

earthworks

FOR A SUSTAINABLE BUILT ENVIRONMENT

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THE TRUTH
ABOUT
**WIND
ENERGY**

**GROW,
HARVEST,
BUILD**

HEMP HOUSE MAKES A STATEMENT

**ABC OF
SCHOOL
DESIGN**

LESSONS FROM VELE AND 7 FOUNTAINS

**CROSS-
BORDER
CUTTING
EDGE**

BOTSWANA INNOVATION HUB

NORTHERN LIGHT

MAKING SAVINGS IN LIMPOPO'S NEW MEGA-MALL

FIGHTING FOR GREEN FEES | BIOMIMICRY | GREEN STAR SA MULTI UNIT RATING TOOL

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CREATING LEARNING SPACES

CONTINUOUS LEARNING

The manner in which the schools in the programme are designed and built ensures that learners and educators are able to integrate the construction methods and various technologies into the school curriculum and this has particular relevance in maths, science and technology-focused schools like Vele.

Certain key indicators such as energy and water consumption, thermal performance and food garden output are also measured and monitored. The intention is to inform the management team at the school, educate the learners and feed back into future projects in the Creating Learning Spaces Programme so that lessons learnt will influence future design choices. Learning thus becomes a two-way process, which is wonderfully illustrated by the creation of the green roof at Vele. Green roof specialist Clive Greenstone explains how learners will be called upon to study the roof, particularly aspects such as which species of plants become dominant and which insects and other fauna inhabit the roof over time. They will also source indigenous seeds and cuttings from the surrounding indigenous vegetation beyond the boundaries of the school and thus have an opportunity to make a valuable contribution to the body of local knowledge necessary for the successful implementation of green roofs in that particular geographic area.

BELOW Science Block at Vele; in foreground the 'Teaching Tree'

The sustainable approach to teaching and learning extends to the educators and school management as well. "It's wonderful to build a sound and technically functional school, complete with all of the sustainability features, but one has to make sure the teachers and school management team make it work," says Claire Brown. She explains how each individual project in the programme is a five-year-long intervention with three years intensive post-occupancy teacher training and professional development that includes aspects of financial management, school governance and management and further teacher training.

PROFOUNDLY TRANSFORMATIVE

The technical and social innovation of the Creating Learning Spaces programme, the sustained and inclusive approach to design, education and continuous learning, the emphasis on ownership and economic, cultural and recreational interconnectedness and the nature of the schools as local hubs of sustainability in practice embedded in the wider community, together form a workable model for more sustainable development in impoverished rural areas using school development as catalyst. The fact that it is young-learner centred means that positive outcomes should be realised for generations to come. ☉

SOURCEBOOK

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Consulting (Seven Fountains & Vele)

Renewable energy design PJ Carew Consulting (Vele)

Water strategy PJ Carew Consulting

(Seven Fountains)

Water strategy P J Carew Consulting

& ARUP (Vele)

DONORS

Computers (Vele) Dell computers

Photovoltaic Equipment and equipment for engineering graphic design (Vele) Eskom

Computer Training Microsoft

Broadband (Vele) Vodacom

Sports Fields (Vele) Independent Development Trust

