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Upmarket developments demand quality finishes and this has been no different at the No 3 Silo, No 4 Silo and No 5 Silo projects at the V&A Waterfront's Silo district in Cape Town, Western Cape. AfriSam is supplying 9 800 m³ of readymix concrete to the No 3, 4 and 5 Silo projects. AfriSam's scope of supply to these developments includes standard and special readymix concrete mixes.

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EDITOR'S COMMENT



The last month has been an interesting time for the South African construction industry with the announcement by Murray & Roberts (M&R) that it is exiting the infrastructure and building markets in South Africa and the vastly mixed annual results from three of SA's listed companies (Aveng, Group Five and WBHO).

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To start with the almost unthinkable: M&R. After years of stagnation in the infrastructure and building markets, the company has announced that its focus will now be on global underground mining, oil and gas and power and water. It is not only selling its infrastructure and building businesses, but will also dispose of its steel and engineering services.

The reason for this dramatic change in focus to what the M&R CEO, Henry Laas calls a 'new strategic future', is easy to identify. Since the government's massive spend on the 2010 Soccer World Cup, spending on huge infrastructure projects have all but dried up. Laas points out that M&R is not exiting the country, but exiting a sector.

M&R's announcement comes after the company announced that its diluted headline earnings per share fell by 10% for the year

to June. Further complications have been the paying by 15 construction companies (R1,5-billion collectively) for alleged collusion in infrastructure for the World Cup, empowerment pressures and recurring violent strikes.

Critical to core stability

Three other listed construction companies recently announced its latest results: Aveng, Group Five and WBHO.

Aveng's (SA's largest construction company by turnover) results show that only 37% its pipeline projects for the next two years is made up of domestic building and engineering work. This is down from 56% in 2015. Its revenue also took a plunge: from R578-million in June 2015 to R299-million in June 2016.

It is increasingly relying of work outside South Africa: 60% of its work now happens in

the Australia and Southeast Asia region (up from 40% last year).

Group Five, by contrast, doubled its operating profit – albeit entirely from its toll road concessions in Eastern Europe.

Its CEO, Eric Vemer says that only government spend on infrastructure projects can lead to a recovery of the group's heavy construction in South Africa.

Even though WBHO's results show a healthy jump in profitability, CEO Louwtjie Nel is quick to point out that this is not because of improving conditions in the South African market. He maintains that this is largely due to the fact that the company now has a bigger share of the market. In addition, WBHO's building divisions in SA and Australia offset lower activity levels in especially mining which pushed up the headline earnings per share.

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PUBLISHED MONTHLY BY

Crown Publications cc
P O Box 140
BEDFORDVIEW, 2008
Tel: 27 11-622-4770 • Fax: 27 11-615-6108

PRINTED BY

Tandym Cape

TOTAL CIRCULATION:
(Second Quarter '16)
4 766



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MAJOR DIVESTMENT

Aveng Limited (Aveng) has announced its trading statement for the year ended 30 June 2016. Also announced are agreements for the monetisation of four of its major infrastructure investments for a cash consideration of R860-million; and the sale of its Steeledale business to Kutana, a black women-owned investment group.

Trading statement

Headline loss per share (HEPS loss) for the 12 months ended 30 June 2016 will be between 45% and 55% better than the comparative period. The HEPS loss will be between 65 and 94 cents per share, compared to 144,3 cents per share in 2015, while the headline loss for the year will be between R260-million and R318-million, compared to R578-million in 2015.

The basic loss per share (EPS loss) will be between 75% and 85% better than the comparative period. The EPS loss will be between 17 and 29 cents per share, compared to 114,8 cents per share in 2015, with basic loss in earnings expected to be between R69-million and R115-million for the year, compared to R460-million in 2015.

This result is a material improvement on the prior year and is underpinned by:

- an improved financial performance from Aveng Grinaker-LTA on completion of loss-making and non-contributing contracts, an improvement in the ratio of contracts operating at tendered margins, strong performance in the building business, the resolution of some major commercial claims and a further reduction in fixed operating expenses
- realisation of cost savings initiatives previously implemented throughout the Group

- improved financial performance from Aveng Steel in the second half of the year
- Fair value gains on the infrastructure investments though partially offset by:
 - restructuring expenses incurred to further right-size the Group's overhead structure in response to market conditions
 - underperformance on certain contracts in McConnell Dowell
 - additional expenses on a problematic water contract in Aveng Water
 - contract cancellations and activity reductions in Aveng Mining
- Continuing difficult trading conditions in most of the markets in which the Group operates.

The basic loss for the year includes the profit on sale of the South African property portfolio of R577-million in the first half of the year, partially offset by the impairment of certain steel assets recognised in the second half of the year.

Aveng has entered into a binding agreement with Royal Bafokeng Holdings (RBH) who will acquire Aveng's equity interests and loan in the following investments, for a cash consideration of R860-million:

- The 138 MW Gouda wind farm, one of the largest wind farms in the Western Cape on which 46 wind turbines are erected.
- Imvelo Concession Company, which is the

holder of a 27-year concession to build, operate and maintain the Department of Environmental Affairs' office campus in Tshwane.

- N3 Toll Concessions, which entered into a 30-year concession agreement to design, construct, finance, operate and maintain the N3 toll road between the Cedara Interchange in KwaZulu-Natal to the Heidelberg South interchange in Gauteng.
- The 74 MW Sishen Solar Photovoltaic Plant located in the municipality of Dibeng in the Northern Cape.

These sales are subject to the normal and customary terms and conditions, including the fulfilment of certain conditions precedent. The effective date is estimated to be on or about 31 October 2016.

Kobus Verster, Aveng CEO, said: "These investments have reached an appropriate maturity where we can transfer them to a strong investment company and realise value for the Group. Aveng Capital Partners will continue to pursue project development opportunities for the Group as our investment and structured financing arm."

Albertinah Kekana, Royal Bafokeng Holdings CEO, commented: "This proposed agreement and its focus on renewable energy, property and road infrastructure is in line with our diversification strategy. This proposed deal represents our long term investment approach and our commitment to the South African growth story."

Proposed disposal of steel and mesh business

Aveng has reached an agreement with Kutana to acquire its steel reinforcing and mesh business (Steeledale) in terms of a phased exit strategy.

From the effective transaction date, which is estimated to be on or about 1 November 2016, Kutana will acquire 70% of the Steeledale business. Aveng can elect to sell the remaining 30% at any time after three years. The sale price is determined by way of a formula applicable at the effective date and the purchase consideration is expected to be approximately R252-million, of which between R93-million and R123-million will be paid in cash and the remainder paid on a deferred basis.

This transaction is subject to the normal and customary terms and conditions, including the fulfilment of certain conditions precedent.

"I am pleased that both these transactions have been implemented in line with our strategy and previous announcements. In addition to realising value, we have also established partnerships with two exceptional empowered companies and I look forward to forging positive relationships," concluded Verster. <



Kobus Verster, Aveng CEO and Albertinah Kekana, CEO of Royal Bafokeng Holdings.



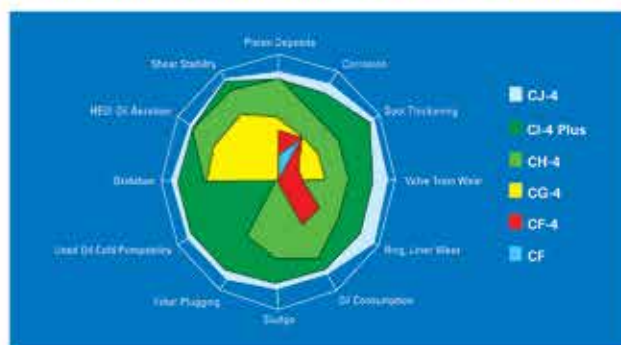
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STRONG IMPROVEMENT in earnings

Group Five delivered a pleasing improvement in earnings for the full year to June 2016 due to an exceptional result from the Investments & Concessions cluster, boosted by significant fair value profit realised from the group's Eastern European project investment portfolio.



Group Five CEO, Eric Vemer.



Commenting on the results, Group Five CEO Eric Vemer, said: "These results bear testimony to our strategy of investing and

operating across the infrastructure value chain, which enables the generation of an improved blended group operating margin and the delivery of annuity income to deliver sustained returns. During the year, our Investments & Concessions business especially proved its value in our portfolio, with its performance again balancing the cyclicity of construction earnings and providing a strong underpin to our overall group results.

"As a management team, we are continually reviewing our strategy to ensure it remains relevant to changing market landscapes and client requirements, as well as enhancing shareholder value. Our portfolio of assets is therefore tested for its strategic fit and ability to create acceptable return on investment. During the year, a working group with the board and management was created to focus on this.

"We believe we are set to deliver strong growth and returns over the longer term, with a complementary business portfolio that provides downside protection to earnings through tough times,

diversification between Euro, US Dollar and Rand revenues, and strong leverage for growth and profitability in periods of infrastructure and resource market expansion."

Looking forward, Vemer said: "Following a period of introspection and cost-reduction, our attention is again more firmly focused outwardly on target markets and securing the orders that will deliver the value-enhancing growth management seek, while improving our returns on capital employed across the group.

"Alongside our South African focus, we have a clear geographic strategy of expanding into high-growth countries in the rest of Africa and Europe. Our localisation strategy is organic, which does not require material capital investment. We take a long term view and are prepared to spend development time and capital in partnership with other project developers to secure a preferred position and role in developing, implementing and operating new infrastructure assets. Our continued expansion in these markets is based on our proven and growing experience in the delivery

Financial overview

- Group revenue remained largely unchanged at R13,8-billion (F2015: R13,9-billion)
- Core operating profit increased by 111,4% from R348,4-million to R736,5-million
- Overall core operating margin increased from 2,5% in the prior year to 5,3%. Total reported operating margin increased from 2,6% to 5,2%
- Headline earnings per share (HEPS) of 335 cents represents an increase of 63,6%, and fully diluted HEPS (FDHEPS) of 335 cents per share an increase of 64,2% compared to the HEPS and FDHEPS of 205 cents and 204 cents per share respectively for F2015
- Earnings per share (EPS) of 375 cents and fully diluted EPS (FDEPS) of 375 cents per share represents a 69% and 69,7% increase respectively over the 222 cents per share and 221 cents per share for F2015.
- The statement of financial position continues to be sound, with a nil net gearing ratio and bank and cash balance of R3,3-billion as at 30 June 2016 (F2015: R3,4-billion and H1 F2016: R3,6-billion)
- The cash flow position is pleasing
 - o The group generated R449,4 million (F2015: R425,1 million) cash from operations before a minimal level of working capital enhancement of R30,2-million (F2015: R118,9 million)
 - o This resulted in a net cash inflow from operating activities of R146,3-million (F2015: R238,1-million) after settlement of taxation liabilities and the dividend to shareholders

of complex multi-disciplinary, internationally-financed contracts in difficult geographies with complex logistical and local challenges. We have a track record of operating in-country and growing local employees through the establishment of a permanent presence in key target countries. Prime examples are Ghana, Poland and Hungary."

The group's total secured Engineering & Construction contracting order book stands at R11,2-billion (December 2015: R11,8-billion, June 2015: R14,1-billion). In addition, the group has R6,1-billion in secured operations and maintenance contracts (December 2015: R5,8-billion, June 2015: R4,7-billion). <



Why companies need ISO 55000 accreditation

The ISO 55000 Asset Management standard is a recognised game changer in an industry struggling to find an identity. Tom Bürge, GM of the new asset management division at SMEC South Africa, talks about the importance of having ISO 5500 accreditation.



Acknowledging the British Standard Institute (BSI), the International Organisation of Standardisation (ISO) took the decision to brand ISO 55000: 2014 (ISO 55k) as comprising the standard itself (55000), its management system requirements (55001), and the guidelines for implementation (55002) [ISO, 2014].

The standard was published for the first time in 2014. It was developed by a consortium of the world's leaders in asset and operations management, with the consulting industry very excited about the prospects of the new standard.

The industry had done all that was required to formulate a standard providing an excellent framework to clearly define what asset management is, and what it aims to achieve. However, the question remains: Why should my business look at implementing ISO 55k when it is costly, consultants are expensive and hard to find, and there is no real pull from industry?

Some industry professionals are even suggesting we go back to focusing on the assets and forget about the complexity of asset management systems altogether (Kirsten, 2016). It is not uncommon for organisations to seek ISO 55k alignment, but not to pursue accreditation.

This is like some of the more popular standards such as ISO 9000, ANSI, MIL SPEC, FDA, AN and CE, where the need is not governed by supply-and-demand principles. The more popular standards are used typically to govern some kind of exchange of goods, and are there to ensure some form of quality is managed between companies. As yet, ISO 55k is not meeting that requirement.

This begs the question: Who is the benefactor of ISO 55k as a standard, and if there is no pull in industry, then why should I consider accreditation? To answer the first question, we need to understand what asset management aims to achieve.

The simple answer is that this comprises the coordinated activities of an organisation to realise value from assets (ISO, 2014). Or it can be seen as the activities within an organisation that will lead to realising the best return from assets in a sustainable manner while balancing risk, cost or opportunities, and performance (The Institute of Asset Management, 2016).

It is fair to surmise therefore that the major beneficiary of good asset management is the owner of the assets (the company), the financiers of the assets (should they be different) and possibly even the insurers of the assets.

Major financiers such as the World Bank and funding agencies like the Millennium Challenge Account and African Bank are all awakening to the need for responsible asset ownership as prescribed by ISO 55k. It is not uncommon to see advertisements for asset management programmes as part of their investment bid to develop what would be deemed to be major capital investment projects.

But what about privately-owned organisations that are not funded and that do not have major investment houses governing their actions? Why would small, medium and large-sized companies that contribute greatly to our nations, our communities and our livelihood want to apply ISO 55k?

The organisations that have achieved ISO 55k certification are few and far between. Discussion with them has revealed a rather compelling case to support certification, transcending the popular belief of mere compliance.

ISO 55k has the ability to equip even the most meagre of middle management with a powerful external motivator. This would

translate into a general feeling of achievement and pride, a visual tool to recognise achievement or, conversely, sometimes a fear of failure in attaining certification or the fear of loss of certification.

The managers that have achieved and maintained ISO 55k certification use the certification process as a positive motivator to bolster their case for change, to ensure executive support and to motivate a change in behaviour in the workplace (Bürge, 2014).

The possibility of becoming a globally-recognised asset management practitioner provides the focus and leadership that is often needed in achieving success in these multi-disciplinary programmes. It is this possibility that packages the need into one simple achievement that everybody within the organisation can understand.

With the simple goal of achieving certification comes all the underlying benefits of asset management thinking: reduced downtime, dissolved silos, extended useful life of assets, improved decision-making, higher productivity and, ultimately, higher returns on your investment in physical assets. <

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The consulting industry was excited about the prospects of the new ISO 55000 standard.



IMPORTANT POINTS TO CONSIDER BEFORE TENDERING

There are some important points to consider before your company decides to tender for building work, says Uwe Putlitz, CEO of the Joint Building Contracts Council (JBCC).

> JBCC is a non-profit South African company which represents building owners and developers, professional consultants, and building contractors who provide input for the compilation of a comprehensive suite of JBCC building contracts.

Putlitz here deals with some of the factors to consider before tendering:

Opportunity:

What is your current work load? How long before you run out of work? Do you have or can access the appropriate human and other resources?

Competition:

Who else is tendering? How desperate are you to secure the work 'as the lowest tenderer' as opposed to being 'the best tenderer'? If you are the lowest tenderer, could you lose money and consequently deliver a job of poor quality leading to early termination and a dispute?

Tender documents:

Are your tender documents properly compiled to quote for the project? Is the construction information complete?

Building contract:

If there are any deviations from the standard JBCC building contract, are these listed in the contract data or the Preliminary Bill of Quantities? Are there any unusual payment conditions, or unusual guarantees or insur-

ances called for? Will you have to work with as yet unspecified nominated subcontractors and direct contractors?

Site:

Have you inspected the site? If so, do the drawings and the description provided make sense to you? Is there access to site, place for site huts, equipment and material storage? Do you have to employ local staff and labour with unique payment conditions and whose skills may be suspect?

Existing/adjoining buildings:

If this is an existing building, has a professional engineer provided input regarding the method of construction, precautions to be taken, etc?

Restrictions:

Are there building restrictions such as limited working hours, noise and dust limitations that may influence the method and programming of your work? Will you have to complete the excavations and foundations during the rainy season?

Completion:

Does the work have to be completed in sections or as a whole? Are the intended dates for practical completion realistic? Are the specified materials and goods readily available?

Risks:

Do you know the client – and have you had any 'bad' experience with this client? Have you worked with the project consultants before?

Putlitz adds: "Perhaps the most important point to consider before tendering is if awarded the tender, would you be able to complete the project on time to the specified standard - and make a fair profit to remain in business?" ■

AWARDS FOR SAFETY STANDARDS AND PERSISTENCE

Leading South African flooring supplier, KBAC Flooring, has won two major accolades this year for its supply and installation of carpet tiles for the new prestigious Sasol head office building in Sandton.

> Firstly, the company won the Master Builders Association (MBA) North annual Health & Safety Award for the 'Best subcontractor without established site' for the second time by harnessing top honours in the 2016 competition. The company also walked away with top honours in the same category in 2014. KBAC won the MBA accolade for its attention to safety requirements during the supply and installation of the carpets for the new Sasol corporate headquarters in Katherine Street, Sandton, at the MBA North H&S awards function in July.

Louise Ross, KBAC's health and safety co-or-

dinator, says among the challenges, KBAC had to face for the Sasol project was the presence of several other sub-contractors working on site simultaneously, with a mix of trades to contend with on each phase of the project.

"As a result, the safety risks faced by all workers changed constantly and it was imperative that our employees adhered to safe working practices to avoid potential safety hazards. KBAC's dedicated installation fitting team, under the guidance of senior project manager, Werner Gouws, managed to do this and maintain a continuous flow of work: from the loading of material in the KBAC warehouse in Linbro Busi-

ness Park, to hoisting, stacking and storage on site, and final installation," Ross states.

The second award to have come KBAC Flooring's way this year was for its 'persistent and determined' efforts to meet the complex flooring requirements for the Sasol head office with the award of a special trophy for commitment by Interface, the world's leading modular floor supplier.

KBAC Flooring is the sole South African distributor of Interface flooring which was specified for the futuristic 10-storey building in Katherine Street, Wierda Valley, by the project's interior designers, Paragon Interface.

Interface's 'Best Won Sales Project Trophy for 2015' for Interface's Europe, Middle East and Africa (EMEA) region was received on behalf of KBAC by the Sasol supply project leader, Lesley Fidrmuc, KBAC's Interface Consultant, at an EMEA meeting in Lisbon earlier this year. ■



Julien Fanton, director of Interface, congratulated Interface's SA distributor, KBAC Flooring, on winning the Interface 'best won sales project – 2015' trophy earlier this year. Pictured were (from left): Neil Duncan, KBAC chief financial officer; Brandon Park, KBAC sales director; Julien Fanton, Interface director; Lesley Fidrmuc, KBAC Interface consultant; and Graham Park, CEO of KBAC Flooring.

Ian Harris (left), director of Amokoro Training, awards the 'best sub-contractor' to Werner Gouws, KBAC Flooring's senior contract manager.

