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'Builders Cement', a locally manufactured private brand from one of South Africa's leading DIY retailers, officially re-launched nationwide at the end of August 2022. Available exclusively at all Builders stores in the country, this local cement brand offers customers exceptional quality and value.

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Minister of Finance Enoch Godongwana headlined the annual Infrastructure Indaba hosted by Consulting Engineers South Africa (CESA) in August. The Minister delivered the keynote address on the first day of the event and discussed issues including procurement and infrastructure development.

The indaba gave attendees the opportunity to engage with him and indirectly get the South African rebuild programme back on track.

This was the first in-person indaba since 2020 as the COVID-19 pandemic placed limitations on gatherings. The Infrastructure Indaba was an opportunity for delegates to engage, network and share experiences, not only amongst other consulting engineers, but also with lawyers, economists, government officials and other specialists from the engineering and built environment.

CESA CEO Chris Campbell said the

purpose of the annual Infrastructure Indaba is to “share ideas on optimising efficiencies in infrastructure investment and implementation while ensuring investments are sustainable”. The Indaba is of great value because it facilitates deliberations between industry partners, client bodies and funding agencies.

This year’s event tackled topics such as Infrastructure Development/Energy Infrastructure Services; Capacity Building for Sustainable Delivery; Transformation & Development; Procurement & Public Infrastructure Projects; Engineering Capability & Technology; and Water Security.

The event’s speaker line-up included Dr. Kgosientsho Ramokgopa, Head of the Investment and Infrastructure office in the office of the President of South Africa; Jan Oberholzer, Eskom Chief Operations Officer; Refilwe Buthelezi, President of the Engineering Council of South Africa (ECSA); Chuene Ramphela, Group Executive, Infrastructure Delivery at Development Bank of Southern Africa (DBSA) and other distinguished speakers who all discussed issues relating to infrastructure development.

The decline in large build

opportunities and investment in infrastructure in addition to the shortage of general construction projects are of grave concern to a stuttering industry. Since the pandemic started, there have been attempts to address the short- and long-term business challenges in the built environment. One such long-term plan is the South African Economic Reconstruction and Recovery Plan that is aimed at stimulating equitable and inclusive growth. During the national lockdown Government diverted infrastructure spending to alleviate the country’s economic and social crisis, cutting traditional expenditure by some 80%. Even though this was necessary, it has had a ripple effect on almost all sectors, the construction sector one of the worst hit. The sector is now faced with the task of recovering, rebuilding and re-establishing operational sustainability.

The Indaba had, as one of its aims, a rekindling of the lofty aspirations of this plan. Let’s hope the rekindling leads to a blaze.

Stay safe

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DISCIPLINARIES IN THE WORKPLACE – FOREWARNED IS FOREARMED

There are different types of warnings and it's a good idea for human resource managers to keep up with updates and new developments.

There are different types of warnings or official reprimands in the workplace that are available to employers to manage their employees. As is the case with all labour legislation, it is crucial that human resource managers are fully aware of these different warnings, when they are applicable and what the ramifications are for all parties.

Human capital management specialist CRS Technologies says companies are often so focused on their core business that they neglect to keep up with regulations.

When it comes to disciplinary processes and procedures, this oversight can lead a business down a very risky path.

“It is important for business leaders and human resource managers to bear in mind that there are commonly three categories of warnings: verbal, written and final written. Why is it important to distinguish between these? Well, there are legally binding implications to each of these warnings for both the employer and the employee, and not following the directive of the law would render the entire process null and void,” says Nicol Myburgh, Head of CRS Technologies HCM Business Unit (pictured).

A good place to start for any business is to understand exactly what a disciplinary warning is.

CRS Technologies defines this as “A disciplinary warning is an oral or written statement made by an employer informing

the employee that their conduct and/or performance level is not acceptable and that any further failure to meet the required standards will result in stronger measures being taken.”

Next, a critical rule for human resource managers to follow is to never misuse disciplinary warnings.

“Each company has its own code of conduct which outlines its own specific levels of severity. Some forms of misconduct result in a basic verbal warning, while others can lead directly to a final written warning or even a dismissal,” adds Myburgh. “It is essential to know your code of conduct before applying any of the warnings.”

Further, a verbal warning refers to a situation in which an employer verbally informs an employee that in the event their work/behaviour or conduct at work doesn't change or improve, the employee may face further sanctions.

If the situation necessitates a written warning as the next appropriate action, there are a few things to keep in mind.

Myburgh explains, “It is extremely important that, during a disciplinary process, a company is guided by the provisions contained in Schedule 8 of the Labour Relations Act. Disciplinary action will only ever consider dismissal as a last resort, and this process is intended to be a behaviour corrective process and not a punitive one.”

CRS Technologies adds that the written warning should communicate what the underperformance/misconduct issue is, and the corrective action required.

It must also include what action will be taken if the employee does not meet the said requirements, as well as detail previous warnings and dates of issue and dates for performance/conduct to be re-evaluated.

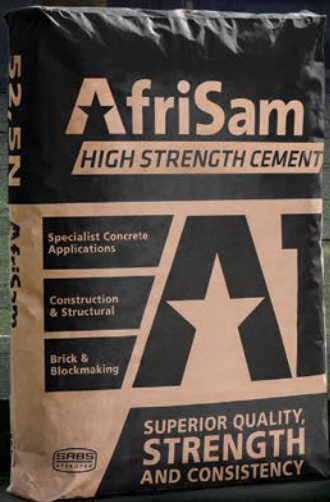
“As always, the CRS team is on hand to guide you through any disciplinary process. We have a highly experienced human capital management legal team in place to help,” says Myburgh. ☺

“Each company has its own code of conduct which outlines its own specific levels of severity. Some forms of misconduct result in a basic verbal warning.”



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SMALL UPTICK IN CONFIDENCE DESPITE SLOWDOWN IN CONSTRUCTION ACTIVITY

Confidence in the future of the construction sector has reached its highest levels in five years, despite a marked decline in business activity in recent months.



This is a primary finding of the quarterly SME Business Conditions Survey conducted by the Bureau for Economic Research on behalf of the Construction Industry Development Board – cidb.

“The construction sector has been hard hit by the economic downturn which was aggravated by COVID-19,” says Bongani Dladla, Chief Executive of the cidb. “However, there are still positive sentiments that the industry might be on the road to recovery and there was a huge improvement in sentiments, the index was at its best level since 2017.

“The confidence level during the second quarter of 2022 was at 42 on the index, compared to 35 during the first three months of the year. We have seen a slow but steady rise for the past seven quarters since the early days of the pandemic,” says Dladla.

The Bureau for Economic Research has been conducting the quarterly business tendency survey on behalf of the cidb since 2008. It polls the opinions of senior executives in the building and civil construction sector within grades 3 to 8. The recent survey was done prior to the start of the current cycle of load shedding.

“The availability of work will remain under pressure for the foreseeable future,” says Dladla. “The vast majority of respondents, across the board, indicated that the lack of demand is a constraint on normal business operations.”

Among general building contractors, who have been struggling for months, sentiments improved from 33 to 44 on the index. Confidence in the civil engineering sector was supported by better activity and rose marginally from 38 to 40.

According to the survey “confidence trended higher even though activity deteriorated.” A total of 46% of respondents stated that activity was lower than a year ago and that their

overall profitability remained weak.

From a grades perspective, contractors in Grades 3&4 and Grades 5&6 registered an uptick in confidence to 50 and 38 index points respectively. In contrast, contractors in Grades 7&8 registered a slight decline in sentiment. “According to contractors in Grades 7&8, activity worsened significantly in 2022Q2. This is a turnaround from the trend in recent quarters and likely kept a lid on sentiment” remarked Dladla

In terms of the regional comparison, the results for confidence were mixed. While sentiment almost doubled in KwaZulu-Natal (from 26 in 2022Q1 to 49), it fell in the Eastern Cape, to 41, from 62 in 2022Q1. Confidence in Gauteng and the Western Cape was unchanged at 32 and 29 index points respectively. A divergent performance in activity was also observed. While activity in the Western Cape improved nicely, and to a lesser extent in KwaZulu-Natal, contractors in Gauteng saw activity fall noticeably. “Even though confidence

is still relatively low in the Western Cape, the developments recently with respect to activity are very encouraging. At the same time, the sudden drop in activity in Gauteng, which is the economic hub of the country, is cause for concern,” added Dladla.

Boosting confidence was a decline in tendering price competition as well as respondents’ own expectations for activity next quarter. Only 18% of respondents stated that tendering competition was keener than a year ago. This is the best level on record, but not enough to offset the effect of lower activity on overall profitability.

Order books remained under pressure with 79% of respondents indicating that the lack of new building demand places constraints on the business. More than half – 51% - of those surveyed, cited a lack of access to credit as a major constraint. This is the highest level on record.

Marginally higher levels in civil engineering activities were reflected in the survey.

Respondents were also more optimistic with only 15% of participants predicting lower levels of construction activity in the third quarter of the year.

Interestingly, the rating of inadequate access to credit as a constraint jumped to an all-time high in 2022Q2. “Contractors seem to be faced with a number of headwinds, not only those posed by declining activity. This quarter we also observed that firms are struggling with access to credit,” said Dladla.

Dladla says the survey is a snapshot of sentiments among contractors in the building and civil engineering sectors at a time when the economy was under severe pressure. “The report is important for the entire country given the fact that the construction sector is a harbinger of broader economic activity,” he says. ©

HOW TO BEAT THE TALENT MIGRATION BUG

The global phenomenon dubbed the 'Great Resignation' has South Africa firmly in its grasp, but the profile of workers resigning from jobs differs from the rest of the world. Where other countries experienced a mass resignation of low wage workers, in South Africa, highly skilled, qualified workers are not only resigning from their jobs locally but leaving the country entirely in search of better opportunities abroad.

By Dalya Ketz, MD at Gcubed Boutique Recruitment



Such a skills exodus is nothing new for South Africa with an estimated one million people having emigrated between 2015 and 2020, but it is particularly worrisome as employment opportunities abroad have increased dramatically, particularly for skilled workers. What do businesses need to be doing to counter the Great Resignation and attract and retain skilled talent in a post-Covid era? To stay competitive in today's labour market, companies have to offer more than just a high salary, especially if they depend on specialised skills.

Skyrocketing resignation numbers

Even in a job-scarce country like South Africa where workers would be expected to hang onto their jobs, the Great Resignation is having a profound impact and resignation levels are higher than they've been for more than a decade. Research from Old Mutual's reward management platform Remchannel, revealed that staff turnover increased by 16% across all sectors. Almost 69% of respondents in the remuneration survey (largely HR and reward professionals) confirmed that businesses are struggling to attract new talent and retain existing staff. Although there are other contributing factors for such high staff turnover figures such as retirement, termination of contracts, and downsizing through retrenchments, the October 2021 Salary and Wage Movement survey noted that 60% of people leaving employment between April and October 2021 did so through resignation.

Resigning for better opportunities

Labour shortages overseas are also enticing skilled South Africans, and where international companies are prepared to assist with relocating their entire families abroad it is almost impossible for local companies to compete. The reasons behind South Africa's mass resignations are varied but many relate to a desire for more flexibility. There is great dissatisfaction where companies do not offer remote or hybrid working arrangements, even post-lockdown. Stress levels are higher as teams are expected to achieve more with fewer resources due to hiring freezes or difficulties replacing those who previously left the company. Burnout is a very real risk, and employees are taking every opportunity to seek a better work-life balance elsewhere.

Acknowledging shifting generational priorities

This is especially prevalent with Millennials and Generation Z, who are not as attracted by high salary packages as their predecessor generations. These younger generations place less emphasis on fat pay cheques, looking instead for meaning and purpose in their work, and using resignation as a springboard to search for organisations that are better aligned to their wants, needs and their personal values. They're not just searching for employment, they're looking to join a company that is committed to making a

difference beyond compulsory CSI lip service and because of this, the attributes that make a company a great place to work must change.

How to make a company a great place to work

To meet the needs of an increasingly self-aware workforce and to restore competitiveness in a candidate-driven market, companies need to recognise that the solution to the problem isn't throwing more money at new hires. What companies need to be doing is reconsidering their value propositions and their impact on the world around them while focusing more on retention policies. This includes upskilling and retraining existing staff, in addition to offering clearer pathways for career advancement through skills development and learning opportunities. Individuals are more likely to stay where the opportunity for personal growth is evident. Flexibility is of major importance, and companies will benefit greatly from offering employees more say in where they work, when they work and even how they're compensated.

However, while money is important, it isn't everything. Millennials and Gen Zs are concerned with whether the company they choose to work for cares about them as individuals. This means companies need to re-examine their culture, looking for ways to enable employees to strike a better balance between workplace productivity and life beyond office hours. Here, companies will have to take a holistic approach and focus on employee wellbeing, not only from a mental perspective, but from a financial and personal perspective as well. People don't leave their problems at home when they come to work, and companies would do well to recognise this reality.

Rethinking the role of recruitment

From a talent-sourcing perspective, recruitment agencies have an important role to play in assisting companies to navigate a candidate-driven labour market. They must act as an important intermediary in ensuring that the expectations of both parties (the potential employee and employer alike) are clearly articulated and reasonable. Clarity on expectations from both sides means that there is less likely to be disappointment resulting from unmet expectations, which results in further resignations. Recruiters must enable transparency throughout the hiring process that goes beyond merely checking boxes to meet a job spec. To ensure that talent placement sticks, recruitment agencies will need to have some uncomfortable conversations with clients.

Recruiters should use every opportunity to inspire their clients to relook their value propositions, and act as trusted advisors in setting organisations on the right path toward becoming a company that cares equally about attracting the right kind of talent and holding onto it with both hands. ©



ZIMILE CONSULTING ENGINEERS TACKLES YOUTH UNEMPLOYMENT HEAD-ON

Zimile Consulting Engineers, in partnership with the Mpileng Group, has entered a strategic partnership and contracted eight learners to participate in their first learnership programme.

The programme aims to empower the youth as they enter the work environment by providing practical work experience and valuable skills. There are various learnerships, including engineering and business administration, running for 12 months, with the potential to permanently employ at least one learner from the programme.

Shawn Gama, CEO of Zimile Consulting Engineers, encourages businesses, that have the capacity to do so, to employ more young people. “Young people are eager to learn; they put much effort into their work. The hurdle they face after completing their formal and higher education is the experience gap”.

Gama calls for more businesses to employ the youth to enable them to close the gap in practical work experience that they urgently need. Statistics South Africa indicates that in the first quarter of 2022, unemployment for young graduates aged between 15-24 declined from 40,3% to 32,6%, and for those aged between 25-34, it increased by 6,9 % to 22,4%.

Gama advocates that both the private sector and government have a responsibility to address youth unemployment. “As a business, we want to contribute to society by empowering the youth; and we believe that the private sector needs to assist the government in creating opportunities for the youth to start participating in the economy.”

Youth empowerment lies close to the heart of Zimile Consulting Engineers, which has an ever-growing team largely comprising youth, with most people being 35 or younger. The learnership programme was a natural

complement to the company’s growth strategy.

Gama explains that the company required a partner to develop new ideas and solutions to help it contribute to society.

