

# HOUSING & INFRASTRUCTURE

in Southern Africa

MARCH 2015



## GAUTENG'S HOUSING ROLL OUT

[WWW.CROWN.CO.ZA](http://WWW.CROWN.CO.ZA)

INKANYEZI IN KZN • R28 BN SAVANNA CITY MEGA PROJECT • LAND OWNERSHIP



how can we help you?

# provide homes to South African families.

Smart Bond® from FNB is aimed at helping all South Africans realise their dreams of owning a home.



Home ownership can be a reality with Smart Bond® from FNB, thanks to benefits such as:

- No deposit required and 100% bonds available to qualifying customers
- Quick application and access to additional funds through a Smart Bond® Re-advance or Smart Bond® Further Bond
- Opportunity to buy a house within a network of developments
- Affordable Life Cover with no medical checks
- Access to Affordable Homeowners Cover which insures the immovable asset
- Free comprehensive Home Ownership Programme

\*Terms and conditions apply



# HOUSING

in Southern Africa

## CONTENTS

- 2 Ed's Notes
- 4 New Transport Nodes Accelerates Housing Delivery
- 6 Cutting Off Electricity – Illegal
- 6 City of Tshwane's Upcoming Auction
- 6 Mining Towns get R2,1bn
- 8 R744m Unauthorised Spending
- 8 City on Brink of Bankruptcy
- 9 Rainbow Neighbourhood

### HOUSING

- 10 Inkanyezi – in KZN's Sugar Belt
- 12 Restricting Foreign Land Ownership
- 13 Gauteng's Housing Roll out
- 14 Savanna City – R28bn Greenfields Mega Project
- 15 Urbanisation in Africa
- 16 Transfer Duty Taxes
- 18 Investors Opt for Student Accommodation

### ENERGY EFFICIENCY, GREEN BUILDING & IBTs

- 20 PV – for Residential and Commercial
- 22 The Country's Energy Options

### CONSTRUCTION EQUIPMENT & TRANSPORT

- 22 Chicago Pneumatic Launches Portable Generators

### CEMENT & CONCRETE

- 23 SARMA Warns of Over-Priced Training
- 26 Concrete Strives for Carbon Neutral Status
- 28 Waterproof Plaster
- 30 Elematic Doubles its Capacity
- 31 Central Developments Opt for Echo Slabs

### INFRASTRUCTURE & MIXED USE

- 32 Reducing the Risk

### INDUSTRY BUZZ, EVENTS & PRODUCTS

- 33 Geared for Growth
- 34 Self-Levelling Joint Sealer
- 35 SAPPMA Calls for Industry Participation
- 36 SAPITI's New Manager
- 36 Sustainability – Africa's Top Power Agenda



March 2015

**HOUSING**  
in Southern Africa

## ED'S NOTES

### FLISP, Affordable and BNG roll outs

Our March issue showcases the best of affordable housing, highlights Gauteng's residential roll out for the next five years, and industry stalwarts comment on transfer duty and foreign ownership restrictions.

**A**ffordable housing specialist, Cosmopolitan, has secured the rights to develop 10 246 Finance Linked Individual Subsidy Program units for the residential market at Savanna City, government's mega greenfields project in Midvaal.

Manie Annandale's team at Nedbank Corporate Property Finance Affordable Housing Development has provided funding to the Shield Group to develop Inkanyezi, an affordable housing development at Tongaat on KwaZulu- Natal's sugar belt. The project will provide 2 243 housing opportunities on completion.

The residential sector has reacted to President Jacob Zuma's statement in the State of the Nation Address about restricting foreign ownership. Industry giants, Chairman of the Seeff Group, Dr Samuel Seeff, puts the case forward for foreign ownership and Dr Andrew Golding from the Pam Golding Property group tackles the question of transfer duty and gives a global perspective.

The City of Tshwane has partnered with High Street Co to sell off 80 city-owned properties during March. The buildings and land that have been put up for auction will help the city's cash flow and the land release will certainly attract developers.

The Nelson Mandela Bay Metropolitan Municipality has been called on to account for R744 million unauthorised spending, which they have asked be written off, without any explanation.

Gauteng Premier, David Makhura outlined the plans for the province in his State of the Province Address. We noted a number of new cities on economic corridors and the roll out of mass housing in the north, south, east and west corners of the province.

Almost 140 000 housing units will be built at the Lion Park in Diepsloot East, Fleurhof, Cosmo City, Malibongwe Ridge and Goud Rand. The City of Johannesburg is planning to revitalise Kliptown and Alexandra. The latter is hugely over populated and desperately in need of attention.

Public private partnerships that will radically change the spatial landscape includes: Masingita City,

Waterfall City, Modderfontein City, Reitfontein and Steyn City. All of these mega projects will have a major socio-economic spin off and benefits for employment opportunities and investment.

In the next five years 100 000 housing units will be rolled out at Chief Albert Luthuli, John Dube Extension 2, Tsakane Extension 22, Germiston South, Leeuwpoot, Rietfontein and Clayville Extension 45.

A further 160 000 houses in in Hamanskraal, Winterveldt, Sterkwater, Lady Selbourne, Soutpan Phase 1 to 7, Lotus Garden, Fortwest, Capital Park, Vermeulen, Olievenhoutbosch, Nelmaphuis, Zithobeni, Kirkney and Danville. National government, municipalities and the private sector will revitalise the mining towns.

More than 160 000 housing units will be built in Syferfontein, Chief Mogale, Kagiso Extension 13, Leratong, Westonaria Borwa, Thusang, Waagterskop, Kokosi Extension 6 and 7, Droogeheuwel, Mohlakeng Extension 11, Khutsong South Extension 1, 2 and 3 and Vaarkenslaagte.

Over the next five years, more than 120 000 houses will be built in Sedi-beng, Boiketlong; Golden Highway; Evaton; Vereeniging, Savanna City, Ratanda and the R 59 Corridor.

With so many housing opportunities rolling out in Gauteng, things are looking up!

Happy reading!



Carol Dalglish • Editor

## THE TEAM

### EDITOR

Carol Dalglish  
housing@crowns.co.za

### ADVERTISING

Brenda Grossmann  
brendag@crowns.co.za

### DIRECTOR

Jenny Warwick

### PUBLISHER

Karen Grant

### DESIGN

Colin Mazibuko

### CIRCULATION

Karen Smith

### READER ENQUIRIES

Radha Naidoo

### SUBSCRIPTIONS

Wendy Charles

### PUBLISHED MONTHLY BY:

Crown Publications cc

Crown House

Corner Theunis and Sovereign  
Streets, Bedford Gardens 2007

P.O. Box 140

Bedfordview 2008

Tel: (011) 622 4770

Fax: (011) 615 6108

email: housing@crowns.co.za

www.crowns.co.za

### PRINTED BY:

Tandym Print

*All rights reserved. No part of this material may be reproduced, stored in a retrieval system or transmitted in any form or by any means, without prior permission from the publisher.*

*Disclaimer: Crown Publications cannot be held responsible for any errors or omissions whatsoever.*



**AVERAGE CIRCULATION  
(THIRD QUARTER 2014)  
3760**



# REDEFINING HOUSING: A JOURNEY TO SUSTAINABLE QUALITY HOMES



The dawn of a democratic South Africa brought with it optimism and a new found pride amongst its citizens. For the millions previously confined to substandard housing conditions, what dampened this sense of belonging was the dire need for housing. The newly elected government addressed the need by enshrining in the Constitution, the Right to Shelter. Concomitantly, rising protests and violence over quality and standards in the home building environment demonstrated that there were serious challenges to overcome. Unscrupulous home builders cashed in on the need for housing, constructing defective homes for customers who had no recourse for their grievances and thereby setting in motion the establishment of a central housing authority to oversee standards in the home building environment.

The Housing Consumer Protection Measures Act (Act 95 of 1998) came into being and gave birth to the National Home Builders Registration Council (NHBRC). The NHBRC is a statutory body whose role is to protect the interests of housing consumers and to regulate the home building industry. In line with the Housing Consumers Protection Measures Act, all home builders must be registered with the NHBRC and all new homes must be enrolled at least, 15 days prior to construction. Along with the legal framework, an enrolment affords the housing consumer with benefits such as a 3-month warranty cover against minor defects, a 1-year warranty cover against roof leaks and a 5-year warranty cover against major structural defects.

In 1998 the NHBRC started with a paltry builder registration of 20 builders. Today the organisation regulates over 15 000 builders at any one time, it has trained in excess of 22 000 emerging home builders on the basics of building and regulated industry standards and is a leader, through strategic partnerships, on building technological solutions. Dr. Awelani Malada, head of Strategy and Planning for the NHBRC believes that the organisation's success can be measured by the consistently increasing number of home inspections and enrolments in both the subsidy (Government assisted) and non-subsidy sector.

A footprint in all 9 provinces enables the NHBRC to conduct regular home inspections and in instances where builders are found to be in contravention of regulated building standards and the Housing Consumers Protection Measures Act, the NHBRC is able to instigate its legislative powers. Notwithstanding the regulatory role that the NHBRC has in the home building environment, it is more than just a regulator and enforcer of building standards.

Mr. Mnyani adds, "We also encourage and support technology and innovation in home building as this is what is going to take us into the future. Any builder who comes up with new materials or methods – and is certified by Agrément SA – can come to us to further their ideas." In 2005 the NHBRC established the Eric Molobi Housing Innovation Hub in Soshanguve, with the aim of testing innovative (or alternative) building solutions and to support the development of aesthetically pleasing yet affordable housing solutions for new homes.

The Hub also boasts a materials-testing laboratory and a training college for builders. The head of the NHBRC's Centre for Research and Housing Innovation, Dr. Jeffrey Mahachi, is part of a collective within the organisation that believes that the NHBRC can facilitate holistic solutions where building methods are quick to implement, environmentally friendly and can create a social system which affords low income earners the same quality homes as their middle class counterparts. In a country with inherent social gaps and a housing backlog of over 2 million housing units, we need that. Here's to the next 20 years...

"We have come a long way. The challenge now lies in meeting the housing demand, denting the current housing backlog and improving turnaround times so that those in need can be assisted faster and more effectively," **NHBRC CEO, Mongezi Mnyani.**

#### THE NHBRC AT A GLANCE:

- A housing agency under the auspices of the National Department of Human Settlements, which was established in 1998
- Employs over 490 employees in all 9 provinces
- A lead Africa member of the International Housing and Home Warranty Association (a global warranty organisation)

Toll Free Number:

0800 200 824

Fraud Hotline:

0800 203 698

Tel:

+27 11 317 0000

 @NHBRC  NHBRCSA

**Assuring Quality Homes**





## New transport nodes accelerates housing delivery

The establishment of transport nodes across South Africa has resulted in a wave of new affordable housing developments being built in close proximity, according to Manie Annandale, Head: Nedbank Corporate Property Finance's Affordable Housing Development Unit.

He says that developers have recognised the growing demand for affordable housing that is located close to newly developed roads or transport systems, such as the Gautrain; the Rea Vaya Bus Rapid Transit system in Gauteng; and the MyCiti bus service in the Western Cape.

"The provision of transport is crucial in shaping purchasing and renting decisions. Affordable housing is driven by the availability of suitable land and as this cost increases, so too does the building of higher density developments that can best optimise these transport nodes."

He adds that with forecasts suggesting that 70% of South Africa's population will be urbanised by 2030, there is an increased focus on how best to accelerate the development of public transport infrastructure to reach other areas in major cities. One such example is the south of

Johannesburg, which still has tracts of under-developed land that can be made available for affordable housing developments.

Annandale says in recent years there has also been a notable trend towards the lower income bracket renting rather than buying affordable housing property. "When the Nedbank affordable housing book was established six years ago, these developments sold out pretty quickly. This has changed significantly over the last few years, with rentals now dominating and more than 60% of units are being rented in developments that we are currently funding."

