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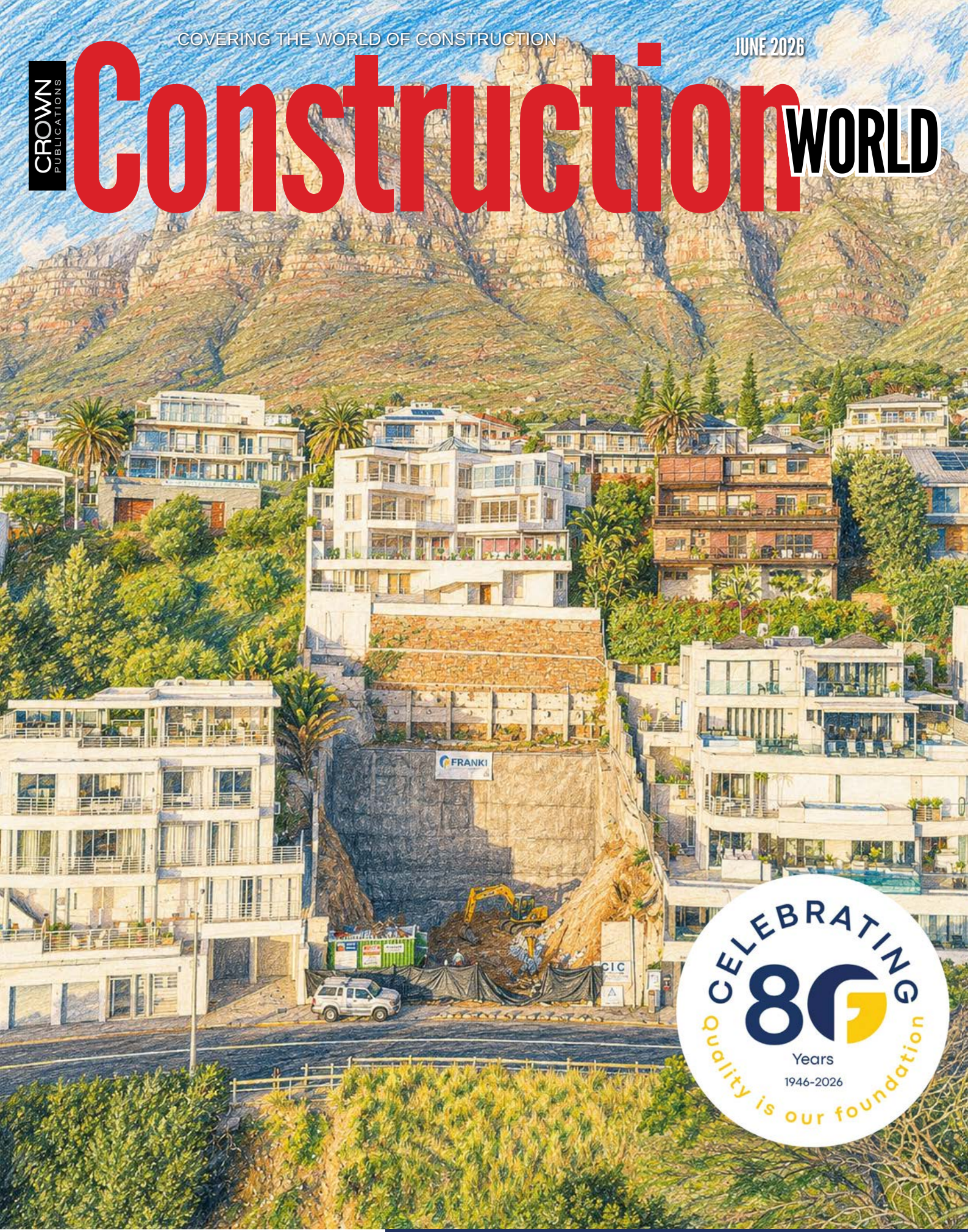

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ON THE COVER

A new luxury apartment development, ***The Solace***, is currently under construction in the scenic Bali Bay area between Camps Bay and Bakoven. The five-storey building required the formation of a level construction platform through a deep excavation into a steep hillside. The maximum excavation height is 14,5 m on a roughly 23 m × 23 m footprint. The site is underlain by deeply weathered granite of the Peninsula Pluton, part of the Cape Granite Suite, presenting several geotechnical and construction challenges typical of this coastal setting. A stressed shotcrete lateral support system was implemented to provide both temporary and permanent excavation support.

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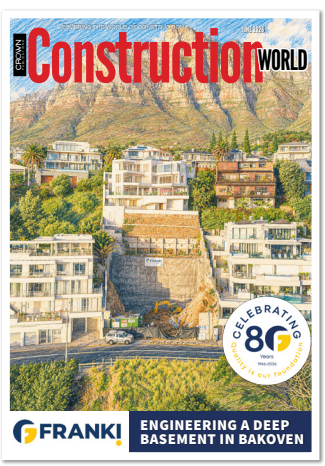

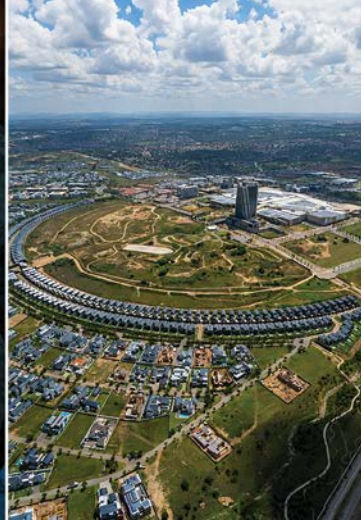

For decades, property developers have been the driving force behind South Africa's urban expansion, identifying opportunities, assembling land and financing ambitious projects that reshape cities and regional economies.

Yet, while developers originate these projects, it is architects who ultimately translate commercial vision into physical environments that define how people live, work and interact. In an increasingly competitive and sustainability-conscious property market, architecture has become central not only to aesthetics, but to the long-term success and viability of developments themselves.

South Africa's major metropolitan centres provide numerous examples of how the relationship between developer and architect has evolved into a strategic partnership. In Johannesburg, the continued growth of Waterfall City illustrates how architecture and urban planning can elevate a large-scale property development into an integrated urban precinct. Developed by Attacq in partnership with the Waterfall Islamic Institute, the project has brought together architects, planners and engineers to create a mixed-use environment that combines residential, commercial, healthcare and logistics infrastructure within a cohesive urban framework. The success of Waterfall City lies not merely in the scale of investment, but in the quality of spatial planning and architectural consistency that has enabled it to emerge as one of Gauteng's most significant new urban nodes.