“Mpileng was the perfect partner with whom we collaborate with and add value to this learnership programme. Mpileng enhances the programme by providing necessary work skills training as well, such as training in business administration.

This means when learners come to our facilities, they already have some basic experience, which makes their transition into the professional work environment easier and helps them to deal with the requirements of the real working world with further guidance and training from our team at Zimile. It is important to use the Sector Education and Training Authority’s resources to provide a platform to expose young professionals to relevant disciplines.”

Gama is confident that through this programme the eight young professionals will gain the necessary work experience and grow to perhaps make management decisions eventually. “We are optimistic that this programme will continue successfully year after year,” Gama concluded. ©

ABOUT ZIMILE CONSULTING ENGINEERS

Zimile Consulting Engineers is a 100% black-owned, multi-disciplinary consulting engineering, project, and construction management firm. By embracing the dynamism that is in the built environment through technological advancement, the firm seeks to offer value adding and innovative engineering solutions.

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RETHINKING LEADERSHIP IN THE POST-COVID ERA

*Being a good boss is hard. In fact, a study by Gallup revealed that only 10% of people have the innate traits required to become good leaders. “Fortunately, these skills can be learned,” says **Sarene Nel**, Managing Director of Tétris Design and Build South Africa.*



As we return to the office full time, continue to work remotely, or adopt a hybrid of both approaches, one fact remains – COVID-19 and the restrictions it brought significantly transformed the way we work, where we work, and how we feel about work. In what is being labelled the Great Resignation, a record number of employees have resigned in the US amid the COVID-19 pandemic, with more than 19 million workers having quit their jobs since April 2021. This has left many companies in

a predicament, with managers and business owners struggling to understand why and how to stop this.

South Africa is also experiencing this phenomenon, albeit at a different rate, with mainly highly skilled workers migrating away from salaried jobs and joining the gig economy or consulting on their own terms.

“Leaders need to respond to these changes in order to retain talent, attract new talent and revive a stressed and exhausted workforce in the post-pandemic era,” says Nel. However, managing change is a challenge, “Managers play a vital role in keeping employees happy and engaged, but this has become more difficult with employees working remotely or adopting flexible working hours,” she says.

Nel shares some leadership advice for the much-changed world we now inhabit:

- **Be authentic**

A good leader is transparent and honest in all relationships in the workplace. “Be your true self. Not all managers are the same, and that is fine. Admit to your shortcomings and mistakes – this will go a long way in showing your team that you are willing to grow and learn with them.

- **Get your hands dirty**

The days of sitting in your corner office issuing orders are long gone. The modern leader is an active member of the team and willing to do any job that is required, not just what is in their job spec. “By doing this, you reveal your human side, making you more approachable and understanding of the day-to-day challenges and tribulations faced by the team,” says Nel.

- **Create a welcoming workspace**

With the traditional workspace and work hours a thing of the past, Nel believes in creating an enticing space away from home where people can connect and collaborate, with focus areas for those who are unable to do focused work at home. “Incorporate spaces that facilitate working together and those that allow for quiet work. Include comfortable furnishings, quiet booths, relaxation rooms where people can socialise, and conveniences like good coffee to entice employees back. Ultimately, an office must be a space that resonates with people and inspires them professionally.”

- **Provide incentives**

While extra remuneration is always appreciated by employees, this is not always possible. Leaders also need to find other ways to show appreciation and strengthen relational ties with people. “At Tétris we offer half-day vouchers after periods of hard work or extreme stress, which employees can cash in whenever they need some time to recharge. We find that time has become extremely important to people and is often seen as equal to monetary rewards. We also host special awards events to thank the team.”

“Leaders need to respond to these changes in order to retain talent, attract new talent and revive a stressed and exhausted workforce in the post-pandemic era.”

- **Make it personal**

To retain existing talent, your team members need to be seen and heard. The office should be a safe space, where they can share ideas and thoughts without being worried about negative feedback, and where they can feel part of the organisation's successes. "We have created a culture where wins, both big and small, are celebrated with sincere enthusiasm. When we win new contracts, we email congratulations to everyone. We also have an active WhatsApp group where photos of successful projects are shared and celebrated, support is given when deadlines are looming, and advice is given when needed. And, a bell that is rung whenever a challenge is met, or someone succeeds at a task."

- **Encourage growth**

To encourage personal growth within the company, create opportunities for your staff to learn new skills. "As part of our growth plan, Tétris and its parent company, JLL, have numerous internal skills development programmes that we encourage staff members to enrol in. We also support employees who want to take external courses, if they are relevant to our industry."

Growth also comes from learning from our mistakes, and employees need to feel safe enough to admit to these without fear. "Good leaders can be good taskmasters. Good leaders also encourage their team to own their mistakes by failing onward and upward. Perhaps most importantly of all, leaders understand the moment by knowing when to give advice," shares Nel.

- **Be flexible and adaptable**

Change is a constant, so managers need to be able to adapt

to lead their teams successfully. "Part of growing as a leader is learning to be humble enough to manage people how they need to be managed, not how you want to them to be managed. Rigid management styles no longer serve the current workforce, made up mostly of millennials, who prefer a teamwork approach versus authoritative management."

- **Be empathetic**

The pandemic negatively affected many of us in different ways, and leaders need to be sensitive to this fact as staff return to the workplace. A keen level of sensitivity will help when considering changes to policies and processes post COVID-19 and adapting to our new normal.

"Spend time with your team to find out what works for them and what kind of workspace or company culture will enable them to perform at their best."

Empathy shown not only internally, but also to the wider community, is the mark of a great leader, who is not only focused on the company's own development, but all of South Africa. "Tétris is supporting and equipping a development (under 14) netball team from Randfontein at the South African Schools Netball Tournament. This is an important day in the netball calendar, and our aim is to create a wonderful experience for them."

Nel's tips for dealing with the demands of management? A good support system at home, and a great team behind you that can deal with work challenges when you are away getting much needed rest. "The biggest lesson I have learnt is that you have to manage yourself to manage people," shares Nel. "And managing people well is vital to organisations in this time of change and uncertainty." ☺

The poster features a green background with a white graphic of three overlapping circles at the top left. The main text reads: "ECOMONDO THE GREEN TECHNOLOGY EXPO Leading the ecological transition. Ecomondo as a driver for a healthy, efficient and productive sustainable industry." On the right side, it specifies the dates "8-11 NOVEMBER 2022" and the location "RIMINI EXPO CENTRE ITALY". Below this, it says "Simultaneously with KEY ENERGY THE RENEWABLE ENERGY EXPO". At the bottom right, there are social media icons and the website "ecomondo.com". The footer contains logos for "Organized by ITALIAN EXHIBITION GROUP", "In collaboration with" (including the Italian flag and logos for "be", "Ministry of Foreign Affairs and International Cooperation", and "ITTA ITALIAN TRADE AGENCY").

WOMEN IN CONSTRUCTION: THE CORNERSTONE OF CHANGE

As South Africa celebrates national women's month in August, leading multi-disciplinary engineering and construction company Grinaker-LTA believes that regularly acknowledging the contribution which women in construction make, is of great importance in ensuring gender diversity and equality in this typically male-dominated, tough and demanding sector.



Left: Chief Financial Officer, Esethu Mancotywa. Right: Executive Director: Commercial, Tracey Smith.

Grinaker-LTA is a tier-one, 100% black-owned construction company which is proudly built on a 130-year industry track record. In line with its guiding principle of delivering safe, quality engineering and construction projects to its clients and stakeholders, the company also promotes gender equality, diversity and fostering a positive working environment for all.

Grinaker-LTA Group Managing Director Bheki Mdlalose explains: "For example, our Chief Financial Officer Esethu Mancotywa, and Executive Director: Commercial Tracey Smith, bring their unique skills, talents and experience to our executive management team and to our company as a whole.

Furthermore, while we are proud to celebrate and acknowledge women in August, we do in fact acknowledge the vital role played by the women of Grinaker-LTA every month, with Esethu and Tracey leading the way as role models."

Deep financial experience – and a fresh, constructive approach

Esethu Mancotywa is a CA(SA) who holds an MBA from the Gordon Institute of Business Science. She is a seasoned finance professional with over a decade of experience in investment banking and private equity, including pan-African experience. Having joined Grinaker-LTA in 2021, she explains: "Taking on this role as CFO of Grinaker-LTA has been one of the highlights of my career to date, as is my role as Deputy President of the Black Management Forum (BMF).

I am so pleased to be able to leverage these two positions to have a positive impact on other women in business, and in the construction sector. I am passionate about highlighting my belief that – as I was taught by one of my longstanding mentors – one should also 'have a view' and play a proactive role at work and in managing one's career path," Mancotywa asserts.

She adds: "My advice to women across South Africa seeking to achieve their career goals is to do the groundwork, become technically proficient in your chosen path, take a stand when

necessary, know what you are talking about – and do not be afraid to voice your opinion!"

Mancotywa explains that being able to join Grinaker-LTA presented itself as an excellent match and win-win for both parties. "The company was looking for a black, female Chartered Accountant (CA) with the requisite strategic financial experience – while I wanted to explore a strategic leadership opportunity, and was exploring different industries to participate in," she clarifies.

"Since I joined, Bheki and our executive management team have been enormously supportive in guiding me through the technical requirements of financial and construction accounting, and in turn I have brought to the table an attitude of wanting to learn."

Mancotywa notes that the recent consolidation of the construction industry has created a smaller pool of construction majors, which has potentially changed the overall dynamic of the industry.

"In my opinion, I believe that women have historically been potentially excluded from certain roles within the construction 'inner circle' – however we are seeing that this is changing. I strongly advocate for more gender diversity and equality in business in South Africa in general, including within the construction industry."

While it is true that construction is not for the fainthearted, Mancotywa says that she has received enormous support across the business, while also being encouraged to forge her own path. "I do believe that women in general are skilled at communicating and display high levels of empathy.

I would encourage women in the construction sector to become more visible by promoting their skills, and more confident about voicing their opinions. For my part, I am thoroughly enjoying getting to grips with the construction sector, and I look forward to being part of a company that I believe is going from strength to strength."

A leading light in the local construction industry

Tracey Smith is well-known as a highly sought-after and respected powerhouse in South Africa's construction industry, with enormous wisdom to share in helping to inspire and empower other women in the sector. With nearly three decades of experience in the commercial management of – amongst others - manufacturing, power generation, infrastructure and mining sector construction projects, Smith also has a particular interest in helping to elevate other women in industry.

“Grinaker-LTA's positive culture and working environment is a great cornerstone for female employees, providing them with the right foundation from which to execute their duties confidently, and to drive gender diversity,” she observes.

“As a veteran of the local and pan-African construction sector - self-taught ‘from the ground up’ throughout my career - I am proud that the women in this company are valued, respected and recognised.”

Smith notes that within commercial construction management, she has generally played a role that has involved ‘fighting risk’.

“I am required to deal with compliance, commercial and legal aspects within the organisation, which can be very challenging,” she explains. In addition to the management of risk and compliance, she comments that her ability as a ‘closer’ is supremely important, and, in her opinion, sometimes difficult to find in the construction industry.

“I believe it is one of the reasons I have been head-hunted many times throughout my career – because I am both skilled and experienced at starting projects and pushing the project through to final commissioning and close-out.”

Smith believes that this speaks to an excellent trait of women in general: their ability to follow through to the end.

“Add to this a woman's ability to multi-task,” she notes, “as well as being meticulous, and good at administration, and we see that women have different strengths to men. However, these can be complementary and work together for the benefit of all.”

With regards to her love of the construction industry, Smith enthuses: “There is never a day that goes by when I do not learn something new. Every structure that is built has a different scope and requirements: its design, the site where it is situated – there are always lessons to be learned. For me, this is representative of the construction industry itself. There are always new factors to be negotiated and new lessons to be learned – it is an ever-changing and evolving sector.”

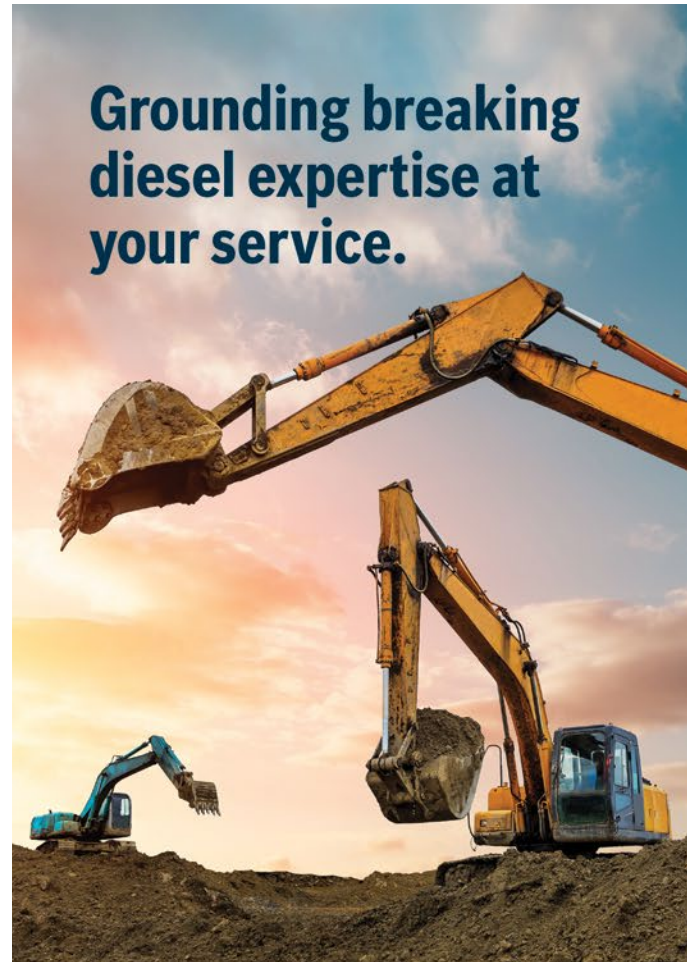
“I am extremely enthusiastic about a mentoring programme for women that I am working on together with our human resources department,” she notes. “When we consider that women in construction around the world, including in South Africa, tend to make up far less than 10% of the workforce – with even fewer women actually working on-site - I am committed to helping to further the careers of those women who would like to progress within the construction sector, but who may otherwise lack the confidence to do so.”

Smith's advice to those women who wish to embark on careers in construction is typically down-to-earth as she explains: “Start at the bottom and try to master every single function or discipline – be it in the office or on site.”

“Working at Grinaker-LTA is tremendously exciting, and it is wonderful to be part of authentic transformation within the local construction sector. We are fortunate to have a caring and very involved shareholders, and our employees are really flourishing as a result.

Having devoted my career to the construction industry, my advice to women who wish to enter this sector today is as follows: ask questions, believe in yourself, take opportunities that are presented to you, and above all else: remember that no one owes you anything.

If you want something that is worth having, then you need to make the effort to go after it: nobody else will do it for you. And yet, despite this being a tough industry, the rewards are well worth it,” Smith concludes. ©



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GQEBERHA'S BOARDWALK MALL PRECINCT IS DRAWING CROWDS AS CONSTRUCTION CONTINUES APACE

Located along Marine Drive, the Boardwalk precinct is one of Gqeberha's most prominent landmarks. Just a short walk from the Blue Flag awarded Hobie Beach, the first phase of Boardwalk Mall opened in March 2022, offering a variety of entertainment options. Construction of its second phase is nearly complete and the new mall's grand opening takes place on 22 September 2022.