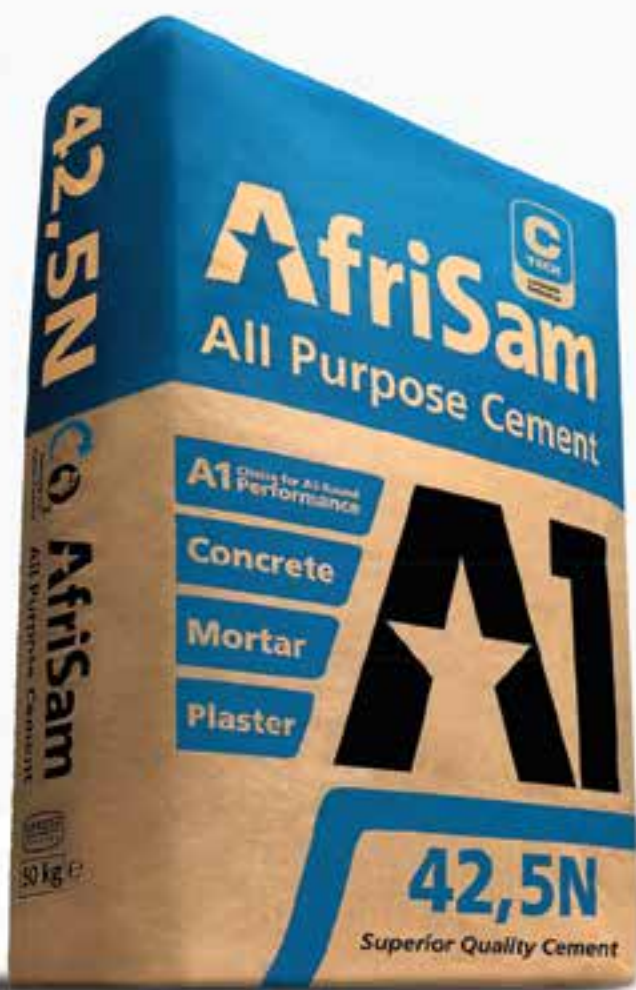
He goes on to explain, "The issue is that it can be difficult to prove affordability for many buyers. Often up to 30% of their disposable monthly income can be absorbed by transport costs, so to factor in rates and taxes, as well as a bond payment, means potential buyers may not qualify for

financing." Annandale says that he expects the delivery of affordable housing developments to accelerate going forward as Government continues to release public-owned land. According to recent announcements by the Minister of Human Settlements, Lindiwe Sisulu, the aim is to build 50 mega projects that comprise of 2 000 and 4 000 new homes. This will roll out over the next five years as part of national government's social contract with the private sector across all spheres of business.

"One of the mechanisms through which this delivery will be accelerated is via Public-Private Partnerships (PPPs) between government, developers and the banks. Government subsequently works closely with large developers to unlock tracts of land, with the bank providing the funding," says Annandale.

He concludes, "There is an urgent need in South Africa to deliver more affordable housing to meet the socio-economic demands of the country and we are confident that with all stakeholders successfully working together in a collaborative manner, we will continue to meet this pressing requirement." ■





HARD FACT #4:

# LESS THERMAL CRACKING THAN ORDINARY CEMENT



AfriSam A1 All Purpose Cement cracks less thanks to its unique, tried and proven C-Tech composite technology\*. It's the choice of builders who understand that a quality cement means a quality build.

AfriSam A1 All Purpose Cement. **Stronger than ordinary cement.**

[www.afrisam.com](http://www.afrisam.com)

Building our Future Together



With the planet as one of our core values, we assess the carbon footprint of each and every one of our operations and products while actively striving to drive down our impact on the environment.

\*Due to C-Tech's mineral composition, the heat of hydration is dissipated over a longer period, reducing the thermal gradients, which cause cracking. For more information, contact the AfriSam Centre for Product Excellence or visit our website.

## Cutting off electricity – illegal



According to Michael Bauer, sectional title specialist from IHFM, “This is illegal, if they have done so, without a court order authorising it.”

In South Africa legislation is clear in that shutting off services such as electricity without a statutory right to do so is an offence. The supply of electricity is governed by the Electricity

Regulation Act and only the holder of the license, which is granted by the Regulator is allowed to disconnect the electricity supply to a unit. “This must be for non-payment of the electricity, not for any other outstanding amounts,” says Bauer.

Only bulk suppliers of electricity such as Eskom or a subsidiary, such as City Power or the local suppliers, can disconnect the electricity supply after notice is given to the resident. Body corporates or trustees are not the licensee or the distributor and they cannot cut the supply to any sectional title unit. Trustees have to deal with the non-payment of levies as provided in the Sectional Titles Act, which states that the body corporate

can deal with the non-paying owner in the magistrates or High Court.

Body corporates do however sometimes take the law into their own hands by cutting off the electricity supply, as they see this as an effective and quick way of dealing with the situation. In most cases the owner will most likely not have the financial means to take them to court. Owners will have recourse through the Community Schemes Ombud, who will assist those owners who cannot afford expensive court fees.

“Withholding levy payments puts the scheme in a precarious financial position and trustees often have the arduous task of sorting out collections of funds way after they are due,” says Bauer. ■

## City of Tshwane’s upcoming auction



The City of Tshwane in a bid to be an African Capital City of Excellence plans to auction 80 properties worth over R500 million.

According to Blessing Manale from the City of Tshwane, “After careful consideration The High Street Auction Co was appointed to dispose of the properties for the city. Their transparent auction solution suits our objectives in that they can expedite the sales process with competent business processes and expertise. The City of Tshwane aims to auction the first phase of properties on March 24, 2015. Specific information pertaining to the properties and associated incentives was made available by the City of Tshwane during February.”

This has been done to stimulate investment, development, job creation and long term sustainable income for the city by selling tracts of land for

development in the greater metro. In addition to making the land available for auction, the city has also introduced an incentives framework with

zoning, tax and financial incentives to assist developers in fast tracking the development of these properties.

“We are delighted to have been appointed by the City of Tshwane to run this important programme under their 2055 Vision” says Lance Chalwin-Milton, joint Managing Director of High Street Auctions. ■

## Mining towns get R2,1 bn

President Jacob Zuma said during his State of the Nation Address that government has ring-fenced a total of R2,1 billion to revitalise distressed mining towns in the country.

He said that R290 million had been approved for informal settlement upgrading in Mpumalanga, North West, Gauteng, Northern Cape, Limpopo and the Free State. Through the National Upgrade Support Programme, 133 informal settlements are currently being assessed or prepared for upgrading. Zuma said that a lot was being done to build mining towns as

government, the mining sector and the Banking Association of South Africa have signed a social contract for the development of sustainable human settlements.

“Government also continues to provide social development support within mining communities. Other support includes technical expertise with regards to Integrated Development Plans and the development of Special Economic Zones. The mining towns are also being assisted with implementing the ‘Back to Basics’ municipal service delivery strategy,” concluded Zuma. ■



***REAL Houses for REAL People***



**COSMOPOLITAN**  
P R O J E C T S

# R744m unauthorised spending

A forensic investigation into R744m unauthorised expenditure by the Nelson Mandela Bay Metropolitan Municipality for the 2013/2014 financial year has been requested by the Shadow Minister of Cooperative Governance and Traditional Affairs, Kevin Mileham.



Last year, the Auditor General stated that the amount of R744 million might not be the full unauthorised expenditure incurred. Mayor Benson Fihla has requested that the council write-off R744 million (R743 928 574) of unauthorised expenditure.

“A forensic audit needs to be done to determine the full extent of this

financial mismanagement, so that those responsible can be held to account,” says Mileham. He explains that it is vital that state officials begin to take the right steps to procure finance for projects in accordance with the regulations and prescripts. Section 32 (2) of the Municipal Financial Management Act (MFMA) allows the metro council to recover funds

from those who acted in contravention of the act. In addition, the MFMA provides for disciplinary proceedings to be initiated into any official or political office bearer responsible for permitting unauthorised or irregular expenditure, whether deliberately or negligently. It is incumbent on the council to utilise these powers at all times. ■

## City on brink of bankruptcy



The City of Tshwane’s financial statements for the 2013/14 financial year shows that the City is on the verge of bankruptcy. Considering that debts are not being collected, the DA projects that the City will run out of operating cash says Kevin Mikeham, Shadow Minister of Cooperative Governance and Traditional Affairs.

He says, “We have written to the Portfolio Chairperson on Cooperative Governance and Traditional Affairs (COGTA) requesting that the Gauteng COGTA MEC, City of Tshwane Municipal Manager and Chief Financial Officer and the Provincial Auditor-General of South Africa account for the discrepancies.”

Some of the major concerns include:

- The increase in unauthorised ex-

penditure to R1,2 billion;

- The increase in irregular expenditure to R451 million;
- The significant restatement in the prior year’s financial statements (amounting to R705 million). A further restatement to correct errors amounted to R57 million;
- A decreasing collection rate of municipal debts, and an impairment of consumer debts of R1.4 billion;

- Average settlement period of creditors at 51 days is in contravention of section 65 (2)(e) of the Municipal Financial Management Act. This worsens to 104 days when the broader view of ‘trade creditors’ is considered;

No reports submitted to council on irregular and unauthorised expenditure, despite a legal obligation to investigate and report on the same;

- The failure to recover the illegal and irregular expenditure on ward committees from the municipal councillors who voted in favour of this illegal activity;
- The failure to maintain an adequate municipal asset register;
- The expenditure of approximately R100 million on Tshwane House, with nothing tangible to show for it;
- The inability of the City to meet its financial obligations (Current ratio of 0.72:1 and Acid Test ratio of 0.66:1). This implies that the City is technically bankrupt; and the failure of the auditor general to qualify the annual financial statements

Despite the Provincial Auditor-General’s concerns the City received an ‘unqualified audit’. ■

# Rainbow neighbourhoods



The racial transformation of urban residential property ownership remains a ‘land reform’ success story and it is arguably the most important part of land ownership reform.

According to John Loos, Household and Property Sector Strategist Market Analytics and Scenario Forecasting at FNB Home Loans, “While we have come a long way in terms of the racial transformation of residential property ownership, there appears to have been slower progress made in recent times, arguably the result of a poorly performing economy.

Since 2005, the FNB Estate Agent Survey has provided estimates of race-based home buying in former white suburbs, with black households accounting for 30% of new residents, and high percentages in former Indian and Coloured suburbs.

“We appear to have lacked further progress in the buying transformation, with the previously-disadvantaged group buying percentage battling to break sustainably through the 50% level on a sustainable basis. Once again, probably not too surprising, given an economy whose growth has slowed to average 1,9% post-2008 with little new job creation. And so, while the previously-disadvantaged group buying percentage no doubt continues to reflect massive progress

over the past few decade, further progress towards finishing the job lacks growth-friendly economic policies and progress in addressing an unequal skills/earning power distribution.

From 51,5% of total estimated residential buying in 2013, total previously-disadvantaged group suburban home buying receded to 49,2% in 2014, with the Black group receding from 31% in 2013 to 29,25% in 2014.

This percentage decline is also reflective of especially the Black group’s greater sensitivity to any negative economic events. What were the negative events in 2014? Firstly, real economic growth slowed from 2,2% in 2013 to an estimated 1,5%. This caused real household disposable income growth to slow from 2,4% in 2013 to 1,5% last year.

In addition, residential affordability started to deteriorate in 2014 due to small interest rate hikes as well as house price inflation outpacing average labour remuneration growth.

The lowest income group, the Black population group has less non-essential spending, in its overall spending and less discretionary

income. In addition, the group has less ‘inter-generational’ wealth built up, implying that the families of the ‘emerging middle class’ are less able to support home buyers from these groups financially, and are often financially dependent on their new middle class members, further constraining the income available for home buying.

Therefore, it should not be surprising that the Black population group is probably the most sensitive to any residential affordability changes, and to a lesser extent the so-called ‘Coloured and Indian/Asian’ buyers. The Coloured buying percentage also declined from 8,5% of total buying in 2013 to 8% in 2014, while the Indian percentage declined slightly from 12% to 11,8%.

The decline in these groups’ percentages of ‘suburban’ home buying may well bode well for the more affordable ‘former township’ residential markets as well as the more affordable ‘former suburban areas’.

The former township house price index increased by 9,5%, outperforming the former suburban price indices. ■





# INKANYEZI ON KZN'S NORTH COAST



With the growing demand for well-located affordable housing, Inkanyezi will provide a mix of housing typologies including sectional title units, freehold, Gap market housing, as well as Finance Linked Individual Subsidy Program housing (FLISP) for householders earning up to R15 000 per month as determined by the FLISP subsidy parameters. The project will roll out over 2 243 housing opportunities on completion, which will include housing across the Affordable income range.

According to Manie Annandale, Head of Affordable Housing Development, Nedbank Corporate Property Finance, "The developer, Zevoli 208 and the project management team, the Shield Group, have firmly established themselves in the affordable housing market in the Eastern Cape and KwaZulu-Natal for delivering quality housing. Nedbank's previous experience with them in Durban and Port Elizabeth support their track record. Shield Homes, a division of the Shield Group, will roll out 327 general

Nedbank Affordable Housing Development Finance has provided R28,3 million to developer, Zevoli 208, to roll out bulk infrastructure for Inkanyezi at Tongaat on KwaZulu-Natal's north coast sugar belt.

residential affordable housing units and 77 freehold stands during Phase One."