Cape Town's V&A Waterfront remains another benchmark for the role architects play in property-led regeneration. Originally a historic harbour precinct, the area has evolved through careful redevelopment into one of Africa's leading mixed-use destinations. Developers understood early on that preserving heritage structures while integrating contemporary architecture would be essential to maintaining the precinct's identity and commercial appeal. Projects such as the Zeitz Museum of Contemporary Art Africa (MOCAA), designed by Heatherwick Studio, demonstrate how architecture can become an anchor for tourism, retail and broader economic activity. The adaptive reuse of the historic grain silo transformed an industrial structure into an internationally recognised cultural landmark, reinforcing the value architecture adds beyond pure real estate metrics.

Similarly, the redevelopment of Menlyn Maine in Pretoria reflects how developers are increasingly relying on architectural innovation to differentiate projects in a crowded market. Positioned as Africa's first green city precinct, Menlyn Maine incorporated sustainability principles from the outset, with architects playing a crucial role in achieving energy efficiency, walkability and mixed-use integration. In this instance, architecture became directly linked to commercial positioning, attracting tenants and investors seeking environmentally responsible developments.

The same dynamic can be seen in Durban's ongoing precinct developments around Umhlanga Ridge. Originally driven by large-scale private sector investment, the area's rapid transformation into a premier commercial and residential hub has depended heavily on architectural design capable of responding to density, coastal conditions and evolving lifestyle demands. Here again, architecture functions not as an afterthought, but as a critical contributor to market value and urban identity.

South Africa's development landscape is increasingly shaped by broader pressures including urbanisation, infrastructure constraints and sustainability requirements. Developers are under growing pressure to deliver projects that are not only financially viable, but socially and environmentally responsive. Architects therefore occupy a pivotal position in balancing commercial objectives with issues such as public space, energy efficiency, mobility and community integration.

While developers initiate projects and carry financial risk, architects determine how these developments engage with the cities around them and how they are experienced by the people who use them. In South Africa's evolving urban environment, the partnership between developer and architect has become fundamental to creating precincts that are commercially successful, socially relevant and capable of enduring long beyond the market cycles that produced them.

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AfriSam builds resilience while awaiting stronger INFRASTRUCTURE INVESTMENT

South Africa's construction materials sector continues to face significant pressure, but early indicators suggest conditions may gradually improve. In response, AfriSam is focusing on operational resilience, continued investment in its production facilities and strong customer partnerships as the market navigates a slow and uneven recovery.

AfriSam Executive Chairman and CEO Eric Diack says the sector's outlook remains closely linked to the pace of infrastructure investment across the country. In recent years, constrained public spending, rising input costs and shifting demand patterns have created a challenging environment for construction materials producers.

"The most important issue for our industry remains the level of infrastructure investment," Diack says. "There are some encouraging developments, particularly in road infrastructure, which show what can happen when investment begins to gain momentum."

While the market remains subdued, several road infrastructure projects are supporting demand for aggregates and readymix concrete. Work on key routes such as the N3 and N2 in KwaZulu-Natal and the N7 in the Western Cape is contributing to construction activity.

AfriSam's national footprint of quarries and production plants positions the company well to supply these projects. Although current developments represent only a small portion of South Africa's substantial infrastructure backlog, they highlight the opportunities that could emerge if infrastructure investment accelerates.

Diack notes that AfriSam has continued to prioritise upkeep on its production facilities to ensure plants remain in strong operating condition.

"Our board has been clear that we cannot compromise on maintaining our plants," he says. "By continuing to invest, we ensure consistent product quality and remain ready to support customers as construction activity grows."

Regional variations in construction activity are also evident, with the Western Cape showing stronger momentum than other parts of the country.

"There is clearly more confidence in the Western Cape at present," Diack says. "Major developments under way in areas such as the Cape Town city bowl and Granger Bay will ultimately translate into increased cement demand."

Despite these pockets of activity, overall cement volumes remain largely stagnant, notes AfriSam Sales and Marketing Executive Richard Tomes. At the same time, rising input costs continue to place pressure on the sector.

Energy costs remain a key concern for cement producers, with electricity representing one of the largest cost pressures for energy-intensive manufacturing processes.

"Even when national increases appear moderate, the structure of tariffs often results in higher effective increases for large industrial users," Diack says.

Maintaining strict quality standards remains a non-negotiable priority for AfriSam, Tomes adds, noting that durable infrastructure depends on materials that consistently meet required specifications.

Logistics has also become more complex as the deterioration of South Africa's rail network forces greater reliance on road transport, increasing both costs and supply chain challenges.

Drawing on more than 90 years of industry experience, AfriSam continues to build on its technical expertise and operational capabilities.

"Our cement business remains at the core of our operations," says Diack. "When market conditions improve, we will be well positioned to respond." ⊙

BRIDGING THE GAP

The built environment sector is evolving, yet the systems that support the development of emerging professionals have not kept pace. A critical reassessment of current policies is required to determine whether they are adequately responding to the challenges faced by students, graduates, and young professionals. ***By Nosiyabonga Mgudlwa Mongane, Chief Quantity Surveyor***

Access to in-service training remains a major constraint for many students, despite being a requirement for completing their qualifications. For graduates, the transition into the workplace presents another hurdle, with many unable to secure employment. Even where opportunities exist, placements are not always aligned with their fields of study, limiting their ability to gain the structured experience necessary for professional registration.

Without targeted and coordinated intervention, a significant portion of this talent pipeline risks being excluded from professional progression. Those most affected are largely from historically disadvantaged backgrounds. Addressing this challenge is both an industry responsibility and a socio-economic imperative. Expanding access to professional pathways contributes to inclusive growth and supports broader transformation objectives.

The implications of inaction are significant. An industry reliant on a skilled and competent workforce cannot afford to lose emerging talent. South Africa is already experiencing skills shortages in the built environment, with direct consequences for service delivery and infrastructure development.

Obtaining a qualification is a significant milestone, often achieved under difficult circumstances. Allowing graduates to fall through the cracks at the final stage of their development undermines both individual potential and sector sustainability. Structured mentorship programs present a practical and effective intervention. They play a critical role in enabling experiential learning, supporting professional development, and guiding career progression. Through mentorship, students and graduates are better positioned to acquire the competencies and workplace exposure required to advance.

