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Green gateway

The first building in Sandton Gate, the new green precinct on the outskirts of the Sandton CBD, designed by Boogertman + Partners, marks the beginning of a new kind of mixed-use precinct promoting the health of individuals, the environment and the city itself.

PHOTOGRAPHY TRISTAN MCLAREN



Phase One of Sandton Gate is positioned on a prominent point near the entrance of the precinct on William Nicol Drive, which has been added to prevent traffic congestion resulting from the densification of the area.



he first building to be completed at Sandton Gate marks the first phase of a much larger mixed-use green precinct - the first of its kind in South Africa. Situated on William Nicol Drive between Sandton Drive and Republic Road, it is on the doorstep of the Sandton CBD, but is much easier to access.

The precinct's developers, Abland and Tiber, employed architects Boogertman + Partners from the project's inception to conceptualise a comprehensive offering, ranging from the concept, urban framework and individual buildings all the way to logos and branding.

It combines commercial, residential and retail space, and integrates high-density development with a low-key urban environment, with a newurbanist emphasis on creating walkable, pedestrian-friendly surroundings. When complete, it will include 80 000m² of mixed-use commercial space, retail, restaurants, gym, offices, healthcare and potentially a hotel, plus approximately 300 residential apartments.

Sandton Gate is one of the first green-rated precincts in South Africa, with a landmark 4-star certification under the Green Star SA Sustainable Precincts v1.1 tool. In fact, the Green Building Council of South Africa (GBCSA) selected the Sandton Gate as a pilot project, making it an important case study in the way in which certifications can go beyond certifying buildings and be applied at a precinct scale.

Motorised transport is restricted in the precinct and much emphasis has been placed on ensuring that the street and podium levels across all buildings and phases will connect seamlessly, creating a safe pedestrian environment and a fluid experience with easy access to all amenities. Not only is this emphasis on limiting motorised traffic in keeping with sustainable urban principles, but the precinct's emphasis on walkability also establishes the conditions for a healthier, more active urban lifestyle.

The site has a steep 12-metre drop, which meant that meticulous thought and planning went into ensuring pedestrian connectivity, keeping the podium level seamless between the buildings planned for various phases, and linking levels with staircases, elevators and escalators to ensure easy access.

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Sandton Gate is also distinct from other developments in that it does not wall itself off from its urban context, but instead actively knits itself into the broader city, seeking to unlock links and connections between urban nodes and contribute to the creation of a better functioning city. Its position joins with major roads and transport networks, making it easy for commuters to connect to the precinct from all corners of the city. It is also located on one of the planned routes for the extended Bus Rapid Transit (BRT) system, which in turn will link it to the Rosebank and Sandton Gautrain stations.

Beyond this, it is also situated on a key point overlooking the Braamfontein Spruit, considered to be one of the longest municipal parks in the world. The spruit runs from the south of the city in Braamfontein all the way north to Sunninghill where it joins the Klein Jukskei. This green spine is a favourite route for cyclists. Sandton Gate will connect with this major green spine at the key nodal point where the Delta Park green link connects with the Braamfontein Spruit as it turns towards Bryanston.

By drawing this urban green spine into the precinct and becoming a stop along the cycle trail - with plans for a coffee shop and cycle shop - Sandton Gate's planning further activates and unlocks the potential of this popular cycle route to function as an urban green spine.

The residential component of the precinct will directly overlook the Braamfontein Spruit, and the stretch of river adjoining the site will be rehabilitated and upgraded, so residents of the precinct, as well as residents from the locality, are encouraged to make use of this open space.

As the first building to be completed in the precinct, Phase One plays a crucial catalytic role in the exposure of the precinct to the public and in establishing its presence in the city. The building is approximately 16 000m² in size and includes a 2 800m² Planet Fitness gym, 800m² of retail and 12400m² of P-grade office space. It is positioned on a prominent point near the entrance of the

point hear the enhance of the precinct on William Nicol Drive, which has been added to prevent traffic congestion resulting from the densification of the area. Its position ensures accessibility as well as visibility from this arterial route, particularly emphasising the activity on the landscaped piazza surrounding the building.

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Above: The artworks in the precinct include a hand-made vertical garden system with waterwise succulent plants, which form a large-scale living pixelated artwork.