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CESA Aon Engineering Excellence Awards WINNERS ANNOUNCED

The engineering sector witnessed the South African Engineering version of the Oscars. The cream of the crop of the engineering industry, gathered to celebrate, honour and reward engineering excellence.



In a celebration of innovation, quality, outstanding workmanship and professionalism in the industry, Consulting Engineers

South Africa's (CESA) supported by Aon South Africa hosted the prestigious CESA Aon Engineering Excellence Awards at Vodaworld in Midrand. CESA has been hosting the Awards for the past 44 years.

This prominent event is one of the highlights in the Consulting Engineering industry calendar and the CESA Aon Awards lived up to the expectations. The event was widely attended by the Who's Who of engineering in South Africa including clients, related institutions and associations. The Awards recognised outstanding achievements in the engineering industry and provides the opportunity for guests to network with member firms and clients.

"Given the pivotal role that CESA members have in the South African society and economy, these awards are about thanking all the participants for the role you play in our country's growth. Most of all, the winning projects show us that South Africa still has so much to deliver and offer to its citizenry, and that the potential of the country that we love and call home will continue to require excellence that the consulting engineering industry has to offer.

"Clearly an enormous responsibility lies upon your shoulders as the consulting engineers in South Africa, but by the same token, to deliver on these responsibilities, consulting engineers have to operate in a secure, risk-managed environment. It's our role at Aon South Africa to facilitate that environment, and to ensure that you have a

professional and qualified team on your side, every step of the way," says Terence Williams, CEO of Aon South Africa.

Awards were handed out in the following categories: Engineering Excellence for projects with a value of less than R50-million; projects between R50-million and R250-million and for projects with a value of over R250-million; Best International Project; Visionary Client of the Year; Mentor of the Year; Business Excellence; Mentoring Company of the Year; Young Engineer of the Year; Publisher of the Year; Job Shadow Initiative; and Branch of the Year.

Here are the winners:

The category of Engineering Excellence with a value greater than R250-million was won by Braamhoek Consultants Joint Venture, Royal HaskoningDHV and Knight Piesold for Eskom's Ingula Pumped Storage Scheme. This multi-billion rand project is located between Ladysmith and Harrismith in the Little Drakensberg and has a generating capacity of 1 332 MW and a milestone was achieved this year when the scheme started generating power. Zitholele Consulting was awarded a commendation for the Driefontein Waste Water Treatment Works.

In order to promote the Consulting Engineering industry to young professionals, CESA recognises the contribution **young engineers** make to the industry and to the future of the profession. The winner is afforded an opportunity to attend the International Federation of Consulting Engineers (FIDIC) Infrastructure Conference.

Airports Company South Africa (ACSA)

sponsored the Young Engineer of the Year Award. The winner in the category of Young Engineer of the Year is Dr Gabrielle Wojtowicz from Aurecon with Louis de Waal from Bosch Holdings awarded a commendation.

The category of Engineering Excellence with a value less than R50-million, was won by Royal HaskoningDHV for the National DST/Mintek NIC Cleanroom Facility. The latest R13-million facility allows for the rapid development and production to diagnose diseases. HHO Consulting received a commendation.

The category of Engineering Excellence with a value between R50-million and R250-million was won by MPA for the R103, Provincial Road P4-1 between Van Dyk Road and Diana Road in Ekurhuleni, Gauteng. MPA performed the successful upgrading of this single road to a dual carriageway. The Gauteng Department of Roads and Transport reports that the project has expanded the strategic public transport network. Royal HaskoningDHV received a commendation for the Refurbishment of condale 33 kV, as well as Mott MacDonald for the Bellville Waste Management Facility.

Bigen Africa won the **Business Excellence** category. This privately-owned project-based group of companies specialises in infrastructure and has the vision of creating long term development impact within the African economies and communities that it operates in. Bigen's proven expertise in engineering, management consulting and development finance proactively seeks the best outcome for customer, community and country.

In the category of **Best International Project**, sponsored by the Built Environment Professionals Export Council (BEPEC), the winner was Aurecon Botswana for the Kusane Kazungula Village Sanitation Project. With Bosch Project received a commendation for the Nakambala Product Alignment & Refinery

Bigen Africa also won the Mentoring Company of the Year, sponsored by Bosch Holdings. Bigen Africa states that its biggest asset is human capital. They have designed



UPSKILLING CONSTRUCTION WORKERS

Corobrik has opened a new bricklaying training centre at its Lawley factory in Gauteng which is one of three countrywide that provides opportunities for unskilled South Africans to acquire the fundamental expertise they need to secure work in the building industry.

More than 2 000 people have already graduated from the company's training schools in Durban and Cape Town, and at their former Midrand facility.

"Skills development remains a key priority in South Africa and Corobrik is committed to playing a meaningful role in this process," says Berkley Petty, human resources development manager for the brick manufacturer which has been in operation for more than a century.

"Corobrik's three building training centres are designed to provide unskilled workers in both the public and private sectors with recognised qualifications in bricklaying, blocklaying and segmental paving disciplines, providing fundamental skills to the construction industry."

The Corobrik training centres offer a

variety of courses ranging from basic bricklaying to learnerships.

The bricklaying training centres are accredited by the Construction Education and Training Authority (CETA) and run NQF accredited courses. Training is conducted in groups both at the centre or on site, combining theory with practical implementation.

A number of major construction companies as well as the Department of Public Works and Transport have enrolled learners on Corobrik's bricklayer training programmes.

The progress and skills levels of each student are monitored and recorded – during both their theoretical and practical training. Those with strong technical aptitudes and those that show initiative are encouraged to go further with their training. Once they have completed the courses, the learners are in a better position to

find gainful employment with government or construction companies and many have gone on to establish their own enterprises," Petty said.

The Corobrik Bricklaying Centres are not run on a profit basis but rather to cover costs so as to help make the training affordable to the learners.

According to Petty, it is all about helping people attain the skills they need to earn a living. This is in line with government's appeal for business, labour and communities to work together to help meet the New Growth Path objective of creating five million jobs by 2020 and reducing the unemployment rate to 15%.

The building training centres are also an integral element of Corobrik's multi-faceted Broad Based Black Economic Empowerment initiatives to help lay the foundation for a prosperous future for South Africa.

The Durban training centre is at Corobrik's Avoca factory, the Cape Town facility has moved to a site next to the company's Lansdowne centre in Springfield. The Gauteng school has moved from Midrand to Lawley to be more accessible to the learners. ❏



and implemented strategies which align business objectives with individual expectations of career success. All this – through the organisations' Future Integrated Talent Programme which sits under the Bigen Capacity Framework.

In an effort to promote *Mentorship of young engineers* CESA recognises the contribution Mentors make to the industry and the future of the profession. Nevin Rajasakran from Zitholele Consulting is the Mentor of

the year. He has 18 years of experience. He has personally mentored three candidate engineers over fifteen years. His culminating achievement was to mentor and guide his three mentees to manage teams on some of the country's major Power Stations.

Growthpoint Properties is the *Visionary client of the year*. Growthpoint is the market leader in implementing 'best practices' for sustainable operational efficiency and 'green' features in its 470 properties.

In recognition of the role that the media plays in the industry, Civil Engineering Contractor received recognition for *Publishing Excellence: Trade Publication* and Engineering News received recognition for *Publishing Excellence: Daily Newspapers*.

Royal HaskoningDHV was announced as the winner of the *CESA Job Shadow Initiative* with UWP and Nako Iliso as runners-up. CESA's Cape Town Branch was named winner of the Branch of the Year Award. ❏



Still **CHANGING THE FACE** of retail in South Africa

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Right at the heart of one of Africa’s richest square miles lies Sandton City, a glittering beacon of commerce that has been attracting shoppers and retailers from all over the country and around the world – for more than 40 years.

> This is the shopping mall that changed the face of retail in South Africa for ever when it was launched in 1973, and steadily became a must-see destination in its own right for everyone who came to Johannesburg to visit, live or work. And now it is even more alluring than ever, following a six-year, multimillion-rand revamp that has transformed it into a thoroughly modern, architecturally striking retail centrepiece for the high-energy Sandton CBD.

This project saw more than 30 000 m² of new retail space being added to the centre, which now encompasses almost 146 800 m², and enabled it to further expand its exceptionally diverse offering of fashion, food, décor and leisure outlets while also increasing its appeal for consumers of all ages and income groups.

On the fashion front, Sandton City has entrenched its position as the capital of Afro-cosmopolitan glamour and style by being the first to accommodate global brands such as Zara, H&M and River Island that were previously unrepresented in SA alongside the very best local offerings. This makes it the first choice for Johannesburg fashionistas who #cometothecity to have direct access to the hottest trends in the fashion capitals of the world, as well as the flair and talent of this country’s best designers.

And then there’s Diamond Walk, a spectacular new section of the mall that houses a collection of international super-luxury brands including Prada, Dolce & Gabbana, Giorgio Armani, Burberry, Ermengildo Zegna, Billionaire Italian Couture, Jimmy Choo, Versace, Louis Vuitton and Gucci.

Created last year at a cost of R185-million, this showcase adds yet another dimension to Sandton City’s reputation as SA’s premier retail destination – enabling local consumers to find the same coveted brands right on their doorstep that any global high-flyer would expect to find in London, Paris, New York or Dubai.

However, the centre is not only about high-fashion for the fortunate few. The thinking behind the recently launched #cometothecity campaign is to reinforce the fact it is also a great place to do your regular weekly shopping, take the kids to a movie, take your overseas visitors to look for the best souvenirs, spend a day out with friends and find the perfect accessory or décor item for your home, no matter what your budget.

What is more, Sandton City’s food and beverage offerings are just as varied and exciting as its other stores. Including the fresh new restaurants on the redeveloped Nelson Mandela Square, there are literally dozens of options here for a quick lunch bite, a quiet coffee while you put the finishing touches to that all-important business proposal, a mouth-watering pastry while you stop a while to people-watch, a tall cocktail to sip on after work, a romantic pasta dinner or a lazy Sunday lunch.

All of which helps to explain why Sandton City continues to attract millions of visitors a year – although a big part of its popularity is also the fact that it is increasingly easy to access from the surrounding office precinct, other parts of the city and the OR Tambo International Airport.

For those who choose to drive, some 2 500 new parking bays were added in the recent revamp. But for those who prefer public transport, the centre is just a short and easy walk from Gautrain’s Sandton Station – and also readily accessible by bus, taxi, tuk-tuk or cycles. **<**

Sandton City continues to attract millions of visitors a year – although a big part of its popularity is also the fact that it is increasingly easy to access from the surrounding office precinct, other parts of the city and the OR Tambo International Airport.



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PHOTOS FROM LEFT: One of the elevated courtyards where Revelstone's Ravine and Random Edge pavers were used to delineate and embellish gravel sections; Kent Random Edge pavers interspersed between lawn and flower beds create an attractive and durable path; and a combination of Revelstone paving, tiling and cladding products make for an imposing staircase.

PAVERS ENRICH CENTURY CITY DEVELOPMENT

Revelstone has supplied a selection of paving, tiling and cladding products, for the landscaping and beautifying of Mayfair, a Rabie Property Group mixed residential and office park development in Century City, Cape Town.

> The project was jointly designed by Tim Hughes of Tim Hughes Architect and Michael Borgström of Archilab and the landscape architecture was handled by Jacques Dohse of Planning Partners. Big Ben Construction was the main contractor.

The Revelstone product suite was specified by the professional team to enhance external building façades and to provide linear aesthetic expression to two garden courtyards which form part of the development's residential component.

"We used Revelstone's Ravine and Kent Random Edge pavers to create linear bandings to contain and delineate the gravel sections and to provide stepping stones in some of the soft landscapes," explains Jacques Dohse.

"We chose Revelstone pavers due to their consistent quality. Moreover, because the pavers were loosely packed on a layer of Bidim rather than on a concrete haunch, the extra weight of the Revelstone pavers was an added advantage.

Over time the courtyards will be fully hedged and this will add a further linear dimension to them," adds Dohse.

A combination of Revelstone products was used to beautify the residential blocks' external staircases.

Ravine tiling was employed to finish off the top of the concrete balustrade and Worcester split cladding gave the balustrade walls a rock like facade. The actual stairs were paved with Ravine Bullnose pavers. Another smaller external staircase was tiled with Ravine Bullnose.

Commenting further, Dohse said the two garden courtyards were raised 700 mm to a metre below the finished patio level of the first residential block, and retaining walls were built around the perimeters.

"We felt that dropping the courtyard to the same level as the parking basement would have meant locating it in a sea of parking. Moreover, the value of the courtyards would have been lost to the homeowners because the gardens would have been situated two metres lower than the patio levels of the ground floor units.

"Raising the courtyards allowed direct visual interaction with the ground-floor units and gave us the elevation needed to create natural water features comprising ponds, waterfalls and streams.

"Rabie prefers its landscaped areas to be quite soft using lawn and indigenous plant life. However, the back ends of the courtyards at The Mayfair are shaded and this prevented us from grassing these areas. So we decided to create a hard landscaping experience using gravel and Revelstone pavers," concluded Dohse. ■

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CURRO CENTURY CITY

Curro Holdings, the listed independent school company that opened a primary school at Century City in January 2013, is to open a high school on an adjoining site in January 2017.



> Curro took transfer of the new site in June and construction is well underway. Executive head Sean Friedenthal said the primary school was almost at full capacity with enrolment numbers having exceeded their most ambitious expectations. The primary school, which operates from group 4 to grade 7, has a capacity of around 800 while the high school will have a capacity of around 500 when fully operational.

The new campus, he said, will meet the strong demand from their existing learners as well as others for high school facilities in the Century City precinct.

"We are building the entire high school campus now but will only open Grades 8 and 9 next year with the other grades being phased in to ensure continuity for the learners."

The new campus will comprise 24 classrooms, four laboratories, computer rooms, consumer studies kitchen, a cafeteria, an administration block, two fives soccer courts and a 25 m indoor swimming pool.

In addition certain existing facilities on the primary school campus such as the hall and sports field will be shared with the junior campus.

"Our existing learners will get first option for the high school but we will have sufficient room to accommodate at least 50 more learners per grade next year and enrolments are open."

Curro Century City was the group's first new concept 'City school' which has a bigger academic focus than the traditional larger Curro campuses but still offers a variety of sports facilities including tennis courts and a multi-purpose field. ■

TEAMING UP TO CONQUER COMPLEX RISK

Stylish shopping malls, modern office blocks and housing developments are all evidence of a dramatic change in the way people across sub-Saharan Africa live, work and think about their future. With a young and growing population, this transformation is predicted to accelerate over the next 10 to 15 years.

➤ This transformation will fuel increased infrastructure investment that creates insurance opportunities as new developments are going to need insurance during the construction phase and once they are operational.

Across the rest of sub-Saharan Africa, Old Mutual has a market-leading footprint with strong insurance businesses. However, like Mutual & Federal, increased risk bearing capacity and a broader underwriting appetite would help the company to expand its growth in these markets.

Generally speaking, large and complex 'specialty insurance' is still mainly insured by international reinsurance firms or in global insurance markets such as London, with small local risk participation.

Therefore, Old Mutual Emerging Markets (which includes Mutual & Federal) have introduced Old Mutual Specialty Insurance. This is to increase its relevance to corporates, public bodies, investment companies or consortia that have more complex risk-management requirements. For example, major industrial firms, property investment companies, construction and energy projects or political risks that threaten trade or investments.

Boldly capitalising on opportunity

Demand for large 'specialty' insurance, is expected to grow beyond USD10-billion in premiums in the near future. This demand will be driven by risks such as commercial property, construction, energy, terrorism, kidnapping and ransom threats and political risk.

Mutual & Federal is the second largest corporate insurer in South Africa, with clients including a number of the best-known and largest companies, as well as leading positions in emerging sectors such as renewable energy.

For Old Mutual emerging markets to realise its ambition of building a financial services champion in Africa, it makes sense to plug this gap. This is fitting especially as the company will be funding many of the large projects through subsidiaries such as Nedbank, the fund management business and its own insurance funds.

Old Mutual specialty insurance

Old Mutual specialty insurance offers customised insurance solutions for large and complex clients, as well as for risks in nine product areas: commercial property, energy, construction, political risk and trade credit; mining, kidnap and ransom, terrorism, cargo, transit and delay in start-up and general aviation.

These solutions will be delivered through established Old Mutual insurance businesses in sub-Saharan Africa and under the existing brands, including Mutual & Federal, UAP Old Mutual and Old Mutual Nigeria. This will provide

the businesses with a broader product range and significant risk-bearing capacity, as they will be able to underwrite up to an additional USD250-million sum.

This enhanced customer value proposition will increase choice for insurance brokers, buyers and investors, and enable more specialty insurance business to be retained in Africa.

Sam Boyd, head of corporate and niche at Mutual & Federal explains: "We are a strong competitor in South Africa and are excited that we will be able to market Old Mutual Specialty Insurance solutions under the Mutual & Federal brand. This will allow us to underwrite a broader



Sam Boyd, head of corporate and niche at Mutual & Federal.

portfolio of clients and be able to increase our participation in important and growing segments including the wholesale African business being placed into the Johannesburg market." ❏

MEGA PROJECTS BOOST CONCRETE PRODUCTS SECTOR

New mega housing projects announced by the government stand to boost the concrete products manufacturing industry, which has seen many cement suppliers drop their prices due to decreased demand and excess cement supply.

➤ The government's launch of 101 'catalytic projects' in terms of its Breaking New Ground housing policy are likely to reduce any imminent retrenchments from the concrete products sector, PMSA MD Walter Ebeling comments.

Current housing projects underway are too small and dispersed to make a significant impact, whereas the latest tranche of 101 projects, of which 94 are ready for implementation, range across all nine provinces, with a combined value of over R300-billion. They are expected to generate 20 000 additional jobs in the construction and ancillary industries.

"With a stagnant growth rate, these housing mega projects will generate much needed demand side stimulus in the local economy which, in turn, drives supply from the private sector and new investment into capital equipment," Ebeling points out.

Concrete is used in all aspects of a housing development project, from roof tiles to bricks, blocks, paving for roads, concrete pipe-work for stormwater and sewage, road kerbstones and drainage, foundations and concrete floor slabs.

Having celebrated its 40th anniversary with the unveiling of a new range of products and technology at Totally Concrete 2016, PMSA boasts a comprehensive range of equipment that can be used to manufacture every one of these products used in housing developments.

"The equipment supplied by PMSA comes with comprehensive training, commissioning and support. This means the customer has confidence of full back-up. We are locally-based, but with countrywide support, and three branches in Johannesburg, Durban and Cape Town," Ebeling highlights. ❏

PMSA celebrates its 40th anniversary this year with new range products and technology.



AFRISAM READYMIX CONCRETE

assures a high-quality finish for WBHO

Upmarket developments demand quality finishes and this has been no different at the No 3 Silo, No 4 Silo and No 5 Silo projects at the V&A Waterfront’s Silo district in Cape Town, Western Cape.

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No 3 Silo will offer approximately 10 000 m² of residential space in the form of luxury one to four bedrooomed apartments, all offering the same environmentally friendly sustainable benefits as No 2 Silo.

No 4 Silo will house a state-of-the-art Virgin Active Health Club, while No 5 silo will have 13 500 m² of multi-tenanted office space, and like all the Silo developments, aims to achieve a Green Star rating from the Green Building Council of South Africa (GBCSA).