However, the success of such initiatives depends on meaningful industry participation. Leadership across both the public and private sectors must actively support mentorship programs through technical involvement and financial investment. Providing candidates with relevant exposure, while ensuring that programs are adequately resourced, is essential to achieving sustainable impact.

Bridging this gap requires collective commitment. The long-term sustainability and effectiveness of the built environment sector will depend on how decisively we respond to this challenge today. ⊙

Denver Dreyer, Chief Executive Officer: Middle East and North Africa (MENA) at Zutari.

ENGINEERING IMPACT ACROSS THE MIDDLE EAST AND AFRICA

Redefining what cross-regional engineering collaboration looks like is the main focus of Denver Dreyer, Chief Executive Officer: Middle East and North Africa (MENA) at Zutari, who is positioning the firm at the intersection of African capability and Gulf capital.

Appointed to the role in April 2025, Denver brings more than three decades of experience across engineering, consulting and industrial sectors, with leadership roles spanning Honeywell and Worley. However, his focus today is firmly on the future and on the powerful synergies emerging between Africa and the Gulf Cooperation Council (GCC) region.

A bridge between regions

For Denver, Zutari's role in MENA is not simply about expanding geographically, it is about connecting two regions in a way that delivers tangible impact. "There are two very strong links between Africa and the Middle East," he explains.

"On the one hand, we can access a vast quantity and quality of engineers from Africa and bring their skills and technical expertise into the MENA market. On the other, there's significant capital flowing from the Middle East into Africa into ports, logistics, energy and agriculture."

This dual dynamic positions Zutari as a critical intermediary. "We engage with sovereign wealth funds in the Middle East as a trusted partner who understands the region," says Denver. "But we also engage with them as a fiercely local partner in countries like Malawi, Mozambique or Botswana where that capital is actually deployed."

A legacy in the Middle East

While Zutari's current momentum in the Middle East is accelerating, its roots in the region run deep. "We have had an official presence in Dubai for 25 years through our legacy companies," says Denver. "However, South African engineers have been involved in the region for far longer, in some cases going back to the late 1970s."

Denver points out that South African contractors and engineers played a foundational role in shaping modern Dubai, a contribution that is often overlooked. "That pedigree matters because we understand the culture and historical heritage of the GCC," he adds. "It gives us a depth of experience that we can draw on when delivering complex infrastructure today."

From mega-projects to meaningful infrastructure

The Middle East has long been associated with record-breaking mega-projects. However, Denver notes a clear shift in priorities. “In the past, it was about the tallest building, the fastest train or the biggest project,” he says. “Now, there is a much stronger focus on what is economically and financially viable and sustainable.”

This recalibration, he explains, is creating a more sustainable and realistic environment for engineering firms. “We are now dealing with clients who are looking at projects more pragmatically, which is a positive development.”

At the same time, the region remains one of the most dynamic engineering environments in the world. “This is still a place where you are pushing the boundaries,” Denver adds. “But it is increasingly balanced by long-term thinking and viability.”

Engineering excellence in a global arena

The Middle East is also one of the most competitive engineering markets globally, with leading consultancies from across the world vying for projects. Zutari’s response, according to Denver, is deliberate and focused.

“We are not a Tier 1 mega-consultancy,” he says. “We are a bespoke, high-quality engineering and built environment firm. We choose our battles carefully and operate in areas where we know we can offer superior value.”

This includes transport infrastructure, water systems, the built environment, energy and master planning, all underpinned by nearly a century of accumulated legacy expertise. “We aim to offer the best value for money, backed by a name that clients can trust.”

Digitalisation as a baseline, not a differentiator

In a region known for its technological ambition, digital capability is no longer optional. “In the GCC, digital tools are a given,” notes Denver. “They are not a differentiator, but the mandate to ensure we are on top the of game.”

What sets organisations apart, he argues, is not the tools themselves, but how they are used. “The real value lies in people who understand when and how to apply technology. Those are the scarce skills, the digital realists who can bridge the gap between optimism and practicality.”

Smart cities and the future of infrastructure

Zutari is actively involved in shaping the next generation of urban infrastructure in the region, including Dubai’s 2040 Transport Master Plan. “We are modelling how people will move around the city, whether that is autonomous vehicles, rail, waterways, or even aerial mobility,” Denver explains.

This work is closely tied to the development of smart cities, where digital twins and real-time data play a central role. “In the future, buildings will actively communicate with emergency responders,” he says. “A firefighter responding to an incident could know exactly where the fire is, where vulnerable occupants are located, and what hazards exist before even arriving on-site.”

Resilience: from climate to conflict

Recent events have also reshaped how infrastructure is designed in the region. “Two years ago, we saw major flooding in the UAE in a desert environment,” highlights Denver. “That highlighted the need for climate resilience.”

At the same time, geopolitical tensions are driving a second form of resilience. “We are now looking at how to harden infrastructure, building redundancy into power systems, designing buildings that can withstand shocks, and improving emergency response through digital integration.”

Learning for Africa

For Denver, one of the most exciting aspects of this work is its applicability to Africa. “The Middle East is effectively a test bed for new technologies,” he says. “And Africa does not need to reinvent the wheel. We can adopt and adapt what has already been proven.”

This is where Zutari’s cross-regional model becomes particularly powerful. “We can take lessons from the Middle East and apply them in African contexts, whether that is in transport, energy or smart city development and vice versa.”

Engineering with purpose

Beyond the technical and commercial aspects, Denver is passionate about the broader impact of engineering. “You do not just build a bridge,” he says. “You connect communities. You enable trade. You improve access to education. You restore dignity.” He believes engineering plays a fundamental role in shaping societies.

“In many ways, engineering has had a greater impact on the quality and length of human life than any other profession, through clean water, infrastructure and connectivity.”

A bullish outlook

Looking ahead, Denver remains optimistic about both the Middle East and Africa. “The Middle East is home to some of the world’s largest sovereign wealth funds,” he says. “Even in challenging times, these countries have the ability to invest and build.”

He also sees Africa as a central part of that future. “The Middle East recognises Africa as a key growth market,” he notes. “There is a real opportunity to unlock value through infrastructure, and that is where partnerships become critical.”

Despite short-term geopolitical uncertainties, his outlook is clear. “I am very bullish,” asserts Denver. “This region has the resources, the ambition and the capability to continue building and to play a positive role in Africa’s development.”

