and some signs that the worst of the economic woes are over, prices have probably bottomed out and it is likely that construction costs will begin to rise, albeit modestly, over the latter half of the year as contractors seek to raise their profit levels from their current low base," Kelloway said.

Kelloway's research is bolstered by HIA's recent announcement that seasonally adjusted building approvals increased by 7.7 per cent in July with multi-unit approvals sky-rocketing by 28.4 per cent.

"It is very encouraging to see a strong rise in multi-unit approvals for the second consecutive month," said Harley Dale, HIA's chief economist. He concedes, however, that "the multi-unit sector has been very weak for a long time and even with the July result, approvals are 21 per cent down on the same month last year."

David Langdon expects that over the next 12 months, tender prices will increase by 3 per cent in Melbourne and Brisbane and 5-6 per cent in Darwin. Perth, Adelaide, Sydney and Hobart will either remain flat or experience slight increases.

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