Shield Homes' market research has shown that 80% of prospective buyers in the area work for government. A two bedroom sectional title unit costs from R430 000, two bedroom free standing house from R525 000 and a three bedroom from R595 000 including bond and transfer costs. Buyers will have a selection of finishes to choose from such as tiles, carpets, kitchen and colour finishes.

The development will be rolled out in eight phases.

"With the scarcity and expense of available bulk infrastructure (electricity, water and sewage) there is a shortage of affordable housing stock in the region. Inkanyezi is well located within close proximity of the King

Shaka International Airport, the Dube Tradeport, a light industrial economic node and Tongaat's Central Business District, which will all be accessible to Inkanyezi residents. There are a number of amenities in the surrounding areas, and Inkanyezi has plans for three parks and recreation facilities, a crèche, shopping centre, taxi rank, a multi-use sports field and two new schools. Inkanyezi will compliment and integrate with Gandhi's Hill and Hambanati. The area is also within close proximity to industrial parks for job opportunities."

It is these details that make the development attractive to new home owners. Road access is currently off Van Rova Road and the development will also have access to the existing Main Road R102 and the N2 highway. The development is located on





# SUGAR BELT

the northern urban edge of Tongaat and is adjacent to the western part of Hambanathi. The Tongaat River forms the northern boundary and the residential suburb of Gandhi's Hill is on the southern tip.

Shield Homes have been building since 1988 across the economic and residential spectrum. Ian Christie, CEO of Shield Homes says, "We welcome the opportunity to continue our long standing relationship with Nedbank Affordable Housing who are the most innovative providers of finance in the Affordable Housing space."

Japie Van Rensburg, CEO of Zevoli 208 added, "We are pleased that the project is now able to be launched after six years of obtaining the necessary approvals." Belinda Schoeman, Project Manager at Zevoli 208 says, "We launched sales of the freehold units in January 2015 and with the strong demand the 77 have almost sold out. We will be launching the sectional title units soon and will consider joint ventures with other parties wanting to develop units for sale or rental as there is huge de-

mand in the area." The professional team includes: Land Surveyor: Kim De Villiers & Associates; Surveyor: Precise Surveys; Structural and Civil Engineers: Thekweni Geo Civils CC; Geotechnical Engineer: Drennan, Maude & Partners; Town Planner: Hennie Naude and Associates; and Environmental Consultant: Sivest.

Amongst the challenges that the experienced professional team had to contend with was the lengthy delays before the land proclamation, rezoning and environmental approvals were given. The process took almost five years to complete.

The developer has now commenced installation of bulk services and infrastructure with the Ethekeeni Local Municipality.

The economic development in this region has stimulated job opportunities and with the King Shaka International Airport only 8km from the development, the airport which is almost three times bigger than Durban has five times as many retail stores. Dube TradePort Corporation, a business entity of the KwaZulu-Natal

Provincial Government, is charged with the responsibility of developing the province's biggest infrastructural project. Considered one of South Africa's top 10 investment opportunities, this officially declared Industrial Development Zone (IDZ) is geared to promote foreign and local investment.

The precinct is strategically situated in KwaZulu-Natal's eastern seaboard. The 2 840 hectare development is ideally positioned half an hour from Africa's busiest cargo port, Durban Harbour, and 90 minutes from the Richards Bay Harbour.

The Dube TradePort takes advantage of its prime location as the only facility in Africa combining an international airport, dedicated cargo terminal, warehousing, offices, retail etc and with all this expansion offers many job opportunities in this thriving region.

Annandale concludes, "The shortage of suitably serviced available land in the greater Tongaat area continues to hamper the supply of Affordable Housing in the price range below R620 000. With the north bound development trend now firmly established in the greater Durban area, it is anticipated that this development will add to this momentum and provide people with a suitable alternative to avoid lengthy commuting." ■





# Restricting foreign land ownership



Reacting to President Jacob Zuma's State of the Nation Address restricting foreign property ownership, Seeff Chairman, Samuel Seeff says that this is more about politics than land redress.

According to Lightstone data, about 3% of all property in South Africa is owned by foreigners. Seeff questions the reasons for the foreign ownership restrictions and who will benefit from this is unclear.

He says, "It seems to just be that time of year again when the land debate regrettably turns to foreign property ownership and, rather than advance a solution to land issues, it sends the wrong message to investors and puts undue pressure on the property market."

It is not foreign visitors, but mostly those who reside here on a permanent basis that constitute the bulk of

property buying. He adds, "The fact is many foreigners sell their property each year, possibly even taking foreign buying into negative territory in real terms."

Foreigners (i.e. foreigners resident here and off-shore holiday home buyers) for example bought 456 of a total of 10 321 properties that sold across the entire Cape metro last year. This is of course where the bulk of the actual non-resident buying takes place. Even across the richest and most expensive residential real estate strip favoured by foreigners, the Atlantic Seaboard and City Bowl, only 10% of all sales were to foreigners last year.

The myth that foreigners buy the

most expensive property and pay exorbitant prices needs to be dispelled conclusively, says Seeff. While the weak currency has made our real estate attractive, foreigners, like every buyer out there, want to pay the lowest possible price.

Foreigners also bring progress. The regeneration of the old run down Cape wine farms and Cape Town's inner city development are two examples of how foreign investment has transformed the surroundings. All of this, Seeff says, brings money into the economy and creates jobs.

Finally, can you be prevented from selling your own land/property to a buyer of your choice? Will this restriction not just encourage people to circumvent the restrictions?

Given that foreigners own 3% of property, the move to restrict ownership is not about retaining prime property for South Africans, as these are already owned by South Africans nor is going to assist in the land redress.

"We would rather encourage government to engage with industry experts before making statements that do little else other than upset the market and create uncertainty. Rather restrict the sale of government owned land than interfere with the free market principles of willing buyer and willing seller."

While countries such as Australia restrict foreign ownership, many others such as the UK where about 15% of property is foreign owned is open. "Given the economic benefits of external investment, there seems to be no reason not to take the path of the latter. The converse is likely to impact negatively on the market and harm the economy," concludes Seeff.

## City's Problem Building Unit

The City of Cape Town's Problem Building Unit closed 277 cases against property owners, who do not adhere to the City's By-laws, and is making steady progress in spite of an ever growing case load. The unit was established in 2010 in an effort to deal with property owners who have abandoned properties, or have not paid rates, taxes or other services, buildings that are overcrowded and have become unsanitary or unsightly. This also includes illegally occupied property and buildings where there have received written complaints about criminal activities on the

premises, drugs and prostitution, or structurally unsound buildings that pose a threat to the safety of the general public.

In 2014, the Problem Building Unit investigated more than 1 700 complaints received from members of the public. "There was a sharp increase in the number of complaints investigated because our staff have become more experienced in interpreting and enforcing the by-laws. We are required to first engage with a property owner and provide them with an opportunity to comply before we can take further action. This is very difficult when you

cannot track them down. Some also obtain legal representation, which just frustrates our efforts even more," said the City's Mayoral Committee Member for Safety and Security, JP Smith.

The By-laws make provision for offenders to be fined up to R300 000 or imprisoned for up to three years, or both. They are also liable for the costs of rehabilitating their property. Once a building or property has been declared in terms of the by-law, a monthly tariff of R5 000 is added to the rates and services account for the property. ■



# Gauteng's housing roll out

Gauteng Premier, David Makhura in his State of the Province address said that Gauteng has remained the economic and industrial hub of South Africa and the SADC region and a significant player in Africa's rising economic fortunes. Gauteng's R1-trillion economy contributes 36% to the country's GDP, 40% of total industrial output and 60% of exports.

It is also the biggest contributor to national employment. The number of employed people grew from 2,7 million in 1995 to 4,88 million people in 2014. The province accounts for more than 10% of Africa's GDP. According to the Ernst & Young Survey (2014), Gauteng has been the most popular foreign investment destination for projects in Africa.

Despite the relative strength, Gauteng's economy has major structural problems, which mirror those of the national economy: a small domestic market and skewed income distribution; which means changing ownership patterns to bring black people into the economic mainstream.

The Central Development Corridor is anchored around the City of Joburg as the hub of finance, services, ICT and pharmaceutical industries. The Eastern Development Corridor centres on the economy of the Ekurhuleni Metro as the hub of manufacturing, logistics and transport industries. The Northern Development Corridor centres around Tshwane, the administrative capital and automotive sector hub, research, development, innovation and knowledge-based economy. The Western Corridor on the West Rand focuses on new industries, economic nodes and cities. The Southern Corridor in the Sedibeng district will focus on new industries, economic nodes and cities.

Over the next five years, more than R10 billion of public and private sector investment will be spent in the regeneration of Joburg's CBD and its financial district of Sandton. The province aims to work with national government to ensure that Johannesburg becomes the home of the BRICS regional development bank.

The City of Joburg has a plan to revitalise Kliptown and Alexandra over the next five years. And develop almost 140 000 housing units in

Diepsloot East, Fleurhof, Cosmo City, Malibongwe Ridge and Goud Rand.

Public/private sector partnerships will radically change the spatial landscape of the central corridor –

Masingita City, Reitfontein, Waterfall City, Modderfontein City and Steyn City. All these developments will have major socio-economic benefits with regard to employment and economic inclusion.

Masingita City is an integrated commercial and industrial hub. An investment by the private sector of R3 billion private will create 15 500 jobs during the construction stage and approximately 10 000 permanent jobs on completion.

Reitfontein is a complete mixed-

*'The City of Joburg has a plan to revitalise Kliptown and Alexandra over the next five years and develop almost 140 000 housing units.'*

use node with more than 8 000 proposed residential units, including commercial property, distribution and warehousing; retail and educational facilities. This investment is estimated at R20 billion and has the potential to create 17 000 jobs during the construction phase and beyond.

Waterfall City is the largest city to be built in post-apartheid South Africa. The estimated investment during construction is R71 billion with an estimated 100 000 jobs being created by the project.

The Modderfontein development will inject R84 billion into the economy of the Gauteng City Region and is expected to create 150 000 jobs over the next twenty years.

Makhura says that the City of Johannesburg has invested R6,5 billion in the Steyn City development, including the construction of a new arterial road (R511) and infrastructure for basic services. Phase 2 of the development will inject in excess of R50-billion into the economy of the Gauteng City Region.

The City of Joburg will further

expand the existing Reya Vaya Bus Rapid Transit System routes.

More than 100 000 housing units will be delivered over the next five years in areas such as Chief Albert Luthuli, John Dube Extension 2, Tsakane Extension 22, Germiston South, Leeuwpoot, Rietfontein and Clayville Extension 45. The cumulative effect and combined impact of all these public and private sector initiatives and investments will create a new economy and new spatial landscape in Ekurhuleni and generate massive employment opportunities.

The Provincial Government is supporting the City of Tshwane's initiative to reshape the City's space and economy into a new and more dynamic capital city. This

will include a student village, sport incubatory centre, retail and commercial precincts, inner city housing and health facilities.

More than 160 000 houses will be built in Hammanskraal, Winterveldt, Sterkwater, Lady Selbourne, Soutpan Phase 1 to 7, Lotus Garden, Fortwest, Capital Park, Vermeulen, Olievenhoutbosch, Nelmaphuis, Zithobeni, Kirkney and Danville.

There are plans by national government, municipalities and the private sector to revitalise mining towns. Over 160 000 housing units will be built in Syferfontein, Chief Mogale, Kagiso Extension 13, Leratong, Westonaria Borwa, Thusang, Waagterskop, Kokosi Extension 6 and 7, Droogeheuwel, Mohlakeng Extension 11, Khutsong South Extension 1, 2 and 3 and Vaarkenslaagte.

In the next five years 120 housing opportunities will be rolled out in Savanna City, Sedibeng, Boiketlong; Golden Highway; Evaton; Vereeniging, Ratanda and along the R 59 Corridor. The R40 billion Gauteng Highlands development; a mixed-use development comprising of industrial and residential space will create 25 000 jobs. ■



## R28 BN GREENFIELDS MEGA PROJECT

**B**asil Read together with the Housing Impact Fund of South Africa (HIFSA), a fund managed by Old Mutual, will be working with the national and provincial Gauteng Department of Human Settlements and the Midvaal Local Municipality and the Emfuleni Local Municipality and Sedibeng District Municipality, to ensure that the development sets a new benchmark in economic development and housing.