The role of partnership

Ultimately, Denver emphasises that success in this environment depends on collaboration. “You cannot deliver projects of this scale alone,” he says. “Partnerships allow you to co-create, co-innovate, and bring together the best capabilities.”

For Zutari, that means acting not only as an engineering firm, but as a trusted partner across regions. “We become ambassadors,” he concludes. “We represent African capability in the Middle East, while delivering consistent quality on the ground in Africa. That’s where the real value lies.” ⊙

52 BLACKLISTED CONTRACTORS – BUT ONE CRISIS

Analysis by the Building Industry Bargaining Council (BIBC) links blacklisted firms to broader patterns of non-compliance across South Africa's building sector.

Government's blacklisting of 52 construction companies for poor performance, fraud and contractual failures signals tougher enforcement. But the Building Industry Bargaining Council (BIBC) says it also exposes a deeper issue: a systemic culture of non-compliance across South Africa's building sector.

While blacklisting may be considered a final sanction, the BIBC says it reflects a deeper problem. Many of the 52 contractors have been barred until 2029 for offences including falsified B-BBEE certificates and invoicing for work not done, but this is not the root cause.

"What we are seeing is a pattern where non-compliance in one area is almost always mirrored across others. It is rarely isolated to non-compliance with the BIBC only," says Danie Hattingh, spokesperson for business at the BIBC.

By cross-referencing publicly available data, the BIBC identified 68 construction-related companies linked to the blacklist. Of these, only 12 were registered with the BIBC, with all 12 non-compliant at the time of assessment.

"This directly supports our contention that non-compliance with one regulation strongly indicates non-compliance everywhere else," Hattingh explains. "Whether it is labour obligations, tax compliance, or contractual delivery, the same patterns repeat."

The implications are serious: poor and non-compliance drives substandard work, project delays, site failures and safety risks, while also enabling unfair competition based on the exploitation of labour that undercuts compliant contractors.

The problem is compounded by a system that can enable repeat offenders to re-enter the market. The BIBC says non-compliant contractors often deregister, rename or re-establish entities sometimes using associates and family members as the directors of new companies, to avoid detection.

"The trend towards 'fronting' companies is widespread and complex," says Hattingh. "Even if a new entity has no record of non-compliance, it can still be the same operators making it difficult for clients and procurement officials to know who they're really dealing with."

This lack of visibility is especially acute in high-volume public procurement, where scale makes tracking difficult. As a result, problematic contractors can reappear under new guises, continuing cycles of poor delivery and non-compliance.

The BIBC points to procurement processes as a critical lever for change and, currently, a point of vulnerability. Weak or inconsistently applied tender requirements can allow non-compliant contractors to slip through the cracks.

"The role of 'givers of work' (government, municipalities, SOEs and private clients) is central," says Hattingh. "From tender design to contract monitoring, procurement decisions either strengthen compliance or undermine it."

Where due diligence is robust, the risk of appointing unsuitable contractors is significantly reduced. Conversely,

opaque processes, poor contract design, and weak oversight create fertile ground for abuse.

Encouragingly, efforts are under way to better align enforcement and procurement. The BIBC is working closely with the City of Cape Town and the Western Cape Department of Infrastructure to embed compliance into tender frameworks and to strengthen oversight.

In recent and ongoing discussions with the City of Cape Town it is evident that working with organisations like the BIBC, who are committed to stronger compliance-linked procurement, will improve due diligence, contractor vetting and ensure only compliant service providers are appointed.

The focus is expected to be on embedding BIBC registration and compliance in tenders, strengthening supply chain controls, and aligning labour allocation systems, including on Expanded Public Works Programmes (EPWP).

For labour, the crisis is equally severe. “Tender processes face many challenges that undermine efficiency and fairness,” says Luyanda Mgqamqo, BIBC labour spokesperson. “These include retaliation against whistleblowers, political interference and weak pricing skills.”

The scale of the issue suggests that the 52 blacklisted contractors are not isolated, but part of a wider trend. Over five years, several BIBC-registered firms appeared on the list at different times, underscoring the persistence of non-compliance.

If left unaddressed, the risks extend far beyond individual projects. Economic losses, weakened institutions, declining investor confidence, and growing public distrust are all potential consequences of sustained non-compliance.

“Cutting corners for short-term profits creates long-term systemic risk,” warns Hattingh. “It undermines infrastructure quality and the credibility and sustainability of the entire industry.”

The BIBC’s message is clear: lasting reform will depend on a collective shift towards accountability.

For clients, developers, and public sector bodies, this means verifying contractor registration, insisting on compliance certification, and embedding this into procurement decisions.

For workers, it means confirming employer registration, checking payslips for contributions such as pension and leave, and engaging directly with the BIBC where necessary.

Ultimately, addressing this crisis requires more than enforcement. It demands a culture of compliance, where accountability is built into every stage of the building industry value chain.

The Council promotes stable labour relations and contributes to a fair, just, and prosperous building industry by ensuring that workers receive agreed wages and benefits such as pensions and leave and that industry standards are maintained. ⊙

Danie Hattingh, spokesperson for business at the BIBC.

FUEL HAS BECOME A FAULT LINE IN CONSTRUCTION

At the beginning of the year, there was cautious optimism that the construction environment, while still constrained, might at least become more predictable. That feeling did not last. Within weeks, the Iran conflict and disruption to global energy markets pushed fuel prices sharply higher. The knock-on effects have cut through the entire construction delivery chain, from plant and transport to materials, labour allocation, and project timelines. ***By Morag Evans, CEO of Databuild***

Fuel increases are often treated in isolation, but they affect how materials move, how equipment operates, how sites are resourced, and how schedules are managed. A delay in transport becomes a delay in execution. What we are seeing across the market is not just higher costs but increasing strain on project viability.

There is a persistent assumption in the industry that if a cost increase is large enough or external enough, there must be a way to recover it. Unfortunately, the reality works differently. Construction contracts do not respond to pressure, but to what was agreed.

If mechanisms such as CPAP are included, there is a structured way to absorb some of the increase, even if it lags behind real-world pricing. If they are excluded, the position becomes far more difficult. The contractor carries the risk unless there are very specific grounds for recovery. That is often misunderstood, but it is how the system works.

How contracts are managed

What became clear in recent industry discussions is that the issue is not only the fuel price increase itself. It is how unprepared many projects are to deal with it. Too often, contractors move straight to recovery without interrogating the contract. Notices are submitted late or not at all. Records are incomplete. Claims are built retrospectively instead of in real time.