The lion’s share of concrete work undertaken on No 3 Silo, No 4 Silo and No 5 Silo is exposed. This includes sections of the Virgin Active gym in No 4 Silo that spans about 4 000 m² over two levels and most of the three structures’ elevator shafts.

Setting the standard

However, it is the work recently completed in Silo 5 that Mark Brooks, contracts director of WBHO, believes will certainly set the standard in terms of off-shutter concrete workmanship in South Africa.

Brooks explains that about half of the new office space that will be occupied by primary tenants, PwC and Werksmans Attorneys, consists of off-shutter concrete finishes. This includes the ceilings, one of the stand-out features of the interior of the structure.

“We are extremely proud of what we achieved in No 5 Silo. There are not that many examples of true in-situ off-shutter concrete finishes in the country, and I believe that this is one of the best examples of how it should be done,” Brooks told *Construction World* during a visit to the project in mid-August.

He attributes this excellent finish to a host of factors including careful planning, the skills and capabilities of a competent workforce, as well as the consistent quality of the concrete supplied by AfriSam.

“AfriSam is the leading concrete materials producer in the Western Cape and well positioned to supply high demand and speciality mix designs to projects such as the Silo Precinct Project,” Roger Potgieter, national sales manager of AfriSam, says.



Half of the office space for the No 5 Silo project consists of off-shutter concrete finishes.

Western Cape output

In the Western Cape, AfriSam has the capacity to produce in excess of 1,5 million tons of aggregate and over 260 000 m³ of readymix concrete per year. It can also draw on a team of concrete experts from its concrete product technology laboratory in Gauteng to assist with special mix designs and technical support.

The construction materials producer has nurtured a close business relationship with WBHO over the years. And the contractor has grown to rely on AfriSam’s in-depth knowledge in applying the correct product for specific construction requirements.

As the dedicated service professional for this project, Melanie Ross, territory manager for AfriSam in the Western Cape, says the company is supplying 9 800 m³ of readymix concrete to the development.

AfriSam’s scope of supply to these developments includes standard and special readymix concrete mixes. This includes the complex column mix which was designed specifically for the No 5 Silo project, comprising AfriSam’s own extended blended cement, which includes slag, to achieve the desired finish.

Proactive stance

The concrete materials producer took a proactive stance in this supply contract. This started with the upfront intensive testing on all the raw materials to achieve the correct concrete mix, through to extensive planning needed to ensure the timeous delivery of these loads.

Ross says that adding to the complexities of this contract, AfriSam had to deliver the correct product to multiple construction faces through only one point of access to the site.

As soon as the readymix product arrived at the site, the workability and tolerances of the various slump mixes were immediately inspected.

“Slabs for the No 5 Silo project were poured at a rate of 280 m³ a day, and AfriSam ensured that it mobilised deliveries early in the morning.



AfriSam, as the leading concrete material supplier in the Western Cape, is well positioned to supply high demand and speciality mix designs such as the Silo Precinct project.



ABOVE: AfriSam took a proactive stance in this supply contract with upfront intensive testing to achieve the correct concrete mix, through to extensive planning to ensure the timeous delivery.

RIGHT: AfriSam's scope of supply to Silo No 3, 4 and 5 includes standard and speciality concrete mixes. This includes the complex column mix which was designed specifically for the No 5 Silo project.

This provided WBHO sufficient time to power float the slabs from the time the readymix concrete was delivered to the site," Ross says.

WBHO started working on the premium commercial development at No 5 Silo in February 2015 and completed the building in July this year, providing five floors of 15 000 m² of additional office space at the V&A Waterfront.

The building's high quality concrete finishes are complemented by its impressive façade comprising glass, aluminium, tiles and Rhine zinc, while 15 steel bridges connect the two separate seven storey office blocks above an internal cobblestone road.


Work on the No 4 Silo project is also nearing its September completion date. Set to be completed in March 2017, the No 3 Silo development comprises three residential tower blocks. The highest at 12 storeys provides the best setting of all residential apartments at the precinct. All these structures were built off the 30 000 m² two storey car park, which WBHO completed in April this year.

Brooks says that it was built in phases to accommodate the various access dates for the construction of the three buildings. Sheet piling had to be installed all the way around the precinct to retain the surrounding area, before the contractor could start excavating the basement down to 1,8 metres below sea level.

The entire project was divided into the three silo developments with their own construction programmes however, there was still a strong element of interface between them.

Already home to multiple award winning No 1 and No 2 Silo developments, the historic Grain Silo complex on the V&A Waterfront is being redeveloped to house the Zeitz Museum of Contemporary Art Africa (Zeitz MOCAA). There are also four new mixed-use, sustainable developments under construction in the district including new corporate offices, a residential development, a Virgin Active Classic Health Club and a mid-range internationally branded hotel, as well as over 1 050 additional parking bays. When completed in early 2017, approximately 2 500 people will work at the Silo district daily.

"For example, the handover of No 5 Silo, which is located right in the centre of the congested construction site, had to be carefully managed to allow safe entry and exit for people, as well as deliveries," he says.

The project employed well over 1 000 people when it peaked, and achieved 2 million LTIF. This is an incredible achievement, and clearly one of the other reasons why WBHO has remained the contractor of choice on this project. 

Leading the market in **URBAN LIVING**

The Apex on Smuts – a new, Manhattan-style apartment building in the heart of Rosebank, Johannesburg – has proven to be a market-leading residential development in one of the city’s hottest urban nodes. With its prominent position and striking, contemporary architecture, this recently-completed building offers the modern city dweller everything they could want in chic, urban living – and buyers are taking notice.

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Designed by Messaris Wapenaar Cole Architects (MWCA) the arresting, wedge-shaped building is hard to miss. The prominent site on the corner of Jan Smuts and Hood Avenues, with its unusual shape, presented the architects with the opportunity to design a building with real urban presence.

“We felt it was important for the building to address its position at an urban scale and to have iconic character,” comments André Wapenaar, the partner in charge of the project at MWCA.

The wedge-shaped building extends into the point of the triangular site, creating opportunities for attractive balconies with sweeping views. The three large rectangular panels on the façade echo similar existing forms in the adjacent building, and fulfil the functional purpose of housing sun louvres. The building is raised off the site at ground level, allowing for parking below the building while maintaining visual connectivity from one side of the site to the other across the corner.

Internally, a central atrium which extends the full eight-storey height of the building provides light into the interior of the building, and is landscaped at first floor level for the enjoyment of residents.

The 72 apartments are designed in a variety of types, ranging from one-bed, one-bath bachelor units to two-bed, two bath units. The apartments in the apex of the 7th and 8th floors have been combined to form a unique four-bedroom penthouse apartment.

The interiors are chic but minimalist and finished in neutral tones, forming an understated but sophisticated ‘canvas’ onto which residents can imprint their personal styles.

A rapidly-developing residential market

The Apex on Smuts is the one of several contemporary apartment buildings to go up in Rosebank. This established and gracious suburb has always had a residential component around it. Although the CBD in particular became rather tired at one stage, Rosebank has been undergoing rapid rejuvenation and has regained its former lustre as a commercial, residential and retail hub, thanks in large part to the construction of the Gautrain station, which has reinforced its practicality as a central location.

“When the developers first acquired the site, it was initially envisaged as the location of a new office development,” Wapenaar explains. “At the time the property was purchased, the Johannesburg City Council had started to implement new zonings in the Rosebank node which allowed for higher bulk on many sites. This tied in with the government’s policy of densifying urban zones around major public transport nodes.”

Since there was an existing office building on the site, the original plan was to erect a second office block on what was a parking area at the time. Initially there was a suggestion to rezone for a theatre and office complex, but with the increase in the number of office buildings being developed in the Rosebank precinct, the owners decided to re-zone the site to enable apartments to be developed.

“By the time the scheme was launched as a residential apartment block in 2013, the increase in residential property prices had improved and continued to improve thereafter, increasing The Apex on Smuts’s viability as a project,” he adds.

Importantly, the growing trend towards urban living meant that a residential development here would be attractive to buyers in a way that it might not have been ten years earlier. Indeed, The Apex on Smuts has been well received in the market, with robust buyer interest. Aside from the stylish contemporary design of the building, the location has proven particularly attractive to residential buyers who see its centrality and its proximity to train and bus routes as beneficial.

With people increasingly buying into the vision of live-work-play precincts, and with many being more conscious of living a greener lifestyle (which includes making use of public transport and minimising travel distances), The Apex on Smuts speaks to those ideals and looks into the future. Its location in the heart of Rosebank,

within walking distance of Rosebank Mall, TheZone@Rosebank, the Rosebank Gautrain Station and a variety of other lifestyle and leisure amenities offers them everything a modern city-dweller could want.

Fulfilling sustainable goals in the ideal urban location

The Apex on Smuts has an ideal location in terms of its centrality and accessibility. With the Rosebank Gautrain Station within walking distance, residents of the building have quick and easy access to nearby Sandton and to the centre of Johannesburg, as well as to O.R. Tambo International airport on the Gautrain itself. The additional bus network, including Gautrain buses, extends the possibilities of quick and easy local travel even further. There is a Gautrain stop in very close proximity of the entrance to the Apex.

From a neighbourhood point of view, residents are spoilt for choice with a variety of trendy shopping spots on their doorstep. Some of these, like the Rosebank Mall and TheZone@Rosebank, are newly refurbished and offer a comprehensive selection of shops, restaurants and entertainment options.

The increasing focus on pedestrian friendliness makes for a walkable precinct, which can now count attractive urban living options like The Apex on Smuts as part of its appeal.

When it comes to including sustainable features in the building itself, several energy efficient measures have been incorporated, such as the use of sun-shading to mitigate solar heat gain along portions of the façades and double performance glazing throughout the building.

All the individual apartments are supplied with natural gas for the purposes of cooking, heating and water heating, which decreases the load on the electrical grid and ultimately results in less pollution.


“The building is integrated into the surrounding urban neighbourhood in such a way that it supports the use of public amenities and transport, which ties in with current thinking about urban efficiency, and about creating more socially and environmentally sustainable neighbourhoods,” Wapenaar comments. The fact that it is in the centre of an increasingly pedestrian-friendly environment implies reduced car usage.

“With its location at the south-western gateway to Rosebank, the building has a strong presence in the streetscape, contributing positively to the image of the urban environment whilst offering occupants spectacular views of the city, Florida Hills and the Magaliesburg. It brings back the notion of chic city living as an integral part of a true mixed-use environment,” he continues.

MWCA has approximately 30 years of




experience in designing high-density residential projects, and based on this and the firm's solid reputation for quality design in a variety of sectors, it secured this project, together with three further residential projects in the area of Rosebank.

Overall, the owners and architects consider The Apex on Smuts to be a market leading project, designed to enhance a rapidly-growing urban precinct by providing an attractive, upmarket city living option which responds to its context and contributes meaningfully to weaving a cohesive urban fabric. The design sets a standard for residential apartments in the area, and responds to the other commercial and retail developments and redevelopments in the area which are giving Rosebank a chic new image and are increasing its desirability as a node by the day. 



PRODUCT OF CHOICE

Building aesthetics coupled with the need to conserve energy and natural resources are factors that play an ever increasing role in the development of commercial buildings.

 The selection of products needed to achieve these elements is therefore paramount to the success of the final appearance of any project.

In order to meet the parking and landscaping aesthetic requirements, Civtek, civil engineering contractors, chose Technicrete ISG pavers, kerbs and retaining wall products for City Logistics' new warehouse based in Benoni, Gauteng. "Technicrete's price, reliability and proven track record with Civtek made them a natural partner for us on this project," says Raymond Metcalfe, contracts manager at Civtek.

"The new warehouse facility for City Logistics comprised 10 750 m² of paved parking and roadways, and Technicrete's 80 mm DZZ grey interlocking pavers were chosen for their suitability for heavy duty-areas because of their hard wearing surface overlay that is the best

option for a logistics facility," says Metcalfe.

"Technicrete's Figure 7 Semi mountable kerbstones were installed in driveways and parking areas that covered 450 m. While 6 210 Florawall units were applied behind the kerbs so that seedlings could be planted in over 550 m², enhancing the landscaping aspects of the project."


"The City Logistics warehousing project also comprised a Retention Dam, and after taking technical advice from the Technicrete ISG's sales representative, Wayne Oliver, our engineer selected their Earthform retaining wall blocks to support the 150 m² surrounding the dam whilst still giving a pleasing finish and an easy maintenance offering," concludes Metcalfe.

"Our Florawall units give uninhibited root and water penetration, which is needed for true plantability success. It is a good looking and practical product that will enhance the visuality



of any retaining application. It can be stacked up to six layers high providing the grounding is suitable and no additional loads are applied," says Wayne Oliver from Technicrete ISG.

Oliver continues: "Our DZZ interlocking pavers and our range of kerbing are known for their longevity when applied in projects that require a surface to withstand a heavy and high traffic flow such as industrial and commercial properties are subjected to".

Technicrete ISG is an iconic South African brand which is well known for its paving, kerbs, roof tiles, erosion protection blocks, precast products, prebagged concrete and retaining wall products. Their products have been used on many government infrastructure and private sector development developments. 



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WINNERS at ITC-SA timber construction awards

A prominent highlight on the local timber construction calendar, The Annual Timber Engineered Product Awards, hosted by the Institute for Timber Construction (ITC-SA) at Nasrec Expo Centre in Johannesburg on 19 August, showcased and rewarded top class workmanship in the fields of decking, timber frame construction and roofing.



As part of the ITC-SA's ongoing mandate to establish and maintain the highest standards in the timber construction industry in South Africa, the Awards are hosted every year in an effort to bring players in the timber construction industry together and to pay homage to members' outstanding work of the previous year.

"This year's Awards saw the attendance of a record 135 guests, to whom we extend our thanks for making the event a vibrant and successful one," says Chris Hobson, incoming ITC-SA Chairman, adding, "The Awards are open to all Timber Frame Builder, Deck Builder, Roof Erector and Fabricator Members of the ITC-SA, and submission categories include: Decks & Boardwalks; Alterations & Additions; Structures Smaller than 120 m²; Structures Larger than 120 m²; Structures Larger than 220 m²; and Roofing: Residential, Commercial & Exposed Trusses, a new addition to the Awards' categories."

Lyndsay Cotton, LCP Roofing general manager and outgoing chairman of the ITC-SA kicked off the evening with a brief talk on the business case for diversity and inclusion in the sector, which was followed by an insightful product presentation on the MiTek Industries SA brand by Stewart Murray, MiTek Industries SA manager.

This was followed by a presentation by the evening's guest speaker, Dr. Melanie Blumentritt, who is a post-doctoral fellow at Stellenbosch University at the Department of Forestry and Wood Science, with a background in solid wood and wood composites production and mechanical testing, wood anatomy, ultrastructure and chemical evaluation, and life-cycle assessment of wood products.

Dr. Blumentritt's talk proffered the question, 'Should we store carbon in wood?' and covered the ways in which the use of wood in long-lived products, like timber construction products, can help to mitigate climate change – a fitting prelude to the announcement of the ITC-SA Annual Timber Engineered Product Awards winners for 2015.

Decks & Boardwalks

Gold

Project name: Flywheel & Suspended Bridge

This impressive commercial series of decks and bridges at an upmarket business and conference centre demonstrated the ability of the contractor to elegantly manage the interface of timber and bespoke steel.

Gold

Project name: Bridge Thompson

Bridge Thompson, an unusual miniature wooden bridge structure for a model steam train enthusiast presented a number of challenges to achieve an attractive and true-to-scale end product.

Silver

Project name: Deck Bonnema

Deck Bonnema called for the creation of a screened alfresco area with a pergola over an existing flat roof, requiring skilled design and carpentry from the team.

Bronze

Project name: Deck Fensham

This project included the construction of a poolside deck with additional timber screens.

Alterations & Additions

Gold

Project name: House Hirschon

This complex project required the modernisation and enlargement of an existing ground and first floor home, creating a second-floor, two-bedroom flatlet, which was seamlessly executed by Timbercraft.

Silver

Project name: House Cillie & Fouche

House Cillie & Fouche called for the addition of a master en suite, study,

scullery and single garage while the owner occupied the home.

Bronze

Project name: House Jones

House Jones, once a single-storey dwelling with height constraints, was converted into an attractive double-storey home, maximising the available footprint.

Structures Smaller than 120 m²

Gold:

Project name: House Puttick

Clinging to the slope of a mountain, 42 m² House Puttick is a stunning example of the contractor's ability and the advantages of timber frame construction.

Silver:

Project name: House Bing

House Bing, a 119 m² timber frame two-bedroom cottage, took only two-and-a-half months to construct in the back yard of an existing home.

Bronze:

Project name: House Hopkins

This neat, eco-friendly 50 m² cottage is proudly off the grid, contributing to the structure's low overall environmental impact.

Structures Larger than 120 m²

Gold

Project name: House Riddell

House Riddell's remote location required diligent planning to avoid possible down time. The building had to be repositioned, due to its proximity to a Milkwood tree, but even so, the project was completed within six months.

Silver

Project name: House Oosthuizen

Clinging to the mountainside under Boyes Drive in St. James, House Oosthuizen is an attractive vertically clad timber frame home with views over False Bay.

Bronze

Project name: House van der Walt

Perched on a dune above the high water line, House van der Walt tested the skills of the Davwen Construction team, resulting in a getaway that is the envy of many.



Flywheel & Suspended Bridge.



House Hirschon.



House Puttick.

Bronze

Project name: House van der Vyver

House van der Vyver, a uniquely challenging project, called for the construction of a double-storey home on severely sloping solid rock in an eco-sensitive reserve.

Structures Larger than 220 m²

Gold

Project name: House Du Preez

House du Preez, a post-and-beam structure, is on a game farm with no on-site accommodation, which made for strict working hours that challenged the Eco Log Homes team to achieve this magnificent bush getaway. The project's attention to detail and interesting architectural features impressed the judges.

Silver

Project name: House Bolitho

Stringent regulations and height restrictions governing this heritage area of Simonstown and the discovery of a main sewer running through the site challenged the architect and contractor to meet the client brief. The result is an asset to the surroundings and a tribute to the Logo Homes team.

Silver

Project name: House Richards

Strict new council regulations regarding building on the side of a mountain stimulated the ingenuity of both architect and engineer on this project, who provided practical floor plans and pleasing elevations to maximise the structure's available footprint.

Roofing: Residential, Commercial & Exposed Trusses

Gold

Project name: House Viking Trust

This extensive renovation required neat, accurate carpentry to produce, erect and brace this complex exposed roof structure, which pays homage to the beauty of design symmetry.

Gold

Project name: Reddford House, Northcliff

A turnkey project where close cooperation with the design team ensured that the client brief was met. This has resulted in state-of-the-art exposed structural roofing elements being used as features to enhance the buildings' ambience.

Gold

Project name: Vergelegen Shopping Centre

The harmony of design, construction detailing and robust appearance of this shopping centre roof will have many a shopper looking upwards. Its rugged beauty and symmetry illustrate the contractor's ability to evoke the past by recreating the forms and shapes of yesteryear.

Silver

Project name: Hazeldean Office Park

Hazeldean Office Parks showcases the effective use of timber roof trusses on large span



House Riddell.



House Du Preez.

commercial projects with complex architectural detailing in exposed areas.

Bronze

Project name: Reddam International College

This impressive project was designed, supplied and erected as a turnkey service to the main contractor. Complex curved and circular roof structures were no match for the experienced LCP Roofing team who went above and beyond the call of duty to complete this roofing structure.