As part of the first phase of development, the existing cinema and retail offering was upgraded and reconfigured by leading retail architectural practice MDS Architecture, who also designed the complementary Boardwalk Mall.

Pierre Lahaye, a partner at MDS Architecture, says that Boardwalk Mall is the first part of realizing the vision for the precinct, linking with the Sun International Boardwalk Casino and the Boardwalk Hotel.

"Our design is cognizant of integrating into the existing architecture in a contemporary way and creating a streetscape that has developed over time. It is a contemporary interpretation of the current style which was achieved with elements like the shape of the roofs and an aesthetic of a refurbished dockside building," he explains. Internally, industrial chic elements include exposed structural details and tactile materials.

Providing a small taste of what's to come, the first phase of Boardwalk Mall is already attracting locals and tourists who are enjoying the available retail options. "There are several pedestrian access points to the building and to the rest of the new offerings being built, integrating the precinct into the urban landscape. It is quite something to be able to step out onto the beautiful beachfront promenade directly from the shopping centre," says Lahaye.

Construction progress on the rest of the precinct is visible from the shopping centre and provides a glimpse into some of the attractions to look forward to, such as a new 2 500 m² open arena at the heart of the precinct, the multi-functional Sunpark events arena. It includes a large screen, a landscaped children's play area and access for the transportation of equipment for large events.

Local artists' work will be featured, and the existing festival lawns area will be activated for outdoor activities, which then link to events at Boardwalk Mall and the events arena.

The owners of the Boardwalk precinct are Sun International

and Flanagan & Gerard - experienced leisure operators combined with developers with a proven track record in retail development and management. Significant infrastructure and road upgrades are included in the development and the Boardwalk has been a catalyst for upgrades elsewhere in the Summerstrand area.

"Unique in many ways because of its setting as part of the Boardwalk Precinct, the Boardwalk Mall design by MDS

Architecture seamlessly connects our new development with a well-established landmark, and creates effortless links with the surrounding city and its beaches. It is this kind of thoughtful, appealing modern architecture that ensures an excellent experience is built-in to the very fabric of the mall," says Paul Gerard, MD of Flanagan & Gerard.

"Flexibility has been a key consideration in the design of this scheme," explains Lahaye. "In addition, good environmental principles have been deployed with a view to continuously building up to carbon-neutral developments. Landscaping from the original scheme has been reclaimed, with trees being replanted which have been growing for a year," he says. ☺

PROFESSIONAL TEAM

Client: Flanagan and Gerard Sun International

Architect: MDS Architecture

Quantity Surveyor: Aeqium Quantity Surveyors

Structural & Civil Engineer: L&S Consulting Engineers

Electrical Engineer: RWP Consulting Engineers

Mechanical Engineer: GPCE Consulting Engineers

Fire Consultant: SFT Consulting Engineers

Wet Services Consultant: WFP Consulting Engineers

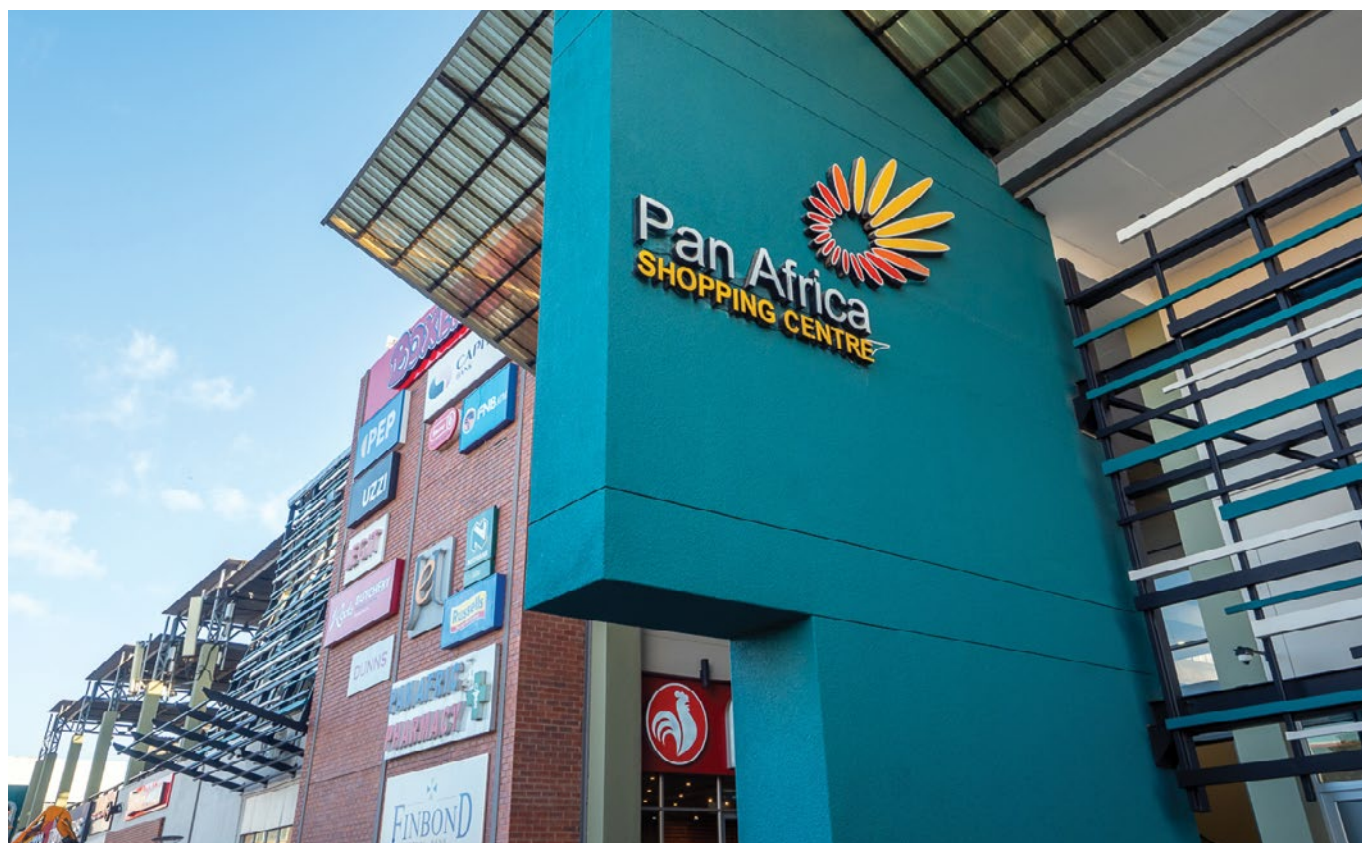
Main Contractor: WBHO

ABOUT MDS ARCHITECTURE

MDS Architecture is an award-winning practice that has designed buildings that attract the business, the people and the activity that lead to a sustained performance. With a proud reputation spanning over 60 years, the practice is renowned for its skill in the sectors of hospitality and leisure, retail developments, offices, residential buildings and interiors.

VUKILE ACQUIRES PAN AFRICA SHOPPING CENTRE

Vukile Property Fund has expanded its significant investment in South African township, rural and commuter shopping centres with its agreement to acquire the landmark Pan Africa Shopping Centre in Alexandra Township in Johannesburg, Gauteng, as well as the asset's second phase extension due for completion in 2024.



Vukile is a specialist retail REIT with assets of R33bn in South Africa (46%) and Spain (54%) through its 89,6% held Madrid-listed subsidiary Castellana Properties Socimi.

This R669m Pan Africa Shopping Centre acquisition complements Vukile's high-quality, low-risk retail property portfolio and positioning as a leading retail REIT in South Africa. Following the fulfilment of conditions precedent, the strategically aligned acquisition will be funded out of proceeds from sales and existing resources and will not affect Vukile's current loan-to-value of 43%.

Laurence Rapp, CEO of Vukile Property Fund, comments: "Vukile has been focused on recommencing growth in our core markets from a strong operational and financial position. In early 2022, we successfully restarted our growth in Spain, and now we are particularly pleased to resume the growth of our South African portfolio with this major investment in Pan Africa Shopping Centre. By acquiring this asset and its future extension, we are deepening our core investment strategy in South Africa and adding value for our stakeholders."

The 16 000 m² Pan Africa Shopping Centre, superbly located in the heart of Alexandra's iconic transport and retail hub, made history when it opened in 2009 to become South Africa's first fully-integrated shopping mall and taxi facility. Refurbished

in 2021/2, the centre is now well established and very well supported by its consumer market. It is anchored by Boxer with a high national retailer tenant component including Truworths, Pep, Mr Price, Ackermans, Jet, Clicks, Studio 88 and others. Based on its trading success, Pan Africa is set for a future 9 000 m² expansion, which has received overwhelming support, that will take it to over 25 000 m².

The acquisition agreement splits the transaction into two indivisible parts – the existing shopping centre and its future expansion. Vukile will acquire the shopping centre for R414,6m from its sellers, the Pan Africa Development Company, which is held by Atterbury Property (50,89%), Talis Holdings (47,34%) and Summit Ridge Trading 5 (1,78%). Vukile will also appoint the sellers to develop the centre's second phase expansion, which it will acquire for R254,3m on opening in April 2024.

Itumeleng Mothibeli, MD SA at Vukile, remarks, "Pan Africa Shopping Centre is an excellent asset for the Vukile portfolio, which is concentrated in the sweet spot in the SA retail market, with significant exposure to strongly performing township and rural shopping centres.

As is typical of our assets, it has a high percentage of essential services tenants, which further fortifies the defensiveness of our portfolio." ©

A 21-YEAR JOURNEY WITH TUHF

Solly Ramalamula first made contact with ICHUT (which would become TUHF two years later) in 2001 when he was a Director at African Housing Company (AFHCO). In the 21-years since, Solly has grown a successful company – Take Shape Property Management – and developed 11 affordable residential rental properties in the inner cities of Johannesburg. Seven of these have been funded by TUHF, and Solly says he’s not done yet.



A former policeman, Solly was the liaison between TUHF and AFHCO in the early 2000s, reporting on the performance and condition of TUHF-funded buildings in AFHCO’s portfolio. Solly’s relationship with TUHF, and his knack for building management, led to his first TUHF-funded property refurbishment in 2009. Boland Court in Turffontein was a “small project” according to Solly, in which he converted and refurbished six units into 13 good quality rentals.

He sold Boland Court in 2015 for a R600 000 profit, which he used to put down equity on another project in Primrose. “Working with TUHF has been a big help in growing my property portfolio,” Solly says. “I used my pension from the SAPS as the equity deposit on my first property, but it wasn’t enough to qualify for the loan with TUHF. Fortunately, they offered to fund the rest of the equity through the Inthuthuko Equity Fund (IEF), and without that extra support I don’t think I would have been able to start my property journey.”

Solly’s first three properties were purchased with the help of the IEF, and TUHF has funded seven of his properties in total. Currently working with Kea Nkotswe, Solly says his account managers at TUHF have been more than just financiers to him.

“Kea has been so dependable and involved in helping me succeed. TUHF has helped me with feasibility studies on the properties I’ve wanted to buy, offered advice on how to manage my properties when I’ve needed it, and stepped in to help me during challenging times like the COVID pandemic.”

Hollywood Centre, Solly’s biggest refurbishment project with TUHF, is an example of how this relationship has helped him weather difficult times. “Hollywood was a massive project – R 33 million in 2014 – and TUHF worked with me every step of the way to ensure it was a feasible investment,” he says. “We converted a 7-storey factory in the Johannesburg CBD to 101 one and two bed units, with a car dealership on the ground floor. TUHF helped me get

hold of the building’s original plans, put me in touch with an architect to help with the conversion design, and introduced me to a quantity surveyor to assist with cost estimates. Both of them were willing to do the work on risk.”

TUHF also helped Solly reach out to the Gauteng Partnership Fund (GPF) to access the R8m he needed to put down in equity for Hollywood Centre, while TUHF funded the remainder of the costs. “Kea was very involved, coming onto site to check on progress and making sure we weren’t overpaying contractors. There was even a time that we had to recoup some costs from a contractor that had delayed the project,” Solly recalls. “TUHF ensured we paid our draw-downs on time, and that we were able to finish the refurbishment on time and in budget.”

The COVID-19 pandemic struck about half-way through Solly’s repayment period. “We emptied about 35 units during the pandemic,” Solly says. “And this was a time when my relationship with TUHF and my good track record of servicing my loans made a real difference to how we coped through lockdown.

“The arrears on rent built up quickly for some tenants and we weren’t able to recoup of all of it from deposits. TUHF’s willingness to offer me a grace period to recoup losses and fill empty units was a big help, and in the end, I only missed one loan repayment.”

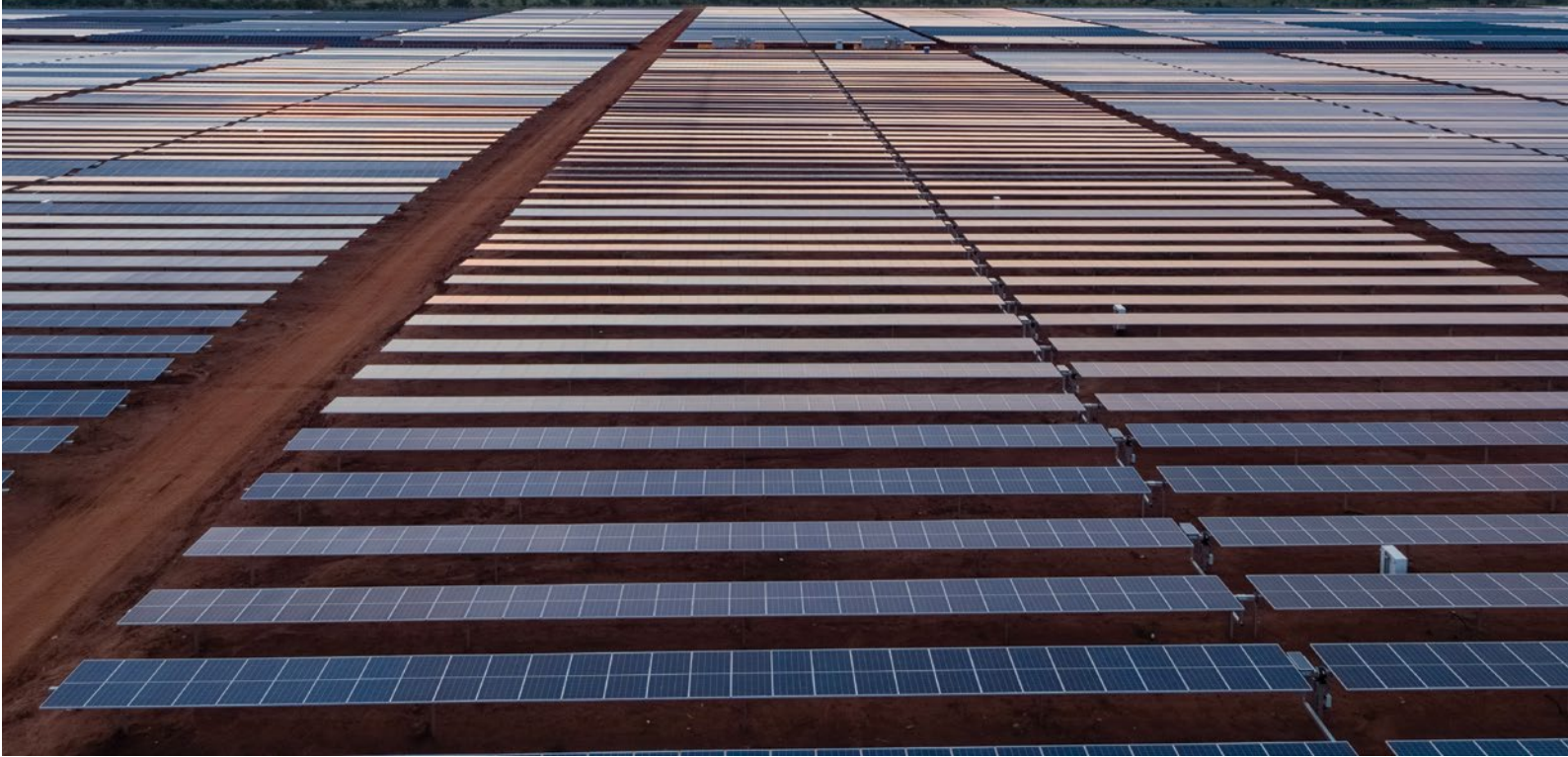
The vacancies at Hollywood Centre have recovered well since lockdown ended, with only 19 units currently unoccupied. “And those are all under renovation,” Solly points out. “I renovate five empty units every month as part of my business model, because it’s important to keep the units up to date.”

