One Central Park wins 2014 World Green Infrastructure Congress

Gillian McNally



One Central Park on Broadway has transformed the southern gateway to the city. Picture: Simon Wood Photography

- Green infrastructure such as roof gardens more than urban 'bling'
- Being used around world to solve environmental problems
- World experts currently in Sydney discussing latest developments
- One Central Park named world's best green infrastructure project

It's the building with beauty and brains — Sydney's towering green oasis, One Central Park.

With serious sustainability credentials and cutting edge design, the \$2billion development on Broadway has transformed the barren concrete strip into a modern gateway to the CBD.

The joint venture by Frasers Property and Sekisui House has already won a string of accolades and tomorrow it will receive another, the 2014 World Green Infrastructure Award.



How green does your building grow: One Central Park. Picture: Frasers Property Australia



One of the building's roof gardens. Picture: Simon Wood photography.



One Central Park has the world's tallest vertical garden designed by Patrick Blanc.

The award highlights the role of "vegitecture" and "green infrastructure" in cities, that is, how incorporating green roofs and walls can mitigate serious challenges facing urban environments and make them better places to live.

LIFE AT THE TOP AT ONE CENTRAL PARK

These topics, along with the award, will be centre stage at the World Green Infrastructure Congress (WGIN), being hosted in Sydney from October 7-10.



View from the top: Gardens are built in to the exterior of the structure. Picture: Craig Wilson

WGIN chairman Matt Dillon said One Central Park exemplified why vegetation was a valuable part of architecture in cities.

Much more than "green bling", it was a vital green node in the city with the potential to be connected with other green corridors.

Its vertical and rooftop gardens provided new habitat for flora and fauna, improved building thermal efficiency and air quality, harvested storm water, reduced noise pollution and reduced heat island effects.



One Central Park is an example of what other building owners could do in Sydney to improve urban environments. Above is an artist's impression of what Parramatta could look like. Artwork: Dan Murphy



The vertical garden designed by Patrick Blanc. Picture: Simon Wood



The Sea Mirror by French artist Yann Kersale. Picture: Dig it Photography

Frasers Property marketing director Lisa McCutchion said the greatest benefits of the gardens were aesthetic and social.

"One Central Park is a delightful reminder that green growing things can be nurtured in the very centre of the city," Ms McCutchion said.

"Green space allows a city and its residents to draw a deep breath, both metaphorically and literally, offering relief from the sharp intensity of urban life and urban landscapes."

The vertical gardens which wrap One Central Park are the most tangible and visible expression of the green infrastructure hidden underground.

There, the precinct's own low-emission tri-generation power station and on-site water recycling plant have made it one of Australia's most self-sufficient mixed-use urban developments



One Central Park was also named the fifth best skyscraper in the world. Picture: Craig Wilson

Not just a pretty face



Imagine if instead of a barren wasteland of concrete rooftops, you saw green rooftops, meadows and parks? Pictured is an artist's impression of what Sydney could look like.

It's easy to dismiss green roofs and walls as bit of urban gift-wrapping but cities around the world are using them as a cost-effective and innovative way to solve serious problems.

High density urban environments are dominated by hard concrete and asphalt surfaces, which heat up faster than soil or plants, making cities hotter and requiring more air conditioning use.

Hard surfaces also create havoc for storm water systems and drains when heavy rain occurs.



Chicago's green roof on city hall. The city decided it was cheaper to build green infrastructure than pipes to manage sewer overflows. Photo: Diane Cook/Len Jenshel/NGM

In Brooklyn, New York, just 20 minutes of solid rain can flood and back-up the sewers, which spills into the storm water system and ends up in waterways and streets.

Chicago, Portland, Vancouver, Toronto and London face similar problems and all have turned to green roofs and walls because they do two things very well.



The New York high line converted an railway track into grasslands and gardens. Picture: Iwan Baan



Rooftop garden and beehives at the Queen Elizabeth Hotel, Montreal. Picture: Fairmont Hotels

Firstly, living roofs works like a meadow, absorbing water, filtering it, slowing it down, even storing it. That helps reduce the threat of sewer overflows, extends the life of a city's drain system and returns cleaner water to the watershed.

They also dissipate the effects of summer temperatures where dense development has created intense heat islands.



Patrick Blanc's green wall on a Paris bridge.

New York City decided it was cheaper in the long term to build green infrastructure and roofs, which collect rainwater and retain run-off, than build more sewer pipes and tanks and will spend



\$1.5 billion over the next 20 years on green projects to cut rainfall run-off.

The living roof at the California Academy of Sciences in San Francisco's Golden Gate Park. The plants capture rainwater and reduce energy needs for heating and cooling.Picture: AP

"Green roofs and walls are a green infrastructure component that is a connective conduit between traditional architectural, engineering and landscape practice, aka 'vegitecture'," Mr Dillon said.

"That is, architecture syncing with landscape architecture as one effective response to mitigating the impacts of climate change, to enhance the urban environment and to satisfy an increasing public demand for greater environmental sustainability."



A rooftop city farm in Tokyo. Picture:Cityfarmer.info



Rooftop garden at M Central apartment complex, Pyrmont. Picture: Sue Stubbs

The City of Sydney has introduced Australia's first Green Roofs and Walls Policy. There are about 10ha of green walls and rooftops in the city including the 2000sq m rolling green roof meadow at Prince Alfred Park Pool, Surry Hills.

The potential for Sydney's green rooftop and wall space is huge, however the initial outlay for green roofs is high — up to double that of a normal roof.

The additional weight is another factor, not every building can support the extra mass.

World Green Infrastructure Congress



Green roof consultant and chairman of the WGIN, Matt Dillon. Picture: Raw House Productions

The congress brings together leading academics and professionals from around the world to share knowledge on the latest research, technological developments and areas of application in the field of green roofs, living walls and urban landscape design.

It advocates the practice of green infrastructure as one solution to mitigating challenges facing urban environments on issues from public health to impacts of climate.

The 2014 Green Infrastructure Award will be presented to Dr Stanley Queck, Chairman of Frasers Property Australia and Dr Patrick Blanc, also on behalf of Ateliers Jean Nouvel at the WGIC2014 Opening Ceremony on 08 October in Sydney.

One Central Park was designed by Ateliers Jean Nouvel in collaboration with Australian architecture practice PTW.