HOUSING S.A. - October 2015

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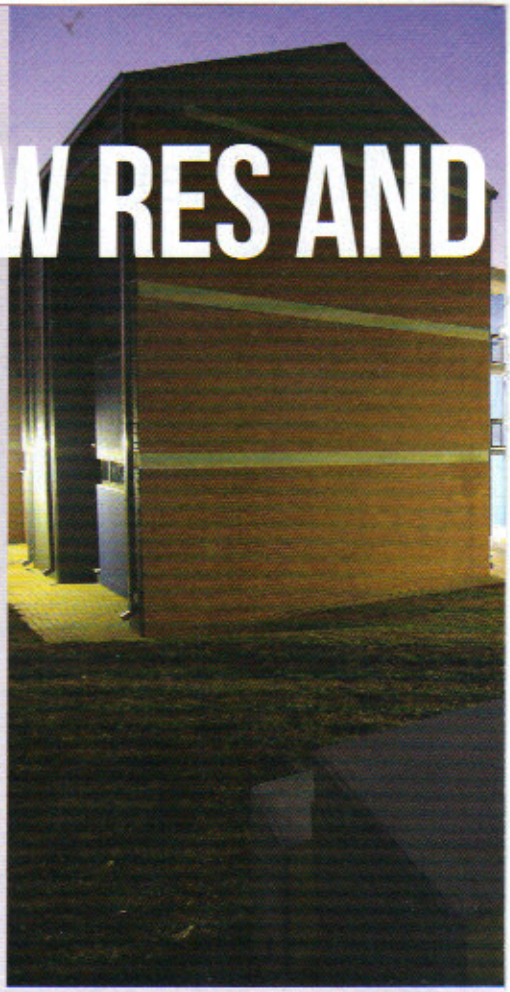


Preserving historical and botanical treasures were among the major challenges in the construction of the new Tuks Sport High School and residences on the University of Pretoria Sports Campus in Hatfield.

Pretoria building contractors JC van der Linde & Venter Projects undertook the R49 million contract for the construction of the new facilities.

TuksSport High School, an independent co-ed school, caters for 260 learners from Grade 8 to 12. The new high school opened this year and forms part of the UP High Performance Centre. The specialised school offers a sporting and learning environment for selected students. It allows current and potential high sports performers to receive sports coaching and training while still continuing their studies.

The new facility is located on a University of Pretoria Veterinary Science Faculty Experimental Farm (Proefplaas) site, historically a quarantine camp for game and livestock before the animals were relocated.

Steven Brown, Contracts Director for JC van der Linde & Venter Projects says the project called for the construction of four primary buildings:

- A double-storey administrative building with adjacent single-storey multi-purpose hall. The administrative building includes a reception lounge, offices, boardroom, staff room, copy room and psychologist's room.
- The adjacent multipurpose shed-like hall is semi-covered with a laser cut screening overhead that extends from its pitch roof. The hall is used for large assemblies as well as students' meals and is equipped with a kitchen, staff facilities and canteen server area.
- A triple-storey and two double-storey classroom blocks comprises 17 classrooms, an IT centre and laboratory classrooms. The classrooms are clustered around a central courtyard which serves as 'spill-out' space for the students. Concrete walkways link the classrooms and provide weather protection for the classroom entrances.
- A residential block for 96 are students set over four floors, constructed with a combination of load bearing brickwork and a concrete column structure. The block's red facebrick façade is combined with plastered and painted walls and the building is fitted with a curved steel fire escape structure enclosed with steel mesh. The block has eight single bedrooms and 44 twin rooms.

Brown says, "In addition, we also had to provide an open-air amphitheatre, to accommodate 260 students."