Bronze

Project name: House Alcock

House Alcock's roof showcases beautiful old-school design and engineering coupled with highly skilled carpentry. Attention to detail and high quality finishes lend an attractive, old-world appearance to the exposed Douglas Fir hammer roof trusses.

Bronze

Project name: House Majorie

Interesting truss designs with extensive architectural details were skilfully addressed by LCP Roofing's design, fabrication and erection teams. The end result more than met the contractor's brief. <



House Viking Trust.

LIFTING Northern Cape skills

Sol Plaatje University in Kimberley is currently a hive of construction activity with three building contractors expanding this institution of higher learning that first opened its doors to students in 2014.

➤ However, it is the new library and resource centre that will be the most impressive building on the campus when it is completed mid-2017. Architect, Design Workshop, from Durban, KwaZulu-Natal, has specified an external and internal off-shutter finish for the new seven storey structure. This is in line with Sol Plaatje University's brief to ensure that the library becomes the iconic focal point of the new university.

Undertaking intricate work

Tasked with undertaking this intricate work is M&D Construction. The contractor has a long track record building universities and, just as importantly, successfully completing a number of off-shutter construction projects. These include projects at the University of Mpumalanga and the University of Witwatersrand, where the building contractor was active for several years, following an open tender process with contracts awarded on the NEC Framework contracting options.

This is the second contract that M&D Construction is undertaking on the Sol Plaatje University campus. In February, it completed

work on the four storey commercial building, comprising lecture venues and offices.

In December this year, M&D Construction will commence work on another building project neighbouring the existing site.

However, the building team already has a head start on this project considering the strategic positioning of its Potain MDT 178 tower crane currently working on the new library and resource centre at Sol Plaatje University.

Renell Samuel, building construction director at M&D Construction, says that the latest crane in its fleet was introduced to the site this year to complement the activities of its Potain E10/14C City Crane that has been working at the campus from the outset.

"We pre-empted the awarding of the third contract to M&D Construction. It was therefore decided to immediately position it in such a way that it would be able to more than adequately service the materials handling needs of both structures. This will not only save us time, but also significant erection costs," says Samuel.

Various Potain cranes

The new Potain MDT 178 tower crane was acquired from SA French, a division of Torre Industries, and works on the higher and more complex aspects of the structure. The other Potain tower crane services the materials handling requirements of the lower part of the library and resource centre.

Most of the Potain MDT178's activities comprise handling and positioning the extensive climbing formwork for this complex build. It also shoulders the handling of the extensive construction materials needed to complete the building's structural aspects, which was designed by structural engineer, Aurecon.

Together with the Potain E10/14C City Crane, it will also lift 5 000 m³ of concrete and about 400 tons of reinforcement bar over the duration of the contract.

M&D Construction's fleet of five tower cranes are all Potain units. The building contractor started buying tower cranes from SA French eight years ago and has steadily added more of them to its fleet.

Samuel says that the contractor initially approached SA French for its crane requirements because of its high standing in the South African crane market.

SA French has represented Potain, a leading international tower crane original equipment manufacturer, for more than 30 years and both have long track records for successfully servicing the unique requirements of the building, civil and construction industries.

Potain's ongoing extensive research and development efforts into lifting technologies are evident in the Potain MDT 178 operating on this site.

The crane has a 60 m jib and 45 m hook height. It is able to lift a maximum of eight tons at 14,8 m and 1, 5 t at 60 m, and is equipped with a 33LVF20 hoist winch, wind speed meter and indicators in the cab.

Being a topless crane, the jib can be dismantled in five and 10 m sections; a major benefit on most modern building sites where space is at a premium.

Certainly, this is one of the biggest challenges that M&D Construction has encountered on this site, which it shares with its counterparts involved in the building of the other structures.

On the first contract, it was able to strategically place the Potain E10/14C City Crane with its maximum lifting capacities of four tons and 1,3 t at 45 m in the centre of the structure, saving significant costs on the build.

However, the current project has required significant planning around the positioning of the tower cranes. Working conditions are tighter and access to the site is limited to one entry point. These complexities will be compounded when preparatory works commence on the third contract.

Samuel and his team are working to a very tight deadline. Like the first building completed on the campus, the contractor has committed to very strict completion deadlines for this project as well as the next. He attributes much of the success achieved by the building team to date to M&D Construction's hands-on management approach that it applies to all its projects.

One of the biggest challenges on this site is limited space.



"All cranes run the risk of a breakdown, but it is the aftermarket support of the local representative of the technology that ensures these important pieces of equipment are up-and-running quickly."



The off-shutter external and internal finish inside the structure will make it the central focus on the university campus.



M&D Construction has a fleet of five Potain cranes, two of which have been deployed to the construction site.

The new Potain crane is tasked with handling the large loads for the structural aspects of the building, including the extensive formwork.

The company expects a similar mindset from all partners in its critical supply chain to help it adhere to its production targets. According to Samuel, SA French continues to meet these requirements.

Samuel is also impressed by the competence of SA French's technicians who assisted in the swift transportation of the crane to site and its prompt erection.

By July, M&D Construction had completed as much as 30% of the project, and Samuel is satisfied by the progress made by his team. He is also extremely proud of the opportunities these projects have created for members of the larger Kimberley community. In line with the requirements of its client, M&D Construction will have trained about 150 local people in general building trades by the time it completes its framework contract; noteworthy on a structure that is being built to produce the skills needed for the future. <



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Solution to SA's HOUSING SHORTAGE

South Africa's housing shortage may be solved faster, cheaper, and environmentally friendlier. By mixing cement with polystyrene, and an additive – a technique that is widely used in Scandinavia and northern Europe – Selcrete wants to do just that.



The company's pilot project, phase one of a revamped day care in the township of Khayelitsha, opens its doors next week Thursday.

One of the problems at Nolutando day care centre, which cares for over 265 children aged two months to six six years, is that its timber structures don't offer adequate protection against the summer heat, cold winters, and fires. "For phase 1, we have helped build a small utility hall, an administration block, and a starter kindergarten classroom using our product, blocks that are made of cement, expanded polystyrene beads, water, and a binding agent," says Graeme Horwood, Selcrete's CEO. "Twelve new structures will be built in total."

Protection against fire

Better protection against fires, to which the densely populated township is prone, and

superior insulation are two main improvements at Nolutando, Horwood says.

"Selcrete makes a building two to three times more insulated compared to structures made of bricks and mortar. It offers better protection against fires and fungus too," he says. The product is suitable for South Africa's cold and often wet winters and hot summers. "Selcrete is inspired by techniques used in Norway, a country where the weather conditions are even more extreme. If it works there, it works everywhere."

Nolutando might be the first, it certainly isn't the last Selcrete project. "We are negotiating a number of commercial and residential projects in Gauteng, KwaZulu-Natal, and the Western Cape. In Knysna, we are currently building an upmarket residence. On behalf of Rotary for the Knysna Educational Trust, we are working on a social responsibility re-build in Khayaletu, a township near Knysna," says Horwood.

Faster projects

What makes Selcrete interesting for the South African market is that projects can be realised much faster, in over half the time of conventional homes. This could translate to a 25% cost reduction, Horwood says.

"It is an attractive solution for budget-conscious projects like Nolutando, or even the low-cost housing sector, where quality, affordability, and time efficiency are very important factors. Delivery of low-cost homes in South Africa needs to take place, and quickly too," he continues, referring to Stats SA latest General Household Survey.

Published in April this year, the report suggests that 13,1% of South Africans live in informal settlements. "We can deliver better quality homes, and other buildings too, more efficiently and cost-competitively

About Selcrete

Selcrete was inspired by and named after the Selvaag Group. Founded in the 1950s by Norwegian engineer Olav Selvaag, the company pioneered innovative construction techniques which allowed substantial cost and time savings by comparison to traditional construction techniques. In December last year, after a 4-year development phase, Selcrete received the stamp of approval by Agrément South Africa. This independent organisation is tasked with the assessment and certification of innovative construction products, systems, materials, components and processes as opposed to the more traditional South African Bureau of Standards route.

while being better for the environment."

Selcrete is a greener product compared to most others, for instance due to the use of recycled polystyrene. "Because our blocks are made on site, they don't have to be transported which saves energy and minimises carbon emissions too," he says, adding that better insulation means that Selcrete buildings require less energy for heating and cooling. "This has a positive impact on carbon emissions, but also on people's financial situation," Horwood says, noting that low income households typically spend more of their income on electricity than mid or high-income households.

Mavis Mbaba, who founded Nolutando 22 years ago when she opened her home to 45 children who needed to be cared for while their parents were at work, is excited by the improvements to her day care centre. She says: "These new buildings mean everything to me, and they will change everything at Nolutando. From now on, the children can do activities in a safe environment, without the risk of fires. Fires are a risk when working in a wooden building. These new buildings don't require as much maintenance as the wooden ones. Maintenance costs a lot of money. So yes, I am happy." ◀



LIFECYCLE SOLUTIONS FOR OIL, GAS AND CHEMICAL SECTORS

Clients in the oil, gas and chemicals sectors are on the lookout for smarter, more efficient ways to produce, process and deliver products to market, as well as assistance with environmental and sustainability considerations.

> AECOM is able to offer comprehensive services to these sectors over the entire lifecycle. While AECOM has a strong presence in Africa, it is also one of the largest multinationals in the world, enjoying strong relationships with most of the major oil and gas companies. "As a company, we have a very good understanding of the industry and its role-players. Due to AECOM's size and diverse nature, we are one of a few companies that can offer a total solution," Africa oil and gas business line leader Samuel du Rand comments.

"AECOM believes a strong local industry that delivers services from within each country is essential to sustained success. It is this understanding that will allow us to add great value to the development of the industry on the continent," Du Rand adds.

He points out that the biggest factors impacting on the industry at present is the oil and gas price, in addition to technological development and the costs associated with alternative energy sources. This includes the development of large global unconventional resources such as shale gas, which will impact the long term development of new reserves.

Global oil and gas dynamics, including the shifting political landscape within the oil-rich regions of the Middle East and other areas, will also have a major impact.

Du Rand predicts that there is likely to be an increased focus on previously untapped and unexplored reserves in Africa, especially Southern and Eastern Africa. Major oil and gas companies will look to expand their reserves in Africa as an alternative supply to the known markets of the Middle East and Russia. This, in turn, will enhance trade and investment on the continent.

"Inter-country infrastructure such as pipelines between Uganda and Kenya or Tanzania, Mozambique and South Africa, for example, are typically very large investments. However, these are game changers in terms of development and macro-economic growth. Unfortunately, in Africa, as well as many other parts of the world, the discovery of hydrocarbon reserves has come with conflict."

Thus developing and implementing legislation and regulations at an early enough stage to adequately address the interests of African countries, local residents and international oil companies is essential for the success of the industry.

Du Rand points to numerous global instances of the success of this approach. "Norway is often used as an example of a country where wealth obtained from reserves was well-managed. Unfortunately, the development of regulations and preparing for development itself can also lead to long delays in decision-making that often hampers the feasibility of projects."

Looking at oil-and-gas opportunities in Africa, Du Rand stresses that major discoveries in countries like Mozambique, Tanzania, Kenya and Uganda have generated a lot of excitement and interest in the region. "The development of new reserves has been slow, while the lack of enabling infrastructure such as roads, airports and ports requires a lot of time and major investment in order to be resolved," Du Rand argues.



Africa oil and gas business line leader, Samuel du Rand.

committed to infrastructure delivery



Multidisciplinary construction group **Stefanutti Stocks** undertakes projects across sub-Saharan Africa in the following sectors:

Building; Bulk Earthworks & Geotechnical; Energy Generation; Industrial Plants, Oil & Gas; Mining & Mining Infrastructure; Transport Infrastructure; and Water, Sanitation & Pipelines.



STUDENT ACCOMMODATION

in Pretoria on track

The Hatfield Square redevelopment is on track to open its doors in January 2017, offering Pretoria's student community a mixed-use precinct that will include state-of-the-art student residences, retail and leisure facilities.



Within walking distance of the University of Pretoria's main campus, the new development will welcome students studying at any tertiary institution in the city.

"The redevelopment of Hatfield Square is focused on meeting the needs of students, while providing a rejuvenated space for the public. It's with this in mind that we briefed Paragon Architects to design a safe, accessible environment where students can live, study and play," says Craig McMurray, CEO of Respublica, the developers driving the new development, along with Redefine Properties through their joint venture, Respublica Student Living.

This approach means that each of the four buildings in the development is designed to create smaller neighbourhoods within the precinct, with common areas in and around each building to encourage interaction and movement. Intimate courtyards offer more private, smaller spaces, while an abundance of breakaway rooms and study areas offer the peace and quiet that is necessary for serious study times.

With accommodation for 2 200 students, Hatfield Square offers five accommodation formats to suit the needs and budget of every student. However, regardless of their individual space, every student will have access to all of Hatfield Square's premium facilities, which include a gym, recreation rooms, laundry facilities, computer and study rooms, swimming pool, and unlimited WiFi broadband.

The four main buildings in the residence complex are built using Hebel Autoclaved Aerated Concrete (AAC), a revolutionary material offering a unique combination of strength, light-weight, thermal insulation, sound absorption, unsurpassed fire resistance and an unprecedented ease of construction. Cut and shaped like wood with simple hand tools, AAC block's naturally smooth surface only requires a skim coat thus eliminating the need to plaster conventionally.

This system has contributed to the clockwork-timing of Hatfield Square, as a two-man team working with AAC blocks can build up to

"However, regulatory requirements are being addressed, with Mozambique, for example, being close to ready for development. Unfortunately, the low oil price is stalling many developments at the moment. It will also be interesting to see how international oil companies will decide to develop new reserves in Africa, and how the cost of creating enabling infrastructure here compares with other parts of the world," Du Rand elaborates.

South Africa currently has little proven oil-and-gas reserves, and therefore remains a net importer of these resources. There is great interest in shale gas in the Karoo, as well as other potential oil-and-gas reserves on and offshore of South Africa.

"The current regulatory environment is not friendly to investment in exploration, while there are a lot of environmental challenges to overcome. Significant development of the industry in the short term is probably unlikely. Programmes such as the gas-to-power initiative by the Department of Energy may stimulate development going forward," Du Rand predicts. ▣

Architecture

The redevelopment of Hatfield Square has been designed around the concept of a village, promoting a strong sense of community. The design acknowledges the multiplicity of being a student – the need to socialise and interact with other students, and the need to study. Each room has maximum access to air and light, following various sun studies.

The precinct includes four buildings, separated by courtyards. Each building is defined by a colour theme. The four buildings offer five modular units for a variety of rental options.

25 m² per day – allowing for the speed of construction that is 2-10x faster than that of conventional building.

The entire Hatfield Square precinct will feature a complete intelligent wireless network that will allow each user to connect multiple devices, offering easy access to online courses, distance learning, social media and video streaming. The building also features an IP networked biometric access control system to ensure students' security, complemented with a CCTV system that will monitor entrances, exits and the precinct's perimeter.

As a ground-breaking project that sets new standards in student accommodation, Hatfield Square will feature energy efficient lighting and control systems fitted with LED lighting. All common areas are fitted with occupancy sensors to switch lighting on when movement is detected. Installed generators will provide lighting and run all essential systems throughout the buildings in the event of a power outage.

Students will have easy access to the variety of retail outlets in approximately 2 700 m² of purpose-designed space for sit-down and quick service restaurants, fashion outlets and technology stores in the Square, that have been carefully chosen to ensure that students will not have to travel far to meet their basic needs.

The redevelopment of the 11 740 m² site, which pays homage to Hatfield Square's heritage of being at the heart of Pretoria's student culture, will cover more than 90 000 m² of gross building area on completion of phase two. The first phase of the development, which includes the retail component, will be ready for occupation for the 2017 academic year, with the remaining phase expected to be ready for occupation for the 2018 academic year.

Respublica's portfolio of residences includes Saratoga Village and The Fields in Doornfontein, which provide accommodation for University of Johannesburg, Central Johannesburg College and University of the Witwatersrand students. Yale Village, Respublica's newest 1 330 bed development in Empire Road across from WITS is set to open in early 2017. In Midrand, Pearson Village services students from Pearson International (formerly MGI). In Pretoria, West City, Urban Nest and Eastwood Village accommodate students from Tshwane University of Technology and University of Pretoria. ▣



TRIUMPHANT COMPANY

Royal HaskoningDHV was victorious at the recent CESA Aon Engineering Excellence Awards, cleaning up in the projects categories with three awards while their Young Professionals won the award for the Job Shadow Competition.

> In the category for Engineering Excellence for projects with a value of greater than R250-million, the Braamhoek Consultants Joint Venture (BCJV) comprising GIBB, Royal HaskoningDHV and Knight Piésold won the Award for the Ingula Pumped Storage Scheme for Eskom. Royal HaskoningDHV won the award in the category for projects less than R50-million for the National DST/Mintek NIC Cleanroom Facility for the Department of Science and Technology. In the category for projects with a value between R50 and R250-million they received a Commendation for the Condale 33/6,6 kV Substation for Mogale City Local Municipality.

Salani Sithole, Royal HaskoningDHV managing director speaking as part of the Braamhoek Joint stated, "An incredible milestone was achieved this year when the Ingula Pumped Storage Scheme started generating power. This peaking hydropower station will contribute significantly towards economic growth by alleviating power shortages during peak demand times – something South Africa so desperately needs".

Consultants Joint Venture

The Ingula Pumped Storage Scheme is a multi-billion-rand project located near Van Reenen in the Little Drakensberg and has a generating capacity of 1 332 MW. The development of Ingula is a true example of how infrastructure development and nature can work together to enhance economic growth to everyone's benefit. The environment significantly influenced the project's design and execution to create a 'sense of place'.

The project which started with feasibility studies in the 1980s required numerous detailed studies, extensive planning, expert knowledge, state of the art designs, professional project management, dedicated personnel, careful execution, strict quality control and unusual construction methods to finally reach the ultimate goal of generating power for the country. Ingula, which counts among the largest pumped storage schemes in the world; created a large number of temporary and permanent jobs and the future benefits of the scheme to the country are countless.

National DST/Mintek NIC Cleanroom facility

The new R13-million National DST/ Mintek NIC Cleanroom facility is aimed at combating deadly diseases. The facility allows for the rapid development and production of diagnostic devices that are capable of diagnosing illnesses such as malaria in its early stages. Early diagnosis and subsequent treatment is a crucial life saver for those afflicted and is a major step forward in disease control for the country. Royal HaskoningDHV's specialised Cleanrooms division is one of the few design specialists in the country capable of meeting the exacting specifications required for BSL 3 classified laboratories and ISO 3 cleanrooms.

Condale Substation

The existing Condale Substation built over 60 years ago was in need of an upgrade to handle the growing population of Mogale City and to ensure stable electricity supply for the expanding community. Royal HaskoningDHV was awarded the contract for a major upgrade with a value of R140-million. Condale is the only main infeed substation for the whole of Mogale City. One of the challenges of the project was that the entire substation was rebuilt under live yard conditions and safety was paramount as the substation was operating at full capacity during the upgrade. ■

Eskom with the Braamhoek Consultants Joint Venture (BCJV) comprising GIBB, Royal HaskoningDHV and Knight Piésold for the Ingula Pumped Storage Scheme.



