



The interior design serves as a dynamic collaboration between various African artistic drivers and high-performance workplace design.

FEATURE

Simultaneously complying with the many standards and benchmarks of two rating systems – one local and one from the United States (US) – and the seamless management of these processes, is no small feat, but it is something that the teams from Paragon Group and AECOM proudly achieved for the GE Africa Innovation Centre (GEAIC) in Melrose Estate, Johannesburg.

DOUBLY GREEN – the GEAIC satisfies two rating systems

The GEAIC building was awarded both a Green Star Interior rating from the Green Building Council of South Africa (GBCSA) and a Leadership in Energy and Environmental Design (LEED) silver rating from the US Green Building Council (USGBC). AECOM sustainability practice area leader, Candice Manning, points out that the USGBC accreditation is “a significant achievement, as there are only a handful of LEED-rated projects in South Africa”.

Both these ratings were essential for GE as a global company in confirming its sustainability credentials. The GEAIC, one of several innovation and technology centres for GE around

the world, is dedicated to serve sub-Saharan Africa and is resourced to showcase the best of GE innovation, invention, practices and methodologies. The centre also offers a gross lettable area of 2 454m².

ACCESSIBILITY AND ORIENTATION

The building is conveniently located close to key commercial and shopping landmarks in Rosebank. It is a three-storey, mainly east-facing glazed structure that makes the most of the extensive sunlight. Access and parking are on the western side of the building, with the basement parking equipped with showers and bicycle racks for

people travelling by bicycle, and green vehicle bays for those with fuel-efficient cars.

Fitting with the connected precinct idea of sustainable architecture, the ground floor is accessible to the public and features a health-focused work café and digital exhibition centre, collaboration zones and an outdoor collaboration area.

The first floor is reserved for tenants and incorporates agile workspaces as well as a fully equipped GE Africa Healthcare training centre, while the top floor features a learning and development centre, collaboration rooms and a multi-disciplinary laboratory.

WR GREEN DESIGN

A SUSTAINABLE INTERIOR

For the interior, Paragon Group visualised a design that would localise the global company's identity within the African context, creating a place where GE and Africa meet. Therefore, the overall interior design brings together various African artistic drivers with a high-performance workplace design.

"The vision was to provide accessibility to a healthy environment, and internalise this in the workplace, promoting an integrated and balanced health and wellness-driven work environment," Paragon Group senior project architectural technologist, Anthony Karam, comments.

EFFICIENT ENGINEERING SERVICES

One of the most stringent sustainability requirements for the dual rating was the energy-consumption criteria. Responsible for the full engineering services of the project, AECOM applied these criteria to the HVAC, the domestic hot-water system and even appliance selection. The entire building is also monitored through a network of submeters to assist facilities management in operating it efficiently.

Waste management was also crucial during construction, and an important requirement during operation. The project achieved a high level of diversion from landfill.

During construction, an on-site commissioning agent, reporting to both the Paragon Group and AECOM, administered the commissioning process. This was to ensure that all building systems would operate post-completion as per the initial design requirements. Simultaneously, AECOM engineers guided the sub-contractors, making sure that all LEED processes were followed to completion.

AN EXEMPLARY PROJECT

In addition to the sustainability accreditations, the GEAIC also won both the South African Property Owners' Association (SAPOA) Award for Innovative Development 2017, as well as a BASA Strategic Project Award for localisation and industrial design.

Full thanks and acknowledgement are given to Paragon Group and AECOM for the information and images provided.



The east-facing glazed structure takes advantage of the extensive sunlight and mild climate.

The publicly accessible ground floor features a health-focused work café.





The addition is a separate steel structure that accommodates a large open-plan office space, without adding loads to the structure below.

New office
a **net-zero**
carbon early
adopter

WR GREEN DESIGN

The new office for MDA Attorneys is one of the first buildings in the country to receive a net-zero carbon pilot certification. Designed by Activate Architecture, with Solid Green Consulting as sustainability consultants, MDA's new home in Houghton, Johannesburg, is intended to give its users a workplace that both enhances their productivity and reduces natural resource depletion.

Vaughan Hattingh, director at MDA, played an active role in the project's design and construction and commended the professional team.

ACTIONS TAKEN:

- 1 Activate's approach was to re-orientate the building to allow a view and frontage over the M1 highway, and to add a floor to the building to bring the gross floor area up to 912m².
- 2 Chilufya Lombe, director at Solid Green, explains that the office areas are designed to be naturally lit for a significant portion of the year, and high-performance double glazing has been used for all curtain walls.
- 3 74 photovoltaic (PV) panels were installed on the roof above the new floor, completely offsetting the building's electrical needs.
- 4 To further reduce dependency on natural resources, the building was fitted with a rainwater harvesting system.
- 5 Water-efficient sanitary fittings were installed throughout the building, and the site is xeriscaped to reduce the need for irrigation.

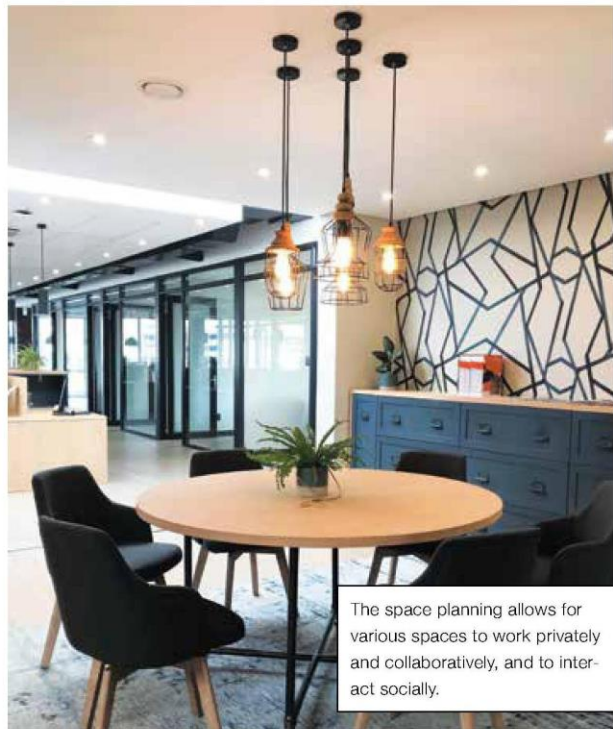
MDA Attorneys' new office demonstrates commitment to a more resource-efficient way of being, which will ultimately enhance the workplace experience of the building's occupants and stand the business' bottom line in good stead during the operational portion of the building's lifecycle.

Acknowledgement and thanks go to Solid Green Consulting for the information contained in this article.

Solid Green Consulting
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A new steel and glass structure hovers over the old single storey, providing an eye-catching new image for the building.



The space planning allows for various spaces to work privately and collaboratively, and to interact socially.

PROJECT TEAM:

Owner, quantity surveyor and project manager: MDA Property Holdings (Pty) Ltd.

Sustainable design review: Solid Green Consulting.

Sustainable building consultant: Solid Green Consulting.

Architect: Activate Architecture.

Electrical and mechanical engineer: Izazi Consulting Engineers.

Structural engineer: Struxit Projects.

Main contractor: Radon Projects.