Savanna City is South Africa's largest privately initiated mixed-use housing development and the key stakeholders in the HIFSA includes the Development Bank of Southern Africa, Eskom, the Government Employees Pension Fund and Old Mutual.

The R28 billion greenfields mega project will roll out over a ten year period and the 1 462 ha site will provide a mix of residential housing opportunities, which will include 2 635 walk-up units, 10 246 Finance Linked Individual Subsidy Program (FLISP), fully bonded, as well as 5 517 fully subsidised units

Affordable housing developer Cosmopolitan has been selected to roll out 10 246 FLISP units and will oversee the construction, marketing and selling of the units at Savanna City.

The Midvaal project will benefit from the lessons that were learned at Cosmo City, the multi-billion pilot project north of Johannesburg, which Basil Read rolled out on behalf of national, provincial and local government. Cosmo City is often cited as

Savanna City situated south of Johannesburg's CBD in the Midvaal Local Municipality will provide over 18 399 affordable housing, retail and commercial opportunities, schools, parks, recreational facilities, and a 400 ha environmental area.

the 'blueprint' for integrated mixed residential settlements, and now Savanna City will lift the benchmark even further.

Savanna City will provide 54 900 employment opportunities during the construction period and 12 700 permanent jobs on completion. The development includes 400 ha of public open space, 16 schools, 32 institutional sites, healthcare facilities, churches, recreational and social sites and nine commercial and retail opportunities. Services and facilities are easily accessible and within walking distance. A north/south spine road links all the economic and social facilities on the same route. Transport nodes include direct access links to the Stredford Train Station and Orange Farm.

The Eyethu Mall, a 30 000m<sup>2</sup> retail shopping centre is 3km from Savanna City and this will also boost the local economy and provide work opportunities.

Cosmopolitan hosted all the major financial institutions, development finance institutions and key stakeholders at the show village in November 2014. It is clear that the public and Midvaal community are extremely excited about Savanna City and the initial 164 FLISP units were sold prior to the launch.

Construction will begin on the fully bonded units by mid-year and occupation will take place from August. Cosmopolitan aim to have the first 500 units sold before December 2015.

The Director-General of Human Settlements, Thabane Zulu officially launched the National Human Settlements Youth Brigade Program at Savanna City last December. The Youth Brigade Program will train youth teams in construction and the engineering sector. This pilot project includes theoretical training with Basil Read and practical training on site with the youth teams joining Cosmopolitan and Basil Read's construction teams for experience.

Savanna City's first corporate social initiative was a park, designed and built by members of the local community and handed over to Mayor Bongani Baloyi from the Midvaal Local Municipality. The park has been named Bapala. Children from the Lakeside Primary School inspired the design for the park and the artwork and imagery of a dream park is in line with Savanna City's vision.

Savanna City has been identified as a government priority mega project and will play a critical contribution in achieving its housing targets over the next five years. ■





## URBANISATION IN AFRICA

**A**s growing urbanisation in Africa aids economic growth - larger concentrations of people in cities create large customer bases. This promotes more efficient labour markets, reduces transport costs and increases opportunities for residential property development and ownership says Golding.

He says, "Many of the largest cities in Africa are growing rapidly, with populations increasing in African cities estimated at over 70% by 2025. Africa's mega-cities including Johannesburg, Lagos, Cairo and Luanda are the engines of its economic growth.

"With robust economic growth rates anticipated for the continent during the next decade, as well as healthy growth rates in individual wealth, Africa is expected to show the most rapid growth in new millionaires over the next decade. The number of dollar millionaires in Nigeria, Kenya and Angola is expected to more than double by 2030 - in fact, millionaires in Nigeria are forecast to increase by 174% to 3 000. This is in addition to 38 billionaires on the continent."

It is said that the number of Africans with \$30 million in assets - the ultra HNWI

According to Dr Andrew Golding from the Pam Golding Property group, "Opportunities for property investment in Africa range from large property developments in all segments of the market, from low cost housing through to exclusive villas."

(high net worth individual) is anticipated to rise by 53% to 2 858 by 2023, far outstripping the average pace of growth across the rest of the world.

"Africa's city dwellers generally earn more and spend more than their rural counterparts and the urban middle class is growing across much of the continent. African retail markets are rapidly developing, while the phenomenal growth of Africa's technology sector - along with the mobile revolution - is creating demand for office space along with multinational companies from the banking sector and companies related to the oil and gas industry."

Golding says that future prospects for Africa offer significant growth potential for those with the foresight and ability to make the most of it. "Uganda, Nigeria, Ghana and Angola are key areas that we are currently focusing on, with our strategy and emphasis on partnering with well-established local operators who either have existing property or want to capitalise on the Pam Golding

Group brand, intellectual property and experience to establish a real estate business."

In Uganda, PGP is marketing a new upmarket development at Lake Victoria, which comprises 148 villas and apartments. The secure development comprises 10 apartment blocks, each with eight units of 160 m<sup>2</sup> spread over four levels plus a 320 m<sup>2</sup> penthouse - all with spectacular scenic views over Lake Victoria, as well as 58 villas ranging from 650 m<sup>2</sup> to 900 m<sup>2</sup>. PGP Gauteng Development Manager, Peter Strauss says, "While the development is aimed at Ugandan purchasers who can acquire property outright, foreigners can transact on a leasehold basis ranging from 75 to 99 years and renewable automatically. The group has an experienced developer and team of Ugandan attorneys to assist throughout the process." ■





Its critics argue that it is simply a tax for which there is no specific reason or rationale, other than to help fill national coffers. In reality it imposes a further burden on the already onerous list of costs involved in selling and buying property.

Looking internationally, the reform of The UK's stamp duty land tax by Chancellor George Osborne is a windfall for potential home buyers in England and Wales, and is estimated to deliver savings to 98% of the lower and middle end of the residential property market. Its introduction immediately fanned the current housing boom.

According to Golding, Britons will no longer pay stamp duty on the first £125 000 (R2 250 000) of the purchase price, 2% beyond that threshold up to £250 000 (R4.5 million), 5% up to £925 000 (R16.65 million), and so on. Tax on transactions above £1.5 million (R27 million) will carry 12% tax.

Reaction to the reforms has been mixed, ranging from 'just another pre-election ploy' to 'about time; it's a bad tax – archaic and punitive'. There has also been criticism that the government is targeting the rich with a so-called 'mansion tax'.

Incidentally, in an ironic twist, Scots will not benefit. They will have their own graduated land tax system after April – and nowhere near as generous as Osborne's reforms.

By comparison, in South Africa, there is no transfer duty on the acquisition of properties below R600 000, 3% is levied on properties above R600 000 and below R1 million, R12 000 plus 5% on the value above R1 million but not exceeding R1.5 million, while properties purchased for R1.5 million and above, incur transfer duty of R37 000 plus 8% on the value above R1.5 million. Initiation and inspection fees by banks are not included but normally amounts to R5 700 payable either to the bank or to the conveyancing attorney.

In 2013, transfer duty, which is by far the largest component of the cost burden, amounted to over R8 billion. Last year, South Africa's transfer duty receipts in May (2014) were 25,7% higher than in the corresponding month in 2013. Conveyancing fees run second. They also increase in line with the purchase price – for what many buyers feel must be the same amount of work. Barbara Whittle, communications manager of the Law Society of South Africa, explains: "Risk is a factor. The money placed in trust for the transaction will be held in the attorney's trust account. Money in trust

# TRANSFER

Taxing a sale between a willing home owner and buyer is controversial in most countries in which it is levied; no less so than in South Africa, where it is termed transfer duty, says Dr Andrew Golding, Chief Executive, Pam Golding Property group.

is guaranteed by the Attorneys Fidelity Fund against theft. Also, the Attorneys' Insurance Indemnity Fund provides insurance against negligence. This is for the protection of the client as the risk and responsibility lies with the attorney."

Golding says, "Transfer duty also has some intriguing properties. It is hard to work out who actually ends up paying. Economists argue that while the money is physically paid by home buyers, it is actually home sellers who end up bearing the real cost. The reason is that transfer duty depresses selling prices. The overall market price, determined by the forces of supply and demand, includes transfer duty, so the portion of the value that remains for home sellers falls each time the tax is increased."

According to Golding, this tax has another detrimental effect; it reduces liquidity in the housing market. People who want to buy a house need to find a chunk of cash in addition to the deposit. This not only depresses prices but reduces geographical mobility, making it more difficult for people to move (eg. change jobs).

One can argue that the economic consequences are negative. By reducing growth, productivity, jobs and incomes, this in turn impacts adversely on the growth of tax receipts generated in the rest of the economy. For this reason alone, the value of transfer duty is called into question.



US economist Arthur Laffer, who sat on President Ronald Reagan's advisory board in the 80s, made his name by highlighting instances when cutting tax rates actually increased tax receipts by boosting economic activity. He drew up what became known as the Laffer Curve, which shows the relationship between tax rates and tax revenue collected by governments.

Golding concludes, "A simplified view of Laffer's theory is that tax revenues would be zero if tax rates were either 0% or 100% (at which latter point people would give up working altogether). Somewhere between is a tax rate which maximises total revenue. South Africa's Treasury is

Purchase price	Transfer Duty	Conveyancing fee	posts & petties	VAT	Deeds Office fee	Bond costs
R 650 000	R 1 500	R 11 070	R 950	R 1 726.90	R 700	R13 297.00
R 750 000	R 4 500	R 12 230	R 950	R 1 889.30	R 700	R14 642.20
R 800 000	R 6 000	R 12 230	R 950	R 1 889.30	R 700	R14 642.20
R 950 000	R 10 500	R 14 550	R 950	R 2 214.10	R 800	R17 432.60
R1 million	R 12 000	R 14 550	R 950	R 2 214.10	R 800	R17 432.60
R2 million	R 77 000	R 20 350	R 950	R 3 026.10	R 900	R24 258.60
R3 million	R 157 000	R 26 150	R 950	R 3 838.10	R 1 100	R31 334.60
R10 million	R 717 000	R 52 250	R 950	R 7 492.10	R 2 100	R62 451.60

# DUTY TAXES

struggling to raise revenues; GDP growth is slipping; the trade deficit continues to widen. The rand is crumbling. It is, admittedly, a difficult balancing act to adjust taxes before elections. Is one partial solution to slash levies which are counter-productively

high such as transfer duty? Could we dare expect a wave of Laffer-style tax cuts?" One thing is sure; doing away with transfer duty – or at least reducing it substantially - would certainly boost the housing market and ease the burden on home buyers. ■

## In summary, the following was announced in the Budget:

A 0% transfer duty rate will be charged for a property acquired for less than R750 000;

A 3% transfer duty rate will be charged for property worth between R750 001 to R1 250 000;

A 6% transfer duty will be imposed on properties bought for R1 250 001 to R1 750 000;

Properties bought for R1 750 001 to R3 million will see buyers paying 8% in transfer duty.

A transfer duty of 11% will be charged for properties bought for R3 million and above.



## Assuring Quality Homes Since 1998

The NHBRC is a statutory body whose role is to protect the interests of housing consumers and to regulate the home building industry – in line with the Housing Consumers Measures Protection Act.

Toll Free Number: 0800 200 824 / Fraud Hotline 0800 203 698 / Webpage: [www.nhbrc.gov.za](http://www.nhbrc.gov.za) / Tel: +27 11 317 0000

 @NHBRC  NHBRCSA

Assuring Quality Homes.

NATIONAL HOME BUILDERS  
**NHBRC**<sup>TM</sup>  
 REGISTRATION COUNCIL

## Investors opt for student accommodation

Ken Reynolds, Regional Executive of Nedbank Corporate Property Finance in Gauteng says that according to the Department of Higher Education in 2009 there continues to be a shortage of student housing.

This is one of the primary causes for poor performance and the high dropout rates at some universities. According to statistics from the Department, out of a student population of 530 000, there is currently only enough student accommodation for 100 000 students. This barely meets 18% of the demand and there are excellent investment opportunities available in this market.

Reynolds says, "As a result, we may see the establishment of a new REIT dedicated to providing student accommodation in the future. And, although the buy-to-let market is currently depressed, student accommodation is one sector that is proving to be an excellent buy-to-let option for private investors, usually for a relatively small capital outlay."

Nedbank Corporate Property Finance has partnered with a number of developers that are focusing specifically on addressing this critical student accommodation shortage.



Nedbank funded student accommodation specialist, CampusKey, who provided 2 000 students with accommodation.