By the time the financial impact is fully visible, the contractual position is already compromised. The result is predictable. For instance, claims are rejected, disputes escalate, and cash flow becomes even tighter.

The uncomfortable truth

There is also a deeper issue that the sector does not always want to confront. When a contractor signs a contract without escalation provisions, they are effectively making a call on future conditions. Sometimes that call works. Sometimes it does not.

If it is the latter, there is limited room to renegotiate the outcome afterwards. Courts have consistently upheld the principle that parties are bound by the agreements they enter into. A poor commercial outcome is not, on its own, grounds for relief. That is difficult in a market where margins are already thin. But it reinforces the reality that risks that are not priced or allocated upfront resurface during execution.

Recovery options

That does not mean there are no options available for contractors. Where delays are caused by factors attributable to the employer, there may be scope to recover costs through expense and loss provisions. Where supply disruptions affect programme timelines, extension-of-time claims may apply.

But these are conditional. They depend on causation, compliance, and documentation. They are not general remedies for rising fuel costs. That distinction is important as it separates what feels fair from what is contractually enforceable.

Facing the reality

What this moment highlights is not just volatility in fuel prices but also a structural weakness in how risk is understood and managed across projects. Too often, fuel is not treated as a defined risk. It is priced into rates but not actively managed during execution. When conditions change, the response is reactive.

That approach is no longer sustainable. We are moving into an environment where certain inputs, fuel among them, are too volatile to ignore. They need to be treated differently. That may mean more deliberate use of escalation mechanisms, more flexible contractual provisions, or earlier engagement between employers and contractors when conditions shift. It will certainly require better discipline in how contracts are administered.

Fuel price volatility may eventually stabilise, but the exposure it reveals will remain. This is not just a cost event, but a test of how well projects are structured, how contracts are understood, and how effectively risk is managed in practice.

For many contractors, the difference between surviving this cycle and being forced out of it will not come down to the fuel price itself. Rather, it will be defined by whether the contract was treated as a formality or as the project's operating system from the start. ⊙

Africa Construction Law convenes 6th annual CONFERENCE IN JOHANNESBURG

Africa Construction Law (ACL) commenced its 6th Annual ACL Conference 2026 at The Wanderers Club in Johannesburg early in May. The event convenes prominent lawyers, engineers, financiers, policymakers, arbitrators, and investors from across Africa and the international community.

Ngo-Martins Okonmah, partner at Aluko & Oyebode and founder and chair of Africa Construction Law, opens the 6th Africa Construction Law conference taking place for the first time in SA.

Held under the theme "Construction in Transition: Building Africa's Infrastructure for the Next Era", the two-day conference is the continent's premier platform for construction law, dispute resolution, and infrastructure development.

In his keynote address, Ngo-Martins Okonmah (Partner at Aluko & Oyebode and founder and chair of Africa Construction Law) delivered a frank assessment of the challenges facing African infrastructure, arguing that the continent's infrastructure deficit is not primarily a funding problem, but a design problem: one rooted in flawed contract structuring, inadequate risk allocation, and legal frameworks ill-equipped for today's realities.

Says Okonmah "Africa's infrastructure projects cannot be structured solely for delivery. They must also be structured for survival. The lesson is both specific and universal: if we persist in deploying frameworks that stifle bankability and misallocate risk, we will continue to see projects delayed, restructured, or abandoned. But if we choose to transition (redesigning our contracts, our financing frameworks and our dispute resolution systems) the answer to what Africa can build is a resounding yes."

Okonmah called on the continent's legal, technical, and financial communities to move from acknowledgement to action: embedding adaptive climate and currency risk mechanisms into contracts, unlocking local institutional capital through better project structuring, embracing AI-driven contract management and evidence tools, and growing Africa's own dispute resolution institutions so that infrastructure disputes are resolved at the speed of commerce.

The ACL Conference 2026 is made possible through the generous support of its sponsors: DLA Piper, ENS, HKA, Herbert Smith Freehills Kramer, PLMJ, MNS Attorneys, Baker McKenzie, ALP NG & Co, Pinsent Masons, Jackson Rowe, Aluko & Oyebode, Keating Chambers, CBBG Group Construction Expert Services - A Vertex Company, Cliffe Dekker Hofmeyr (CDH), and C&E Legal Solutions.

AFRICA CONSTRUCTION LAW (ACL)

ACL is a pan-African initiative set up by construction law practitioners across Africa and in the diaspora to promote thought leadership in the field of construction law and practice in Africa. It was established in 2021 to promote thought leadership and expertise in construction law and dispute resolution across the continent. It operates as a specialised platform for construction law practitioners. The initiative was launched by a team of practitioners from across 20+ African countries and the diaspora and has grown to become a leading hub for legal expertise in the African construction and infrastructure sectors, with annual conferences held across Nigeria, Kenya, and South Africa.

Infrastructure as an enabler of INCLUSION IN SOUTH AFRICA

Freedom, in its most profound sense, is not only the right to vote, but the ability to access jobs, services and opportunities. Without a reliable and well-maintained infrastructure system, South Africans will not be free.

As South Africa observes Freedom Day, the nation is called to reflect beyond the political victories of 1994 and confront the unfinished work of achieving meaningful economic inclusion.

South Africa's divided past continues to shape the present, with many communities still excluded from meaningful economic participation. Well-designed and effectively delivered infrastructure is the foundation for expanding access to opportunity. It connects people to jobs, enables the movement of goods and services, and supports the provision of water, energy and essential services. When it works, it becomes a powerful tool for inclusion; when it fails, it entrenches inequality.

GIBB Business Development Specialist, Dr Heinrich Jantzen, says infrastructure development is a strategic priority for government, increasingly acknowledged as a catalyst for inclusive growth, job creation and investment rather than merely a tool for service delivery.

"This reflects a growing recognition that economic recovery and long-term resilience depend on reliable, well-managed systems that are built through strong partnerships between the public and private sectors."

Transport infrastructure is one of the most obvious examples of this. It does far more than move people from one place to another. It determines whether workers can reach jobs affordably, whether businesses can compete efficiently and whether entire regions can participate in the economy.

That said, in its current state, transport remains a significant constraint in South Africa, limiting access, reinforcing spatial inequality and slowing growth. Improving affordability, safety and efficiency of the transport system is therefore not just a logistics challenge, but a social and economic imperative.