Solly’s most recent project with TUHF – Pearl House – was ready for occupancy in 2020, just as the first hard lockdown was announced. “We had 11 empty units out of 32 during COVID, which was really worrying on such a new project. But TUHF was supportive on this project, too, and we are almost 100% occupied now.”

Solly manages all his properties himself through Take Shape Property Management. His company focuses on managing residential and commercial units, ensuring the provision of safe, clean and well-maintained locations to the emerging lower to middle income group. He remains confident in the inner-city as an investment destination and has recently started looking into the opportunities in social housing in townships as well.

“My business is a legacy I want to leave to my son and family,” he says. “And without TUHF’s help and support over the years I don’t think I would be able to leave something like this behind for him. He’s just started his first project with TUHF as well. Though I have been training him within my business, he’ll be working with his own loan officer and managing this project by himself. It’s important that he also learns to stand on his own feet.” ☺

EIMS AFRICA CONCLUDES ACQUISITION TO SUPPORT GROWTH STRATEGY



EIMS Africa's growth strategy, which anticipates a generation capacity of circa 1 500 MW, exceeding 20 renewable energy Independent Power Producers by late-2022, has necessitated the acquisition of REESCO, a key step in facilitating the expansion.

Already one of South Africa's largest renewable energy platforms, comprising a portfolio of 13 utility-scale renewable energy projects with a combined generation capacity of over 850 MW, the company's bullish plans are in line with the country's accelerated move to renewable energy. With this, the successful acquirement of Renewable Energy Empowerment Management Services, known as REESCO in the local renewable energy market, will see its team joining EIMS Africa to bolster capacity and capabilities.

Ryan Hammond, EIMS Africa CEO, explained the motivation for the transaction. "We are in a significant growth phase, having started with just three projects back in 2018 and having grown the platform to 13 projects to-date. We have several other secured projects at various stages of the financial close process and by the end of this year, we expect that number to almost double, along with our platform's generation capacity.

This growth is not possible without a dedicated team of experienced individuals who know what it takes to deliver and operate these projects. The REESCO acquisition is a key

step in facilitating our growth as it augments the depth and experience of our team."

REESCO's team adds its experience as an expert management services company that specialises in technical, administrative and compliance competencies related specifically to South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) regulatory environment.

Dr Tamuka Kaseke, Founder and CEO of REESCO, added, "We believe this is a win-win transaction for both parties. EIMS Africa gets to take on a solid and seasoned team with over eight years' experience, whilst the REESCO staff get an opportunity to diversify their knowledge and experience base in terms of renewable energy asset management. We wish them well in their new growth path."

EIMS Africa is majority owned by the Old Mutual IDEAS Fund, managed by African Infrastructure Investment Managers (AIIM).

In closing, Sean Friend, the AIIM CIO for SADC investments and Co-Portfolio Manager of the IDEAS Fund, concluded, "We are committed to continuing to play a leading role as one of the largest South African-owned investors in the local renewable energy industry. EIMS Africa is the primary vehicle for this investment and this acquisition further signals our ongoing commitment to growing the EIMS Africa. ©



BUILDING SOUTH AFRICA UP WITH THE RE-INTRODUCTION OF BUILDERS CEMENT

‘Builders Cement’, a locally manufactured private brand from one of South Africa’s leading DIY retailers, will officially re-launch nationwide at the end of August 2022. Available exclusively at all Builders stores in the country, this local cement brand offers customers exceptional quality and value.

“We know how much our customers trust the quality of our Private Brand products, and that combined with our favourable pricing structure, and local manufacturing, makes Builders Cement the right product choice for South Africans,” says Munier Solomon, Marketing Operations Manager at Builders. “Another factor is that this cement can be used for a variety of applications as it is a multipurpose cement. These include road projects, general building, brick-working, concrete pot manufacturing and other art interests such as sculpture,” adds Solomon.

Builders’ partners with local manufacturer

To produce and supply the cement, Builders has partnered with local cement manufacturer, Cemza. Based in the Eastern Cape, Cemza in partnership with global producer, Heidelberg Cement, is the largest manufacturer of quality cement.

There will be two locally produced variants available to customers at all Builders stores, both of which comply with the ISO 9001 and 14001 standards. The 32.5N bag will be available first and can be used for several applications including domestic concrete work to large building projects, as well as being cost effective for all masonry and plaster applications. A key feature is the fineness of this product which improves workability and cohesion. Later in the year Builders will roll out the 42.5N, which can be used for domestic general use and major developments, building projects, civil and construction concrete, mortar and plaster applications.

“The current cement landscape provides Builders with a strategic role to play due to the competitive market and pricing strategy in the industry, as the demand for core construction products continues to increase across the commercial, property, and infrastructure sectors. Our capability to produce high volumes at an affordable price means all customers can reduce their operational costs without compromising on the quality. Through our partnership with Cemza, we can also guarantee consistent supply,” adds Solomon.

Builders Cement is easy on the environment

Concrete is the most consumed substance after water, and it requires high amounts of energy to produce. The environmental impact results in a carbon footprint that accounts for approximately 5% - 8% of global CO₂ emissions, according to the International Energy Agency (IEA).

Because of this, Cemza’s products have the lowest carbon footprint compared to other local manufacturers. With zero CO₂ emissions for clinker production (the backbone of cement production), they have the most advanced and efficient grinding mill in the country that is enhanced by slag substitution of anything between 50% -70% in its products.

This makes Builders Cement an environmentally friendly product. In addition, it is an innovative offering for customers and businesses who face high operational costs and price increases across the construction sector. It is produced locally, therefore offers better value for customers by saving them money and time. ©

ROPE ACCESS EXPERTISE CALLED ON

When a major entertainment venue in Gauteng realised a suspended speaker in an open-air area had come loose, posing a safety risk to patrons, its first call was to Skyriders Access Specialists Pty Ltd. The rope access specialist put together a team at short notice and was able to secure the speaker quickly and without disruption.

Another recent issue the client had to deal with was ceiling boards that had come loose in the cinema area. While this was more of an aesthetic concern and did not pose a direct safety risk, Skyriders was able to rig a rope access system in the ceiling space to allow its team to secure the ceiling boards without incident.

“The options were limited to constructing scaffolding or having a cherry picker enter the building to allow for access, which is risky, costly and not ideal,” comments Skyriders Marketing Manager Mike Zinn. Increasingly, major entertainment venues are turning to rope access for repair, inspection, and maintenance issues in difficult to reach or confined spaces.

“While it is a relatively easy scope of work for us, commercial clients are confronted with access issues when it comes to essential maintenance,” notes Zinn. “Our experience is there are few architectural or design firms that take access into consideration post-construction, usually due to the additional cost. Hence the issue falls to the facilities managers and building owners at the end of the day.”

However, there is a high standard in terms of health and safety and meeting all the necessary laws and regulations. “It is commercial clients like these that insist on especially high standards, which means the ‘bakkie brigade’ is unable to comply, providing major opportunities for accredited professionals such as ourselves to showcase our technology and expertise,” says Zinn.

While entertainment venues often have their own maintenance team and specialised contractors,



they sometimes encounter specific issues requiring work-at-height and confined-space experience, which is where Skyriders’ expertise is best put to use. Wind and weather

play a major role in maintaining the exterior, with the rope access specialist called upon to assess parts of the roof where tiles have come loose, for example. ©

“While it is a relatively easy scope of work for us, commercial clients are increasingly faced by access issues when it comes to essential maintenance.” –

Mike Zinn, Marketing Manager, Skyriders

UPGRADE OF THE R40 NATIONAL ROAD GETS THUMBS UP

The South African National Roads Agency SOC Limited (SANRAL) hosted a stakeholder information sharing session with the traditional leadership of the Bushbuckridge Local Municipality on 28 July, regarding the R40 national road upgrade. The session was followed by a site visit to inspect Section 5 of R40 national road in Bushbuckridge Local Municipality with the Executive Mayor, Councillor Sylvia Nxumalo.



Kgoši Mathibela Mokoena, chairperson of the house of traditional leaders in Mpumalanga and also President of The Congress of Traditional Leaders of South Africa (CONTRALESA).

SANRAL fosters collaboration with traditional leadership and consults on time regarding project-related activities from which local small, medium and micro enterprises (SMMEs) and local communities can benefit.

The R40 national road upgrade will start from Hazyview to Maviljan in the City of Mbombela and Bushbuckridge Local Municipality, and from Maviljan to Arthur Seat in Bushbuckridge Local Municipality.

The traditional leadership welcomed this project that will not only bring employment and subcontracting opportunities but will boost the tourism sector and lead to improved road safety in the long term.

Kgoši Mathibela Mokoena, chairperson of the house of traditional leaders in Mpumalanga and also the President of The Congress of Traditional Leaders of South Africa (CONTRALESA), said that these engagements are important. “The R40 national road is busy and congested, many lives have been lost because the road is not user-friendly.

The arrangement by SANRAL to come

to engage benefits us as we obtain the correct information firsthand,” he said.

“A lot of people will be employed when this project gets underway. Bushbuckridge is a rural municipality, more than 64% of our community is unemployed, graduates are seating at home with qualifications. We are grateful that this road will be improved and will facilitate road safety and more tourism activity in our municipality.”

The Executive Mayor of Bushbuckridge Local Municipality, Councillor Sylvia Nxumalo, added that SANRAL as an agency of the Department of Transport is demonstrating leadership and that the government is serious about service delivery.

“As Bushbuckridge Local Municipality, we are confident that the R40 national road upgrade will get the much-needed support from local people because they have been consulted. SANRAL promises to hit the ground running particularly on the matters of land acquisitions with the stakeholders from the 272 stands affected,” she said.

The majority of the land affected is tribal land. 60 hectares of land will need

to be acquired. All occupants of affected sites will be engaged one-on-one starting from the first week of August 2022.

SANRAL Project Manager in the Northern Region, Vanessa Kgaphola, said this project will create jobs for local labour and training opportunities for unskilled labour in Bushbuckridge Local Municipality.

“As part of empowering the local SMMEs and the community the R40 national road upgrade will include Community Development Initiatives. SMMEs and targeted labour who meet the requirements will be involved in community development initiatives such as training opportunities,” she said.

The R40 is a link to the N4 Maputo Development Corridor which improves trade and stimulates economic development between South Africa and Mozambique. The R40 national road traverses through strategic economic hubs in Mpumalanga and Limpopo, it provides a direct link to mining industries in Phalaborwa, Hoedspruit and Barberton, as well as the tourism industry. ©

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SANRAL PREPARES SMEs FOR TENDERING OPPORTUNITIES IN MPUMALANGA



The South African National Roads SOC Limited (SANRAL) has embarked on a week-long programme to engage small businesses in the Lekwa, Dipaleseng and Pixely Ka Seme municipalities in Mpumalanga Province to prepare them for upcoming subcontracting opportunities for Routine Road Maintenance (RRM).

The project team lead by Kwanele Simelane, SANRAL Project Manager (pictured), Engineers from ROMH Consulting and VEA Road Maintenance, hosted several business engagement sessions to equip small, medium and micro enterprises (SMMEs) with the necessary information and training to correctly bid for subcontracting opportunities to be rolled out in August.

“We have been going around visiting small businesses in the respective municipalities to inform SMMEs about opportunities for subcontractors for RRM projects in the region which will be rolled out from 1 August 2022. This is quite critical for us in ensuring the development of black-owned businesses, particularly those owned by women and youth to participate meaningfully on SANRAL projects,” he said.

The sessions started on Monday in Morgenzon, Standerton, Sinqobile, Volksrust, Greylingstad and Grootvlei, and concluded in Balfour on Friday.

Simelane says a key part of the engagements was to communicate the dates for tender advertisements, dates for the tender briefing, list of returnable documents, SANRAL tender evaluation process, common errors when bidding such as not attending the compulsory tender briefing or submission of expired or noncompliant documents, collection and submission of tender documents, work packages and scope of work.

SANRAL looks after approximately 347 kms of road in the region spanning across three (3) local municipalities. These are maintained by VEA who is the appointed Main Contractor on the R23, S27, R35 and N11 routes. These roads need to be constantly maintained and kept in good standing, which is the role usually awarded to small businesses in the vicinity.

“The contracts are worth a combined R146 838 566,04m (for the selected municipalities), started early last year and will be in place for three years, 50% (approximately R73 419 283,02m) will be allocated to local business. Last year we appointed subcontractors with Grade 1 and 2 cidb

for a period of twelve months. That period is almost over and it’s time to appoint new contractors for another 12 months to do maintenance work on the roads,” said Simelane.

Simelane said the Project Management Team (PMT) will finalise the tender documents by the end of the week. For Pixely ka Seme, the document was finalised on 25 July 2022, and the tender will be advertised on Friday, 29 July 2022. The compulsory tender briefing will be held on the 11 August 2022. The closing date for the tender will be on 26 August 2022 and the appointment will start work from 3 October 2022, if all goes well. For Lekwa and Dipaleseng, the tender document will be finalised on 29 July 2022 before going out to tender on 1 August 2022. A compulsory tender briefing will be held on 11 August 2022. The closing date for submission will be on 19 September 2022 to allow SMMEs sufficient time to complete the documents. The appointed contractors are expected to start on 1 November 2022.

The tenders will be advertised through the local newspapers, public notice boards and various social media platforms to be shared by the Project Liaison Committee (PLC).