Now Nedbank Corporate Property Finance is providing PCI Rentals through its subsidiary, JJP Varsity Lodges, with R221 million to provide 2 574 additional beds to tertiary institutions around the country, with a further 2 000 to be developed in the near future.

Accommodation provided by this funding includes:

- Meadowlands in Newcastle has 289 two bedroom units in close proximity to the newly developed Curro (Meridian) School and Majuba College.
- 1 115 beds in Riviera and Phillip

Nel Park will provide much needed accommodation to University of Pretoria, Tshwane Institute of Technology and SANDF students.

- 530 beds in Brixton and Hursthill in Johannesburg caters for the University of Johannesburg and the Helen Joseph Academic Hospital students. Of these, 270 are already occupied while the balance is under construction and due for completion in 2015.
- 450 beds in Midrand will provide accommodation to the students of the Midrand Graduate Institute (MGI).
- 190 Beds in Potchefstroom for students of The North West University and MGI.

PCI Properties, the holding company of PCI Rentals, was founded in 2007 and is a private property investment company that focuses on niche areas of the rental market including student accommodation. PCI Rental's student accommodation is managed by JJP Varsity Lodges, Managing Director and co-owner, Hansie Prinsloo, is a seasoned specialist in residential developments and student accommodation with over 25 years' experience. The company has a portfolio of over 5 000 student beds in South Africa.

Reynolds says that Nedbank is pleased to be in a position to partner with companies such as PCI Rentals to help alleviate the severe shortage of student accommodation in South Africa. "PCI Rentals, through its subsidiary JJP Varsity Lodges, has many years' experience and is one of the market leaders in student accommodation. We are proud to have provided solutions to a company that makes better infrastructure available at leading tertiary institutions." ■

## Small sectional schemes

There is often a perception that smaller sectional title schemes are easier to run and manage, says sectional title specialist, Michael Bauer. He says that in many cases the smaller schemes can be more problematic. Particularly sectional title schemes where a body corporate doesn't exist and owners do not hold meetings, AGMs, or stick to the statutory requirements of a sectional title scheme. Often in smaller schemes, there aren't enough people willing to be trustees, if any at all.

When there is conflict between owners, communication often breaks down and it can end with the matter being dragged to court or owners making up the rules as they go along. The management provisions are set out in the Sectional Titles Act and Prescribed Management Rules. While these schemes may not be in financial

distress, if one of the owner decides to sell, the prospective buyer applying for a mortgage bond would want copies of the current financial statements of the body corporate to ensure that the scheme is solvent. As often there is no resolution passed for levies because no annual general meeting was held.

Over and above levy collection, there are municipal accounts to be taken care of, insurance for the scheme, maintenance of the building, etc., and if there is no designated minimum of two trustees required to run the scheme, there might be cases where items are simply overlooked.

In many cases such as these, if the bank who has provided finance for the existing owners found that the scheme was not being run properly, they would apply for an administrator to be put in place to take over the running of the scheme. ■



# LET'S CHANGE THIS PICTURE

**SPECIAL RATES  
FOR HOUSING IN  
SOUTHERN AFRICA  
READERS!**

**EARLY BIRD RATE  
SAVES YOU R1000!**

Quote code HISA001 when registering.

✉ [malvin.kane@hypenica.com](mailto:malvin.kane@hypenica.com) ☎ +27 21 700 4300

# TO THIS PICTURE

**12 May 2015**

**Sandton Convention Centre  
SOUTH AFRICA**

**[www.housingforafrica.com](http://www.housingforafrica.com)**

DRIVING HOUSING  
**DEVELOPMENT**  
IN AFRICA

CONSTRUCTION WEEK: 11-15 MAY 2015

**AFRICAN  
CONSTRUCTION EXPO**

**TOTALLYCONCRETE  
EXPO**

**AFRICAN  
roads  
evolution**

**HOUSING  
FOR AFRICA  
CONFERENCE AND EXPO**

✉ [malvin.kane@hypenica.com](mailto:malvin.kane@hypenica.com)

☎ +27 21 700 4300

**hypenica**

# PV – FOR RESIDENTIAL AND COMMERCIAL USE

Load shedding, blackouts and power shortages are going to be part and parcel of our home and business lives

According to Teresa Kok, Director at One Energy, “Recent outages and the return of load shedding have served as a sharp reminder that we are still operating off an inadequate and unstable electricity infrastructure, and that our capacity reserves have dropped from 40% to about 6% this year.

“We have become complacent about a steadily deteriorating situation. At the same time, rapidly escalating electricity prices at the current rate are simply unsustainable and unaffordable for many. There is also growing pressure for us to adopt renewable energy as a means to lessen our impact on the environment and our reliance on fossil fuels. One of the key ways in which residential, commercial and industrial energy users are looking to ease their electricity costs as well as better secure their energy supply is through photovoltaic (PV) electricity generation.”

A rooftop photovoltaic power station, or rooftop PV system, has its electricity-generating solar panels mounted on the rooftop of a residential or commercial building or structure. Solar panels, which consist of solar cells, are exposed to sunlight or solar radiation and generate electricity which is called a photovoltaic effect. This solar power flows via cable to a device called an inverter which converts the direct current (produced from the panels) to alternating current and that power gets synchronised with the Eskom grid and allows it to be fed into the network and supplies you with electricity.

With the inverters synchronising the solar power and the Eskom grid, that power can be fed directly into your internal electrical network and save electricity.

Planning for a PV system will require an analysis of energy usage to implement energy efficiency measures, study local council codes and feed-in requirements, decide on whether to operate the system entirely off grid or use a hybrid or grid-connected solution, and then finally

select technologies and a supplier to meet these objectives.

Many clients like the appeal of a grid-tie PV system, which allows them to use PV during the daylight hours to power residential and business needs and switch to grid electricity at night. Many businesses also use PV in conjunction with other power sources like diesel generators to provide a continuous source of power.

Depending on electricity usage and size of the PV system, most will amortise their costs within five to seven years. This is the best investment to make right now to ensure power supply, productivity and reduce future escalating electricity costs.

Architects, developers and builders need to incorporate renewable energy solutions into the design from the outset. In fact, some measures are already legislated, the SANS 10400-XA: Energy Usage in Buildings, and SANS 204: Energy Efficiency in buildings requires a focused solution for areas such as water heating, whereby 50% of all hot water in new houses needs to be produced by methods other than electrical element heating.

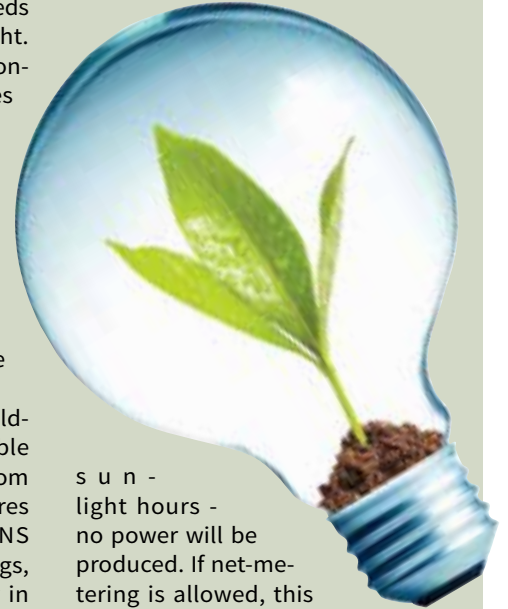
By conducting a load analysis, One Energy will record the wattage and average daily use of all of the electrical devices that are plugged into your central power source such as refrigerators, lights, televisions, PCs, power tools and machinery. Some loads, such as electric fencing, use power all the time, while others, use electricity intermittently, known as selectable loads.

Each municipality handles the connection of PV systems to the grid differently. Yet, as the price of electricity continues to increase, more municipalities are entertaining the idea of connecting solar PV systems to their grid. The words net-metering and feed-in-tariff are commonly used in conjunction with PV systems but consideration of your municipal office is required.

Each region has its own set of codes and regulations to follow to add a PV system. Take advantage of future expected changes to feed-in tariffs, which are very likely given Eskom’s supply challenges and need for grid relief.

Types of PV Connections  
System 1 is used to supplement energy

usage in the event of a blackout. The solar system is forced to shut down. Therefore, even if the outage occurs in the middle of the day during full



sun - light hours - no power will be produced. If net-metering is allowed, this type of system provides a one for one credit on the monthly electricity statement.

System 2 is commonly referred to as a hybrid system and with the correct installation will act as a UPS (uninterrupted power supply) in the event of a power outage. The PV system will charge up the batteries first and the excess production will supplement your household/ business energy needs. Many clients start with system 1 with a plan to build up to a system 2 and then add battery back-up at a later stage to build up to a system 2 configuration. The great benefit of solar PV is that it’s entirely scalable.

System 3 is useful for areas where no grid exists, the energy produced will charge up the batteries, which should allow for 72 hours and these batteries will feed the power requirements of the property.

It is important to note that adding batteries will add to the cost and therefore the systems are ranked from the least expensive to the most expensive.

There are various aspects that play a role when looking at the cost, the size/scale of the system. For a typical solar plant on average it will take between five to seven years to offset the costs, for a 25 year life span. As there are no moving parts, maintenance costs remain low. ■





## The country's energy options

**F**itzsimons says, "Power and energy supply worldwide is an extremely complex business and to simply hold up one nation's apparent solution as a one size fits all solution for South Africa is a gross oversimplification of the facts and indicates a lack of understanding of the problems these countries also face."

Comparing, for example, the UK energy supply market with our own, on the basis that both countries have similar installed power capacity and a roughly equal population. This is a dangerous comparison for a number of reasons:

- The UK's GDP is 10 times that of South Africa and their unemployment rate is 15% of South Africa's. This means that there are more people who can afford to pay for energy.
- The UK energy mix consists of 50% supplied by gas fired combined cycle gas turbines, 16% from nuclear power stations, 22% from coal fired stations and the balance from other sources.
- The UK has supply agreements and interconnections with both the French and Dutch grids who can supply a combined total of some 3GW, or more than 8% of the total, if required. Wind energy comprises 3.8% or 1.41GW of the total.
- Of the total energy consumption in the UK, gas represents close to 50% for residential and industrial heating and their climatic conditions dictates different solutions.

While many media and political commentators are quick to recommend overseas energy models for South Africa's current challenges, energy expert Paul Fitzsimons, General Manager of GIBB Consulting Engineers Power & Energy sector, warns that this is a dangerous path to tread.

Fitzsimons comments on the clamour to replace coal and nuclear power stations in favour of 'green' alternatives, but are they really alternatives? "While we would all like a world with less pollution and fewer carbon emissions, wind and solar generation cannot realistically supply base load generation."

"Germany is a good example of this, where instead of reducing its carbon footprint, it actually increased due to its dependence on coal fired stations when wind and solar generation was not sufficient to completely fill the void left by an exodus of nuclear power. In hindsight, perhaps Germany regrets its decision to phase out nuclear generating," explained Fitzsimons.

"With that, comparisons with other countries can therefore be academic at best and South Africa will have to find its own particular solution to its energy needs, which will be a mix of available technologies and sources of supply," he continued.

There is no question that the continent is in need of robust solutions to the energy problems. Ideally solutions that will place less of a reliance on coal and diesel. With this in mind, engineering has a critical role to play in developing and addressing Africa's

energy capacity. Energy solutions for this continent hinge on an integrated approach that includes engineering services amongst other skills sets. ■





## Chicago Pneumatic launches portable generators



International construction equipment manufacturer Chicago Pneumatic has launched its largest ever range of portable generators, designed to provide a safe and stable power supply for every type of worksite.



The range comes in two distinct lines. The new Pro Line includes Professional, Advanced and Advanced+ models offering powerful performance for all-day, intensive heavy-duty applications and provides different levels of functionality, depending on the needs of the user. The Standard Line contains a simple, straightforward petrol generator designed for occasional use.

Among the generators within the new Pro Line is the CPPG Professional model, designed for continuous usage and available either with a petrol or diesel engine. Users are protected by an optional Earth Leakage Relay (ELR) in both types of engine, while Automatic Voltage Regulation (AVR) is an option for the petrol-engine unit that ensures consistent electrical output.

The CPPG Advanced generator, with petrol and diesel engine options, is built for intensive all day operation. The generator benefits from more advanced features and additional protection to extend its life expectancy and safety, making it particularly well suited to the rigours of the rental market. Alongside AVR,

the CPPG Advanced model protects its users with an isometer protection and thermal protection circuit breaker, as well as incorporating an intuitive instrumentation panel, electric key start and a number of alarm and shutdown options.