The same principle applies to water and basic services. In many parts of South Africa, the issue is no longer whether infrastructure exists, but whether it performs reliably. Aging systems, inconsistent maintenance and service disruptions continue to undermine access, particularly in rural and underserved communities.

Addressing this requires a shift toward better asset management, decentralised solutions and more resilient systems that can withstand both operational pressures and climate change. Reliability and quality of access are now as important as availability itself.

GIBB Principal: Bulk Material Handling, Dr Daniel Chelopo, says infrastructure also holds immense potential as a driver of job creation. "Its true value, however, lies not only in the assets built, but in the ecosystems created around them. When projects are designed strategically, they can generate local employment, support small businesses, transfer skills and stimulate long-term economic activity."

By aligning investment with skills development and encouraging labour-intensive approaches, while leveraging both public and private finance, South Africa can transform infrastructure delivery into an ongoing source of jobs.

Equally important is the integration of sustainability. What was once viewed as optional is now seen as an imperative organising principle for long-term economic survival and social resilience.

"Sustainability must be embedded in the design and planning phases, moving beyond mere compliance to deliver people-centred systems that address energy, water and transport challenges while fostering economic inclusion," says Jantzen.

Of course, financial constraints present a significant hurdle, as the country cannot always afford the necessary social infrastructure at the scale or pace required. In addition, the country needs to move past delays, a lack of skills and malfeasance in infrastructure provision to achieve its goals.

Ultimately, infrastructure remains one of South Africa's most powerful tools for advancing the promise of Freedom Day, creating a bridge between formal equality and the lived socio-economic reality of the country's citizens.

"When infrastructure is delivered and maintained properly, it expands access, supports investment, strengthens communities and creates the foundation for long-term economic participation," concludes Chelopo.

Rising oil prices leave SA construction contractors **EXPOSED WITH NO SAFETY NETS**

South African construction contractors face a growing financial threat as global oil prices surge, and contractual safety nets may not protect construction contractors from the damage.

That is the warning from construction law specialist MDA Attorneys, which has seen a sharp increase in queries from contractors grappling with the cost implications of rising fuel and materials prices linked to the war in the Middle East. The practice has been advising clients on how these increases are likely to be treated under the FIDIC suite of standard construction contracts, one of the most widely used frameworks in South Africa and internationally.

"The ripple effects of conflict on the other side of the world translate into very real cost pressures on construction sites in South Africa, and contractors will be affected by the impact of surging oil prices," says Clairize Malan, senior associate at MDA Attorneys.

Under many FIDIC contracts, price adjustments are agreed upfront using formulas and indices, a mechanism known as contract price adjustment (CPA). While CPA clauses are designed to account for fluctuations in the cost of labour, materials and fuel, they are calculated against longer-term trends and benchmarks. They were not built to absorb sudden, steep price spikes triggered by geopolitical conflict. This means that when oil prices jump sharply in a short period, contractors may find the CPA mechanism does not cover the gap, leaving them to absorb the shortfall.

With CPA clauses offering limited relief, some contractors are looking to the force majeure provisions in FIDIC contracts as an alternative avenue for recovery. FIDIC's force majeure clause allows a contractor to claim costs where it is prevented from performing its obligations due to an extraordinary event, and war is specifically listed as one of those events.

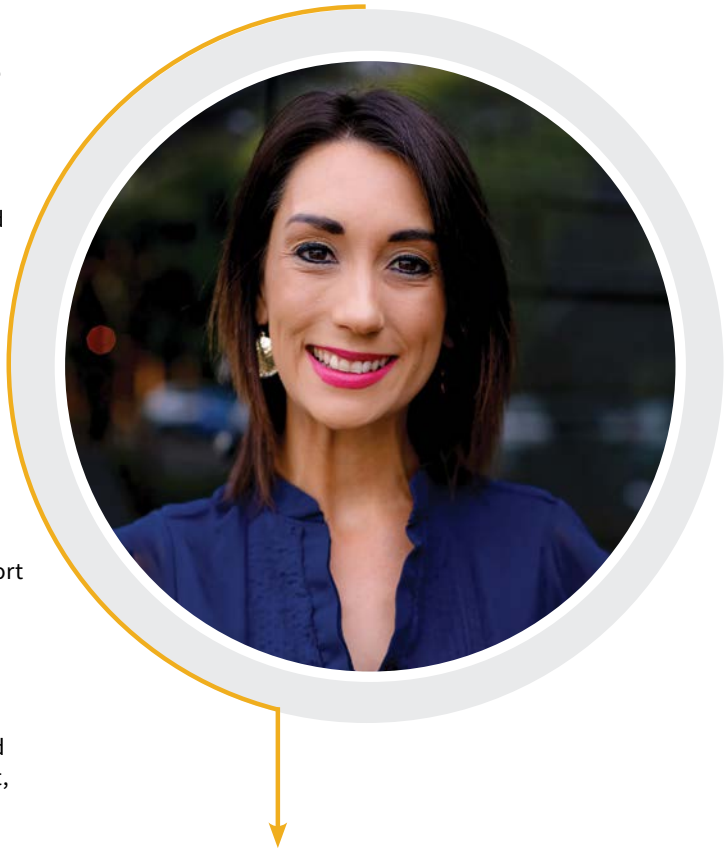
Under FIDIC, recoverable costs include expenditure reasonably incurred by the contractor, whether on or off-site.

But relying on force majeure is not straightforward, as it depends on the contract's definition of war. FIDIC could be interpreted narrowly to mean only a war occurring within South Africa, which would be outside the scope of the clause.

“Employers will typically push for the narrower interpretation of war, which limits their exposure," explains Malan. "Contractors understandably prefer a wider reading that would allow them to recover costs flowing from conflicts beyond our borders. Whether a contractor can recover these costs will ultimately come down to how the contract is interpreted."

MDA Attorneys is urging contractors to review their contracts carefully and take proactive steps. This includes examining whether their CPA formulas adequately capture oil-linked costs, assessing whether force majeure notices should be issued, and ensuring that cost records are meticulously maintained. Contractors who fail to give timely notice under FIDIC risk losing their right to claim altogether.

"The construction industry is already operating on tight margins," says Malan. "Contractors cannot afford to sit back and hope this passes. They need to understand their contractual position now, take the right steps to preserve their claims, and engage with employers early. The longer this is left, the harder it becomes to recover these costs."