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Scope for application of MULTIDISCIPLINARY CAPABILITIES

By Chrissi Maria

As a multidisciplinary construction partner to the oil & gas sector, Stefanutti Stocks offers a full-range of construction services including geotechnical, earthworks, civils, building, mechanical, process piping systems, electrical and instrumentation installations, as well as structural rehabilitation and concrete repair.



“We are able to put a comprehensive skills-set to play for clients such as Sasol, for which the group’s divisions undertake a broad spectrum of projects,” says Geoff Thompson, business development director for the Stefanutti Stocks Structures business unit. “These capabilities, coupled with our uncompromising policies on quality and safety, and solid client relationships, have made Stefanutti Stocks one of the preferred contractors within this industry.”

- Preliminary designs at the tender stage and further auger trial holes to verify the founding conditions.
- Final construction design with piles carrying loads in side-shear only, including client’s minimum requirements based on the auger trial holes information.
- Installation of 516 temporary cased and uncased Auger-Cased In Situ (ACIS) structural piles, with diameters ranging between 450 mm to 750 mm.
- Installation of three 750 mm-diameter compression-load test piles, with four anchor piles for each test.

The production schedule was impacted by the discovery of an unforeseen hard rock layer of dolerite beneath 83% of the site footprint, which needed to be drilled through in order to achieve the minimum required rock sockets. Also, unexpected water seepage

below eight metres deep required proper planning for drilling, pile-base cleaning and concrete pouring. In some of the piles, mainly in the backfilled areas, severe water ingress and associated side-wall collapses required the utilisation of temporary casings.

This project had very tight milestones and required sections to be handed over in early January 2016, with heavy penalties as a result of not completing on time. “Our planning in terms of material procurement, mobilising to site and the execution of the works had to be very precise,” says project manager Teboho Motaung. “We put a sound strategy in place and completed the overall works and sectional hand overs two weeks ahead of schedule.”

The specification required pile compression load tests be done on three 750 mm-diameter piles carrying a working load of 2 765 kN. The piles were loaded to 1,5 x working load as per the testing specifications. “The main purpose for conducting the pile compression load testing is to validate and to check compliance with the design specifications,” explains Motaung. “In order to allow the application of a load to the test pile for an extended period of time this method of testing involved the use of a reaction system, using a 500 ton jack to apply the required test load of 4 147 kN.”

As pile-compression load testing is regarded as temporary works, the method and assembly of the tests were carried out in accordance with the requirements of SANS1200F, British Standard and the South African Occupational Health and Safety (OHS) Act.

Piling capabilities

After successfully completing the piling for the Oxygen Train 16th project in 2009, Stefanutti Stocks Geotechnical was awarded the piling works contract for what will be the world’s largest Oxygen production facility, the new Oxygen Train 17th Plant. The scope of works on this contract included:

Stefanutti Stocks Geotechnical's piling rigs that were used at the Sasol Train 17th Plant site.



Structural, mechanical, electrical, instrumentation and piping (SMEIP)

Stefanutti Stocks Oil & Gas division is undertaking the Chlorotrifluoroethylene (CTFE) SMEIP contract for Sasol in Secunda. The contract for the fabrication of the piping spools, using free issue material, was also undertaken by the division. This was undertaken at the division’s pipe spool fabrication facility in Elandsfontein (that includes a furnace for heat treatment). Once the blasting and painting completed delivered to site in Secunda.

Process plant maintenance and construction

E&I has been undertaking the electrical and



A view of the completed access platforms running around the circumference of the 165-metres high cooling tower.

instrumentation construction and maintenance of process plants for Sasol in Secunda since 2009 and in Sasolburg since 2011.

In comparison to the Sasol Secunda operation the Sasolburg operation is certainly smaller, however the division has been relatively successful in ensuring the continuity of projects at both locations, here, in particular within the maintenance sphere. "Retaining the best core team in the market is our constant goal," says August Lipke, operations director for the division. "Based on our experience and performance, we have successfully negotiated a number of E&I maintenance and construction contracts."

These include:

- FTWEP Phase 2 (Sasolburg)
- Work pack 01 and 04 E&I (FWSA);
- WP 01/04 Steam Tracing in conjunction with Stefanutti Stocks Oil & Gas division;
- FTWEP Work Pack 05 & 07 (Linde); and
- DMR (for Worley Parsons) (Sasolburg)
- Medium Voltage and Instrumentation maintenance (Sasolburg)
- Electrical and Instrumentation Maintenance (Secunda)
- Plant Light Maintenance (Secunda)
- VOC Expansion Project (Secunda) in conjunction with Murray & Robberts
- Coal tar Filtration East (Secunda) in conjunction with Stefanutti Stocks Oil & Gas division

A recent highlight included the achievement of a 1,5 million LTIFR milestone by the Stefanutti Stocks' Electrical & Instrumentation team that has been undertaking the maintenance of Sasol Secunda's process plant equipment and plant lights since 2009.

E&I installation

Stefanutti Stocks Electrical and Instrumentation (E&I) annually undertakes multiple projects for Sasol Synfuels and recently undertook the E&I revamp of the Sasol's Polypropylene Plant (PP2) unit located in Sasol's Secunda complex. The project, entitled the C3 Expansion Project sees the capacity of the C3 process equipment increase from 300 ktpa to 375 ktpa.

The pre-shutdown work included:

- Preparatory work during which equipment and services were prepared for the shutdown and changeover.
- The installation of new cableways and support.
- Pulling in of new cable.

The Alimak hoist being erected along the side of the cooling tower. This process took about three weeks with commissioning.

- The installation of new equipment.
- Switching off and removing existing equipment for refurbishment (typically drives, instruments and switchgear). Some of this equipment was refurbished on site, or in the case of the more complicated functions, carried out by Original Equipment (OEM's) off site.

Shutdown work included the testing, reinstallation, reconnection, commissioning and re-integration of the refurbished equipment into the operational plant. A total of 200 kilometres of cabling and 140 instruments were installed during the project.

Specialised grouting

Stefanutti Stocks Civils' niche capabilities include foaming agents, cementitious grouting, epoxy grouting, bentonites, cavity filling foundation colgrouting and marine concreting. The division recently undertook a specialised grouting project for Aveng Grinaker LTA at Sasol Secunda's selective catalytic cracker (SCC) plant.

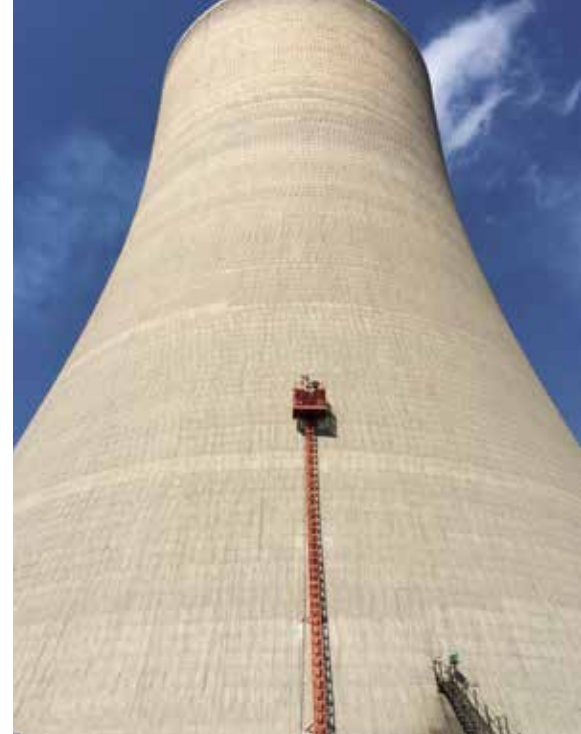
Epoxy grout was applied to the pump and compressor bases in the SCC that outputs ethylene and propylene. This particular type of grout is utilised in harsh commercial and industrial applications or in areas exposed to chemicals. Cementitious grouting, designed for static or light dynamic loading (or high temperature exposure), was applied to all instrumentation baseplates within the SCC.

Concrete rehabilitation and repair

Stefanutti Stocks Civils recently completed the repair to the rim of a cooling tower for Sasol Synfuels in Secunda. The work area on top of the 165-metre-high cooling tower was accessed by means of an Alimak Scando 20/30 construction hoist that was used to transport all equipment and personnel up to the top platform. The project scope of work included the supply, manufacture and installation of a temporary works platform around the 206-metre-circumference of the cooling tower's top rim.

The repairs (both internal and external to the spalled concrete) and application of the polyurethane coating to the rim were undertaken from the purpose-built circumferential platform during Sasol's annual shut down period of 12 days.

During the project a total of 8 m³ of concrete was removed and repaired, 1,1 ton



of reinforcement was replaced and 220 m² of polyurethane coating was applied, following which all access platforms and hoists were removed. The project was completed successfully within the programme's time-frame and without any safety incidents.

The group's oil & gas service offering extends across the South African borders, and Stefanutti Stocks Civils KZN recently completed its fourth project for Sasol Petroleum Mozambique Limitada. This entailed the construction of access roads and five well pads spread across the Temane and Inhassoro gas fields, and located over a 50-kilometre distance from the central processing plant (CPF) in Temane.

"We are proud of our long association with Sasol, and that we have been able to offer such a comprehensive skills set to our client," says Thompson. "We look forward to continuing to build our relationship with Sasol, both in South Africa and across our borders." <

Polyurethane coating is applied to the top rim of the cooling tower.



Honouring SA'S TOP ARCHITECTS

The movers and shakers of the architectural world in South Africa gathered at Shine Studios in Braamfontein on 2 September to witness the presentation of the 2015/2016 Corobrik SAIA Awards of Merit for Excellence in Architecture to the cream of the profession.

The seven best designs and a book earned Awards of Excellence – the highest accolade to be given to an architectural project in South Africa since the inception of the programme in 1990.

A further seven projects received Awards of Merit, which were first instituted in 1999 to recognise good design or a substantial achievement in the industry. In addition, 16 commendations were awarded for remarkable design.

According to Kevin Bingham, awards convenor and SAIA Vice President, the large number of awards and commendations this year bore testimony to the high quality of the entries.

“We have honoured 31 projects because the standard of design warranted it and because this year we had so many entries to choose from – a record 66 which is the most received in the 26-year lifespan of the awards. South Africa may be geographically remote from many of the world’s major cities but architectural design in this country can hold its own with the best internationally.”

This year’s judging panel was headed by Bingham, who is also a director of FGG Architects in Durban; and included sponsor representative Musa Shangase, who is commercial director of Corobrik; Mokena Makeka, who is founder and principal architect at Makeka Design Lab in Cape Town; Prof Paul Kotze, who is professor of Wits University’s School of Architecture and Planning; and eminent

The Awarded Projects – 2015/16 Corobrik-SAIA Awards

Awards of Excellence

1. House La Lucia, Durban: designworkshop : sa
2. Military Health Base Depot for SAMHS: Jeremie Malan Architects CC
3. House van der Watt Waterkloof, Pretoria: Slee & Co. Architects
4. House Pretorius, Constantia, Cape Town: Metropolis
5. 17 Glen Avenue Higgovale, Cape Town: studioMAS Architecture and Urban Design
6. ‘Malapa’ Fossil Cave & Visitors Platform: Krynauw Nel Associates
7. Number 1 Silo: Alan Gray Headquarters, Cape Town: Van der Merwe - Miszewski Architects, in association with Rick Brown Associates
8. Eclectic ZA Wilhelmiens : Karel A Bakker, Roger C Fisher and Nicholas J Clarke

30

House La Lucia, KZN

The team at designworkshop : sa described their award-winning house at La Lucia in this way “... the project explores its potential in the caves carved out of the coastal rock by the persistent erosion of the sea, to be hollowed-out solid rather than a lightweight form, a piece of nature rather than a building.” The judges expressed their deepest respect for the brilliance, commitment, craftsmanship, attention to detail and the professional and inspired co-operation that must have existed between the client, builder and the architect.



layperson Sumien Brink, who is editor of VISI magazine in Johannesburg.

“This is a star-studded event where we recognise South Africa’s foremost architects,” said Obert Chakarisa, CEO of SAIA. “The architectural profession has reason to celebrate when we see designs being produced of the calibre of the entries we have received this year, many of which easily merit the description world-class.”

“The awards give us a snapshot of the status of architecture in the country and it would be remiss of us not to mention that we would have welcomed more entries that tackled the current widespread social issues associated with affordable housing and the redevelopment of inner cities.

It was, however, encouraging to note that a large number met the sustainable design imperative.”

Musa Shangase of Corobrik said that the developing rainbow nation that was South Africa presented unique challenges for the architectural profession which in turn offered opportunities for thinking out of the box and for innovative and unconventional solutions.

“Limited budgets, which often apply to public buildings that need to meet a variety of needs, can act as a catalyst for great design which is fit for purpose and complimentary to the landscape,” he said.



House van der Watt, Waterkloof, Pretoria
Nostalgia for the quintessential 'Farmhouse' informed the choice of architectural form, plan typology, materials and tectonic expression in this design by Slee & Co. The judges detected a certain playfulness and 'lightness' in the design of the building, despite its intense seriousness and gravitas.

House Pretorius, Constantia


Metropolis Architects designed this house on a site which is the proverbial clearing in the forest. The adjudicators commented that the whole building exuded a quiet and reserved "lightness of being" and that "this light and tranquil building places all place emphasis on man's restorative relationship with nature. Nature is the ultimate ideal - while the architecture of this house follows its rules."



"The inspired use of building materials is also becoming a feature of modern South African architecture and, as the leading suppliers of clay brick in this country for the past 112 years, we are delighted to be a part of this pattern.

"Our longstanding support of SAIA is a mark of our respect for the architectural profession in this country and we have every expectation that our paths will continue to be linked for many years to come."

The keynote address at the awards dinner was given by Mziwonke Dlabantu, Director General of the national Department of Public Works.

The Corobrik-SAIA Awards are presented on a two year cycle and are open to SAIA members from all of its regions nationwide who are invited to submit entries for their best work of any kind. Regional awards are presented in the first year of the cycle and national awards in the second year. 

Awards of Merit

1. House La Lucia, Durban: designworkshop : sa
2. Military Health Base Depot for SAMHS: Jeremie Malan Architects
3. New Residence Waterkloof, Pretoria: Slee & Co. Architects
4. 79 Brommersvlei Road, Constantia, Cape Town: Metropolis
5. 17 Glen Avenue Higgovale, Cape Town: studioMAS Architecture and Urban Design
6. Malapa Fossil Cave & Visitors Platform: Krynauw Nel Associates
7. Number 1 Silo: Alan Gray Headquarters, Cape Town: Van der Merwe - Miszewski Architects, in association with Rick Brown Associates
8. Eclectic ZA Wilhelmien: Karel A Bakker, Roger C Fisher and Nicholas J Clarke
9. House Scribante: Jason Erlank Architects
10. Tree Canopy Walkway, Kirstenbosch: Mark Thomas Architects
11. Heideveld Primary School, Athlone: Meyer & Associates, Architects and Urban Designers
12. Sinkhuis, Stellenbosch: Slee & Co. Architects
13. The Last Glass House: Thomashoff + Partner Architects
14. Architectural Guide SA: Roger C Fisher and Nicholas J Clarke
15. Watershed, Wolff Architects

Commendations

1. Liv Village, Verulam, KwaZulu-Natal: designworkshop : sa
2. Wits Rural Facility Training and Research Centre: Kate Otten Architects
3. New Coffeeshop and Showroom in Midrand for Foghound Interactive Coffee: Earthworld Architects
4. House Du Plessis: Earthworld Architects CC
5. House De Villiers: Konsep Architects
6. Moruleng Cultural Precinct Tshwane: office 24-7
7. House Jonker: Thomas Gouws Architects + Interiors
8. Light House: W Design Architecture Studio
9. House Roodt: Roodt Architects
10. Hermanus Community Day Care Centre: Gallagher Lourens Architects
11. Oude Werf Hotel: Revel Fox & Partners
12. House Nicholas: Noero Architects in association with Lemon Pebble Architects
13. BMW (South Africa) Head Office: Boogertman + Partners Architects
14. Outreach Foundation Community Centre: Local Studio
15. Steyn City Clubhouse: Boogertman + Partners Architects
16. Sandibe Okavango Safari Lodge, Okavango Delta, Botswana: Nicholas Plewman Architects in collaboration with Michaelis Boyd Architects

Awards of Excellence continued



'Malapa', Fossil Cave Cover and Visitors' Platform, Cradle of Humankind

Krynauw Nel Associates said that the structure 'designed itself, a remark the judges believed could only be made when the architect listened closely, creatively and with foresight to the client and to the clues of a momentarily important UNESCO World Heritage Site. They said the architects found their inspiration in the nature of the scientific work done on this site. "The nature of the human skeleton became the frame of reference for this insect-like structure. Fossil shapes have been used in the finer detailing of the steel structure. This ensures that the structure offers an educational experience as well."



17 Glen Avenue, Higgovale, Cape Town

StudioMAS describe 17 Glen, situated just below Table Mountain, as "a sanctuary for life itself". The judges called it a benchmark of restraint which enabled poetry and spiritual influence to flow from it, a self-contained and consciously sculpted form. "It creates the impression that it is at one with and equal to the large boulders of Table Mountain sandstone that defines the character of the site."

Military Health Base Depot for SAMHS, Thaba Tshwane, Pretoria

Creating this 30 000 m² new building was a long and complicated process for Jeremie Malan Architects. The combined professional team employed roughly 100 people with 1 500 construction workers on site. The site had a whole collection of historical structures many of which had to be retained and restored in terms of heritage legislation. Specially commissioned artworks were used all over the more public spaces. The judges said, "What has been created here is an environment of sustainability, efficiency, robustness and enduring delight and intrigue".





Eclectic ZA Wilhelmiens

Eclectic ZA Wilhelmiens: a shared Dutch built heritage in South Africa is a publication that is the culmination of years of dedicated work. The judges felt it showed what a rich architectural history South Africa had, how under-researched it was and that academics of the stature of the editors – Bakker, Clark and Fischer – could make a contribution to all of us ‘to know our past’.



Number 1 Silo: Alan Gray headquarters, V&A Waterfront, Cape Town

Relishing its role of being a ‘background’ building, where public space and the pre-existing are hierarchically more important than it is, the shape and form of this corporate building are informed by the decision to make the 1920s grain silo (and home of a future art gallery) the dominant element in the local context. The judges said the architects, Van der Merwe Miszewski Architects in association with Rick Brown Associates, had realised their intention that “the building’s conceptual foundation and façade resolution be informed by the integrity of the industrial and historical V&A Waterfront buildings, giving priority to practicality over image”. They felt the design had achieved levels of perfection unseen before in their oeuvre and generally in South Africa.



SMOOTH OPERATOR on N1 upgrade

The Raubex name is synonymous with quality road infrastructure. It therefore stands to reason that member companies of the largest road building specialist in the country will strive to exceed expectations in the immediate vicinity of its own headquarters in Bloemfontein, Free State.



This has certainly been the case on the upgrade of the stretch of the National Route 1 (N1) from Sydenham (km 28,8) to Glen Lyon (km 62,4). Once completed, the project will again highlight South African road construction capabilities and, just as importantly, showcase the capabilities housed in the Raubex Group.

The road will have an extremely high rideability specification, as well as a life-span of approximately 20 years, in line with consulting engineer, WorleyParsons' design requirements.

Contracted by the South African National Roads Agency SOC Limited (SANRAL), Raubex Construction and sister company, Roadmac Surfacing are making steady progress on this construction programme.