Designed to a high standard, the CPPG Advanced+ generator is enclosed and soundproofed for the most demanding, dusty or heavily populated locations, as well as complying with European noise regulations. The petrol-only CPPG Standard Line, launched in 2014, is ideally suited for private and professional users who occasionally need a portable generator. Straightforward and simple, CPPG Standard generators are designed to provide stable electrical output and safe, user-friendly operation over a long service life and come equipped with large, reinforced fuel tanks, ergonomic handles and AVR.

Commenting on the launch, Product Marketing Manager for Chicago Pneumatic, Daniel Escuer, said: "By launching our widest ever range of portable generators, we believe we can offer the construction industry the best possible choice, depending

on their budget and their requirements. The models within both lines have different features but what they all have in common is reliable performance, robust build quality and simple operation to ensure users can complete their jobs quickly and effectively when on site. In this way they perfectly underline our position as a trusted partner for the construction industry globally."

Both the Standard Line and Pro Line generators have been developed through extensive field testing and reflect Chicago Pneumatic's reputation for equipment that is easy to operate and maintain. Features include user-friendly control panels and the option of an hour counter to help monitor maintenance schedules. Additionally, thanks to their simple handle design, the generators can be easily lifted or transported on wheels.

All models also feature a strong main frame with extra reinforcement around sensitive components and a protected electrical panel. Sockets are also covered and recessed for enhanced protection.

For further information go to [www.cp.com](http://www.cp.com) ■

## CURING UNATTRACTIVE CONCRETE SURFACES



Control curing is an essential process in the manufacture of concrete products, as it ensures a more aesthetically-pleasing and consistent appearance, while increasing overall durability and minimising cement usage. The largest supplier of concrete brick, block and paving machinery in Africa, Pan Mixers South Africa (PMSA) is the Southern African distributor for German-based Kraft Curing Solutions. The European company manufactures customised thermal-dynamic and accelerated concrete curing equipment for precast concrete production.

PMSA Sales and Marketing Manager Quintin Booyesen notes that the company directly imports a Kraft kit, which is assembled by PMSA appointed sub-contractors using local insulation and ducting materials.

“This agreement does not only makes the equipment more affordable for local precast concrete producers, but also creates new jobs and stimulates the local economy,” he explains.

Having designed and installed more than 650 concrete curing systems in 56 countries, Kraft Managing Director Michael Kraft says that the company is dedicated to making these products stronger, more durable and more aesthetically pleasing while saving the producers time and money.

“By making use of control curing, concrete products will result in less efflorescence and a brighter colour, which will also appear more consistent through secondary processing equipment. This method can result in a reduction of cement costs by 10%, as well as a decrease in pigment content. Control curing also makes the concrete product more durable,” he states.

Kraft adds that, through the control curing process, the concrete will become more resistant to freeze thaw forces, and will also have a higher resistance to abrasion and chloride penetration. “The corners and edges of the product will also be stronger, which will result in less chipping.”

Through their partnership, PMSA and Kraft aim to provide the local market with high-quality equipment that is complemented by a value-added and comprehensive service offering. “The Southern African market is ready for this evolution in precast concrete manufacture, and we are prepared to support them with value-added initiatives such as this,” he says. ■



**PLANT HIRE, EARTHWORKS,  
CIVILS, QUARRYING & CRUSHING**

[www.renicoplant.co.za](http://www.renicoplant.co.za)

March 2015

**HOUSING**  
in Southern Africa





## Joburg's 'soapie' studios

Leading piling company, Gauteng Piling, recently completed the sinking of 91 auger cast piles to form the foundations for the Sasani Studios soapie complex.

Sasani Studios has produced a number of local soapies and major reality shows, including Ego!, Scandal, Rhythm City and Big Brother Africa amongst others. Sasani management appointed Gauteng Piling to oversee the foundations for the new double storey studio complex being built by the main contractor, Chakita Construction.

Keo Lekutu, Gauteng Piling's Site Manager for the project, says that the new studio complex will be used for the filming of a high-profile TV reality show and will accommodate change rooms, wardrobe area, stages and control rooms.

Gauteng Piling provided 91 auger cast piles in a period of two and a half weeks. The depth of the piles ranged from 7 m to 12 m, and from 450 mm to 950 mm in diameter.

From previous experience on the site the company knew what to expect from the soil conditions on site. The soil quality was generally good but there were old foundations on part of the site. The heavy summer rains also flooded the site's lower platform and the main contractor had to import and compact material



to make the site more workable," says Lekutu. Two Williams rigs, a Williams LDH digger with 5.5t-m torque - which has for long been the benchmark for auger cast machines in the piling industry - and a Williams LLDH machine with 8.8t-m torque were used on site.

An auger cast pile is formed by drilling a hole into the ground, placing steel reinforcement and then

filling with concrete. Auger cast piles cause minimal disturbance and are often used for noise and environmentally sensitive sites.

The company has completed over 1 500 projects and its current fleet consists of 20 auger drilling machines, two cranes, two bore rigs, four Grundo hammers and two lateral support machines. ■

## Terraforce's new licensee

Moorcrofts, a wet cast concrete specialist, is the latest Terraforce licensee in Clarens, in the Free State.

Tim Moorcroft from Moorcrofts signed a deal with Terraforce to produce hard-lawn pavers with durable mould boxes made of UV stabilised LLDPE (polyethylene). Moorcroft felt that the blocks and the method of manufacture would fit in perfectly with his existing business model.

The deal was signed last October and production commenced in December. Since then Moorcrofts have supplied and installed 1 000 Terracrete blocks to local businesses.

The Clarens company also provided 2 000 Terracrete blocks and reinforcing for the driveway of a local guest house. With tight timelines and stock challenges over the traditional holiday period for the construction sector, Moorcrofts met the deadlines. Situated in the Drakensberg foothills, the village of Clarens boasts a permanent population of 750 to 800 people and at weekends this escalates to 2 500 people.

The bottom line is that the supplier's enthusiasm and that little bit of extra effort has paid off and now there is a lot of interest from local residents and businesses. ■



# Sarma warns of overpriced concrete training

Supposed top-flight, high-priced concrete training workshops that are being actively marketed to the concrete industry are often not worth the paper they are written on, according to General Manager of the Southern Africa Readymix Association (Sarma), Johan van Wyk.

**H**e says, "Although not illegal, the type of information being presented may be counter-productive or even harmful to the industry and can have a negative effect on the quality of concrete produced in future."

A personalised email invitation recently pricked the curiosity of Johan van Wyk, who found several inaccuracies in the marketing material he had been sent and as a result decided to investigate further.

Upon closer investigation, the workshop, offered by a foreign media house operating from Randburg, was found to be using the names of at least two well-known professionals, who had not even heard of the planned workshop. In addition the course claimed to offer continuing professional development (CPD) points through a professional institution, which was incorrect. Van Wyk says that information was clearly designed for cold climates – they however still continue to market this workshop.

"We suggest that instead of spending money on seemingly impressive, well-marketed courses, we advise to first check with the industry body that represents their sector."

In addition, professional bodies such as Sarma, provide industry specific workshops on a wide range of topics annually. Requests can also be made for workshops to be organised and may be hosted by either the association, or by an accredited training provider. The workshops are affordable as they are not driven by profit and attendance.

South Africa has some of the world's most accomplished concrete professionals and local industry bodies and training authorities have a wealth of expertise (and experience) to call upon when compiling local training programs and schedules. They also understand our conditions, by-laws, standards and best practices better than anyone else. "Sarma is 100% behind bringing new technologies and expertise from abroad to South Africa, but would like to caution the industry against forking out money to just anyone who happens to offer a workshop." For further information, contact Sarma on 011 791 3327, or email: [johan@sarma.co.za](mailto:johan@sarma.co.za) or go to [www.sarma.co.za](http://www.sarma.co.za) ■



## Infrastructure

Readymix concrete is the most versatile construction material on earth.

Make sure you purchase yours from a quality assured Sarma-certified plant.

**Insist on Sarma accredited readymix on your site!**

**Sarma, uplifting the concrete readymix industry for you**



[office@sarma.co.za](mailto:office@sarma.co.za)

Find a plant: [www.sarma.co.za](http://www.sarma.co.za)

# CONCRETE STRIVES FOR



The Murray & Roberts Group is pioneering the latest developments in concrete technology in its ongoing effort to become a carbon neutral construction company. Research initiatives in this regard include the long-term testing of geopolymers at Transnet's City Deep Container Terminal in Johannesburg, a contract undertaken by Murray & Roberts Infrastructure for client Transnet Capital Projects.

The company's Group Concrete & Research Manager, Cyril Attwell says, "We have been able to carry out an enormous amount of testing on these slabs. The latest strengths achieved are 75 MPa to 85 MPa after about nine to 12 months since installation. Essentially what we are doing is conducting trials for future applications of geopolymers concrete."

Characteristics being investigated include durability and abrasion resistance. "The abrasion resistance is far higher than that of normal concrete because it does not use water as its critical mass," Attwell explains that geopolymers concrete refers to alkali-activated material. "The production of geopolymers concrete in civil construction projects is fairly recent."

Murray & Roberts is also looking at the application of geopolymers con-

crete in mine infrastructure, with a current trial taking place at the Matla Brine Ponds project.

"Infrastructure is a major focus as this needs concrete that is highly durable and versatile. However, one of the biggest potential applications of geopolymers concrete is for the control of nuclear radiation."

Attwell points to research conducted at the University of Sheffield in the UK, whereby geopolymers concrete was used to effectively neutralise the highly radioactive casings of nuclear fuel rods by essentially binding the radioactive substances within the concrete material itself. This renders geopolymers concrete highly suitable for South Africa's estimated R1 trillion nuclear-build programme.

Another sustainability feature of the City Deep project was Transnet Capital Projects' stipulation that the

company had to recycle the old concrete from the site. About 86% of the old worn concrete pavements were broken up and reused, amounting to 123 840 m<sup>3</sup> of the total 144 000 m<sup>3</sup> of concrete. This far exceeded the client's original requirement.

"Transnet is a forward-thinking client, as shown by the fact that we were able to install geopolymers test slabs. Due to the success of the project, the client is now excited about the process going forward, as it is looking actively at other projects where the use of concrete is limited."

A particular environmental benefit of geopolymers concrete is that it does not require water for the curing process. "Water is a scarce resource, and its use is likely to become very constrained in the construction industry in the near future. We are currently designing a geopolymers concrete that can be cured by utilising carbon dioxide, with the added benefit of this material acting as a carbon sink as it traps the carbon dioxide in the geopolymers form. This means the concrete becomes much stronger far more quickly," says Attwell.

Other research initiatives include the development of a 'coral concrete' for marine environments. "We are looking at applying an electro chemical process to our marine concrete



# CARBON NEUTRAL STATUS



optimisation of the arrangement of atoms and molecules in a solid and amorphous state with concrete. "At present Murray & Roberts is the only construction company applying ARC technology on a regular basis," says Attwell.

By using ARC technology we cross-polymerise aggregate with the waste binders used in geopolymer technology at room temperature while absorbing carbon to form a protective membrane due to the surface tension chemistry reducing the shrinkage and causing a curing membrane which forms automatically.

The particular difference in the South African context is a re-engineered silicate blend and a chemical design methodology that reduces the activator requirement from about 200 litres per  $m^3$  to 20 litres per  $m^3$ , as used at the City Deep project.

"This reduces the normal shrinkage experienced with geopolymer technology from 1% to 0.025% and reducing the requirement for heating during curing," concludes Attwell. ■

that removes carbon dioxide from the ocean and binds it with calcium oxide to form calcium carbonate or coral around any concrete structures. The growth achieved is about 5 cm a

year, which works well to protect such structures against mechanical wave action and corrosion." Another focus area is Advanced Re-Crystallisation (ARC) technology, which refers to the

## MEET US AT:

**BUILDEXPO  
NAIROBI KENIA**  
2-4 MAY 2015  
BOOTH A111

**TOTALLY CONCRETE  
JOHANNESBURG**  
11-13 MAY 2015  
BOOTH 318

**weiler**

CONSULTATION, ENGINEERING & MACHINERY FOR THE PRECAST CONCRETE INDUSTRY

## TURNKEY PRECAST CONCRETE PLANTS

Floors, walls, columns, girders, beams, stairs, piles, posts, lintels, ...



