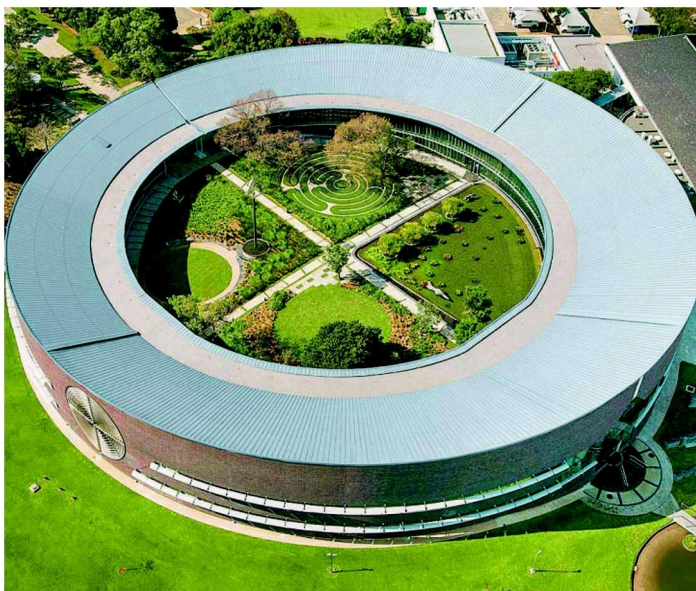
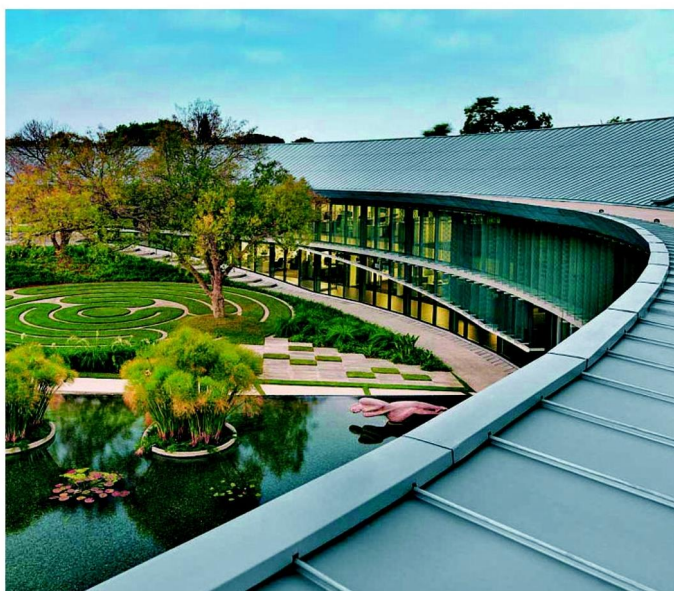




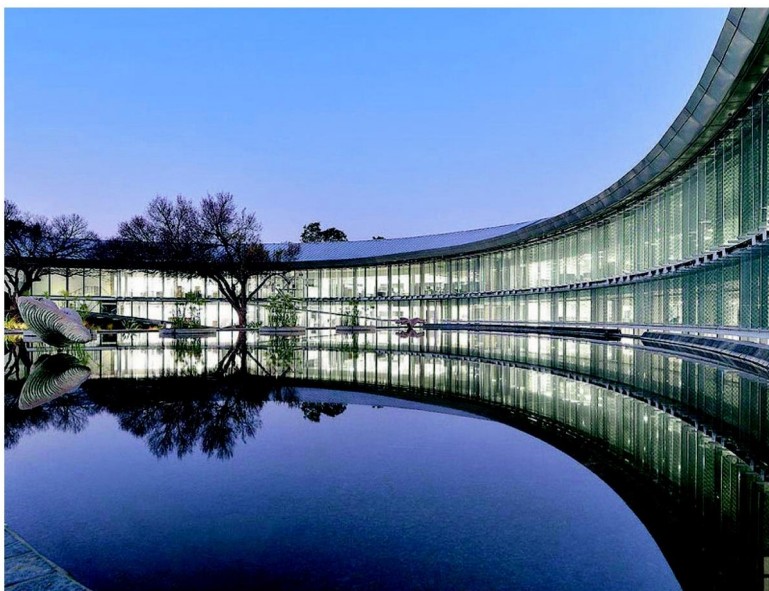
AVE: 43412.05 (ZAR)



CIRCULAR SPLENDOUR An aerial view of the BMW building and its interior courtyard



GREEN PEACE Zen-style landscaped gardens beautify the daily office experience



NATURE'S OWN Solar louvres track the sun's movement to absorb energy, and LED lights switch on via motion sensors



OLD 'N' NEW Part of the original brick façade remains, while the old slate roof was stripped and reused as a landscape feature

BMW's new building is a prototype of green design

GARRETH VAN NIEKERK
business@citypress.co.za

Glimpsing the BMW head office in Midrand, Gauteng, is probably the most exciting part of the drive between Johannesburg and Pretoria.

