

WSP achieves EDGE Preliminary Certification for Balwin's Polo Fields

Johannesburg, 27 February 2018 – WSP in Africa, one of the largest multi-disciplinary engineering consultancies on the continent, has achieved an [EDGE Preliminary Certification](#) for the new Balwin Properties residential apartments project, The Polo Fields; setting a benchmark for sustainable residential developments of the future in the country, and the continent.

The Polo Fields is a massive development of 1512 apartment units that will be located in the Waterfall precinct, in Midrand. The Polo Fields is Balwin's first development in South Africa to achieve a preliminary EDGE Certification, for its lifestyle orientated design and innovative approach to using more sustainable embedded materials and interventions for reducing operational water and energy consumption.

[EDGE](#) is an international green building certificate standard that was founded by the International Finance Corporation (IFC) – demonstrating that global financial institutions see green buildings as an investment. The aim of EDGE is to deepen the understanding that everyone wins financially by building green – because of the opportunity to reduce operational and utility costs, increase marketability to attract investors, as well as increase the property value.

In South Africa, EDGE adoption is still in its infancy as it was only formalised in the country in 2014. The certification process is being facilitated by the Green Building Council of South Africa (GBCSA) as the local partner – and the GBCSA is entrenched in affecting the movement towards green buildings across the continent.

WSP's Sustainability team was engaged by Balwin in the early design phase of the project, during 2016, which enabled the sustainability experts to consult with the developer company, architect and broader project team, on the critical sustainability interventions required to achieve the EDGE Certification.

"This is a preliminary certification for the design of The Polo Fields project, though we are eager to follow the process through for the operational full certification on this project too," says Sesonasiphosihle Myosana, Sustainability Consultant, WSP, Building Services, Africa.

EDGE focuses explicitly on the embodied energy of materials, energy and water consumption rates of buildings; where a minimum 20% reduction on traditional or [SANS](#) base case building modelling across these three criteria has to be obtained to achieve certification.

"As practicing experts in this space, it was interesting and a learning curve for us that the EDGE Certification gets to grassroots of sustainability at its core. The user-friendly tool is facilitated by an intelligent online application process, although an expert is still needed to make the link between design and meaningful sustainability interventions," adds Myosana.

Balwin has an entrenched history as a market leader in major residential developments in South Africa. The Polo Fields will be a masterpiece in the company's journey, to date; adapting to international and local trends around smarter interconnected city-style or mixed-use design and sustainability, as consumers become increasingly more self-aware of their spaces and socially conscious of offsetting their energy consumption and carbon emission as much as possible. The development will have the capacity to potentially home up to 6000 people in the 1512 units. Each apartment block is designed the same - six units per block, with approximately 520 blocks – and these units will consist of two typologies; three bedroom apartments on the ground and first floors and two bedroom apartments on the second floor.

EDGE-based assessment was undertaken on the apartment units only – where other amenities in the complex include a club house, pool, open green areas and common area lighting on day-night sensors. A few of the keenly sustainable interventions for each of the apartment units includes:

- Installation of energy efficient light fittings and smart metering systems that allow for unit occupants to see their energy consumption and direct indication of energy cost in real time. This will promote more mindful energy usage by tenants, who in turn enjoy the benefit of reduced electricity bills.
- Window-to-wall ratio of 21% - combined with high performance glass, this facilitates improved insulation to retain indoor temperatures and ensure heat gain or loss is reduced – which also results in lower energy consumption to moderate indoor temperatures.
- Water efficient fixtures such as low-flow kitchen and bathroom faucets, showerheads and dual flush toilets, which collectively reduce the water consumption by 34.4% when compared to an average South African residence determined by the EDGE software.
- Materials with low embodied energy such as hollow core bricks and insulation manufactured from recycled polyethylene terephthalate (PET) bottles, which will reduce the negative environmental impacts often associated with the construction of new built projects.

“It is exciting to see developers like Balwin Properties taking initiative and an interest in EDGE. We are also very keen to see how EDGE will be adopted more broadly by players in the residential sector – and the GBCSA’s plans to expand the EDGE offering to include a tool for certifying existing residential buildings. We see the further adoption of EDGE as providing significant avenues to affect more change and positively contribute to greening the residential sectors in South Africa, and Africa,” concludes Myosana.