The scope of work for the for the work packages for Gr 1 & 2 CE include;

- Cleaning of prefabricated culverts
- Cleaning of concrete drains and channels
- Cleaning and maintenance of existing earth channels
- Edge build-up removal
- Collection and removal of debris and litter
- Subsoil drain installation and maintenance
- Cleaning of waterway structures
- Erection and repair of permanent road traffic signs
- Concrete channel construction and maintenance of existing channel

There will also be training and skills development for the appointed subcontractors which will include among many things, first-aid training and occupational health and safety.

The roads agency has emphasised that the opportunities are strictly afforded to Gr 1 & 2 CE companies who fall under the listed municipalities.

All other companies from different municipalities will not be considered. Simelane says SANRAL will continue with efforts of transforming the construction industry and empowering local companies to participate fully on its project. ☺

“This is quite critical for us in ensuring the development of black-owned business, particularly those owned by women and youth to participate meaningfully.”



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PLACING GREAT IMPORTANCE ON EDUCATION OF YOUTH

About 1 000 Grade 7 to Grade 12 learners from 10 schools in King Sabata Dalindyebo Local Municipality attended the Career and Science Expo in Mthatha, which was hosted by the South African National Roads Agency SOC Limited (SANRAL), in partnership with the Eastern Cape Department of Education and the OR Tambo Inland Education District.



your studies, you are eligible to apply for a scholarship at SANRAL. Our bursary programme, benefits students who want to study towards other fields such as legal, finance and human resources, and not just civil engineering,” said Ndika.

SANRAL is committed to the development of South African youth and places great importance on the value of education. “We want to make education accessible to South African youth who may be disadvantaged. We

During the Career and Science Expo, yesterday, the learners were encouraged to apply for the scholarship and bursary opportunities provided by SANRAL.

Councillor Yanga Gwadiso, the MMC for Inter-Governmental Relations from King Sabata Dalindyebo Local Municipality, said learners should use the opportunity to engage the exhibitors.

“You are privileged to have the opportunity to engage with the exhibitors. This expo is designed to expose you to the career options that are available,” said Gwadiso.

Motivational Speaker Lerato Fikisi encouraged learners to study hard. “Don’t aim for 40% to pass, remember you will compete against other learners. You must motivate yourself to aim high.”

Expressing his support for the expo, Prince Patrick Dalindyebo, the brother of AbaThembu King Buyelekhaya Dalindyebo, said “an event of this nature is significant especially when it comes to information about funding education”.

Welekazi Ndika, SANRAL Southern Region’s Stakeholder Coordinator, said: “At the Career Expo we share information about our scholarship and bursary programmes and also talk about career opportunities in civil engineering. We want the learners to know there is financial assistance for them to further their studies.”

In addition to the scholarship and bursary programmes Ndika also explained the role of SANRAL’s Technical Excellence Academy (TEA) and the opportunities it offers to various engineering faculties nationwide.

She encouraged the learners to make use of the opportunities and to focus on their education.

“If you achieve an overall aggregate 60% and above on

also want to ensure that there is a pipeline of engineering professionals who can support the organisation in building and maintaining its road network across South Africa,” added Ndika.

Milton Mbekela Senior Secondary School won the competition and the top three learners, who competed in the competition, Liso Sokhaya, 18 years old, Sisipho Joko and Cwenga Ngewu both 17 years old, each won a tablet and backpack.

Linda Sibiya, entrepreneur and radio and television personality also offered bursaries to the three learners from Milton Mbekela SSS.

During the 2021/22 financial year SANRAL awarded external bursaries to 135 students across 16 tertiary institutions in South Africa. These covered both postgraduate and undergraduate qualifications. The new policy provisions allowed SANRAL to extend awards to students outside the Built Environment, therefore expanding the reach further than Civil Engineering to include students in Computer Science, Mechatronics, Human Resources, LLB and Electrical Engineering, Accounting, Supply Chain and Quantity Surveying, among others.

In addition to the SANRAL bursary, SANRAL also offers scholarships to learners from Grade 8 until Grade 12. In 2021/22 scholarships were awarded to 225 learners, 71% of whom were girls.

Other partners who participated in this programme included various government departments from the different spheres of government, private sector partners such as Old Mutual, as well as Eastern Cape based institutions of higher education and training such as Nelson Mandela University, Walter Sisulu University, and the University of Fort Hare. ©

WORKSHOP WITH SMMEs AND UNPACKS PROCESSES TO FOLLOW TENDERING

The South African National Roads Agency SOC Limited (SANRAL) addressed the business fraternity in the Sundays River Valley Local Municipality and unpacked its structured approach on how to access opportunities and the processes to be followed for SANRAL contracts.

SANRAL hosted its Information Session with the Sundays River Valley Local Municipality in Addo on 19 July and met with subcontractors and suppliers registered with the Construction Industry Development Board (CIDB) as CIDB Grade 1 to Grade 6 small, medium, and micro enterprises (SMMEs).

Speaking at the information session, Thandile Makwabe, SANRAL Southern Region's Transformation Officer, said the key objectives of government are to extend economic opportunities to build entrepreneurial capacity in rural and underdeveloped areas and townships by optimising the use of local resources in the project area, developing these local

resources in the execution of the project, and maximising the amount of funds retained within the project area.

"It is important for the subcontractors and suppliers to know what is expected of them when working on SANRAL projects and what the main contractors' responsibilities are towards targeted enterprises," said Makwabe.

He also spoke about the formation of the Project Liaison Committees (PLC) and the database, the tender process for targeted enterprises, the tender evaluation process, mentorship, training and skills development, and community development (CD) projects.

Makwabe also cautioned SMMEs to have a contract in place before starting work on a project.

SANRAL makes use of local noticeboards, the SANRAL website, local, regional and national newspapers, electronic media, National Treasury tender bulletins and community meetings to announce tenders. ☺

MAJOR GAUTENG PILING CONTRACT



Gauteng Piling has secured a major contract to provide extensive foundation piling for Grand Central Towers apartment block which, with ground floor and nine storeys, will become a lofty landmark in Midrand.

Keatlaretse Tema, contracts manager for Gauteng Piling, who is in charge of the project, says 302 piles will be required for the new high-rise structure which will incorporate 990 social housing walk-up units. The apartment block, near Grand Central Airport, is being developed by Bridgeport with Tri-Star Construction as the main contractor.

"The site is roughly triangular and covers 1 259 hectares. The property is bounded to the east by Diagonal Street, to the south by Exchange Street, and on the north and west, by Market Street," Tema states. In providing the piles with average depth of 5m, Gauteng Piling encountered shallow

rock at 200 mm to 900 mm below ground surface which will require specialist drilling. "However, Gauteng Piling provided a piling rig to conduct a pre-piling geotechnical investigation so was aware and prepared for the shallow rock on a portion of the site," she adds.

The diameter of the 302 piles being installed for the apartment block by Gauteng Piling varies between 650 mm to 1 150 mm. Steel reinforcement cages between 500 mm and 1m in diameter are being installed to support the piles. Gauteng Piling also has to install four additional

piles per crane to secure the three tower cranes being used by Tri-Star for the construction.

Tema says, apart from the shallow rock, the main challenge for the Grand Central Towers project is the casting of column starter bars into the piles. "No pile caps will be installed so we are working closely with the steel-fixing crew from Tri-Star Construction to ensure the starter bars are in place before the piling concrete is poured," she adds. Gauteng Piling, which is using three rigs for this contract, was founded in 1996 by building industry veteran, Nico Maas, who is still heading the company which has over the past 26 years completed over 1 800 piling contracts. Among the high-profile projects handled were the massive Mall of Africa in Midrand, Greenstone Mall in Edenvale, Clearwater Mall in Roodepoort, and Alex Junction in Alexandra, to name just a few. ☺



CONSTRUCTION SECTOR NEEDS PLAYERS FOR THE LONG HAUL

Even as South Africa's construction sector struggles through difficult cycles of low profitability and declining capacity, it needs responsible and sustainable companies to maintain momentum.

After almost nine decades in business, AfriSam's legacy has been to demonstrate the value of good corporate citizenship, according to the company's sales and marketing executive Richard Tomes. AfriSam began its journey as Anglovaal Portland Cement Company in 1934, with a cement plant in Roodepoort.

"The time since then has seen many changes and we are proud to have grown stronger, with our customers confirming that we are still their preferred choice," says Tomes. "Even with the depressed state of the construction sector, our focus on quality and sustainability means that we can continue to serve the market to world-class standards."

Tomes argues that the extensive investment in cement plants, readymix facilities and quarries over the years laid the groundwork for AfriSam's considerable contribution to the country's infrastructure. As Anglo Alpha, it had become a fully vertically-integrated construction materials business in the 1990s through the strategic incorporation of aggregate producer Hippo Quarries and readymix company Pioneer Concrete. When the country re-entered the international community post-democracy, the company was acquired by the multinational Holcim group, further augmenting its access to world-class expertise and best practice.

"The learnings gained when part of the Holcim group were valuable in positioning AfriSam where it is today," he says. "Our access to global research and the sharing

of technical expertise further enhanced the expertise of many staff still with the business."

He emphasises the large capital commitments which AfriSam has historically made in the country's productive capacity. Often located in remote areas due to their need for limestone deposits, cement plants must be built for optimal longevity to justify the investment, he explains. These facilities – such as AfriSam's Ulco and Dudfield plants – operate not just as production facilities but as integrated settlements.

"We have been able to serve the nation's requirement for vital cement supplies by maintaining entire village environments at these sites, including schools, houses, churches and other services," says Tomes. "These facilities must be carefully managed and maintained for sustainability, and to make it attractive for our staff to live and work there."

There is also an ongoing commitment to education and training, to ensure that all plant is professionally operated and systematically serviced while creating opportunities for future generations.

Looking further ahead, AfriSam has taken a leading role in the sector to reduce carbon emissions. Aiming at producing carbon neutral products, the company has already made significant progress in offering the market a range of lower carbon cements. It is also considering renewable energy sources at some of its plants, to reduce coal usage.

"We will continue to make a positive contribution in helping South Africa meet its commitments to the relevant global treaties and conventions on climate change," he says. ☺

ROCLA AND TECHNICRETE SCORE AT CMA AWARDS

The 2022 Concrete Manufacturers Association (CMA) honoured both Rocla and Technicrete with Engineering Excellence Awards in the Infrastructure and Paving Categories.

Group Marketing and Communications Manager for the ISG Group, Malebusa Sebatane commented that being recognised by their peers is one of the highest accolades a company can receive. "Both Rocla and Technicrete are known for designing innovative solutions that overcome challenges faced on infrastructure projects by contractors".

"Our precast concrete products are designed with one

objective in mind, to provide a reliable and sustainable solution for the project. The CMA's recognition adds value to the entire Rocla and Technicrete teams' efforts to deliver a superior solution," said Sebatane.

Rocla, winner of the Infrastructure Category, supplied over 19 kms of HDPE piping to Safcrete Construction for the Polokwane Waste Water Treatment Project which was commissioned by the Polokwane Municipality to upgrade an outdated sewerage system that serviced the Seshego area of Polokwane. The pipes supplied were 1 980 x 1 000 mm concrete pipes and 2 116 x 900 mm concrete pipes. The placement of each pipe also required the insertion of a rubber ring and the welding of a 'capping strip' on the inside of each individual joint to ensure proper sealant.

Announced as the winner of the Paving Category, Technicrete's internationally licensed Armorflex Erosion Control System 140 was selected for upgrades to major stormwater systems in Mamelodi Extensions 4 and 5 north-east of Pretoria. Tefla, who undertook the project, said Armorflex's easy installation enabled them to outsource 30% of the work to the local community enabling them to add a skills transfer element to the project. ©



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NEW ASHTON ARCH WINS 2022 FULTON AWARD FOR BEST INFRASTRUCTURE PROJECT OVER R100M

The New Ashton Arch, South Africa's first transversely launched concrete tied-arch bridge, clinched an award for Best Infrastructure Project greater than R100m at the 2022 Fulton Awards, held every two years by the Cement & Concrete South Africa (CCSA). The project also received a commendation for Innovation & Invention in Concrete. The judges praised the New Ashton Arch for its "unique bridge engineering technique."

Globally trusted infrastructure consulting firm AECOM, which entered the project on behalf of its client, the Western Cape Government's Department of Transport and Public Works, Roads Branch, was responsible for all engineering aspects, from road and bridge design to project and construction management. The main contractor was Haw & Inglis Civil Engineering.

"The successful completion of this project clearly shows that innovative design and construction techniques are able to blend structural concrete and steel, using modern structural methodology, into one unified end product with a distinct purpose and aesthetic appeal. It has been a great privilege to be part of this project team and work closely with all involved," says AECOM Cape Town Bridges Team Lead Abé Newmark. "It has definitely been the most memorable project experience of my 40-year career as a

bridge engineer." AECOM concrete specialist Philip Ronné, Associate Engineer – Bridge Engineering, cites the success of the bridge due to the management of the interface between bridge engineering and construction materials. Careful attention was paid to the materials selection and structural performance to ensure constructability of the larger concrete elements, while favouring important Environment, Sustainability and Governance (ESG) goals like recycling. In this regard, the old bridge became part of the foundation of the new bridge.

In terms of sustainability, the cementitious system adopted comprised 30% fly ash, which has a much lower embodied carbon content. The specific stone used in the concrete mix was selected carefully. This relates to the structure's response to the evolution of heat that the concrete experiences as it hardens, which can cause cracking



(Back) Keegan de Waal, AECOM, Production Engineer: Contracts and Contract Coordinator; Darrin Green, AECOM, MD, Africa; Johan Ehlers, AECOM, Contracts Manager: Structures; and Michael Hendrickse, AECOM, Chief Engineer: Geometrics and Design Coordinator; Suri Shields, AECOM, Senior Structural Engineer, Launch (Front) Jacqui Gooch, Head of Department, Western Cape Transport and Public Works, Roads Branch; Heinrich van Wijk, AECOM, Senior Engineer: Structures; Abé Newmark, AECOM, Cape Town Bridges Team Lead; Philip Ronne, AECOM, Associate Engineer – Bridge Engineering and Concrete Specialist; David Middleton, AECOM, Temporary Works Designer, Lead.

QUICK FACTS

Bridge weight: 8 000 tonnes
Bridge length: 110 m
Arch height: 22 m

during cooling to an ambient temperature. To counter this, the stone aggregate, with favourable coefficient of thermal expansion property, was selected to minimise such movement. Together with careful binder selection, Ronné came up with a 50 MPa high-strength concrete mix with the required structural performance, long-term durability, and lowest heat signature.

Ronné even spent time at the batching plant during the critical large concrete pours to ensure quality control. “If there is any problem once cast it has to be demolished, so you can imagine the importance of getting it right the first time in terms of time and other considerations,” notes Newmark. During the casting process itself AECOM was able to use its expertise to assist the main contractor, especially regarding the convergence of a high number of post-tensioning anchors, steel reinforcement and hanger anchors at the arch spring points.

Another key consideration was the time-dependent properties of the concrete mix to predict how the structure behaves over its entire lifecycle. Here the first 30 years is the most critical because as the structure deforms continuously over time due to creep and shrinkage, this impacts the structural behaviour. The cable tensioning was calibrated to ensure that behaviour was modelled with sophisticated bridge modelling software.