Like a spaceship, its circular façade emerges from the hillside on the escarpment of the M2 highway.

An icon of 1980s architectural ingenuity, it first appeared along the veld of a bucolic, undeveloped part of the “rand” - the Afrikaans word for ridge - midway between Johannesburg's central business district and the capital city.

Over time, the facebrick building started to look a little scruffy, but these days drivers will have noticed a revamped structure as they pass by.

Last year, it was given a R100 million facelift by architects Boogertman & Partners, who worked with BMW SA to bring the building more in line with the brand's international commitment to sustainability.

Boogertman delivered, and now the renovation is in the running for the AfriSam South African Institute of Architects Award for Sustainable Architecture, which will be announced at the end of the month. The prestigious event is hosted every two years.

Bob van Bebber, director of Boogertman & Partners, told City Press this week: “The entire existing building

is regarded as a significant piece of work by the original architect, Hans Hallen.

“Any changes we made had to respect the essence of his work, while ensuring that the building was given a new lease of life and brought in line with the requirements of a 21st-century corporate head office.

“The outer skin was kept to respect the existing building's aesthetic facing the highway.

“The reason Hallen designed a round building was that it was held in one's eye for longer as one travelled along the highway. This meant the exposure to the viewer lasted longer,” says Van Bebber.

“We supported this notion, and so the only change to the façade facing the highway was the replacement of the thermally inefficient sawtooth windows, which had deteriorated over time, and severely restricted views out. We replaced these with a double-glazed flush façade and introduced an aluminium eyelid to control the western sun.”

The revamp is most evident on the inside - particularly the central courtyard, onto which the building's interior spaces all face.

From inside the building, looking out across the Zen-style landscaped gardens, the light changes as the day progresses. This effect has been introduced by Boogertman via actuated solar louvres - the first in the country - which track the sun's movement to absorb as much energy as possible.

The louvres are attached to the curving interior windows of the building, creating the effect of a rotating visor.

The architects liken the process of the upgrade to using a computer - although you can add memory and software to an old machine, eventually it becomes inefficient and outdated. Likewise, any system that was deemed inefficient in the old building had to be replaced to make the new building function better.

To do this, they stripped and upgraded the building according to contemporary standards.

They changed all the lighting, water and ventilation systems because, for example, the existing incandescent fluorescent lights drained the building of energy.

New LED lights, which come on when required via motion sensors, restore the building's functional efficiency.

Other upgrades to internal elements - such as piping, which used to be made from PVC - have been replaced by high-density polyethylene, a more sustainable material.

The toilets and basins have been replaced by more water-efficient models, and electrical taps keep the water usage of the building to an absolute minimum.

However, not everything has been discarded.

The architects have reused many existing elements, such as the slate roofing and the concrete frame, repurposing them for new applications.

In the case of the slate roofing that used to cover the building, it has been removed and placed elsewhere to create landscape features.

Green is the order of the day, with the office's new carpets made from 98% recycled material.

Tangible green technologies, such as electric car charging stations, are placed throughout the parking and campus area for BMW's new i-Series of hybrid cars.

Other technological delights that are bound to impress visitors include new TV screens that monitor the energy efficiency in the building in real time, communicating back to office staff how much power they are using - and how much is being wasted unnecessarily.

“The building has changed the way the head office works,” says Allan Nissenbaum, facilities and real estate manager at BMW.

“There is more light and a much better working environment. This is in line with our corporate vision, which is based on the German idea of ‘neue arbeitswelten’ - or ‘new working environment’ - providing alternative ways of working. For example, there will eventually be no fixed desk phones; we are hoping to go completely mobile in here.”

This neue arbeitswelten attempts to create a work environment with highly flexible business spaces, allowing for more user-friendly areas of informal exchange and the possibility to work from other places on mobile phones.

According to polls by BMW, this modern way of operating is generating a major improvement in workflow and communication, as well as an increase in employees' enjoyment of work.

The building is a grand exercise in the three Rs of the green movement: reuse, reduce and recycle. It sets a new precedent for green building - particularly with regard to renovations - in South Africa and the world.