### The PREMIUM SUPPLIER of the PRECAST CONCRETE INDUSTRY

- machines & equipments
- competent engineering
- high German quality
- modern technology
- individual solutions
- after sales service
- over 60 years experience
- worldwide acting



**weiler. 60 years  
made in Germany  
1954 - 2014**



# WATERPROOF PLASTER

A wide variety of products supplied by Chryso Southern Africa were used for the construction of the Vodacom Business Data Centre in Midrand. It has been built in line with Vodacom's green philosophy and designed to have minimal impact on the environment.

**C**hryso and Concrete Testing Services provided technical support to the principal contractor, Aveng Grinaker-LTA on waterproofed plaster. "The most common defect experienced by contractors on

site is usually the plaster. Vodacom requested a waterproof plaster in order to prevent the possibility of tiles falling off the façade due to water ingress. For consistency and quality purposes, Aveng Grinaker-LTA chose to use waterproofed plaster for the entire building including the façades," says Rob Muirhead, Contracts Manager at Aveng Grinaker-LTA.

According to Muirhead, locating the correct sand for the plaster mix was vitally important. "After a few trials and a lot of research, it was decided to use washed Vaal River sand. "The cleaner the sand, the better the plaster; the Vaal River sand contained less clay and had a sufficient amount of fines to assist in preventing plastic shrinkage cracks."

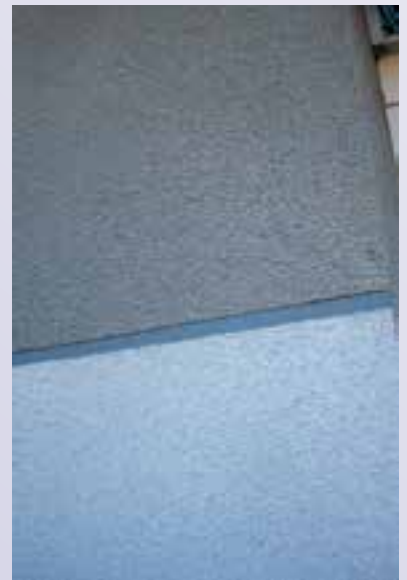
The plaster was mechanically mixed to ensure the better dispersion of the Chryso admixtures and fibres as well as the sand. The following products were used:

- A Chryso Plastisicer was part of the mix for all concrete work, including plasters and mortars. The admixture strongly disperses the fine particles in concrete to produce fluid, cohesive concrete with a low water-to-cement ratio.
- Chryso Mortar Plasticiser, a chloride-free admixture which entrains air to enhance durability, and improves cohesion and workability of the concrete mix. It makes the mix easy to plaster.
- Chryso Fibre Plus was added to the mix used for plaster work to help reduce early age plastic shrinkage and settlement cracking. It also prevents the segregation of fine cement and sand particles which causes bleeding. By helping to re-

duce bleeding, there is more water available for the hydration process which improves bonding within the cement matrix. The product also improves the long-term durability and surface properties of the concrete.

- Chryso CIM helped in the bonding of the plaster to the wall surfaces. The bonding agent increases mortar plasticity, cohesion and adherence, and also improves tensile strength, abrasion resistance, and impact strength and acts as a curing aid.
- Chryso Fuge B was used for the high standards of waterproofing specified by the client. The product blocks the pores in the plaster and ensures that mortar and concrete are highly resistant to capillary action.
- Chryso Stab was used for enhancing the workability retention of the plaster. The admixture has a built-in stabiliser that allows retardation of up to eight hours.
- Chryso Cure Acrylic water-based emulsion concrete curing compound was used by Aveng Grinaker-LTA to achieve economical, efficient plaster curing.

The 3 000 m<sup>2</sup> energy efficient data centre houses virtual private servers, dedicated servers, managing hosting, and data back-up among its host of facilities, and a massive cooling plant. The professional team played a pivotal role in designing, co-ordinating and constructing a building that can fit the vast amount of mechanical and electrical work into a confined space and still make the building aesthetically pleasing," concludes Muirhead. ■



# weiler's slip former plant for prestressed foundation piles

Khmelnizkzalisobeton (KHM), a Ukrainian construction company, produces hollow core slabs using a Finnish extruder production line and reinforced foundation piles made of wet-cast concrete in molds. To meet the increased demand for 4 000 foundation piles required for each project, the existing production method could no longer meet the requirements for high capacity production while respecting design tolerances.



The Ukrainian company opted for a customised tailor made solution from weiler. A team of engineers from weiler designed and installed the new weiler Multi-caster line into a 24 x 100 m of floor space.

The production line consists of six steel casting beds, each 96 m long, foundation piles and lintels are being slip-formed continuously, using the new weiler Multi-caster with three quick-exchange cartridges.

After only eight hours curing time the products are cut to the required lengths with a high performing weiler concrete saw. After lifting of the cut elements, the production beds are cleaned with an LPG motor driven weiler 'weasel' – this machine also sprays demoulding oil and pulls prestressing wire.

KHM required a daily capacity of 1 000 linear metres of foundations with cross sections of 30 x 30 and 35 x 35 cm lengths of up to 18 m. Production targets surpassed expectations and KHM took over the plant, ready for operation.

Today, with only eight operators up to 1 700 linear metres of foundation piles are being produced in a single shift operation.

Shorter curing times, significant material savings, substantially higher performing final product, reduced steel content, minimised the quantity of cement – approximately 200 kg cement less per m<sup>3</sup> of concrete, which meant a saving of €2 500 per day.

"The new production line is paying off," said KHM's Production Chief. ■



L13, L18, L22



Terrafix



Terracrete



4x4 Multi



L11, L12, L15, L16

# GO GREEN

From the word

# GO

we chose the right

# COLOUR



Find a supplier

[www.terraforce.com](http://www.terraforce.com)

Tel: 021 465 1907





## ELEMATIC SA DOUBLES ITS CAPACITY

**E**lematic South Africa (ESA) is doubling its output capacity with the construction of a second manufacturing plant. The company currently has 8 x 120 m long extruder beds in its existing factory, plus a further eight with the construction of the new factory, which will bring the total to 16. The new plant is expected to be ready for production in early 2015.

According to Craig Webber, Director at ESA, the expansion is due to high demand for the company's products. "Over the years property developers and building contractors have seen the benefits of using precast concrete floor slabs and demand has been surging."

He explains that the product is becoming more widely used as it is known to save time and money during the construction process. "On top of that, we have always aimed to provide a good and reliable service to our customers."

This has not only secured the company word of mouth business, but many repeat clients as well. ESA has been manufacturing precast hollow-core concrete slabs at its manufacturing plant on Gauteng's East Rand since 2007, using internationally respected precast technology. "The extrusion methods we use are known

in the industry to produce the best quality hollow core slabs," Webber adds. Elematic is a well-known international brand established in Finland in 1959. The company operates in 100 countries on six continents. Elematic South Africa's production facility is ISO 9001 certified and all its products carry the SABS mark of quality.

It is a testament to ESA's high quality products and superior service that the company has continued to grow despite difficult economic circumstances. Recession struck South Africa just a year after the company started operating. It has however managed to grow its market share steadily and demand is at an all-time high. "Our intention from the outset was always to grow the market and we certainly believe that we've done that. It is always healthy to have competition in the market," says Webber.

ESA now supplies slabs to customers throughout South Africa and beyond its borders. Slabs are available in thicknesses of 120 mm, 150 mm, 200 mm and 250 mm. In order to ensure that the expanded production line will have minimal delays, it is important to have a reliable supply of raw materials. To ensure a long term reliable supply of aggregate, Elematic's holding company acquired Atoll Mining, a dolomite quarry situated

about 500 metres from the company's main factory.

Apart from ensuring a reliable aggregate supply, additional benefits are the high quality and consistency of the aggregates supplied by Atoll. "The quality of the 'classified sand' produced by Atoll using air separation technology from the USA is of particular importance to Elematic in the manufacturing process. The classified sand has a very defined and controlled 'cut point' due to the sand being classified in a dry process. The use of this dry classified sand dramatically reduces the water demand in the batching plant and produces a very constant high strength concrete," explains Webber.

Hollow core concrete slabs continue to grow in popularity as construction timelines are pressurised and contractors require reliable solutions. Customers can be assured that all ESA's products are manufactured in a controlled environment, to the highest standards and finishes. The products also have a degree of environmental friendliness – their acoustic and thermal properties are better than those of a solid slab, and conform to the new, more stringent requirements in the building regulations for these properties. The slabs can also be recycled. ■



## CENTRAL DEVELOPMENTS OPTS FOR ECHO SLABS



The Echo Group has supplied precast concrete hollow-core slabs for the construction of upper-level flooring in multi-storey apartment blocks at two Gauteng retirement villages, Featherbrooke Hills Retirement Village and Olivedale Retirement Village.

The villages were developed and form part of Central Developments Projects (CDP) portfolio. The company's in-house building contractor division has completed six retirement villages during the past five years and another four are currently under construction. This includes Olivedale, which is due for final completion in the first quarter of 2015.

CDP Operational Manager, Wouter Brouwer says that hollow-core slabs have been used in all its retirement village projects.

"We've been working together with Echo Group Projects Director, Danie Esterhuizen, for the past 10 years and use hollow-core slab technology whenever we can as it shortens the overall construction time on our projects by up to 12% and saves approximately 20% in costs. Besides the retirement village we also use slabs on our other multi-storey developments such as high-rise rental blocks in secure complexes," says Brouwer.

He goes on to explain that all the retirement villages comprise a combination of low-density free-standing housing and high-density multi-storey apartment blocks. Both

Featherbrooke Hills and Olivedale comprise six high-density blocks and other amenities. Featherbrooke Hills offers 222 one and two-bedroom apartments and Olivedale 225. Units vary between 40 m<sup>2</sup> - 45 m<sup>2</sup> for the one-bedroom units and 61 m<sup>2</sup> - 70 m<sup>2</sup> for the two-bedroom units.

Featherbrooke Hills has a service centre and Olivedale includes frail care units, shops, consulting room and a multi-purpose centre.

The size of the apartments made them ideal for slab utilisation and Echo supplied reinforced hollow-core precast in different sizes. Brouwer said reinforced precast slabs were the preferred option as they were more economical than the prestressed alternative for this type of short-span application.

"Another plus for reinforced precast slabs is availability, which makes it easy to incorporate last-minute design changes."

"To facilitate the use of reinforced slabs at Olivedale, the engineer, Wim van Straaten from Pro North Consultants, designed the internal walls of the ground floor apartments with foundations. This meant they were load-bearing and could support the weight of the upper slabs and internal



walls." CDP Contracts Manager, Johan Badenhorst said that he particularly liked Echo's slabs superb finishes. "We were able to paint them without any skimming. Moreover, Echo also cut out small sections on some of the slabs to accommodate our service ducting in the passage areas. We also liked the fact that the top sides of the slabs were cast with rough finishes which made for good bonding surfaces for our screeds."

Esterhuizen says that Echo prefers to get involved with hollow-core slab projects at the design and pre-planning stages as it enables the company to offer a total slab-design installation solution.

Echo Group Marketing Director, Melinda Esterhuizen, advises that the success of any slab project essentially rests on pre-planning and Echo's involvement in the early stages often yields savings for the developers. ■



## REDUCING THE RISK

**A**urecon South Africa's Operational and Project Risk Management team won the award for 'Best Risk Consultancy' at the 2014 annual Institute of Risk Management South Africa (IRMSA) Awards. According to Simon van Wyk from Aurecon, "This achievement highlights Aurecon's aptitude for providing in-depth solutions to the complex project risks that our clients face."

There are a number of risks, including disaster risk, financial risk, environmental risk and operational risk, that need to be assessed and managed before a project can commence, and none of these risks should be viewed in a 'silo'.

Several of Aurecon's clients have been factoring risk assessment and management into their project costs during the concept phase of projects for many years. Working with 'risk mature' clients gives risk consultants the advantage of not having to justify methodologies and with what might appear to be 'over-analysis' of project risks. With clients who have not worked with risk management consultants, the risk assessment pro-

cess is not always the easiest learning curve. "The nature of risk management is an in-depth analysis to inform decision-making and ensuring that our clients understand the outputs of these robust and detailed analysis methodologies is paramount."

Aurecon uses several methodologies and tools that are globally accepted to assess and evaluate potential risks. For sizeable CAPEX projects, this is centred on determining the potential likelihood, consequence and predicted cost that risk may pose to a project's success viz. planning appropriate contingency within the allocated CAPEX budget.

"Many clients operate in environments that change at a quick pace and one of the key challenges that a risk management solution needs to address is the level of uncertainty that clients face," says van Wyk.