There were four tensioning phases, with the initial tensioning of the bridge structure taking six to 12 months. Following this process, it was remodelled and tensioned again to ensure the concrete stays in an uncracked condition

for at least the next 30 years. Apart from key members Ronné and Heinrich van Wijk, Senior Engineer: Structures, the team also collaborated with AECOM’s complex bridge team in the UK. “I am sure that without their involvement the project would not have been the success it was. For us it was ground-breaking technology. However, the AECOM collaborative model allowed us to tap effortlessly into our global expertise,” says Newmark.


“The other aspect that feeds into the innovation is obviously the transverse launching, a first for Africa,” he notes. To minimise traffic disruption, the new bridge was constructed adjacent to the existing bridge while maintaining traffic over it. Upon completion, the new bridge was then used as a temporary bypass and river crossing while the existing bridge was demolished, and new abutments built. The new tied-arch bridge was launched transversely into its final position in less than 12 hours on 14 August 2021.

“That detailed planning process literally took more than a year to consider, as well as reviewing all the elements involved in close consultation with our UK specialists, the contractor, and temporary works designers. The original push-launch system was changed by the new contractor to a pull-launch system, and the design team had to do a lot of retrofit engineering to the completed temporary substructure. The change of contractor also meant that the client had to accept a lot of temporary works risk managed by AECOM on its behalf, in addition to free issue items like anchor plates and support work. It became our responsibility to drive the delivery of these to not delay the project further. We played many roles during the seven years of the project,” reflects Newmark.

The Fulton Award and Commendation and subsequent recognition by the CCSA is an important acknowledgement of the engineering excellence inherent in the project. “The fact that we ultimately managed to deliver the project even faced with all of these obstacles was a landmark achievement,” cites Newmark. “A project like this reveals that our South African engineers can compete with the best in the world, which is very encouraging.” Following their involvement with New Ashton Arch, several team members have subsequently become involved with other iconic bridge projects locally and internationally.

The prestigious Fulton Awards recognise and honour excellence in the design, use, and innovation in concrete. Originally scheduled for 2021, the awards were postponed to this year due to Covid-19. Winners were announced at a gala function in Johannesburg on 10 June. “Ingenuity, innovation, and the high-quality workmanship of the South African concrete industry were distinctive features of all 24 entries in the 2022 Fulton Awards,” says CCSA CEO Bryan Perrie.

The New Ashton Arch bridge component is, in fact, part of a larger infrastructure project that saw the rehabilitation of 13,4 km of trunk road from Ashton to Montagu via Cogmanskloof that was completed recently. This overall project sets to improve traffic and pedestrian safety and to improve the flood capacity of bridges. The entire project has been entered into the 2022 CESA AON Engineering Excellence Awards, with the winners due to be announced at a gala banquet on Wednesday 28 September. ©



ANNOUNCING THE LAUNCH OF THE NEW IIE BACHELOR OF ENGINEERING IN CIVIL ENGINEERING

IIE MSA has announced the launch of its IIE Bachelor of Engineering in Civil Engineering degree as a new third option alongside its existing and highly popular Engineering qualifications: IIE Bachelor of Engineering in Electrical and Electronic Engineering, and IIE Bachelor of Engineering in Mechanical Engineering.

IIE MSA is a brand of The Independent Institute of Education (The IIE) and is one of a few private higher education campuses in South Africa to offer IIE engineering degrees. Civil engineering is one of the most in demand jobs in the world. There are numerous areas of specialisation within civil engineering which makes it a highly sought-after and international career. Civil engineers design, build and manage construction projects wherever they are in the world, including roads, buildings, bridges, water systems and airports – and neither South Africa nor the world at large can produce enough of them.

Domestically, civil engineering is the solution to many of South Africa's problems – and the only solution to crippling challenges such as power and water shortages. That these twin challenges are daily front-page news is testament to the need for good science and engineering professionals to address them. Globally too, civil engineers will play a vital role in meeting the challenges laid out by the internationally adopted Sustainable Development Goals (SDGs).

Their skills, and those of engineering technologists and other built environment professionals, are critical for water management (goal 6), access to energy (goal 7) and the creation of strong, lasting infrastructure (goal 9) and cities (goal 11). A number of other SDGs are also directly or indirectly impacted by engineering and related fields.

Head of School for Engineering, Science & Health at IIE MSA, Neil Manson, notes that there is a long road ahead for engineering in Africa and the continent, which must dramatically raise the number of people firstly who qualify to study civil engineering, and secondly who make it from the first year of an engineering degree through to graduation. This is where The IIE plays an important role through its three high-tech labs fitted with 2022-era digital technology. Engineering students are required to design, analyse, and test their creations and IIE MSA engineering students can do so with the latest technology.

With these labs, students are well prepared to enter the workforce upon graduating. Unlike many traditional

engineering programmes, the IIE Bachelor of Engineering programmes expose them to the role of engineering in the real world as early as their first year.

Other dynamics of the courses include small classes and attention to students - teaching techniques designed to give engineering students every opportunity of graduating on schedule.

The IIE is adding ever more engineering programmes to its course selection in recognition that they are in high demand – primarily because of the discipline's employability. "As the world becomes ever more automated, engineers are constantly in high demand. With the skills learned and developed from studying an engineering degree, we are sure the IIE 2023 pool of graduates will be highly employable with plentiful local and international work opportunities," adds Manson.

To stimulate this interest, IIE MSA hosted an unusual and highly interactive Engineering Open Day on Saturday, 13 August to enable curious scholars to "experience the power of engineering through the various workshops" held throughout the day.

These workshops commenced at 9:00 and learners moved from experiment to experiment, experiencing everything from unique 3D printing, a LEGO session to building MultiSim simulation flashlight, chemical composition of poplar products, the high-tech software in the IT lab and experiencing a physics projectile motion showcase by the Engineering Student Society," says Manson.

"Ultimately engineers are creative problem solvers and like to explore how things work every day. Indeed, these are the attributes that will be reinforced while studying engineering through our emphasis on laboratory study. This reliance on labs in study is a feature in modern engineering curricula and teaching methods.

It means academic institutions require the latest labs with equipment that cannot be outdated by the standards of today's fast-paced and innovative technologies," Manson concludes. ☺

REGIONAL ROAD CONFERENCE ATTRACTS GLOBAL INTEREST FROM INTERNATIONAL SPEAKERS

The level of international participation from speakers to delegates registering to attend the 7th Regional Conference for Africa, hosted by the South African Road Federation (SARF) in collaboration with the International Road Federation (IRF) and the World Road Association (PIARC), reflects the attention that the event is getting from across the globe.

Under the theme “Connecting Africa through Smart, Safe and Resilient Roads: Stimulating Growth and Trade on the Continent”, the conference will take place from 18 to 20 October in Cape Town, South Africa (at the Cape Town International Convention Centre),

“Our event this year truly reflects an international perspective,” says Basil Jonsson, Operations Director for SARF.

“We are bringing together best practice from across the world, and this has also enabled us to secure internationally-renowned experts in the field, particularly in terms of keynote speakers.”

These include Anouar Benazzouz, the first African President to stand at the helm of the IRF. Benazzouz is also the Director-General of Moroccan Highways (Autoroutes dur Maroc).

A number of locals also join the keynotes, such as Professor André Roux (Head: Futures Studies Programme, University of Stellenbosch Business School), and Dr Pierre Voges (CEO of the Atlantis Special Economic Zone Company and former CEO of the Mandela Bay Development Agency).

Enormous international interest is also reflected in the high volume of papers submitted from all four corners of the world – not only from countries that usually participate, but this year including a number from countries attending for the first time.

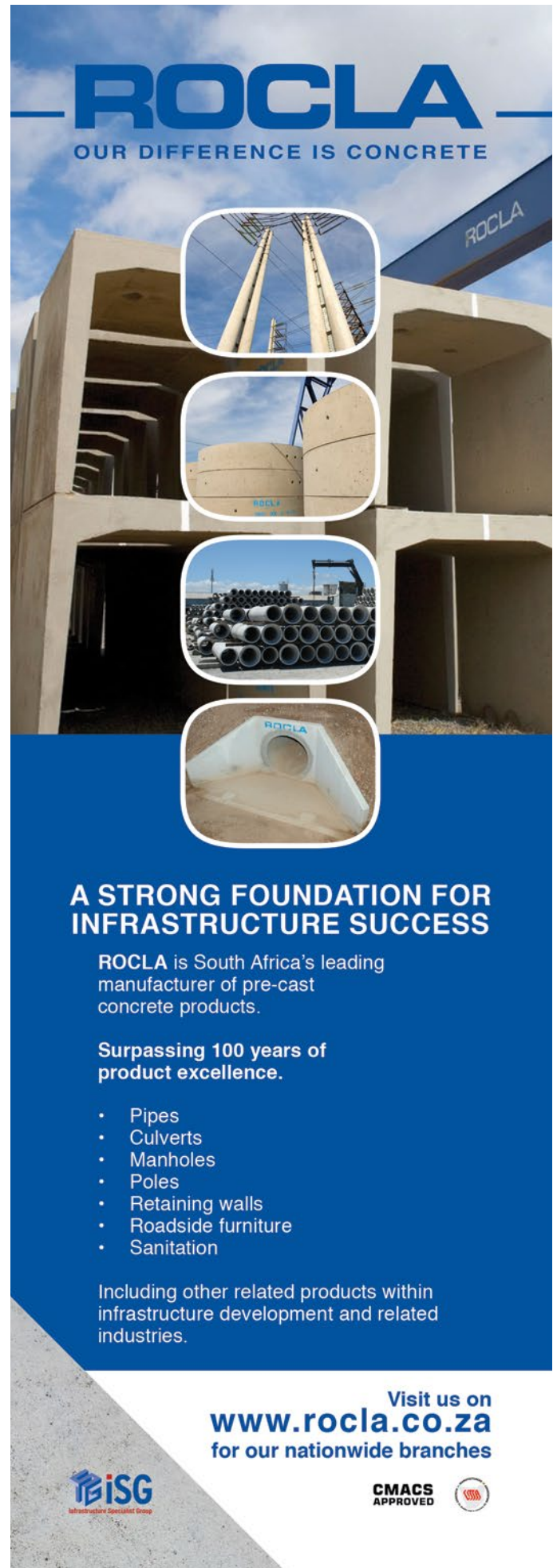
International attendance to date confirms participants from countries as widely spread as the UK, USA and various EU countries to those in the Middle East and Africa, Japan, Mexico and New Zealand.

The event, which also attracts large South African registration, is anticipated to draw more than 420 delegates in total. ESCA accreditation has therefore been secured by SARF with 1 CPD Point in Category 1 for each of the three days of the conference.

Other topics on the three-day programme include:

- Determination of roads needs and financing mechanisms
- Preserving Africa’s road assets
- Safe and efficient transport by road
- Innovative practices to optimise road networks
- Roads and the environment
- The role of low volume roads in rural connectivity, and
- Capacity development in the roads sector.

A trade exhibition (accommodating 30 exhibitors in total) will run alongside the conference. Close to being sold out, only five indoor stands remain along with some outdoor exhibition space for large vehicles and equipment. ©



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Atlas Copco Power Technique complements its superior quality, reliable and efficient portable LED, metal halide, electric and battery-driven light tower range with an outstanding after-market service solution.

The construction industry is faced with several challenges, from potential fines if deadlines are not met and keeping operational costs as low as possible to optimising worker safety and adhering to ever-stringent environmental regulations. To address these challenges, operators demand reliable and efficient performance from their machines and equipment.

Lighting plants are essential on most job sites, providing reliable and superior lighting and helping to extend working hours by ensuring that work can continue unhampered in a safe working environment after sunset or at pre-dawn.

“We have specially developed an after-market service to meet the needs of customers / operators and assist them to protect their investment and get the best out of their lighting plants,” notes Power Technique Service Division Manager, Douw van Schalkwyk. “Regular servicing at the correct intervals by skilled, factory-trained technicians using premium genuine parts will optimise the performance, reliability and efficiency of lighting plants and extend the units’ life cycle too. What this ultimately means for the customer / operator is across-the board cost and time savings for low total cost of ownership.”

Atlas Copco’s after-market solutions for light towers are focussed on two primary areas: Genuine parts and service. Using genuine parts ensures that Atlas Copco’s light towers are maintained to factory specifications, thereby improving

reliability and minimising operating costs. Atlas Copco offers the following under genuine parts:

- Atlas Copco Kits comprise sets of spare parts for the most common repairs and maintenance operations, all neatly packaged in one box.
- Metal halide bulbs (they consume less energy and offer predictable power)
- Paroil Engine Oils formulated, approved and recommend by Atlas Copco’s engine suppliers. Atlas Copco oils guarantee that the engines in construction machinery will continue to run smoothly between service intervals
- Atlas Copco Parcool coolants are designed to meet the requirements of modern engines. With improved cooling capacity one of the leading features, these coolants guarantee enhanced protection for extended component life-time
- Engine programmes offer a second life to engines that have reached end-of-life
- Atlas Copco lead acid batteries are developed to perform and last under extreme conditions and require minimum maintenance

Atlas Copco’s service solutions include Inspection and Service Plans, Overhauls and Upgrades. Inspection Plans involve an equipment audit that generates a detailed report on the equipment status as well as a checklist with

recommendations that will facilitate future repair plans.

“Our Service Plans cover preventative maintenance and repairs carried out by our team of highly-trained technicians,” continues Van Schalkwyk. Completing the service offering are Atlas Copco Overhauls (giving the vital ‘organs’ of machines a second life by re-establishing the high quality and reliable standards of a new machine) and Atlas Copco Upgrades (advanced technical solutions).

Van Schalkwyk concludes, “By allowing us to focus on the service, maintenance and repair of light towers, which is our area of experience and expertise, operators are able to focus on their core business, leading to improve uptime and productivity, and ultimately profitability.” ©



STRONG DEMAND FOR NEW a.b.e. CONCRETE REPAIR SYSTEM

A new concrete repair system, comprising two a.b.e. Construction Chemicals products, is providing excellent results and is increasingly being specified in various parts of South Africa.

a.b.e., with head office in Boksburg, is part of the Saint-Gobain Group.

In terms of the new concrete repair system, a.b.e.'s durarep EC, a three-component epoxy cement mortar with selected fine aggregates, is overcoated with abecote SF 217, a two-component solvent-free Novolac epoxy resin. The combination of durarep EC and abecote SF 217 was selected for the repair and protection of the return activated sludge (RAS) pump station of the Strandfontein sewer works in Cape Town, completed by main contractor, Hiload Inyanga Construction. A total of 120 kits of 21kg durarep EC were needed for this project.

Brett Papayanni, a.b.e. General Construction Sales Manager in Cape Town, who handled the two Western Cape projects on behalf of a.b.e., says trowel-applied durarep EC provides exceptional non-slump consistency for the smoothing of irregular surfaces and blow holes on concrete and masonry.

"durarep EC is ideal for the re-profiling of irregular surfaces, pore filling and sealing of blow holes and can

be applied to protect vertical and horizontal surfaces between 0,5 and 4 mm thick. It is chemical-resistant and suitable for new and refurbishment applications in aggressive chemical environments. "Furthermore, the solvent-free product is impervious to liquids and can be applied to damp surfaces. It quickly develops placeable consistency and so provides fast turn-around time. With excellent adhesion, durarep EC remains cohesive and does not sag," Papayanni explains.