“Contractors cannot afford to sit back and hope this passes. They need to understand their contractual position now, take the right steps to preserve their claims, and engage with employers early.”

Clairize Malan,
Senior Associate at MDA Attorneys.

The situation is evolving rapidly, and MDA Attorneys continues to monitor developments and advise clients on a range of standard-form contracts. Contractors operating under NEC, JBCC, and GCC contracts may face different contractual positions and should seek specialist advice tailored to their specific agreements.

Philip Cronje, Business Unit Manager at Aon South Africa

THREE INFRASTRUCTURE PROJECT RISKS SA CAN'T AFFORD TO IGNORE

South Africa's infrastructure pipeline - spanning transport, energy, water and urban development - is essential to economic growth and social resilience. But as projects increase in scale and urgency, they are also becoming harder to deliver. Cost pressure, skills shortages, constrained supply chains and growing reliance on technology mean that risks are no longer confined to construction alone. ***By Philip Cronje, Business Unit Manager at Aon South Africa***

Across the project lifecycle, three trends are emerging as decisive factors in whether infrastructure projects succeed or fail: design maturity, contractual clarity and technology integration.

Trend 1: Get the design right early

In South Africa, infrastructure projects are often accelerated to address urgent service delivery gaps. While understandable, this can result in projects breaking ground with incomplete or immature designs - a key driver of cost overruns, delays and rework.

Design risk is amplified locally by:

- Scarce specialist skills, particularly in heavy civil, tunnelling, energy and water infrastructure.
- Evolving environmental, safety and regulatory requirements, which can delay approvals or trigger redesigns if not addressed upfront.
- Growing use of digital and AI-enabled design tools, which offer powerful modelling capabilities but still require experienced human oversight.

Mature, well-defined designs - aligned early with insurance and risk strategies - are critical. Without this alignment, coverage gaps and latent defects may only surface later, when fixes are costly and disruptive.

Trend 2: Clarify contracts to allocate risk fairly

South African infrastructure projects often involve multiple public and private stakeholders, funders and contractors. When contracts do not clearly allocate risk across these parties, uncertainty compounds over the life of the project.

Poor contractual hygiene can lead to:

- Scope creep and cost escalation between construction and operational phases.
- Disputes around liability, delays and performance guarantees.
- Misalignment between contractual obligations and available insurance cover.

Local market conditions make this even more important. Insurance capacity is finite and coverage terms are influenced by global pressures such as inflation, climate events and reinsurance constraints. Contracts that are not structured with these realities in mind can expose project participants to uninsured or poorly priced risks. Clear, balanced contracts that aligned with insurance terms and realistic risk-sharing mechanisms, are essential to protecting both balance sheets and project timelines.

Trend 3: Technology is reshaping infrastructure and its risks

Technology is transforming how infrastructure is designed, built and operated in South Africa. Digital modelling, automation, AI, IoT and smart-city systems are improving efficiency, safety and asset performance - particularly in energy, transport and municipal services.

However, these benefits come with new challenges:

- Unclear liability when AI-driven designs or autonomous systems fail.
- Inadequate validation of AI-generated outputs, creating technical or safety risks.
- Skills gaps, where teams are not fully equipped to use advanced tools effectively.
- Rising cyber exposure, as connected infrastructure creates more entry points for cyberattacks.

As critical infrastructure becomes increasingly digital, cyber resilience is no longer optional. It must be built into planning, design and operational phases to prevent cascading failures across essential services.

Building resilience from day one

The most resilient infrastructure projects are those that embed risk management early - before construction begins. Yet many organisations still involve risk, legal and insurance advisors too late, once key decisions have already been locked in.

Resilience starts with:

- Early risk and insurance alignment during design and contract development.
- Clear, fair contractual frameworks that reflect local market realities.
- Thoughtful adoption of technology, supported by training, governance and cyber protection.

As infrastructure risks continue to evolve - from inflation and supply chain disruption to climate and cyber threats - proactive risk management is no longer a "nice to have". It is central to delivering infrastructure that is financially viable, insurable and fit for purpose for the communities it serves. ⊙

COMPLIANCE FIRST: SAFEGUARDING THE WESTERN CAPE CONSTRUCTION SECTOR

The Western Cape's construction sector continues to expand. In the third quarter of 2024 alone, the province added 42 000 construction jobs, reflecting significant growth in sector capacity and delivery momentum (Western Cape Government). More recently, the 2026 Western Cape State of the Province Address delivered by Premier Alan Winde reported a further 22,000 new construction jobs created over the past year, underscoring continued sector growth.

"This level of activity is translating into real compliance challenges," says Petra Devereux, Executive Director of the Master Builders Association Western Cape (MBAWC). "More contractors are entering the market, including from other provinces. While this signals a strong economy, it also raises the risk of non-compliance without consistent oversight."

Construction in South Africa is governed by a multi-layered regulatory framework that leaves little room for error. The impact of non-compliance is significant, particularly in relation to health and safety, labour regulation, and governance on site.

Contractors must be properly registered and graded with the Construction Industry Development Board (CIDB), hold valid tax compliance status with the South African Revenue Service (SARS), and meet all labour and safety obligations under the Department of Employment and Labour.

For residential projects, registration with the National Home Builders Registration Council (NHBRC) is mandatory and, in the Western Cape, legally mandated compliance with the Building Industry Bargaining Council (BIBC) ensures adherence to minimum wage structures, worker benefits, and fair labour conditions. All contractors must register with the BIBC, with the scope of the agreement and full list of trades covered available on its website.

"The BIBC is not just a regulatory requirement, it is a cornerstone of fair labour practices and industry stability. For contractors, compliance is essential to operate legally, compete fairly, and deliver projects without disruption," says Devereux.

But on the ground, compliance is far more than registration. It is a live operational requirement that must be maintained daily.

This includes approved Health and Safety plans, properly appointed safety officers, ongoing risk assessments, and strict enforcement of PPE protocols. It requires formal employment structures, UIF, Compensation for Occupational Injuries and Diseases Act (COIDA) registration for worker protection, and adherence to wage and labour legislation. It also demands financial discipline consisting of accurate record-keeping, tax compliance, and sufficient cash flow management to ensure projects are delivered without disruption.

Where these systems are absent or inconsistently applied, the risks escalate quickly.