He points out that instead of seeing risk management as a 'nice to have' on projects, an increasing

number of clients realise that not only their projects, but their entire business philosophy, needs to be risk averse. In light of this, businesses are adopting a risk-centric business philosophy which entails proactive measures to harness opportunities through sound principles of risk management.

*'Partnering with an experienced risk consultant is key to ensuring a project's success,'*

"Instead of hoping for the best, leading companies know that they need to measure their risks in each phase of the project life cycle. This type

of preparation leads to progressive and informed decision-making," adds van Wyk.

"All of the standards, systems and techniques can be in place, but without the years of experience in risk management, none of these will add the kind of value that a client needs from an internationally leading risk management team. Partnering with an experienced risk consultant is key to ensuring a project succeeds," concludes van Wyk. ■





## GEARED FOR GROWTH



Craig Irvine

Tile Africa Contracts, the commercial division of Tile Africa is set to grow substantially over the next five years as it expands its supply and fit offering due to a demand from existing and new customers.

cally manufactured products helps us to remain competitive," he says.

With almost 30 consultants and specifiers servicing clients nationally and procuring additional sub-contractors and giving them the necessary training to lay the foundation for growth. National corporate customers such as Pick n Pay, Spar, Mr Price and Famous Brands continue their relationship with the company and new customers include Pizza Hut and Domino's Pizza.

Tile Africa contracts recently supplied 10 100m<sup>2</sup> of tiles to the Maskam Mall in Vredendal; 7 500 m<sup>2</sup> to Mr Price's Boksburg flagship store; and the refurbishment of the dormitories at the North West University's Potchefstroom campus.

The company works closely with the in-house designers of their corporate customers. "We marry the product with the concept and the technical aspects of the specification in mind to make sure that what we supply is aesthetically pleasing and that the product is suited for the project in terms of traffic and durability,"

he says. The food and beverage sector remains the company's biggest customer followed by retail, as well as provincial and private hospitals. The De Aar hospital refurbishment is one of the major projects in 2015.

While almost 60% of the company's commercial work is in Gauteng, followed by the Western Cape, it is set to expand into Zambia and Ghana in the near future. "Our expertise, national footprint, strategic distribution centres and stock holding in well-placed areas add value to our customers. The expansion of our supply and fit offering will strengthen our position as a leading supplier of tile and flooring solutions to the commercial market," says Irvine.

For more information on Tile Africa Contracts visit [www.tileafrica.co.za](http://www.tileafrica.co.za) or call 011 979 0327. ■

Its supply and fit offering permits the company to not only source and supply products, but to also install them. "The development of our supply and fit offering will allow us to provide a total solutions offering to our customers and this move will give us a competitive edge," says Craig Irvine, Commercial Operations Executive for Tile Africa's commercial division.

Tile Africa Contracts has direct access to locally manufactured products through its sister companies TAL and Johnson Tiles. "The exchange rate is still an obstacle for us when it comes to importing products from overseas suppliers, but procuring lo-

# Self-levelling joint sealer



A special self-levelling silicone joint sealant supplied by a.b.e. Construction Chemicals was specified for the repair of the 'Delta' apron at the O R Tambo International Airport in Johannesburg.

a.b.e. Construction Chemicals forms part of the Chryso Southern Africa Group and according to Samantha Ferreira, Sales and Segment Manager: Silicones, Sealants & Specialist Adhesives, Dow Corning 890 SL self-levelling joint sealant was applied to several thousand linear metres of damaged joints on the OR Tambo apron by concrete repair and refurbishment specialists, MBR.

"Dow Corning 890 SL sealant's self-levelling characteristics make it ideal for sealing irregularly shaped joints and cracks by providing adequate adhesion to the interfaces, without the need for tooling. The sealant can withstand the joint opening twice its width and closing to half its width, without adhesion loss. It requires

no primer to bond to both concrete and asphalt. The sealant provides outstanding long-term performance in airport, bridge or highway joints in which extreme movement occurs. It is also jet fuel resistant, an important factor for this OR Tambo apron project," Ferreira adds.

Unlike organic sealants, Dow Corning 890 SL silicone rubber is unaffected by sunlight, rain, frost, ozone or temperature extremes. "Most organic sealants stiffen in cold temperatures and soften in hot weather. Organics can furthermore degrade and crack, particularly in the Highveld's searing heat. Dow Corning 890 SL is also easy to apply. It is a one-component sealant that is cold-applied, directly from a bulk container into the joint, either by hand or air-powered pump – and it has an exceptionally fast curing rate," Ferreira adds.

The sealant has in recent years

been extensively used for airport joint repairs including airports such as King Shaka International Airport in Durban, Sir Seretse Khama International Airport in Gaborone, King Mswati 111 International Airport in Swaziland, Polokwane Airport and Fireblade Aviation's VIP charter flight section at O.R. Tambo.

"The sealant has also been widely applied for repairing joints in concrete roads," says Ferreira.

Applicator, MBR, is a Dow Corning Specialist-approved Quality Bond member. Dow Corning's Quality Bond system ensures that all Quality Bond members are fully trained and certified annually. As a specialist-approved Quality Bond member, MBR's application of Dow Corning sealants carry a 5-year labour warranty, while the joint sealant itself has a 15-year crack, craze crumble warranty issued by Dow Corning. ■



# SAPPMA calls for industry participation

The Southern African Plastic Pipe Manufacturers' Association (SAPPMA) is inviting industry participation in its 7th Pipe Quality Survey, by calling on companies to submit HDPE pipe samples for selective quality testing by an independent laboratory.

According to SAPPMA Chairman, Jan Venter, "The plastics piping business is a strategic industry where hardware needs to be reliable for extended periods of time. Long term product quality is fundamental and we therefore need to ensure that the plastic pipes being installed are manufactured to industry standards and endure for a minimum period of 50 years."

The Association represents more than 80% of plastic pipe manufacturers and launched its first Pipe Quality Survey in 2011. Samples were tested for product quality and consistency.

"We have repeated this survey at regular intervals over the past four years, by purchasing a number of HDPE pipes bearing the SABS mark of quality from merchants around the country. Despite our efforts, we still receive queries from our members or installers regarding questionable or sub-standard pipes that are used

in projects. Therefore, we are inviting pipe manufacturers, installers, merchants, contractors, consulting engineers, and any other stakeholders to submit pipes – whether it be their own or their competitors' product - for SANS Standards testing by an independent body," says Venter.

Sample submissions can be made anonymously, although all information about individuals or companies submitting products for testing will be kept in the strictest confidence.

The samples of the pipes must be delivered to SAPPMA's offices, Plastics SA Building, 18 Gazelle Avenue, Corporate Park South, Midrand) by April 30, 2015. The HDPE pipes should preferably be 110 mm in diameter and the sample length a minimum of 100 mm. Pipes must be clearly marked and should contain all the information that is normally printed on the pipes. Testing will begin in May and test results are expected to be



released by July 2015. A report will provide a consolidated summary of the test findings.

"SAPPMA strongly supports the South African Bureau of Standards (SABS) as custodian of the National Product Standards. It is our vision to create absolute quality, trust and integrity throughout the value chain of the Southern African Plastics Pipe Industry. To this end, we will continue in our efforts to weed out inferior quality plastic piping systems," says Venter. For further information about SAPPMA and its technical standards or survey results, email [admin@sappma.co.za](mailto:admin@sappma.co.za) or visit [www.sappma.co.za](http://www.sappma.co.za) ■

## Building Connections



All the construction project information  
you need in one place, anytime, anywhere

[www.databuild.co.za](http://www.databuild.co.za) | [hello@databuild.co.za](mailto:hello@databuild.co.za) | 086 08 9999



## SAPITI's new manager

The SA Paint Manufacturing Association's training institute (SAPITI) has appointed Pogiso Matlala as Training and Development Manager. His duties will include planning, developing, promotion and co-ordination of the institute's accredited training programmes for the coatings industry.

Deryck Spence, Executive Director of SAPMA says, "Matlala has been engaged to promote a culture of training and upliftment within the South African coatings sector." Spence added, "Pogiso will head SAPMA and SAPITI's interaction with government organisations such as the Chemical Industry Education and Training Authority (CHIETA); assist SAPMA members in developing Work Skills Development

Plans to qualify for training grants; represent SAPMA on training and development committees and forums as well as employer associations; and develop and maintain a computerised student registration process. This will be an extremely important year for SAPITI and Pogiso will play a key role in the growth planned for our training institute."

Prior to his appointment, Matlala was responsible for Human Resources at StonCor Africa. He holds various tertiary education diplomas including Business Information Technology, Business Management, Finance for Non-Financial Managers, Managing for Results, and Introduction to Psychometric Assessments. He is also a registered assessor and moderator. ■



Pogiso Matlala

## Sustainability – Africa's top power agenda

POWER-GEN 2015's advisory board has identified integration of renewable energy into the traditional power ecosystem, universal access to power and funding and sustainability, as key issues to address at Africa's premier power sector event.

The integration of renewable energy into the traditional power ecosystem, universal access to power and funding and sustainability issues are among the top challenges facing sub-Saharan Africa's power generation sector in the short term.

This emerged during a meeting of an expert Advisory Board to assess the most crucial issues facing the sector at POWER-GEN Africa 2015 to be held in Cape Town during July 2015.

The Advisory Board includes academics, industry body representatives and experts from a number of African countries, with organisations such as the National Energy Regulator of South Africa (NERSA), the Southern African Alternative Energy Association (SAAEA), Eskom, Renewable Energy and Energy Efficiency Partnership (REEEP), the Lesotho Highlands Water Commission and CEFA Tanzania among its members.

Nigel Blackaby, POWER-GEN Africa Event Director & Conference Director for PennWell's International Power Group, said that across Africa, regulators and utilities were facing similar

challenges in terms of sustainability and service delivery.

The Advisory Board has assessed abstracts submitted and noted that a number of key themes were coming to the fore. One such theme was funding and investment, they said. With Africa seen as potentially the next big market for independent power producers, questions are arising around regulation, best practice and funding models. They noted that in some regions, a cost versus standards debate was emerging as foreign developers entered the African market.

Renewable energy is also emerging as a top strategic issue as questions arise around the regulatory environment, integration models and pricing structures. Investors are increasingly looking to projects in Africa, such as the recently-opened 96 megawatt (MW) photovoltaic (PV) Jasper Solar Plant near Kimberley, developed by a consortium including Google, and the 160 MW Nour 1 thermo-solar plant set to go live in Morocco next year.

Meeting growing power demand

through strategies such as the liberalisation of markets, government grants and international development initiatives; as well as new models for controlling the cost of power generation, are also important issues the sector is facing.

The event will take place on July 15-17 at the Cape Town International Convention Centre, Cape Town. The theme 'Emerging Opportunities in the World's Fastest Growing Continent' will be hosted by the PennWell Corporation. ■

# HOUSING

in Southern Africa

## Our Next Issue

Bathrooms, Kitchens & Plumbing,  
Bricks & Paving, Energy Efficiency,  
Green Building & IBTs

To advertise contact Brenda  
Grossmann on 011 622 4770 or email  
brendag@crown.co.za



HOUSING  
in Southern Africa

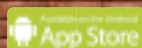
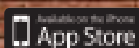


This home  
not only uses  
our bricks,  
it also uses  
less energy.

By regulating the internal temperature during winter and summer and enhancing thermal performance, Corobrik's clay face bricks reduce total energy consumed by the building throughout its lifecycle. Nature will thank you for choosing our eco-conscious building materials.

To find out more about our products and processes, visit [www.corobrik.co.za](http://www.corobrik.co.za)

Download our free, easy to use app & find us on Facebook.



# YOU CAN HUFF AND PUFF BUT YOU WON'T BLOW OUR ROOFS DOWN!



## KLIP-TITE - ONLY FROM GRS

Developed through continuous in-house testing of existing products, where it was realised that failure is normally caused by the sheet unclipping from the fixing clip, during high wind uplift pressure.

- Transverse stiffeners introduced in the trough of the sheet to achieve a balanced system design and even higher wind uplift resistance.
- The deflection of the pan is reduced, increasing the wind uplift resistance of the sheet.
- Transverse stiffeners are a first in the South African sheeting market.
- Offers improved wind uplift resistance results compared to other traditional clipping systems and more difficult to remove
- The ultimate wind uplift resistance of Klip-Tite exceeded expectations

Talk to us, **The Smart Roof People** on 011 898 2900 or visit [www.globalroofs.co.za](http://www.globalroofs.co.za) or email [info@globalroofs.co.za](mailto:info@globalroofs.co.za)