The new a.b.e. concrete repair and protection system calls for durarep EC to be overcoated with abecote SF 217, a clear resin system used for sealing, laminating, screening and grouting applications. abecote SF 217 offers high chemical resistance not possible with standard epoxies and can be used as a laminating resin, for high chemical-resistance screeding, chemical tile grouting, and sealing porous elements such as concrete and wood.

"a.b.e. concrete repair products have for decades been used to repair and effectively maintain important South African building and infrastructural facilities.

The new durarep EC and abecote SF 217 system illustrates a.b.e.'s commitment to develop and introduce the widest possible choice of solutions for diverse repair and maintenance projects," Papayanni adds. ©



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R16BN HARBOUR ARCH MEGA-DEVELOPMENT REACHES HIGHEST POINT

The first of six towers at Cape Town's largest and most ambitious new mixed-use precinct has "topped out" on the 23rd floor, 95 metres above ground, just 30 months after breaking ground in January 2020.

“Reaching the highest point of Tower 1 at Harbour Arch represents a significant milestone in our construction journey,” said Nicholas Stopforth, Managing Director of Amdec Property Developments. “Despite an unforeseen delay following the outbreak of COVID-19 in 2020, work has advanced at pace and is on schedule for completion in May next year.

Main contractor, WBHO, had to endure several significant structural-engineering challenges, not least of which was the deep ground-rock drilling and excavation required for the precinct’s 3-level super-basement, 11 metres below ground,” shares Dale Blanchard, Contracts Director at WBHO. “Working within a restricted space and access, 65 000 cubic metres of earth and 5 000 cubic metres of rock had to be removed during the excavation process.”

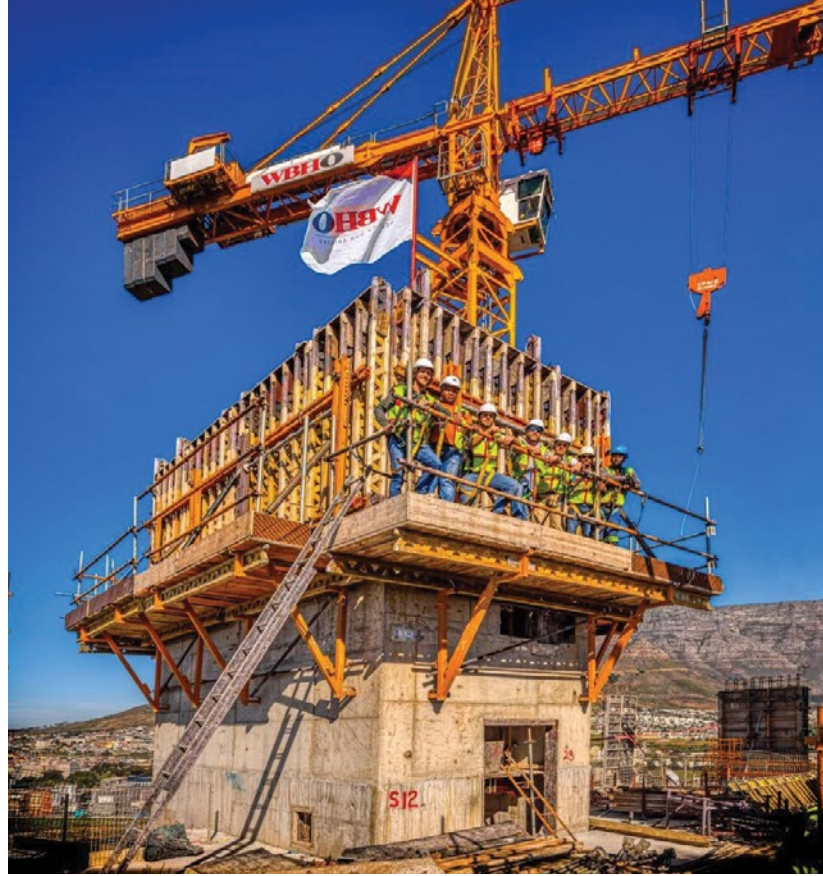
“The wind also played havoc with our construction programme, particularly the higher up we went,” he said. “In one of the windiest years in Cape Town’s history, we’re thrilled that the team was still able to top out a structure of this enormity on time.”

With just under a year to go till completion, 50 000 m³ of concrete, 6 million bricks, 4 500 tons of steel reinforcement,

150 km of joint sealant, and 13 301 panes of glass have been used in the construction of Tower 1. It has also taken around 3 million man hours to get this far, with tens of thousands of people - including unskilled laborers, builders, tradesmen, technicians, engineers, and architects - working together, day and night, to bring this iconic landmark to fruition.

Harbour Arch Tower 1 comprises double-volume glass-fronted retail space at ground level – earmarked for exclusive motor dealerships and coffee shops – and further retail space on the eighth-floor which will house restaurants with indoor and outdoor seating; 1 188 parking bays across three basement and seven above-ground levels; and 560 residential apartments -82 inclusionary rental units, 158 studio apartments, 203 one-bedroom apartments, 58 two-bedroom apartments and 59 three-bedroom apartments. There is also an open-air sundeck and swimming pool on the 18th floor, offering 360 degree mountain and harbour views.

“A multi-billion Rand project of this magnitude requires the technical skill, expertise, and dedication of a highly specialized multi-disciplinary team,” confirmed Stopforth. “The professional team has proven to be up for the task, while WBHO was an automatic first choice, having



successfully constructed and delivered the Amdec Group’s R1,4bn Yacht Club development back in 2017.”

“We enjoy excellent working relationships with the entire team, based on trust, mutual respect, and a shared culture of passion, commitment, and service excellence,” he said.

This 16 billion development by the Amdec Group represents a significant private sector investment into the City of Cape Town. According to the Amdec Group CEO James Wilson, “More than 20 000 jobs are being created during the construction phase alone, with many more employment opportunities – especially in the tourism, hospitality and retail sectors – upon completion”.

“We hope that Harbour Arch will kick-start further ambitious large-scale development within the Cape Town CBD, and allow us to hold our own against other capital cities around the world,” he said.

Cutting an impressive figure against the Mother City’s skyline, Harbour Arch will create a new gateway to the Mother City. The completed precinct will comprise 6 towers

spanning 200 000 m² of usable space accommodating commercial offices and corporate headquarters; an urban park and shopping galleria at street level; an 8th floor open-air piazza lined with restaurants, coffee shops and cocktails bars; 2 Marriott branded hotels, with conferencing facilities; a flagship health and fitness club, and the largest selection of residential apartment in the CBD. ©



Proud to have carried out the lateral support, piling and jet grouting works for the Harbour Arch Project in Cape Town.

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The biggest challenge for Rooikraal Quarry is the depressed sales demand.



ROOIKRAAL QUARRY'S SENSITIVE USE OF WATER

*AfriSam's Rooikraal Quarry is located near Brakpan, Gauteng and mines competent dolerite rock. The quarry is a big supplier to asphalt markets which it supplies with its sought-after products – especially 10 and 20 mm road stone. In the production of aggregate, sand and gravel used in roadbuilding, raw material is mined from a deposit of high-grade material that is intermixed with other undesirable materials and detritus. As asphalt cannot have aggregates with any particles, the aggregate must be washed to get rid of such materials. **Construction World** visited Rooikraal Quarry to learn about the closed circuit it has established to wash its products and which furthers AfriSam's environmental credentials.*

The Rooikraal Quarry has a Life of Mine of 240 years. “The property itself is large and only two portions are used for quarrying purposes. These consist of two adjacent pits – one for dolerite mining and one for dolomite mining. “Before AfriSam acquired the quarry in 2001, dolomite was being mined, but it is mining dolerite now,” says Zielas du Preez, AfriSam's Regional Manager - Gauteng and Western Cape

Operations. “The historical dolomite pit is used a tailings catchment facility for the quarry's recycling process and the tailings produced from the washing process are pumped into it.”

Louis Sterley, Rooikraal's Works Manager explains the reason for the change from dolomite to dolerite. “Although dolomite has excellent cementitious properties and a



The fairly square shape of the shallow pit allows for big blasts.

pozzolanic effect (the chemical reaction between reactive silica or alumina present and portlandite formed during the cement hydration in the presence of water) and therefore is ideal for ready-mix and precast customers, it is limited to these markets. “Dolerite has a wider use with which to produce saleable product,” he says.

Rooikraal Quarry’s dolerite is crushed to produce an array of material sizes including G6 (base course); ballast; 7,1 mm, 22 mm and 28 mm concrete stone; 10 mm, 14 mm and 20 mm road stone, as well as crusher sand.

“Apart from major companies in Gauteng that are involved in the supply of asphalt for road building, Rooikraal supplies its aggregate to the Free State, from Heilbron to Deneysville to Villiers. It has even supplied its product – because of the competent rock that is mined – to some projects in KwaZulu-Natal,” says Sterley. In addition, the quarry supplies material to the construction companies and sister establishments within AfriSam.

A closed circuit for washing

“All the products produced by the quarry are washed. The plant was originally designed for the asphalt market. In road

building the aggregate must be devoid of any particles,” says Du Preez. Dust on the aggregate surface adversely affects bituminous hot mix pavement performance and decreases the long-term performance of roads.

“In order to produce the various products for the road building industry, a washing process is needed to meet the requirements and specification of the saleable products. During this process those fines that are by-products of the washing process are discarded.”

The tailings produced as a result of the washing of aggregates are pumped to the unused dolomite pit that is used as a tailings dam and its rehabilitation facility. “We have a closed circuit regarding water within the operation itself,” explains Du Preez as environmental regulations prohibit the release of untreated contaminated water into the stream that runs alongside the site, and it is economically feasible to recover and reuse the same process water again.

Rooikraal Quarry does not make use of municipal water as this would be uneconomical given the volume of water needed for washing. Instead, the quarry is dependent on rainwater that is collected in both the dolerite and dolomite pits. “The last time the facility used municipal water was in 2014. Since then seasonal rain has provided us with enough water to run the closed circuit. On the dolerite side there is a sump too and we collect water there and pump the water to the dolomite side,” says Sterley.

There is an HDPE pipeline running underground from the unused pit (which functions as a tailings dam) to the



The quarry is a big supplier to asphalt markets which it supplies with its sought-after products – especially 10 and 20 mm road stone.

primary, secondary and tertiary sites of the plant and a pipeline taking slime away from the plant to the pit.

“We supply water to all the screens and cyclone. Including the dewatering screen, there are six screens across the primary, secondary and tertiary plant,” says Du Preez. In the primary section, rock is broken down from 600 mm to 85 mm fragmentation. “We have a secondary crusher in the primary section which crushes the stone down further before it goes onto the ISP. Our secondary crushing is the biggest process and it has the most conveyors and most screens. This where smaller products such as concrete stone and sand are produced.”

The tertiary plant makes a coarse and a fine sand. The latter is used by the likes of Much Asphalt and the former by ready-mix customers. At the tertiary plant smaller sizes of aggregate, 6, 7, 10, 14 mm are produced while it also produces 20 road stone aggregate.

Challenges

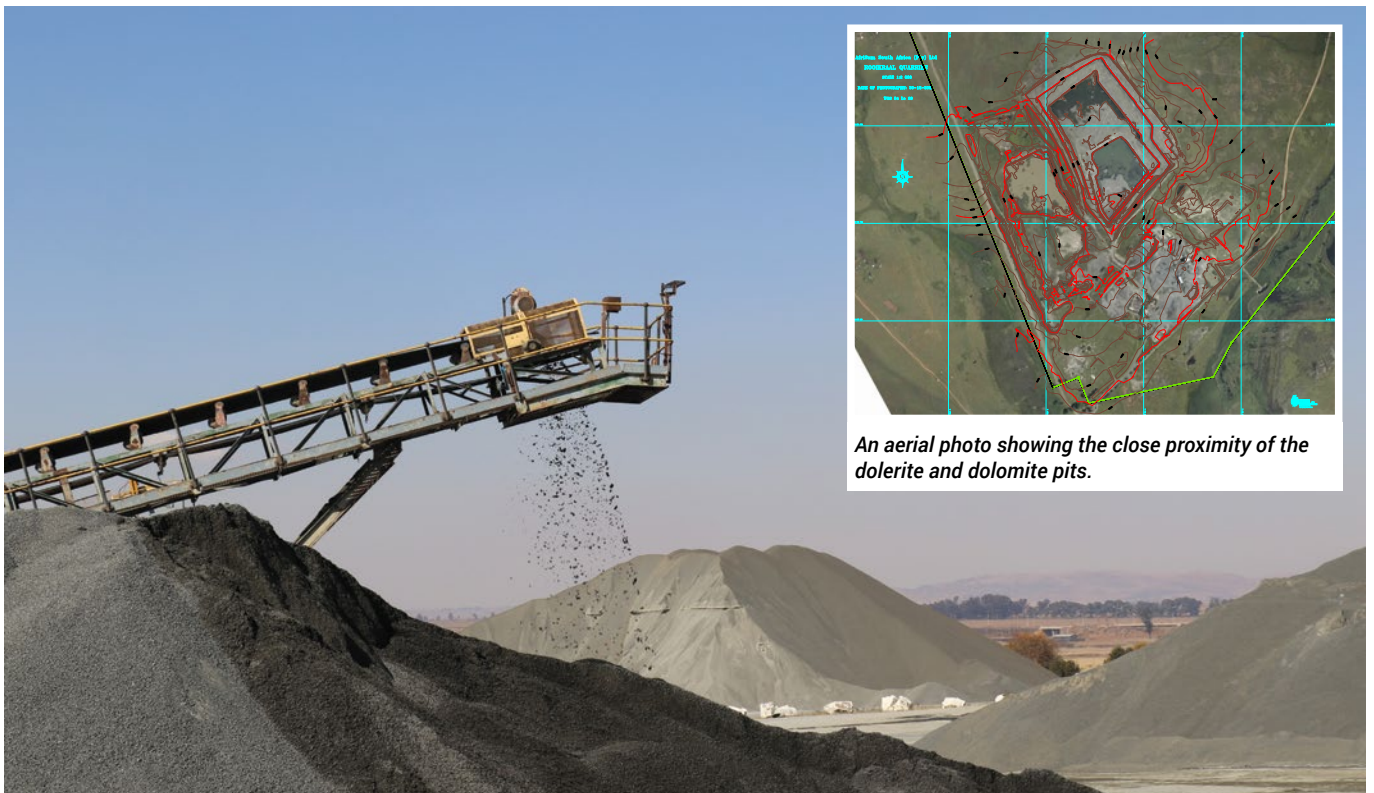
Even though the facility is using its own water, there is no

getting away from using Eskom. “Because the water for the screens is pumped via the underground pipelines, the escalating electricity cost has been significant. Even with the lower demand for especially road building product resulting in us running at lower capacity, our electricity costs are still almost 50% more than before,” says Du Preez.

In addition to the steep increases in electricity cost, the ongoing load shedding has been challenging from a scheduling, planning and especially time perspective. “If the load shedding schedule is not adhered, resulting in a power outage while under load and rock gets stuck in the jaw crusher, that machine can be non-functional for a day or two,” says Du Preez.

