

Chevron Project Core

Being a global energy giant, Chevron prioritized the ideal of an environmentally sustainable Head Office.

o this end, the architect sought to achieve a building that is only built once – i.e. that the concrete structure forms the actual façade – challenging the widespread commercial practice of cladding with expensive additional layers of aluminium, granite or curtain walling. The philosophy being that, in a sustainable society, we cannot afford to build the same structure twice.

Chevron Project Core is a development in Century City for the Chevron South Africa (Pty) Ltd Downstream Head Office. It consists of approximately 7 500 m² site area and construction area of 18 500 m² – this includes a basement, ground floor, mezzanine parking level, two (1st and 2nd) office floors and a central courtyard. The project achieved a level 5 Green Star design rating and is in the process of attaining a level 5 Green Star as-built rating with the Green Building Council of South Africa.

Chevron Project Core has numerous innovative energy saving concepts and include the following:

 Underground concrete water tank to retain rainwater as potable water and water for irrigation.

- Double glazed window façade designed to allow for acoustic, thermal sealant and maximum natural light into the building.
- Future reclaimed water supply to the Virgin Active Gym to supply their pool with water.
- Full BMS system that regulates light and air temperature controls.
- Bio-digester installed in kitchen uses the kitchen waste to generate gas for hot water for kitchen dishwasher.
- Cycle lanes, cyclist ablution facilities to promote staff to travel with emission free transport.
- Series of sunscreens installed to control light levels and glare into the building and off the building façade.
- Large percentage of local sourced building materials with low VOC counts were used in the construction of the Project.

Further to the energy saving concepts the building's white concrete façade structure is remarkable in its design and build. The complexity in design and construction are the aspects worthy of special mention. Extensive time in planning the production, supply, formwork design

WINNER





Categories Entered: Architectural Concrete over R100 million, Innovation in

Main Contractor: Stefanutti Stocks Sub-Contractor 1: Louis Karol

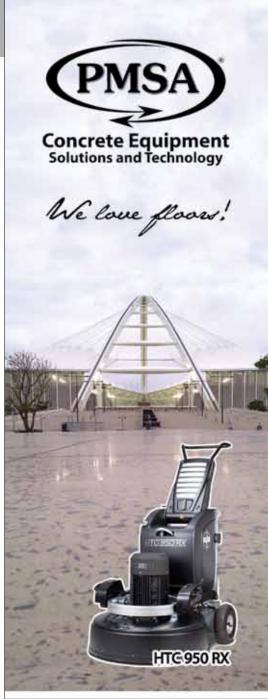
Sub-Contractor 2: Lafarge SA (Pty) Ltd

and placing of the white concrete resulted in an off-shutter, white concrete building that is a landmark in the Western Cape. The white concrete production and placing left the construction and supplier team with a huge challenge that took many trial and error sampling in order to achieve the desired result. This scale of white concrete construction has never been done in the Western Cape. A

Judges' Citation

In this project, the concrete structure forms the actual building façade to create a sustainable building. The exposed concrete structure used a white concrete to achieve an effect reminiscent of travertine marble. This was a very large scale use and resulted in a number of challenges being overcome. These included reducing contamination of the raw materials, the use of special shutters and release oil.

Special attention was paid to the design of the exposed concrete elements to provide passive cooling and sun shading to the north-east and north-west facades. Joints were concealed in deep shadow lines and oversized ferrule holes were made a feature. The slab edges were tapered to create an illusion of crispness and precision. This project was a worthy winner of the Fulton Award in the category Architectural Concrete greater than R100 million.



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