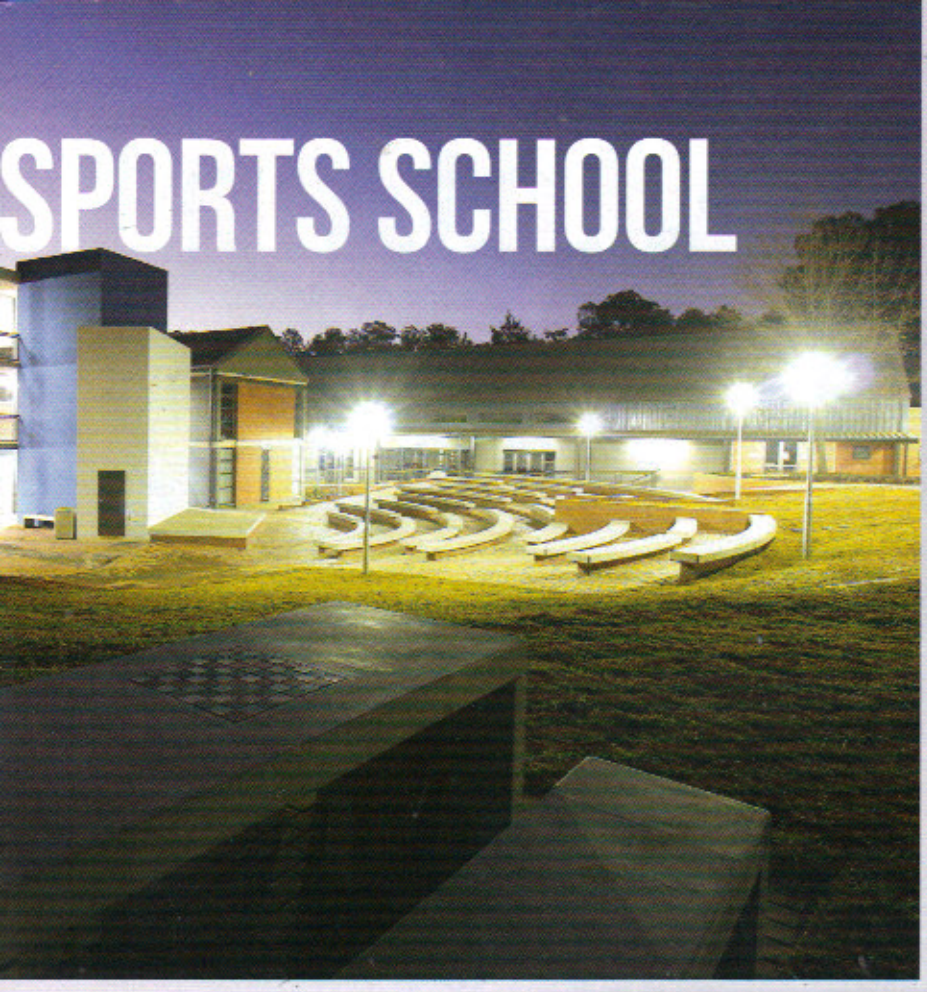
He adds that amongst the major challenges faced on this contract was the historical and environmental values attached to the site. "We had to preserve some extremely rare trees - which created access problems - and also ensure that specified historical structures on the terrain were not damaged during the building process."

Architect Ben Kunz from Neo Dimensions who designed the TuksSport project, says that structures such as the old Proefplaas' quarantined animals concrete drinking troughs had to be preserved and incorporated into the design.

"The drinking troughs were re-used as landscape elements and the footprint of the old camp re-introduced into the landscaping by means of paving lines in the lawns."

Kunz explains, "The trees on the site are mainly old exotic trees species from the remnants of a UP arboretum. Eight particularly precious trees were identified, which included three different species of South African yellowwood trees. These are

SPORTS SCHOOL



usually only found at the National Botanical Gardens at Kirstenbosch. The experimental farm's three yellowwoods species had to form part of the design."

"The Neo Dimensions design for TuksSport consists of separate and detached buildings, influenced by their various functions, and also incorporate a sense of openness to the landscaping. We wanted to keep the farm-like character and opted for buildings with raw finishes. Robust red face bricks were used throughout to commemorate the quarantine camps, as well as steel frame structures reminiscent of farm sheds. Off-shutter concrete was chosen for all soffits, columns and walkways for both robustness and the desired look and feel."

Kunz noted that environmental concerns were important in the design. For example, the north façade of the residential block features different bedrooms on each level that either protrude, or are recessed from the façade, to create natural sun control over the bedroom windows. Additional steel louvres were provided to the protruding bedrooms with their vertical window design. Furthermore, the flat concrete roof of the building can accommodate future 'green' facilities such as water storage tanks and solar panels. The hot water is currently generated by a heat pump with a water storage vessel. All sanitary ware was specified.

The amphitheatre was influenced by the high difference in contour between the classroom buildings and the residential block.

"An amphitheatre was the ideal solution to accommodate this level difference and also produced the perfect school assembly space," he says.

Brown added that work started work in August last year and handover took place in July 2015, as scheduled. The site team included two senior foremen, a senior site manager and a full-time professional Health and Safety Manager. A total of 1 600 cubic metres of concrete and about 700 000 clay bricks were required for the building. The funding for the construction of the new TuksSport High School was provided by The Athletics Foundation Trust. ■

HOUSING
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