The road comprises 350 mm of G4 stabi-

lised sub base, 120 mm of bitumen treated base (BTB) course and 20 mm of ultra-thin friction course (UTFC).

Raubex is tasked with constructing the sub-base layers while Roadmac Surfacing oversees the BTB and UTFC components of the upgrade.

Despite a few complexities, the consortium of Raubex companies is planning to hand over this project well ahead of its completion deadline in December 2016. This follows almost 18 months of building activities on this important national road artery.

Reasons for solid track record

Wimpie Koch, contracts manager of Roadmac Surfacing, attributes the sound track record of the company to a number of factors.

Firstly, the company made a solid start right from the outset. When Raubex started with its component of the works, Roadmac Surfacing immediately commenced with the design of the asphalt.

At the same Petra Quarries, owned and operated by Raumix Aggregates, and B&E International started producing and stockpiling the 26 mm BTB aggregate needed for the base layer, while National Asphalt commenced crushing the high specification UTFC aggregate required for the contract.

These companies are part of Raumix, the materials division of the Raubex Group, and they were also joined by sister company, Tosas, which supplied the bitumen emulsions.

Recycled asphalt

Koch tells *Construction World* that the asphalt mix design comprises a high percentage of recycled asphalt (RA) – in line with government's 'green' infrastructure movement.

Initially, the professional team believed that it would be able to exceed these

requirements and, with input from Roadmac Surfacing, the BTB asphalt supplier bought a state-of-the-art batching plant that is able to produce asphalt containing a 40% RA.

As much as 5 000 tons of asphalt comprising this high percentage of recycled pavement was placed in the very early stages of the contract. However, the quality of material recovered in the fast lanes of the N1 highway was insufficient and Roadmac Surfacing decided to lower the percentage of RA used in the asphalt mix.

Despite this, Roadmac Surfacing has exceeded SANRAL's expectations. "At present, we are placing an asphalt mix with a 30% RA component, which is significantly more than our client expected," says Koch.

"While introducing a second team to undertake asphalt batching activities at the batching plant may have come at an extra cost, the time savings were well worth it. We were able to gain at least a six week head start on this project by implementing these interventions," he says.

Koch says the biggest challenge on this project was the smoothing over of production challenges at the new plant. This was essential, considering that asphalt production is on the critical path of the entire contract.

"The accuracy of the final layer of the BTB is critical, as it will influence the layer of UTFC that is placed on top of it, and if not 100% could compromise the high rideability specification demanded by SANRAL."

Asphalt is batched in a state-of-the-art plant that is able to produce asphalt with a RA content.





The Raubex Construction and Roadmac Surfacing team.

Cold winter season

Although many of the complexities encountered could be attributed to the cold winter season when asphalt batching started, one of the biggest challenges was the excessive fines generated at the plant. It was possible through close collaboration between the contractor and the supplier to solve this, and the company is now able to meet the very onerous RA requirements on other road construction contracts moving forward.

Also playing an invaluable role in keeping works on track was the specific focus areas of each participant in the consortium.

Raubex deployed its own team whose responsibilities ended with the priming of layers, after which Roadmac Surfacing commences operations that end with the



One of the successes of this project is the focus areas of each member of the consortium, with Roadmac Surfacing placing all of its attention on the asphalt.

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LEFT: Roadmac Surfacing is ahead of schedule and the project will be completed before deadline.
RIGHT: Roadmac Surfacing's component of the project focuses on the surfacing aspects of the project.

placement of the UTFc. Ongoing communication enabled the companies to bolster their teams to ensure that the construction programme remained on track.

These mitigating efforts were definitely worth it, considering that, by mid-July, the company had already completed 81% of its component of the project, and had not yet recorded one asphalt failure.

"The project relies heavily on achieving a repetitive rate on the construction

site. Because it is a large contract, small problems, such as those encountered at the asphalt plant, can become very large challenges," says Koch.

High rideability specification

The high rideability specification requires careful application of the BTB and UTFc.

Two 60 mm layers of BTB are placed separately and individually inspected to ensure the final layer meets the tight 10,5 International

Roughness Index (IRI) requirements.

Uneven sections are milled out using a planer. Koch says the machine is equipped with eight sensors to accurately detect uneven surfaces. These sensors also help guide the machine in removing on average 0,6 mm of BTB with its drum that is equipped with 750 teeth.

"The accuracy of the final layer of the BTB is critical, as it will influence the layer of UTFc that is placed on top of it, and if not 100% could compromise the high rideability specification demanded by SANRAL," he says.

A very high specification UTFc is being used on this project. It is a proprietary product of National Asphalt that carries a three year warranty, and is known for reducing rutting, minimising spray in rainy seasons and providing a very high skid resistance.

Roadmac Surfacing and Raubex are working hard to ensure that their road projects point to the quality that is associated with the skills deployed from Kenneth Kaunda Road Extension, Cleveley, and is adopted throughout the country and across its borders. This project is no exception and is certainly on its way to becoming a flagship project in the group's impressive portfolio. <

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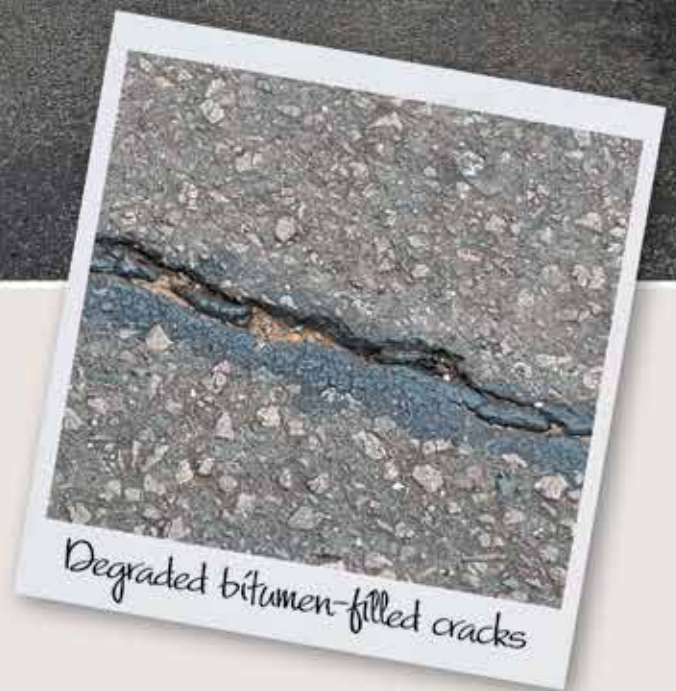
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CRUSHING INEFFICIENCIES

in construction materials production

Growing global urbanisation patterns are a major driver of both public and private sector construction projects.

World demand for construction aggregates is forecast to rise 5,2% annually until 2019 when it will reach 51,7 billion metric tons, while demand for crushed stone, recycled rubble, fly ash and slag will grow at twice the pace of sand and gravel. This is according to a report released earlier in the year by Freedonia Group.

Africa and Middle East

Regions of Africa and the Middle East are sound examples of the rapid rate at which construction materials are being consumed yearly in large commercial, industrial, retail and hospitality property developments on the back of ambitious government infrastructure programmes geared at delivering essential services to burgeoning towns and cities.

Africa and the Middle East are two significant markets for Weir Minerals Africa, which is now in the process of strengthening its existing infrastructure to support the many Trio® machines producing building materials in growth nodes in the Middle East, Southern, Central, East and West Africa.

Weir Minerals' acquisition of the Trio® group of businesses in 2014 was a proactive response not only to the insatiable global demand for aggregates, sand, fly ash and slag, but also the need for crushing and screening solutions that are suited to the very unique operating environments of these growth areas.

"What is very typical of these markets is that they need a solution that can be implemented quickly to enable operations to start producing building materials as soon as possible. Trio® equipment is modular and can be skid-mounted allowing us to supply and commission a medium sized crushing and screening operation within as little as 12 weeks," says JD Singleton, general manager of Trio® products for Weir Minerals Africa.

By eliminating the time and costs associated with developing large civil related infrastructure to support crushing and screening equipment, Trio® products have become highly sought-after solutions for rubble recycling operations.

"The ease with which they can be commissioned on building and landfill sites, and even mine waste rock dumps to produce a quality building aggregate is what makes them ideal for contractors who are looking to move the crushing and screening plant

from site to site," says Rasheel Sukdhoe, product manager for Trio® crushers at Weir Minerals Africa.

Sukdhoe says that he has seen a growing demand for recycled concrete, especially in South Africa which is setting the pace on the continent in terms of green building, and he expects this trend to continue.

"It has taken time, but recycled building rubble has now become a critical component of the Green Building Council of South Africa's Green Star Rating Tool, while government is driving sustainable infrastructure development which also recognises the importance of reducing the large amounts of rubble that are burdening the country's already limited available space for landfill sites," he says.

These are extremely arduous operating environments requiring robust crushing and screening solutions that are easy to maintain on site. These are both important traits of the Trio® product offering and a distinct advantage given limited skills availability and often remote operating environments in Africa and the Middle East.

Large concrete brick and block manufacturers

At the same time, large concrete brick and block manufacturers are using Trio® products to recycle their wastage, thus reducing operating costs by blending recycled concrete with virgin aggregates on their production lines.

The ability to rapidly deploy these machines to sites to increase production capabilities also makes them suited to the smaller single operator quarries and oper-

ators of borrow pits supporting large infrastructure construction programmes, both of which Singleton says offer large and growing market opportunities for Weir Minerals Africa. "Trio® equipment is kept in stock in Johannesburg and Dubai, which allows us to supply in very short timeframes", says Singleton.

"These producers of aggregate and sand usually need to boost their production volumes quickly to respond timeously to infrastructure development programmes within their immediate vicinity. This is a trend that we have seen throughout Africa and the Middle East," he says.

Trio® products are competitively priced and readily available enabling crushing and screening operators to capitalise on growth opportunities while enjoying a value offering backed up by specialised, flexible product support teams. This is further underpinned by the stability and experience of a company that has been serving the African mining sector in excess of 100 years.

In Zambia, for example, Weir Minerals Africa's branch in Kitwe is in the process of commissioning a 300 tph plant for a single operator. The Kitwe branch is already geared to provide a comprehensive aftermarket support service to the country's many copper mines. Product support specialists for Trio® machines are based at Weir Minerals' Kitwe branch to service the local market efficiently.

However, the company is also supplying large crushing and screening plants to match the tonnage requirements of those quarries that are owned by listed companies. Trio® crushing and screening solutions provide solutions for production requirements of up to 1 200 tph with ease, supplementing the production outputs of large static equipment.

In both instances, Weir Minerals Africa provides a bespoke solution based on the extensive Trio® product portfolio.

For example, the company's jaw crushers and horizontal and vertical-shaft impact crushers have proved to be the ideal solution

A modular Trio cone crusher with prescreen which are re-locatable assets that can easily be added onto an existing facility.





A 250 tph modular Trio aggregate plant installation in East Africa.



JD Singleton, general manager for Trio and Enduron products at Weir Minerals Africa.



Rasheel Sukdhoe, Trio Product Manager at Weir Minerals Africa.

for the unique requirements of slag retreatment processes in Namibia and Oman. Sukdhoe says that this offering is now being enhanced with Weir Minerals' extensive research and development (R&D) capabilities.

Recently, Weir Minerals launched its Trio® TP cone crusher range. This is the first offering from the stable to contain Weir Minerals' DNA. The new TP cone crusher incorporates a higher pivot point providing more crushing action increasing the per-centage product passing the closed side setting (CSS).

He says the design features a steep crushing chamber angle, a large crushing stroke and optimum speed to deliver a

finer product through increased inter-particle comminution. This is complemented by conveyor belts that are quicker to assemble and offer more flexibility, as well as air classifiers that are being used in operations in Middle Eastern countries to clean sand without water.

The rapid rate of urbanisation shows no signs of abating, while ruralisation – the growth of outlying areas – adds to the pressures of built environment professionals. Weir Minerals is helping them respond to these challenges. <



The modular design of the Trio jaw crusher provides extra value by reducing transportation and installation costs.



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PARTNERSHIP IN RWANDA

A team of volunteers from Arup and Bechtel spent two weeks of their summer building a pedestrian bridge in Rwanda.

> The new span will provide safe, year-round access to schools, markets, and health care facilities for the 12 000 residents of Kukibuye. In the last year, two people were killed and seven were injured while walking across the logs that currently cross the Mukungwa River near the northwestern Rwandan village.

The team of 10 engineers drawn from Arup and Bechtel have partnered with Bridges to Prosperity, a US nonprofit that specialises in designing and building footbridges to improve the lives of isolated rural communities. Arup and Bechtel Group Foundation contributed £45 000 to cover the cost of materials and labour, while individual team members carried out their own fundraising to contribute an additional £6 000 to the effort.

The people of Kukibuye have already prepared the foundations for the 42-metre suspension bridge in advance of the construction phase, which runs from 18 to 31 July. The team will be working in close collaboration with the community throughout construction to share knowledge on building safe, efficient, and locally appropriate footbridges.

Phil Borowiec, Arup engineer and Bridges to Prosperity trustee, said, "Arup have worked with Bridges to Prosperity for the last five years to help build these essential links that reconnect communities and provide safe passage for so many people. It's a tremendously rewarding experience working with the local community and seeing first-hand the significant positive impact the bridge makes to their daily lives. We're really pleased to partner with Bechtel this year, and we look forward to continuing our great work together."

"Bechtel volunteers bring extensive experience and passion to this project for the citizens of Kukibuye. Our employee volunteers have partnered with Engineers Without Borders to help improve the lives of local citizens on projects in nine countries—bringing needed infrastructure to thousands of people. We are delighted to engage in this first assignment with Bridges to Prosperity and to team with Arup in this important work that will have a lasting impact on the village," said Charlene Wheeler, principal vice president and manager, global corporate affairs, Bechtel. ■

A team of volunteers from Arup and Bechtel are spent two weeks of their summer building a pedestrian bridge in Rwanda.





FAR LEFT: Fibertex AM-2 paving fabric prevents the propagation of stress cracks from lower layers, when placed between old and new asphalt layers.

LEFT: Fibertex AM-2 paving fabric is designed especially for civil engineering, mining and road construction and maintenance projects, includes a paving fabric – Fibertex AM-2. This flexible needle punched nonwoven paving fabric has been used in a recent road surfacing project in Zambia.

ZAMBIAN ROAD PROJECT

The Fibertex range of geotextiles, which is designed especially for civil engineering, mining and road construction and maintenance projects, includes a paving fabric – Fibertex AM-2.

➤ This flexible needle punched nonwoven paving fabric has been used in a recent road surfacing project in Zambia. To gain access to one of the world's largest copper mines at Kalumbila on Zambia's Copper Belt, a network of dirt roads off the main road between Solwezi and Lumwana needed to be constructed. The new mine is remotely located.

"All road building materials had to be transported over long distances and at great cost," says Chris Powell, Fibertex South Africa – manufacturers of geosynthetic products. "High seasonal rainfall in this region has a detrimental effect on roads, substantially increasing maintenance requirements.

"To lower the costly routine maintenance intervals on these roads, they were later upgraded to a surfaced standard, using Fibertex AM-2 paving fabric. Fibertex AM-2 has added thermal bonding on one side only. The purpose of this pre-compressed 140 g/m² polypropylene (PP) bitumen-saturated paving fabric is to prevent the ingress of surface water into the selected layers of the road prism, thereby reducing the bearing capacity of these layers.

"This membrane also act as a Stress Absorbing Membrane Interlayer (SAMI) to prevent surface stress cracking by absorbing stresses imposed by differential loads. This paving fabric also prevents the propagation of stress cracks from lower surface layers (older asphalt or chip seal layers) in the case of a road reseal."

By including Fibertex AM-2 in the reseal design, the formation of stress cracks and eventual pothole formation is prevented, thus extending the service life of the road surface.

Additionally, when using Fibertex F-grade geotextiles in a separation application below the layer works of the road prism, the road design can be altered to include less of the costly imported engineered fill. This reduces the thickness of the selected layers, resulting in a more cost effective design.

Without the use of a separation fabric in weak subgrade conditions, intermixing of engineered aggregate into the weak subgrade could occur. As a result, the bearing capacity of the base course is reduced, which could lead to base course failure of the road.

The Fibertex AM-2 system can be applied mechanically for large volume installations, as well as manually in cases where narrow width installations are required. An extensive range of nonwoven geotextiles is manufactured at the Fibertex manufacturing facility in Hammarsdale, KwaZulu-Natal, in accordance with major international quality standards. These include ISO 9001: 2008 accreditation, the coveted CE-marking and other quality, safety and environmental specifications. Extensive quality testing to ensures nonwoven products meet customers' requirements. ■



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ASPHALT REMOVAL in record-breaking time

Three Wirtgen cold milling machines – two of type W 210 and one of type W 200i – and two Wirtgen soil stabilisers of type WR 2000 demonstrate their productivity and reliability at Alghero-Fertilia Airport in Sardinia.



Located roughly 8 km northwest of the city of Alghero, Alghero-Fertilia Airport is one of three commercial airports on the Italian island, along with Cagliari Elmas and Olbia. The airport serves the provinces Sassari and Oristano. It is also a major hub for various low-cost carriers. With an annual passenger volume of 1,7 m, the summer months are the busiest. The operating company SO.GE.A.AL consequently decided to use the off-season period in early November to carry out necessary maintenance work.

Tight schedule imposes high demands on men and machines

The maintenance schedule called for rehabilitation of the runway surface course over a length of 2,1 km and a width of up to 19 m. In addition, the underlying courses had to be stabilised over a further stretch 600 m long and 19 m wide at the end of runway 20. The ground there is subjected to heavier loads due to aircraft landing.

The size of the area to be milled, the standards which applied to the stabilisation work and the short time frame allowed for the project all called for a service provider with the necessary experience and the right equipment. The contract was ultimately awarded to the company Italfrese srl from San Damiano d'Asti, south of Turin. The stabilisation work

was carried out by another Turin company, the subcontractor Consolida srl.

Italfrese provides a large fleet of machines comprising 10 Wirtgen cold milling machines, a Wirtgen soil stabiliser of type WR 2000 and a binding agent spreader of type SW 10 TC from Streumaster.

Logistics and machinery equally important

The logistics was indisputably the biggest challenge for both companies. All the required machinery – two Wirtgen cold milling machines W 210 and a W 200i, two soil stabilisers of type WR 2000, two Streumaster binder spreaders of type SW 10 TC, two road sweepers and three service vans – first had to be shipped to the island.

According to the carefully planned schedule, only two days and nights were allowed for the milling work so that the asphalt could be paved without delay. In order not to lose any time during the work, Italfrese therefore set up an efficient system for supplying water and refueling the cold milling machines and other equipment before the milling work started.

Contracts were signed with local haulage contractors to ensure that a sufficient number of trucks were always available to transport the reclaimed asphalt pavement without delay.

Premium products from Wirtgen live up to their reputation

The work started at the end of runway 20. Before the soil was stabilized by the two WR 2000 machines from Wirtgen, the market leader's cold milling machines removed the complete 30 cm-thick pavement over an area of 11 400 m² – working in several passes and advancing in a staggered formation at high feed rates.