Right: The building uses a lightweight external thermal insulation composite system (ETICS) on its façade, which contributes to its energy efficiency.





Artist Hannelie Coetzee's art installation, which becomes a fully integrated part of the landscaping and architecture, articulates questions about the environment and urban existence central to the precinct.



The gym is strategically positioned on the podium level facing onto William Nicol Drive, gaining maximum visual exposure. The gym includes an active spillout area onto the podium, and a restaurant and retail components facing the piazza further activate and animate the space. Top-floor tenants have views either in the direction of Sandton or Randburg, and outdoor terraces also animate the building on its upper levels, with visibility from both sides.

The brief for the building included strict guidelines for the ratio of common versus rentable area, requiring that the 2 000m² floor plate be sub-divisible into smaller areas of about 250m² each. After a rigorous design process, the architects devised a scheme they now refer to as the "Abland H", which found a solution to the challenge of integrating cores versus sub-divisibility.

The building has two cores and two wings, with the largest portion





of the floorplate central to the cores. This configuration allows the floor plate to be subdivided into 250m² tenanted areas. The placement of the fire stairs allows a small secondary common area, too. As a result of its success, this innovative solution is likely to be replicated in various other phases of the precinct scheme. The building uses a lightweight

external thermal insulation composite system (ETICS) on its façade with a single glazed shopfront system. Daylight has been maximised within the office space to lower the requirement of lighting during the day. The necessary R-value was achieved with the low glass-to-solid ratio of the façade system, and still received a 5-Star Green Star SA Office Design v1.1 rating.

The scheme employs the most efficient HVAC system currently available to achieve a 40 percent saving on electricity. It makes use of a thermal storage system - two massive ice tanks in the basement, three meter



in diameter by 10m tall - using crystal isotopes to help store energy gathered in off-peak load time. The system is modular, and could be added onto to service the whole precinct as it develops, including residential and other commercial options.

Both energy- and waterefficiency strategies have been implemented to reduce the overall consumption of the building and associated costs for tenants. Energy consumption has been lowered using energyefficient light fittings. Watersaving initiatives include waterefficient sanitary fittings, rain and moisture sensors, irrigation at night to reduce evaporation, drip irrigation and pressure regulation valves. Overall, the

> This page: The gym features an active spill-out area onto the podium, which, together with the restaurant and retail components, activates the piazza and animates the space around the building.

water-efficiency measures are expected to save approximately 30% over a notional building, or 2 740kl of water per annum.

Johannesburg-based visual artist Hannelie Coetzee has worked alongside the architects, engineers and builders of the precinct from its early phases, designing artworks to explore and articulate the questions about the environment and urban existence raised by the precinct. Coetzee specialises in partnerships between those involved in various projects to engage the public, enhance their appreciation of nature, and contribute to positive change.

Phase One includes a largescale installation of 90 raised white granite pillars sourced from a koppie in the Kalahari, presenting an immersive 'deconstructed mountain', titled The Narrowing. It is visible from William Nicol Drive, and is positioned to draw pedestrians through the precinct as much as to enrich their experience. She has also devised a hand-made vertical garden system called WildWall Tiles, which contain waterwise succulent plants, and has used them to assemble a largescale living pixelated artwork.

PROFESSIONAL TEAM

PHASE 1 BUILDING OWNER: POD Property Fund DEVELOPER: Abland and Tiber ARCHITECTS: Boogertman + Partners ELECTRICAL ENGINEER: CKR Consulting FIRE ENGINEER: IFESA TRANSPORT ENGINEERS: Kantey & Templer MECHANICAL ENGINEER: C3 **Climate Control, Consulting Engineers** STRUCTURAL/CIVIL ENGINEERS FOR THE PRECINCT: Kantey & Templer **QUANTITY SURVEYORS:** Quanticost STRUCTURAL/CIVIL ENGINEERS FOR THE BUILDINGS: L&S Consulting LANDSCAPE ARCHITECTS: Landmark Studios SUSTAINABLE BUILDING **CONSULTANT:** Solid Green WET SERVICES: CKR Consulting MAIN CONTRACTOR: Tiber PROJECT MANAGER: Abland



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PROJECT #4 SANDTON GATE