Optimising efficiency

Rooikraal Quarry is fortunate that the depth from the overburden to competent rock is mere 0,5 m. The result is that development costs are very low, and planned drilling and blasting only has to happen once a month. “The fairly square shape of the shallow pit allows for big blasts,” says



An aerial photo showing the close proximity of the dolerite and dolomite pits.

Rooikraal Quarry's dolerite is crushed to produce an array of material sizes.



From left: Louis Sterley, Rooikraal's Works Manager, Themba Baloyi – Production Superintendent and Zielas du Preez, AfriSam's Regional Manager - Gauteng and Western Cape Operations.

Sterley. "This leads to cost savings as up to 120 000 tonnes of rock is blasted at the same time. The quarry also has wide benches which allow space for bigger blasts."


In addition Villa Liza, the closest community, is 2 km from the quarry. The only structures that are relatively close are 88 kVA Eskom transformer which is located about 260 m from the pit and the quarry's office which is about 500 m from the area where blasting takes place.

This potential risk has been mitigated by innovation in blast designs.


"The better you blast the less you have to crush," explains Sterley. "Our blasting achieves increased fragmentation which leads to easier rock removal, increased truck capacity and less wear and tear on crushing equipment," says Sterley.

"The biggest challenge is sales demand. It is a cut throat market. Road projects are scarce and there are many competitors. In addition, we still have certain customers needing certain products. We are making a basket of products and cannot close taps to make a single product," says Du Preez. "Because of the demand for 10 mm stone in the asphalt market, the tertiary plant used to run 24 hours a day, the secondary plant operated in two shifts of 9 hours each per day and the primary plant has always been a single shift.


The current climate has forced us to play around and be flexible with what plant is operational and when. While we need to maintain our agreed stock levels, we cannot just run the plant. This is a challenge," concludes Du Preez. ☺




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CUTTING-EDGE GREEN TECHNOLOGIES SOLUTIONS

thyssenkrupp Uhde, as a proudly environmentally-conscious company, is helping to green the planet through its leading-edge green technology solutions.

Combining decades of experience and expertise, the company owns a large portfolio of chemical process technologies, including those for the production of green chemicals such as green ammonia and green methanol. For large scale green hydrogen production based on alkaline water electrolysis, thyssenkrupp Uhde collaborates with its sister company, thyssenkrupp nucera.

The global adoption of green hydrogen and fuel cell technologies for clean energy and transport applications is rapidly gaining traction as the urgency to tackle climate change accelerates. Energy transition holds great potential for Africa, unlocking the continent's economy through new sustainable energy investments and becoming an exporter of clean energy.

In South Africa, insecurity of energy supply and its accompanying negative effects on the country's economic growth is speeding up the demand for the green energy transition. Decreasing the country's dependence on coal-fired power stations and moving to renewable or clean energy generation is the way forward. It holds countless advantages that will underpin economic growth and stimulate foreign investments. According to a recent statement by the Global Wind Energy Council (GWEC), the clean energy transition has the potential to create 250 000 jobs in South Africa over a period of 25 years. South Africa's energy security can be addressed by fast-tracking projects focussed on green energy i.e. wind, solar and green hydrogen.

thyssenkrupp Uhde's Senior Sales Engineer, Nithesh Mohun, notes that the rapid deployment of these green technologies is essential. "Fortunately, South Africa's climate and geography are well-suited for a hydrogen economy; we have an abundance of sun and wind as well as large expanses. In line with the South African Government's hydrogen strategy, massive investments are being made in infrastructure for the large-scale production of green hydrogen. This



includes the development of the Green Hydrogen Valley project in the Provinces of Limpopo, Gauteng and KwaZulu-Natal."

Mohun unpacks the potential of green hydrogen, noting that it is so much more than a mere zero- carbon energy carrier. As an enabler, green hydrogen is the basis for other green technologies. It can be used to create a suite of products including green ammonia, explosives, green methanol, synthetic fuels, and synthetic natural gas. Moreover, green hydrogen applications include mobility and power generation via fuel cells and can be conveniently stored for deployment when needed."

While the world clearly wants hydrogen, Mohun points out that getting it to countries in Europe for example, poses a challenge. He explains: "Gaseous hydrogen takes up more space than liquid hydrogen. Transporting large quantities of it in gas form is not feasible. Therefore, the solution would be to transport hydrogen as a liquid and to then convert it to gas at the point of storage or use. However, this requires the energy intensive liquefaction process, which itself is not economically feasible. We therefore look at hydrogen carriers as an alternative. We can take the hydrogen we produce and combine it with nitrogen to produce ammonia, a high-density energy carrier."

thyssenkrupp Uhde has a CO₂-free green ammonia production solution based on thyssenkrupp nucera's AWE technology and 100% renewable feedstocks. Once Europe receives

the ammonia, the ammonia can be cracked to hydrogen and nitrogen at the point of receipt. The associated cracking technology is also part of the thyssenKrupp portfolio.

When green hydrogen is combined with carbon dioxide green methanol can be produced. Methanol, like ammonia, is also a feasible energy carrier. Methanol is used as a raw product in the manufacturing of plastics and polymers. It is also used as a fuel additive for cleaner, less harmful CO₂ emissions during combustion. thyssenkrupp Uhde also offers carbon capture technology for cleaning up the gases that are emitted into the air from smoke stacks. The harmful substances that have been captured can be stored and beneficiated later.

Green technologies also hold advantages for Africa's agricultural industry with green ammonia and green urea serving as green fertilizers. All that is needed for the production of green urea is ammonia and a source of CO₂. With over four decades of experience in the design and construction of urea plants, thyssenkrupp Uhde is regarded as one of the top international contractors in this field.

South Africa is advancing into green ammonia solutions with a proposed green ammonia export facility planned for construction at the Coega Special Economic Zone in Nelson Mandela Bay, Eastern Cape. According to various reports, the facility shall produce up to 780 000 ton-per annum of green ammonia with full operation scheduled by the end of 2026. ©

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CSSA ANNOUNCES ‘VISION: NET ZERO CARBON’ BY 2050 FOR ITS PARTNER MEMBERS

The CCSA has noted the United Nations Framework Convention on Climate Change (UNFCCC) position that parties should act to protect the climate system “on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities” based on Principle 7 of the Rio Declaration at the first Rio Earth Summit in 1992.

“In response, to comply with CCSA climate change commitments in line with the national NDC and Paris agreement, CCSA member companies aspire to net zero emission by 2050 with milestones informed by decarbonisation along a 1.5-degree trajectory. The key initial milestone will be set at 2030,” says Dr Dhiraj Rama, CCSA Industry Executive.

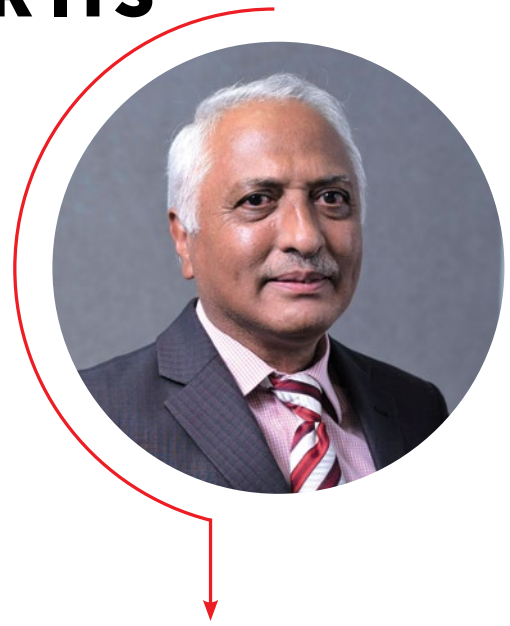
“The net zero target boundary is based on the Greenhouse Gas (GHG) inventory target as per RSA GHG Technical Reporting Guidelines for the cement sector in line with the Intergovernmental Panel on Climate Change (IPCC) reporting framework,” Dr Rama stated.

Dr Rama will provide adequate support, direction and leadership to members and will also monitor progress at sector level. He says key matters to note include:

- The net zero target monitoring covers both Scope 1 and Scope 2 emissions of the company.
- With supported technology interventions, as well as improved overall nationally-developed Scope 3 emission monitoring programs implemented by stakeholders, the GHG inventory would be expanded accordingly.
- The trajectory is based on the understanding that the cement sector is a hard-to-abate sector and would be supported by:
- Technical, technological and fiscal support as per the

CCSA overall national NDC commitment to UNFCCC proviso.

- Appropriate policy implementation and support to secure both green energy and alternate fuels and resources.
 - Optimising operation of current production plants as practically feasible until the end of the plant’s life cycle.
 - All future plants will ensure emission-efficient technologies.
 - Access to carbon offsets.
 - The climate response action will be underpinned by “just transition”.
 - The overall consolidated CCSA sector performance of the GHG emission profile will be transparent by reporting performance on a regular basis. CCSA will ensure sectoral support to its members to comply with regulatory requirements.
- Key requirements include compliance to:**
- Draft methodological guidelines for quantification of greenhouse gas emissions. The Draft Methodological Guidelines can be downloaded by members of the public at the website link: https://www.environment.gov.za/legislation/gazetted_notices. (Government Notice 135 dated 19 February 2021.)
 - Technical Guidelines for the Validation and Verification of Greenhouse Gas Emissions as per “Technical guidelines for monitoring, reporting and verification of greenhouse gas emissions by industry: A companion to the South African National GHG Emission Reporting Regulations Version No: TG-2016.1 June 2016.” (Government Notice 1496 dated 12 November 2021.) ©



“CCSA member companies aspire to net zero emission by 2050 with milestones informed by decarbonisation along a 1.5-degree trajectory.”

Dr Dhiraj Rama, CCSA Industry Executive.

CONSTRUCTION COMPANIES CAN HELP **BUILD RESILIENCE AGAINST NATURAL DISASTERS**

Mother Nature is unleashing her fury on the world with increasing regularity and devastation.

A recent report by the World Bank states that the frequency and intensity of extreme weather events has escalated across the African continent.

South Africa is not immune to this trend, having to contend with its own share of destruction caused by floods, drought and wildfires. And the events don't have to be disastrous to be brutal. Even small, isolated weather events can cause widespread damage.

It's time to face up to the fact that natural disasters are going to be a part of our lives for many years to come, says Databuild CEO Morag Evans.

"Carrying out crisis management in the wake of these events is simply not good enough. Instead we need a proactive approach geared to mitigating the impacts of climate change, one which can meet the demands and challenges of the future environment and economy we will be living in.

"The role of construction in this regard is crucial. The industry is indispensable in protecting us from the elements, including the impact of natural disasters. And while it is true that these events afford many opportunities to construction companies in the form of rebuilding, doing so is becoming increasingly expensive worldwide. It is estimated that in 2020, disasters caused \$210 billion worth of damage around the world. This is about a third more than in 2019.

"Consequently, industry participants need to work together to improve the resilience of their constructions so that buildings – and their inhabitants – can survive the force of nature when it comes."

While no building is fully immune to natural disaster, Evans says there are numerous measures that can be taken to make infrastructure more climate resilient.

Sustainable building practices that include adaptation, retrofitting and re-use are called for, as well as the utilisation of high-performance building materials and components, and improved construction techniques that offer greater resistance to the elements. Technologies such as building information modelling (BIM) can be used to carry out digital simulations of disaster scenarios such as flooding. Structures can be tested against computer simulations before the construction

process commences, which will facilitate the building of safer, sturdier buildings.


Self-healing concrete is another relatively new innovation that uses a mixture of bacteria and nutrients to repair itself when cracks occur, making it better able to stand up to nature's wrath and significantly improving the lifespan of buildings, bridges and roads.

Energy and water are precious commodities in South Africa, and architects and specifiers should already be incorporating energy and water supply resiliency into their building designs, Evans continues.

Energy resiliency can be achieved through the installation of energy efficient systems such as solar power and solar water heating, while systems that enable the use of greywater and rainwater for toilet flushing and irrigation will significantly enhance water supply resiliency.



"Designing and building with resiliency in mind will not only minimise the cost of reconstruction in the event of a natural disaster, but also save irreplaceable lives," Evans concludes. "Furthermore, construction companies that focus on implementing resilient building practices will reap the financial benefits over the long term." ☺





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JOHN DEERE INTRODUCES NEW ARTICULATED DUMP TRUCK TO SOUTHERN AFRICA MARKET

Designed with the demands of today's job site in mind, John Deere introduces the new 460E-II Articulated Dump Truck (ADT). The E-II Trucks combine the most popular features of the E-Series line with customer-driven performance and operation enhancements, resulting in a machine that is easier and more cost-effective to operate.



Built to maximise performance

A vital feature of this machine is the redesigned dump body, which is wider and has a lowered and levelled rail height to improve material retention and allow it to be easily loaded. Additionally, the bin rail features an angled top, helping to reduce material spillage while travelling.

The 460E-II model is also available with a new ejector body solution. This solution allows operators to spread a load over a given area and can be used in areas with overhead powerline concerns or where the risk of rollover is high due to steep grade unloading.

Improved fuel consumption

The three drive modes available on the 460E-II ADT help optimise the drivetrain, reduce inputs from the operator, and enable easy customisation.

Normal mode for everyday operation reduces fuel burn by up to 7% compared to existing models. In contrast, Eco mode, when conditions allow, conserves fuel by managing engine power delivery and optimising transmission response for those conditions, improving fuel consumption by up to 12% compared to Normal Mode. Traction mode optimises differential lock for maximum tractive effort in soft and slippery ground conditions.

The new wheel-speed sensors also provide a more accurate reading than the ground-speed radar to confirm the traction-boosting auto-differential lock engages when needed. With these modes, your operation will save fuel costs and help reduce your operation's environmental impact.

Designed For durability

The John Deere 460E-II Articulated Dump Truck axles are designed for heavy-duty and longer life. They are lubricated, filtered, and cooled to extend their service life, while the spring-applied, hydraulic-released park brake is also highly reliable.

The inboard wet-disc brakes run cool, clean, and unexposed. The braked axles are each force cooled and filtered separately. The cooling oil is separate and not shared, ensuring that cross-contamination is never possible.

Combined with the strong transmission retarder, they help deliver consistent stops and maximum brake life.

Improved reliability

The hose and wire routing on the ADT has been simplified to reduce rubbing and improve reliability, whilst the factory-installed auto lube further boosts uptime and reliability.

The redesigned electrical and hydraulic systems maximise machine uptime with a 10-percent reduction of electric and hydraulic routings, further reducing leak points and improving reliability.

Safety first

Whether you're operating at a mine, quarry or aggregate operation, safety comes first. The John Deere 460E-II ADT features a number of safety features that help keep operators out of harm's way, such as; remote park-brake release, rollover protection, ground-level service, and auto horn.

With rollover protection, operators can set limits for the rear-chassis level when unloading. If the limit is exceeded, the dump body will not raise, and an alert message will appear on the monitor.

Comfort is key

This model's updated operator station includes features that promote increased productivity and all-round comfort. One of the most notable features is the single switch model, reducing the number of switches by 25% compared to previous models.

The quiet, pressurised Deere-designed cab also features a new, easy-to-read monitor and rear-camera display, along with options such as premium heated/ventilated seat and automatic temperature control (ATC) system. ☺

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