Cost-efficient and reliable milling and stabilisation

With their 2 m-wide milling drum, the high-performance milling machines W 210 and W 200 can reclaim asphalt up to a maximum depth of 33 cm. Depending on the requirements, the milling drum speed can be set directly from the operator's platform to 1 600 rpm, 1 800 rpm or 2 000 rpm via a selector switch. While the low speed of 1 600 rpm is ideal for achieving a maximum milling output and lower fuel consumption per cubic meter of reclaimed material with low wear on the cutting tools, the middle rate of 1 800 rpm is perfect for standard milling jobs, such as the removal of surface courses. It also delivers RAP in appropriate particle sizes.

The top speed of 2 000 rpm is used to remove thin pavements at maximum feed rates while producing a good milled result at the same time.

Once the cold milling machines had removed the pavement at the end of the runway in less time than was originally scheduled, excavators removed the base to a depth of 80 cm – as specified – in just one night shift plus the following morning. They were followed by two Wirtgen soil stabilisers

The base courses additionally had to be stabilised at the end of runway 20. In the first stage, the complete pavement – some 3 420 m³ of material – was reclaimed by a team of three Wirtgen machines: two W 210 machines and a W 200i.

The practical solutions offered by cold milling machines from Wirtgen are appreciated by the machine operators. Simple, clearly arranged operating elements allow the operators to focus completely on their job and always have everything under control. The LEVEL PRO leveling system is just one of many highlights. It makes life easier for operators while improving the quality of the milled result.



Construction machines from Wirtgen kicked off the rehabilitation work on the runway at Alghero-Fertilia Airport on Sardinia. Two cold milling machines of type W 210 removed the 5 cm-thick asphalt pavement with great precision when rehabilitating the surface course of a 2,1 km-long section.



All in all, a total area of 37 800 m² had to be milled, yielding an RAP volume of roughly 1 900 m³. The two W 210 machines performed outstandingly here, with their enormous feed rate and medium milling drum speed.

In addition to the low degree of wear – which is attributable to the carefully coordinated interaction between cold milling machine and point-attack tools as well as the use of low milling drum speeds – the dual-engine concept of the W 210 also proved to be particularly economical.

Since the dual-engine concept and the three milling drum speeds were optimally adapted to meet the requirements of the job site, milling work on the airfield was able to proceed quickly and cost-efficiently.

But that was not all. Soil stabilisation by the two WR 2000 machines also proceeded within the agreed time frame. <

of type WR 2000. Over the next few days, these mobile machines stabilized the first 30 cm with 2,5% lime and 2,5% cement, as required on account of the clayey soil. The remaining 50 cm of soil were also homogenized by the two WR 2000 machines, this time adding 3% cement.

Features boost efficiency

At the same time, the two W 210 cold milling machines tackled the 2,1 km-long runway from which the surface course had to be removed to a depth of 5 cm. The challenge here lay in the size of the area to be milled, rather than in the milling depth.

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PRODUCT TRAINING flies in SA

CASE Construction Equipment has held for the first time in the sub-Saharan region, EAGLE DAYS, a three-day event to provide product and commercial training for sales professionals throughout the region and to show customers the extraordinary performance of the CASE range in the field.



The event, held at the Johannesburg premises of dealer CSE, from 19 to 21 July, included two days of intensive training attended by salesmen from all parts of South Africa, Mozambique, Uganda, Zambia, Namibia and Zimbabwe.

The third day was dedicated to customers, with an impressive show and product demonstration from expert CASE operators that astonished the numerous customers invited to take part to the event. Over 120 customers had the possibility to see crawler excavators, graders, wheel loaders, backhoe loaders and skid steers at work and to receive advice from Case product specialists on the best machine for each application.

“The response to our EAGLE DAYS event in Johannesburg was outstanding,” said Franco Invernizzi, senior business director CNH Industrial Construction Equipment for Africa and Middle East. Our CASE dealers throughout sub-Saharan Africa really appreciated the work that had been put in by our EMEA Commercial Training team and the staff at CSE, who made all of us feel so welcome”.

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Training and demonstration

The CASE Commercial Training Team provided both in-depth product walk-arounds in the demonstration area and classroom sessions under a marquee erected beside the demo field.

“The EAGLE DAYS is a proven format that is a real energy boost and motivational tool for the CASE salesmen,” said Invernizzi. The two days of training on CASE machines are preliminary to the great show of the third day, which enhances the relationship between salesmen and customers. Our Commercial Training Team, made up of ‘experts for the real World’, has delivered this format in Africa in Tunisia, in 2015 and will replicate it in the Middle East during the autumn of 2016”.

An open day dedicated to customers

After a welcome from CSE and CASE management, South African TV



Brenton Kemp, CSE Dealer divisional managing director and Franco Invernizzi, senior business director CNH Industrial Construction Equipment for Africa and Middle East.

anchorman Derek Watts became the Master of Ceremonies for the Open Day dedicated to customers. This involved two special CASE machine shows in the demo field, a lucky draw and many machinery demonstrations.

“It was very well organised and a very informative event,” said Thomas van Niekerk, from CASE customer, GLC Group. “The key to the success of the event was having the CASE machinery operators from Europe to demonstrate the equipment.”

GLC Group owner Gerhard Conradie agreed, saying: “It was a delightful experience and gave us a really good feeling towards CASE.”

Among the most popular machines on display were the 885B grader, the 821F wheel loader and the CX210B crawler excavator, though there was something for everyone with a wide range of light equipment available, including the 570T backhoe-loader and SR175 skid steer.

“It was an awesome day and I really enjoyed the display of equipment,” said Ashwin Romalall Avka, Owner of South African firm Avka Plant Hire.

“Dealers and customers had the chance to really understand the benefits and positive attributes of a wide range of CASE equipment, giving us the opportunity to demonstrate the savings that we can make and the productivity benefits that they can experience with our machinery. The success of the event means that this will not be the last Eagle Days for the sub-Saharan region,” said Invernizzi. <



TICKING BOXES FOR LEADING RENTAL SPECIALIST



Centurion-based EPH Plant Hire began operating 12 years ago, with two tractor loader backhoes and a single PC200 excavator. Fast forward to 2016, and its activities have expanded to warrant a fleet of more than 40 units, of which a significant proportion are Komatsu products.

RESTORING DURBAN BEACHES

Durban recently experienced heavy rainfalls and floods which left debris washed down from the rivers along the coastlines. With the huge task of cleaning up resting on Parks & Beaches and the Durban Municipality, Goscor's Bobcat division took it upon themselves to be involved in restoring the clean coastlines.

Bobcat's Brian Rachman commented, "We approached parks & beaches manager, Bruce Blake, and Durban municipality's technical engineering manager, Godfrey Vella, to offer our assistance.

"Using the T870 Bobcat fitted with a skeleton bucket, we managed to push and stock pile huge amounts of litter over a three day period from the Blue Lagoon river mouth. This machinery enabled us to lift most of the heavy debris, leaving the beach sand behind. For collecting the finer material, we used the new beach cleaner attachment."

Parks & beaches manager, Blake expressed his gratitude to Bobcat Equipment and added, "When dealing with the outcome of natural disasters, particularly along our coastlines, every type of assistance is most welcome. It is indeed a mammoth task to get our beaches and parks to the state they were in before being hit by heavy rains and floods.

"Companies such as Bobcat have demonstrated their commitment to keeping our areas clean and safe, and we commend them for coming forward without waiting on us to call for help. Watching the machinery in action was an amazing sight," he said. ■



Head of sales and operations, Brendan Badenhorst explains that much of the company's success has been earned by exploiting opportunities in a niche market employing quality equipment and well-trained personnel.

"We are a leading specialist in hydraulic hammer rental and have grown to operate nationwide. While we primarily serve the construction industry, we have some important mining clients," he says.

Having the best available equipment is key to success in the rental industry and he leaves no doubt that Komatsu is the manufacturer of choice.

"Past experience means we know that Komatsu products last, and because we are confident in their reliability, we can offer our services to customers in remote areas.

"The use of blasting techniques in urban or residential areas is now very limited for a variety of good reasons, and so we have found a ready market to grow our specialised fleet. New to our current fleet of Komatsu machines are our PC55 mini-excavators and PC220 machines.

"An important factor is that Komatsu machines allow for the fitment of various attachments, including hydraulic rippers and hammers or buckets, which can be interchanged on the excavators. For example, our Komatsu PC55 compact mini-excavators have delivered excellent results equipped with hammers and buckets, offering our clients a multifunctional solution for electrical and water infrastructure projects in rural development areas," he says

Having the right products at the right time is an age-old marketing cliché, but it stands the test of time. EPH Plant Hire's investment in new, advanced products, including Komatsu's five-tonne compact lower-capacity excavators, is reaping rewards.

Badenhorst remarks on the performance of his operation's new line-up of Komatsu P220 excavators fitted with hydraulic rippers, which have created an alternative rock breaking solution that is fast and effective.

"This new product has created a competitive advantage in a competitive hammer market."

Spares availability is a crucial factor and, in his opinion, more than outweighs the perceived cost advantages of investing in lower-priced but poorly supported products from emerging manufacturers.

He also demonstrates a detailed knowledge of day-to-day operations, aided in no small measure by KomTrax – Komatsu's autonomous machine health monitoring system.

"KomTrax makes our lives easier – we have a full picture of hours worked, a complete reference to oil pressure and temperature and early notice of routine maintenance needs."

So, what does the future hold for EPH Plant Hire and its partnership with Komatsu? Badenhorst puts forward an encouraging message.

"We're doing surprisingly well in what is definitely a very challenging business climate and as the markets turn, we are definitely poised to grow to an even higher level."

EPH Plant Hire's suite of Komatsu excavator products include: two PC55s, eight PC200-8MOs, two PC220-8s, a pair of PC300-7s and a single PC200-7 and PC270-7. ■

NEW MD for sales operation

Managing director of Bell Equipment Sales South Africa (BESSA), Bokkie Coertze retires from the MD position in December 2016 and BESSA financial director, Menzi Dumisa has been groomed to take over the reins, the local manufacturer has announced.



Dumisa joined Bell Equipment in December 2007 as BESSA Financial Manager and became Financial Director in May 2011. In March 2015 his responsibilities were extended to include Bell-owned Africa operations as part of a group-wide restructuring process.

Bell Equipment Group chief executive, Gary Bell, said: "Menzi's background may be in financial management but during his time with Bell he has worked closely with Bokkie and developed a good understanding of our business and appreciation for our customer-focused approach.

"We are confident that his appointment will be a natural career progression for Menzi whose personable character and youthful energy, coupled with his strong management and financial skills, are characteristics well suited to his new responsibilities and will enable him to identify with our customer base and their varied needs."

Continues Bell: "Bokkie has been

a driving force during his tenure as MD, providing motivation to his team and support to our customers during both the bullish times and the cyclical troughs. We thank him for his loyal service and leadership over the years and believe that Menzi will play a dynamic role in the business going forward to ensure that we are able to keep meeting the service levels that our customers have come to expect from Bell."

The BESSA managing director is a key position within the Bell Group, responsible for the management of operations at Bell Customer Service Centres throughout South Africa and the company's African subsidiaries, including machines sales, after sales service and parts supply.

Dumisa, who is registered as an Associate Chartered Management Accountant (ACMA) and Chartered Global Management Accountant (CGMA) with the Chartered Institute of Management Accounts (UK), is also currently studying towards an MBA. Commenting on his appointment, he said: "I am humbled and honoured by the trust placed in me by the Bell board and excited by the opportunity to change my career path to work more closely with our customers and stakeholders. I look forward to the challenge and hard work that lies ahead as well as positively contributing to the growth ambitions of this African success story."

Coertze, who has 30 years of service at Bell, has been managing director since 1995 and will continue to mentor Dumisa over the next few months to facilitate a smooth transition.

Thereafter he will remain involved, in a non-executive chairman role, to continue to impart his industry knowledge and provide guidance to the management team with a strategic focus on customer rela-



tions and quality as part of the company's 1-Bell initiative.

It aims to promote an understanding of customers' businesses and needs, as well as ensuring that they receive a quality service by consistently meeting and exceeding the customer promise.

In conclusion Coertze said: "I have been blessed with a rewarding career at Bell. It has been a pleasure to work with a dedicated and motivated team and forge lasting relationships with our customers.

"One of the highlights of my time with Bell has been the opportunity to be part of the exceptional growth of a South African founded family business in the world market. I thank the Bell family and the board of directors for their support and belief in me and look forward to being able to play a valuable role in my new position." <

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ROBUST AND FUEL EFFICIENT

HPE Africa – exclusive distributors in South Africa for Hyundai earthmoving equipment – has launched the new fuel efficient robust Hyundai Robex R180LC-9S excavator to the local market.



"These high power machines have been engineered for optimum performance, precision control and enhanced operator safety. This model boasts the highest fuel efficiency in the industry's 20 Ton class – an increasingly important feature as fuel prices continue to rise," says Alex Ackron, managing director, HPE Africa, Capital Equipment Group (CEG) of Invicta Holdings Limited. "The R180 series, which is fitted with a specially manufactured bucket for the local market, has an operating weight of 19,1 Tons and is operative in the 20 Ton class range. Hyundai Robex R180LC-9S excavators are particularly well



Bokkie Coertze retires from the MD position in December 2016.



BESSA Financial Director, Menzi Dumisa will take over from Coertze.

NEW LEGISLATION CHANGE ON MAN CAGE LIFT TRUCKS

Safeguarding and protecting employees in the workplace is non-negotiable. This is particularly true in high risk industries where working-at-height is a common part of the job, which can cause serious injuries and fatalities. It is for this reason that the international and now local best practice, necessitated the change in the legislation in the use of man cages for lift trucks.



➤ For many years, man cages, also known as non-integrated work platforms, were the best available solutions for taking workmen and materials to height. However, following international best practice, South Africa's Department of Labour and the SABS Standards Division, recently changed the operational requirement for man cages.

"Although man cages have been around for a long time, they have posed a risk as the person in the man cage is not in control of the machine. Serious accidents have occurred as a result of this, hence the change in international legislation", says Chad Pope, business director for Eazi Access – Africa's market leader in work-at-height and material handling solutions.

Pope also says that South Africa has a rapidly growing fleet of work-at-height machines across the country, which enhances safety, and in most applications is more efficient and cost effective. "With this in mind, we support the legislation change as an improvement on industry standards to promote safer work-at-height solutions," says Pope.

Most commonly, man cages are used for stock handling and general maintenance, which is used to elevate people and materials to working height. Best practice however states that a person at height needs to be in control of his or her environment and traditional man cages do not offer this control. This is the reason

behind enforcing, through legislation, better solutions already available in the market. This has led to an increased demand for mobile elevated working platforms (MEWPs).

Clauses 4.1.1 and 4.1.2 of the new South African National Standard for Non-Integrated Work Platforms for Occasional use on Lift Trucks (SANS 583:2015) states that man cages are not suitable for routine or planned tasks and suggests the use of mobile elevated work platforms (MEWPs), as they provide a higher level of safety than non-integrated work platforms.

Clause 4.3.1 (d) further states that man cages shall not be used on variable reach trucks, forklifts and telehandlers that can lift to a normal height greater than 6 m. Clause 4.3.2, 5.9.2 and 5.9.3 also emphasise that man cages need to be electrically linked to the lifting machine, with the ability to control the operations.

"Mobile elevated working platforms are purposely built, in order to offer full control from the platform for a safe and productive workspace to operate in.

"They enhance productivity, reach greater heights and their total turnaround time sidesteps those unforeseen costs found with traditional work-at-height solutions," says Pope.

The latest developments in MEWPs, ranging from safety initiatives to hybrid technologies and greater machine heights, are designed to bring significant benefits to industries which require

mobile work-at-height solutions ranging from 4 m to 58,5 m.

It is however vital that the correct machines are used for the correct applications. Eazi Access consults and partners with its customers to ensure this. One such example; a large pharmaceutical company in South Africa traditionally made use of man cages as a solution for stock taking. When partnering with Eazi Access the management team were made aware of the tremendous productivity gains, cost savings and minimised safety risks when making use of MEWPs as a work-at-height solution.

The productivity gains benefits extended to a decrease in the stock take man hours, a better allocation of employee resources and identifiable accountability and responsibility of allocated tasks. The management team further realized cost savings per allocated tasks, the containment of non-compliance costs, decreased accidents/incidents that resulted from the person in the man cage not being in control of the reach truck together with a lack of communication between the reach truck operator and the person in the man cage.

Most importantly, safety continues to be a high priority in all industries and should always be enforced. The safe use and operation of MEWPs start with adequate and proper operator training, which should be provided by an accredited training service provider. ❏

suiting for demanding applications in plant hire, civil engineering, construction and agriculture."

A computer aided power optimisation (CAPO) system ensures the optimum level of engine power and hydraulic flow for every application.

The CAPO system also provides complete diagnostic features and digital gauges for critical information. For example, fuel levels and hydraulic oil and water temperatures.

These variable operating modes are: P - Power Max, which maximises machine speed and power; S - standard mode provides a reduced, fixed rpm and for maximum fuel savings and improved control, E - economy mode provides precise flow and power based on load demand.

Hyundai R180LC-9S excavators are fitted with air cooled six cylinder Tier 2 diesel engines, with class leading fuel efficiency equating to as much as 100% of the purchase price during the recommended useful life of a machine.

These machines have ground-line access to all critical services and grease points. The compact size of the engine allows for easy

maintenance and the low engine height, with a side-mounted, gear-drive camshaft, ensure easy access.

HPE Africa has well equipped workshops in Gauteng, Durban, Cape Town and East London,

which are supported by an extensive dealer network. The company's full portfolio includes Hyundai wheel loaders, wheeled and tracked excavators and backhoe loaders, as well as Soosan hydraulic hammers. ❏



HPE Africa – exclusive distributors in South Africa for Hyundai earth-moving equipment – has launched the new model of fuel efficient robust Hyundai Robex R180LC-9S excavators to the local market.

FINANCE and INSURANCE ‘part of the deal’

By Paul Crankshaw

Managing fleets of construction trucks is a vital function within any sizeable contracting firm, as failure to keep the wheels turning could spell disaster – especially in times of low margins and on high-risk jobs. Global trucking leader Scania has found ways to help customers avoid such downsides.

➤ According to Andre van Eeden, national sales manager at Scania Finance Southern Africa, the company’s focus is increasingly on providing a ‘total solution’ to reduce risk and promote sustainability.

“Buying a Scania construction truck opens the door to a range of integrated services that help our customers run healthier businesses,” says Van Eeden. “In the financing and insurance space we go beyond the traditional offerings to ensure that our services work together and strengthen our customers’ ability to thrive – despite the ups and downs of the construction sector.

“Scania’s ability as an original equipment manufacturer (OEM) to support the customer through our quality trucks and high standards of service, for instance, affects directly the customer’s ability to meet their financial obligations with Scania Finance,” says Van Eeden.

He said Scania Finance’s position as a ‘sister company’ also allowed it to offer products like operating leases, as the company could secure the residual value backing from Scania as an OEM.

To keep the relationship simple and streamlined, customers are allocated a Scania financial representative (FR) to liaise with on all aspects of finance.

“These FRs are specialists in the transport industry, so are well-versed with both strategic and day-to-day transport issues,” he said. “This makes them better able to understand the customer’s business – even sharing some aspects of best practice as they go along.”

Clearly, the system is working well, as 68% of Scania trucks in South Africa are purchased with loans from Scania Finance.

