

# PERI SA supplies complete solution for Katherine Towers

Published: 05 July 2018

PERI South Africa has supplied a complete solution, encompassing design, site supervision and transport, as well as a range of products and systems, for the Katherine Towers project in Sandton. Designed by architecture and interior architecture group Paragon, with Trencon Construction as the main contractor and Sotiralis Consulting as the consulting engineer, the project is being developed by Alchemy as the new Bidvest head office.

The 21 000 m<sup>2</sup> project is a key element of the new Katherine Street mixed-use precinct. The premium-grade development is within walking distance of both Sandton City and the Sandton Gautrain Station, and will offer an additional 12 600 m<sup>2</sup> of office space for prospective tenants.



The intricately-designed structure has a complex multi-cell core that boasts an architectural scenic shaft opening up in the centre of the building. PERI Vario GT24 wall formwork was used to achieve the necessary quality of the concrete surface finish. The complex core geometry required PERI to deploy its RCS-CL (Rail Climbing System Carriage Light) to reduce crane time and maximise platform sizes.

The RCS-CL was developed specifically for cores in medium-height buildings leading with limited crane capacities and hook times. Rail-guided climbing ensures that the

climbing unit is connected securely to the building at all times, which makes the climbing procedure fast and safe, even in windy conditions. The units are moved by crane, or by means of mobile climbing hydraulics. The climbing systems used, in conjunction with the Vario GT24 wall formwork, consisted of specialised SRU, CB 240, and BR platforms, as well as an additional RCS-CL.

“Our main challenges on this project have been limited cranes, site space, and laydown areas. In addition, there was a specific requirement for concrete work with a high degree of accuracy, with an ultra-smooth finish on all vertical structural elements,” says project engineer Terry Spronk.

The PERI Skydeck and Multiflex slab systems were selected for this project for the faster slab cycles. The project has seen reduced plywood wastage in the typical flat slab areas, due to the Skydeck system allowing productivity to be accelerated to meet the demanding 12-day cycle time.

The balcony slab construction required complex back-propping, including the support of 6.5-m-high feature concrete walls. PERI’s specialised Quickshore shoring tower and a combination of GT24 Girders and SRZ walers were used for the balcony, while PERI Trio and Domino were deployed for the various retaining walls and upstand beams, which are repeated as a main feature throughout the building.