“Having a customer who is financed – and even insured – through Scania also helps when the customer encounters hard times, as we have substantial insight into their business through the years of our partnership on a number of fronts,” says Van Eeden. “This makes it easier for us to understand the problems they are facing, and to propose appropriate solutions – which may not be so easy for a mainstream bank.”

This has become more important in recent years as difficult trading conditions in construction have certainly taken their toll on contractors’ demand for trucks; Van Eeden

says there is still replacement of vehicles by established firms, but there are not many players who are actively adding to their fleets.

This pressure on the local market has meant more interest in looking for work in neighbouring countries, especially Namibia and Botswana.

“Our operations in Botswana, Namibia, Zambia, Tanzania and Kenya make it possible for customers who find medium to long term contracts there to actually do the financing in that country,” he said. “If that is where the trucks will be working, it’s generally better for everybody if finance is sourced there – as our service as Scania Finance can link in with other Scania support services in-country.”

Insuring to keep wheels turning

Recognising that financing for a customer’s Scania trucks is only one early step in a long and difficult business journey, Scania Finance has also designed fit-for-purpose insurance cover with the contractor in mind.

“Running a business in the construction sector is fraught with risks, many of them relating to the equipment that contractors rely on daily,” says Belinda Felix, insurance manager at Scania Finance. “Our focus with insurance is to keep our customers’ businesses working – even when accidents or breakdowns cause unexpected disruption.”

Felix emphasises the importance of the service level agreements that Scania has negotiated with the large insurers, so that customers can be assured of quick and full responses in times of emergency.

“We know that disruptions such as accidents and breakdowns can potentially threaten a customer’s viability – and certainly can affect the profitability of a contract,” she says. “So we offer our insurance service as a solution, because it is in our interests that our customers’ trucks are well-insured, properly repaired and on the road again as quickly as possible.”

Turn-around times on customer claims are monitored, for instance, to make sure that the insured truck is in and out of the repair facility as quickly as possible.

“We also recognise that quality of workmanship in these repairs is as vital as the speed with which the work is tackled,” says Felix. “Facilities must therefore be accredited

by Scania in a process of collaboration with our insurers; customers can rest assured that only the highest quality of repair is acceptable, and that genuine Scania parts are used.”

However, the assessment of risk with every customer goes further than just the vehicle, to a comprehensive needs analysis as required by financial sector regulations.

“In the construction sector, there are over 100 different risks that our customers have to take into account when running their businesses,” she says. “These include changing markets, safety, occupational health, the political situation, quality management, procurement, storage, environmental, financial, physical and operational.”

She highlighted the convenience to customers of Scania’s packaged services, where information on all aspects of vehicle operation and ownership were kept integrated and secure. ◀



Andre van Eeden, national sales manager at Scania Finance Southern Africa.



Belinda Felix, insurance manager at Scania Finance Southern Africa.

WATERPROOFING new era in SA

By Gordon Anderson, Waterproofing Consultant at a.b.e. Construction Chemicals.

For the past 30 years, the South African and European waterproofing markets have been dominated by factory-produced ‘Torch-on’ membranes, containing various modifiers. The usage of Torch-on membranes currently represents over of 70% of the local waterproofing market.

➤ However, in Europe, Torch-on systems are now declining in the USA, while Torch-on membranes have substantially lost ground to T.P.O. (thermoplastic polyolefin) membranes which now claims around 40% market share, followed by E.P.D.M. (ethylene propylene diene terpolymer) membranes. Torch-on membranes, in fact, represent only about 20% of the USA market.

The South African specification market also seems to be changing with an increase in the use of additives to the concrete mixes and liquid waterproofing coatings. Some of these systems, which have been around long enough to have verifiable performance track records, are fast replacing the traditional Torch-on application.

The use of additives in a concrete mix to render the mix waterproof and watertight has proven successful in both below ground and water containment environments. There are two principal areas of technology and products in this field: crystalline-based such as Chryso SA’s CWA 10 crystalline waterproofing admixtures, or the a.b.e. Construction Chemicals Pore Blocking system, Fuge B, a hydrophobic additive applied during the concrete mix stage to block pores in the concrete to prevent water passage.

There are benefits to be had from the correct application and in the appropriate situation with both these products – but it is important to fully understand the effects of the two systems before specifying or using these products. Crystalline-treated concrete will react when a crack occurs and is exposed to water by forming crystals in the crack and so, over a period of time, it will render the crack leak-free – as long as the crack is static. A dynamic crack would require further treatment. Pore blocking, as stated, restricts water ingress to the cured concrete among other advantages.

Then there are also Polyurethane, Polyurea and hybrid products making their presence felt in both the international and local markets. So what is the difference between polyurethane and Polyurea? A waterproofing industry expert once aptly described Polyurea as ‘a polyurethane on steroids to provide an all-round superior performance’.

There are ongoing industry develop-

ments where hybrid products are being formulated for possible use in the waterproofing industry but, for now, let us focus on Polyurea and polyurethane.

A well specified, properly applied Polyurea system invariably produces a first-class result but sometimes a Polyurea specification falls into the waterproofing section of the Bill of Quantities. The problem now is that not many traditional, long-established waterproofers own the necessary plant and equipment – or indeed the technical and mechanical skills – to achieve the desired end-result when applying a relatively complex Polyurea system.

For this, application is made under high pressure with the heated components being brought together at the nozzle of the spray gun and sprayed to a defined thickness. Curing time can vary from seconds to

12 minutes. Polyurea is generally UV-resistant, has very good elongation characteristics and, in buried situations, is root resistant. Not all Polyureas are the same, however, and in this regard a.b.e. is fortunate to have Polyurea systems developed by the globally-respected German producer, VIP, at its disposal for local distribution.

Polyurethane and hybrid waterproofing systems can usually be applied by brush, roller or low-pressure spray and are easier to apply and have more forgiving requirements when it comes to substrate strength and surface profiles but the end-result is never equivalent to a Polyurea system.

That, briefly, sums up the waterproofing options available in South Africa today. But waterproofing is a rapidly changing and complex environment so, to avoid confusion and disastrous results, it is always wise to consult the experts before specifying or starting any project. Both a.b.e. Construction Chemicals – which has been involved in waterproofing for over 80 years – and its holding company, Chryso SA, have the technological experience and expertise to help in this regard.

Modern waterproofing systems today offers both the traditional torch-on membrane coatings as well as the relatively new high-tech Polyurea roof and deck protection. <



BREATHING NEW LIFE into wood company

A recapitalisation programme and an investment of over R300-million are on the cards for KZN-based Masonite, a major South African manufacturer of high quality engineered wood.



The business rescue process – which started last year and officially ended this week – included the acquisition of the company by corporate investment and transactional advisory firm Jacobs Capital and its partners, Black Bird Capital (headed by Nkosinathi Nhlangulela and Siyabonga Mncube).

Creditors received 100 cents in the rand and shareholders will be paid a 35% premium on the list price. Most importantly, all employment contracts were saved.

The board of directors is in the process of being reconstituted. “We have wasted no time since the deal was approved by the Competition Commission in June. All the conditions of sale have been met. This is a very exciting time.

“We have teams in place looking at all aspects of the business and strategic planning sessions have produced short and longer term plans,” said Wessel Jacobs, chief executive of Jacobs Capital.

The addition of the Masonite business at Estcourt, KwaZulu-Natal, to the Jacobs Capital portfolio marks the third large investment by the group in 12 months, and it is expected to make a meaningful contribution to the annual revenue of the company, whose investments already exceeds R1,5-billion.

Since its establishment in 2002, Jacobs Capital has completed over 50 restructuring projects including the successful turnaround of Da Gama, one of the largest textile mills in South Africa.

Jacobs said Masonite is a strong company and the deal was structured to ensure that all creditors were paid out leaving the company with a debt free balance sheet and working capital of R85-million as well as R100-million in stock holding.

“Extensive recapitalisation of the production lines is necessary to ensure that the Mill runs at full capacity which will ensure that the company is able to return to sustainable profit as quickly as possible. A new product line is also among plans to ensure that Masonite keeps up with market trends,” said Jacobs.

“We believe that the modernisation of the mill will prepare it for expansion into new markets and products. This will contribute towards Masonite business maintaining its position as a leading producer of hardboard and timber products,” he added.

Nkosinathi Nhlangulela, director and shareholder added: “The company is now 100% locally owned with a new board that understands local conditions and imperatives. We see this as a long term commitment to both the business and the KwaZulu-Natal region. The new Millco leadership team is well placed to ensure a sustainable, ‘built to last’ business approach.

“It combines local management experience and expertise and offers access to strategies, systems and methodologies that have proven successful in turning around a number of South African manufacturing businesses.”

An upbeat Hilton Loring, Masonite chief executive, said the company was back on track. “The lead management team is in place with renewed energy and entrepreneurial spirit. This combined with investment and a new product line will ensure the company meets growing demand and provides Masonite products of the same high quality and standards that customers expect.

Jacobs said he was confident that the oldest company listed on the Johannesburg Stock Exchange was poised to regain its place in the economy. “We have an excellent team that can restore this business and take it to new heights.”


In terms of the ratified transaction, the Millco Consortium has purchased the Masonite Mill. The Masonite forestry assets have been sold to Forestco which is owned by R&B Timbers and an agreement is in place that secures the supply of timber for Masonite.

The Estcourt Mill, in the KwaZulu-Natal Midlands, which produces hardboard, soft board and door panels, was damaged in an explosion in June 2014. This, together with a difficult trading environment, saw the company apply for business rescue in December last year.

Because Masonite has been in business rescue, its trading on the JSE has been suspended. Details of the listing on the Johannesburg Stock Exchange are still to be finalised.

Jacobs Capital was established in 2002 as a private investment company. Since then, it has developed from exclusively acquiring and establishing businesses, to incorporating independent divisions that provide an extensive range of business advisory services as well as manage turnarounds, mergers and acquisitions.

Its portfolio includes leading workwear manufacturer MB Workwear, textile companies Da Gama and Gelvenor, automotive component supplier Connecto Fasteners.

Unlike other potential private equity investors, Jacobs Capital is able to draw on extensive in-house expertise to implement a strategy that will see Masonite taken out of business rescue within a short period of time. 

Siyabonga Mncube (Black Bird Capital), Wessel Jacobs (Jacobs Capital), Nkosinathi Nhlangulela (Black Bird Capital) and Hilton Loring (Masonite).



“We believe that the modernisation of the mill will prepare it for expansion into new markets and products. This will contribute towards Masonite business maintaining its position as a leading producer of hardboard and timber products.”



CONCRETE FLOORS INCREASINGLY POPULAR

Traditionally concrete flooring has been used in locations where utility, durability, and ease of maintenance are more important than design and beauty.

➤ Because of the staggering design options now available, concrete floors are proving increasingly popular in a variety of residential and commercial applications, says Bryan Perrie, MD of The Concrete Institute. "In addition to their customary role in warehouse, factory and parking area surfaces, concrete floors are now globally specified for housing, retail stores, trendy restaurants, and upmarket offices. In housing, concrete offers both aesthetic and practical options for flooring of key areas such as foyers, patios, kitchens, bathrooms, hallways, and garages.

"Concrete flooring is popular in kitchens because it is durable and easy to clean. It can be sealed against moisture damage, and made virtually impervious to staining agents or food and drink spillage. Durability and water and moisture resistance are also making concrete a popular bathroom floor choice: textured techniques can be used to ensure that the surface is slip-resistant even when wet. The various surface finish and colour options available allow for the application of concrete floors in a foyer or hallway that will be exceptionally stylish and also functional in these high traffic areas.

"Designers and home-owners are increasingly using decorative concrete floors in residential foyers, for maximum 'first impressions' and personalising this area to reflect a home's overall style. Enhancements for foyer concrete floors include stenciled motifs, multi-colour tile-like patterns, saw-cut designs, or floating concrete islands in shallow pools of water.

"Concrete floors are also being used to create garages that form an attractive extension of a home's living space. Particularly when attached to a house, garages are now no longer just a storage space for cars, but also a playroom or youngster's den so much more attention is being paid to making the floors both attractive and durable," Perrie states.

"Skilled concrete flooring artisans can replicate the appearance of expensive flooring materials such as marble, granite, or top-end wood. The lifetime cost of concrete floors is also low because they require little maintenance and have a lifespan of many decades.

"Maintenance requirements of concrete floors depends on the volume of traffic. When it comes to upkeep, sweeping and damp mopping is usually all that are required but applying a suitable sealer or a coat of floor finish or wax designed for concrete floors will make the floors more resistant to stains, chemical spillage and abrasion. Floor mats at entrances or in foyers also help lower wear and tear. At business premises, such protection is essential," Perrie adds.

To keep houses warm in winter, radiant heating cables can be embedded in concrete floors or the residence can be designed for maximum sunlight window access which will allow the floors to radiate the absorbed heat long after sunset.

"Concrete floors are also hygienic as they not trap pet dander that can trigger asthma attacks and adverse reactions in people sensitive to allergens. Finally, concrete floors offer benefits when a house is for sale: if the new owner wants to change the floors, he or she can simply place carpet or wood on top of the concrete slabs," Perrie concludes. ■

CEMENTING OPPORTUNITY

Concrete materials company, AfriSam has sponsored concrete to the value of R100 000 for the construction of a skate park in central Johannesburg. The skate park forms part of a unique Skate School built by the award winning non-profit organisation, Skateistan, which provides programmes combining skateboarding and education to empower youth.

➤ The objective of the Skateistan Skate School is to provide at-risk youth, between the ages of 5 and 17 from low-income families, with a safe space to learn and play. The Skate School offers students the opportunity to play and learn as part of the Skate and Create programme, or to access homework help and career advice as part of the Back-To-School programme. Exceptional youth will have the chance to join the Youth Leadership programme to help organise events and assist with sessions.

The Skateistan Skate School opened to registered students on 1 August 2016 and will offer weekly programmes to over 300 students in 2016, and more than 400 by the end of 2017.

Commenting on the company's sponsorship, Victor Bouguenon, marketing manager at AfriSam says, "We are proud that our contribution to the Skateistan Skate School will facilitate learning possibilities for the youth of Johannesburg."

Bouguenon says that AfriSam is not about what its concrete makes, but all about what its concrete makes possible. "Making a difference extends far beyond AfriSam's products and what these products can create. We are the brand that helps create spaces that foster life, relationships, stories and growth. At AfriSam, we are about creating concrete possibilities."

The Skate School is also a good fit with AfriSam's corporate social responsibility (CSR) focus on education. The company is involved in various educational projects nationwide, with the aim of empowering and equipping communities with the necessary knowledge and skills, as well as providing them with the tools and facilities to become self-reliant by facilitating sustainable initiatives.

Bouguenon says. "The ethos of creating concrete possibilities is deeply entrenched in the company's philosophy and values, and this is underpinned by many of the company's business practices which clearly demonstrate its commitment to a lasting legacy." ■

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SUCCEEDING IN A MALE DOMINATED INDUSTRY

The University of Pretoria's BAJA team, sponsored by Bosch Power Tools SA, achieved an overall third place in the South African mini BAJA series – having scooped first place in cost report, third in design, and third in the endurance race. Team captain Odette Scholtz is a shining example of how women can succeed in a male-dominated industry.

> The Engineering Council of South Africa reported in 2013 that women constituted 11% of the engineers registered with the council, while only 4% of them are working professionals and nine percent are graduates. Scholtz, who is a mechanical engineering honours student, says

University of Pretoria's BAJA team captain, Odette Scholtz.



that women in the industry are working hard to raise their profile.

"I was very knowledgeable about the competition and the project, and worked hard to gain the trust of my team mates and learnt as much as I could to ensure confidence in my decisions. The competition taught me a lot. I gained leadership and multi-tasking skills and also learned a lot from my team mates with regards to the design and manufacture of our vehicle," she explains.

In addition to studying for an honours degree, Scholtz is part of the Dynamics Group, which was established in 2011. It is a formal vehicle research group at the Department of Mechanical and Aeronautical Engineering at the University of Pretoria. Headed by Professor Schalk Els, it aims to improve vehicle safety, occupant safety, comfort, reliability and efficiency through research.

According to Scholtz, her love for engineering was reinforced by male figures in her life such as her civil engineer father, and Professor Els. "My father has always encouraged me to be anything I want to be and not let anything limit me. Next year, I would like to study for my masters in engineering and inspire other upcoming female engineering students," she continues. ■

About BAJA

The BAJA series is an annual inter-university design competition, which takes place every October gives tertiary students an opportunity to be exposed to the real life workings of an engineering project. Students are expected to design and build a prototype, four-wheeled, single-seater, off-road recreational vehicle. The national competition, receives thousands of entries and only the best three are chosen as the overall winners. For the competition, students are given a maximum of 12 months to work on the components of the vehicle and put it through intense testing.

For their car design, Scholtz's team used aircraft grade aluminium, which is three times stronger than mild steel and is only a third of the weight. The car can take five litres of petrol and can go an hour and thirty minutes before requiring a refill. Her team designed a single seater, all-terrain vehicle with independent suspension and a 7 456 W petrol-powered engine.

The components of the vehicles require considerable investment and, as part of their project, the teams are expected to obtain sponsorships. Bosch Professional Power Tools – the world market-leader for portable electric power tools and power tool accessories designed specifically for trade and industrial applications – donated more than R 25 000 worth of its tried-and-tested 'Professional' range of tools to the TUKS BAJA team. For more information visit <https://bajasa.esteq.co.za>

CONTEMPORARY FLOORING OPTIONS

When it comes to designing a space, it's important to consider the flooring options available today. Saint-Gobain Weber share insights into the popular use of floor screeds, a unique style, which brings flair and function to any space and achieves the 'Industrial Chic', highly sort after globally and gaining traction in South Africa. Weber makes this easier to achieve.

> Saint-Gobain Weber are committed to providing a comprehensive range of flooring solutions for the industrial, commercial, speciality and residential markets. Their solution includes products for surface preparation of a floor before application, various floor screed options as well as sealers and cleaners.

It is important to consider the space before a suitable flooring option is selected, Saint-Gobain Weber screeds are specially designed for various scenarios. Saint-Gobain Weber recommend a screed that is typically self-levelling and fast drying, designed to provide an uncompromised underlayment for any finished floor. Using the Weber WB300 underlay self-levelling screed before tiles, carpets or vinyl is applied, will extend the life and improve the performance

of the finished floor. For warehousing and industrial spaces, Weber have a pump-able, rapid setting self-levelling screed, which can bear very heavy traffic and load weights.

A Weber Design Floor screed can get you as close as possible to a through colour finished floor, which has become a firm favourite in contemporary residential and speciality projects, including retail spaces such as showrooms and more recently in homes.

Its continuous appearance makes them ideal for open-plan layouts where various areas of the home will flow seamlessly into one another. It is luxurious underfoot and if Politerm blu is added during application, will bear the room's ambient temperature making it warm in winter and cool in summer. The simplicity of the product helps create the feeling of space, especially

with a glossy or polished finish, it is available in a carefully selected colour range that will suit almost any space.

"Screeds are rapidly being adopted as an alternative flooring option, as consumers have become far more astute when it comes to décor & design options available to them. At Weber we want to partner with industry professionals from the onset of the design of the space to be able to create beautiful flooring. We offer a turnkey flooring solution, sharing our knowledge of market research outcomes and international trends when it comes to selecting the right product for the desired finish," explains Ramielle De Jager, product manager flooring at Saint-Gobain Weber. ■





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