Non-compliant contractors often operate with fragile financial structures, increasing the likelihood of delayed payments, unpaid subcontractors, or projects being abandoned mid-way. Health and safety failures can result in serious injury, fatalities, or immediate site closure by the Department of Employment and Labour (DoEL). Labour violations can trigger disputes, strikes, and legal claims, while tax irregularities expose both contractors and clients to financial penalties and reputational damage.

Crucially, the impact does not remain isolated to contractors alone. Developers, project managers, architects, and principal agents all carry exposure if due diligence is not properly conducted at procurement stage. A failure to verify compliance upfront can result in project stoppages, invalidated insurance claims, contractual disputes, and significant cost escalations once corrective action is enforced, although often too late to avoid disruption.

In addition, subcontractor non-compliance can impact the main contractor's compliance status and contractual liability, increasing legal exposure and overall project risk.

"Compliance is a fundamental safeguard for the entire construction ecosystem," says Chandré Abrahams, Chairman of the MBAWC Marketing Committee. "Every role in the project chain, from quantity surveyors to project managers and principal agents, has a responsibility to ensure that contractors are fully compliant before appointment. When that responsibility is not exercised, the consequences are carried through the entire project lifecycle."

He adds that procurement practices remain one of the industry's most persistent pressure points. "We continue to see unrealistic pricing expectations, particularly around labour, shaping contractor behaviour. In some cases, this drives non-compliance in order to remain competitive. The industry must move away from purely cost-driven procurement toward compliance-driven project delivery."

Against this backdrop, the role of industry bodies becomes increasingly important. The MBAWC continues to act as a benchmark for professional standards in the province, supporting members in maintaining compliance while working alongside regulatory authorities to strengthen oversight and accountability across the sector.

"The MBAWC remains firm in its position that compliance and professionalism are non-negotiable," says Devereux. "Our role is to support members in upholding these standards and to work with industry stakeholders to ensure that compliance is not only expected but consistently enforced."

As the sector continues to grow, the challenge shifts from expansion to sustainability. Without consistent verification and accountability, non-compliance risks escalate. In construction, those risks are financial, legal, and ultimately human. ⊙

Towards a system-based approach for BUILDING THERMAL PERFORMANCE

For decades, South African buildings have been constructed with little or no meaningful wall insulation. While roof insulation has gradually gained recognition under SANS 10400-XA, external wall thermal performance remains highly undervalued in mainstream construction practice. This reflects outdated norms formed during periods of historically cheap and reliable electricity, limited environmental accountability, and lower levels of urban development.

Limitations of the existing methods

South Africa encompasses multiple climatic zones ranging from cold inland regions such as Gauteng and the Free State, to humid coastal regions such as KwaZulu-Natal, and extremely hot interior regions including Limpopo and Mpumalanga. Buildings in these climates experience substantial heat gains and losses through external walling systems, particularly where traditional uninsulated masonry or lightweight construction methods are used. Yet despite this climatic diversity, many buildings continue to rely on cavity walls alone to provide sufficient thermal performance.

The air cavity itself may marginally reduce conductive heat transfer, but the overall assembly still allows substantial heat flow because masonry materials remain thermally conductive, cavities are often bridged by mortar droppings and wall ties, radiant heat transfer still occurs across the cavity, and thermal mass alone cannot prevent heat flow - it merely delays it.

One of the most misunderstood concepts in building physics is the interaction between insulation and thermal mass. Heavy masonry walls such as concrete, clay brick, and blockwork behave very differently from lightweight wall systems such as steel framing, fibre cement, drywall, or insulated panel construction. Heavyweight walls possess thermal mass, meaning they can absorb and store heat energy before releasing it later. In practical terms, a heavy masonry wall may delay peak outdoor heat transfer by several hours, while lightweight walls react rapidly to external temperature changes. Thermal mass is therefore not a substitute for insulation.

Walli insulation

Wall insulation is not only relevant to luxury homes or premium office developments. It affects virtually every occupancy category regulated under South African building standards, including residential buildings, schools, healthcare facilities, retail centres, warehouses, industrial buildings, hospitality facilities,

and government infrastructure.

Wall insulation significantly reduces heating and cooling loads, improves occupant comfort, lowers operating costs, reduces greenhouse gas emissions, reduces condensation risk, and improves resilience during power outages.

For most South African climates, practical whole-wall targets should increasingly move toward approximately R-2.0 to R-3.5 $m^2 \cdot K/W$ (R-value being a measure of thermal resistance) for residential external walls, with higher values justified in air-conditioned commercial environments and lightweight structures.

Lightweight walls generally require higher insulation levels because they lack thermal inertia, while heavyweight masonry systems may achieve excellent performance when insulation is externally applied and thermal mass is retained internally.

Theory will take you only so far

Insulation products are generally tested under highly controlled laboratory conditions using steady-state methodologies such as guarded hot plate or heat flow meter testing. These tests establish the thermal resistance of the insulation material itself under ideal conditions.

However, buildings do not operate under ideal laboratory conditions. Once insulation is installed within a real construction assembly, its effective thermal performance is influenced by thermal bridging, framing losses, air movement, compression, installation quality, radiant heat transfer, moisture content, cavity ventilation, junction detailing, structural penetrations, and dynamic climatic conditions.

As a result, the actual thermal resistance of the installed system is often much lower than the nominal thermal resistance of the insulation product.

Follow the pack

Globally, modern building energy standards are beginning to recognise the limitations of product-only thermal compliance. Advanced standards and modelling methodologies increasingly evaluate effective assembly U-values, whole-wall R-values, repeating thermal bridges, linear thermal transmittance, dynamic thermal behaviour, and full building energy simulation. Embodied energy and lifecycle environmental impact are also being discussed in responsible specifications. South Africa should therefore avoid locking itself into ‘paper compliance’, with its building stock technically satisfying deemed-to-satisfy tables, while exhibiting inadequate performance in reality. ⊙

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- ✓ Address all criteria (above)
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- ✓ Up to six high-resolution images (.jpg)
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WHERE THE MOUNTAIN MEETS THE SEA: ENGINEERING A DEEP BASEMENT IN BAKOVEN, CAPE TOWN

A new luxury apartment development, ***The Solace****, is currently under construction in the scenic Bali Bay area between Camps Bay and Bakoven. The five-storey building required the formation of a level construction platform through a deep excavation into a steep hillside. The maximum excavation height is 14,5 m on a roughly 23 m × 23 m footprint.*

FRANKI FACTS

The site is underlain by deeply weathered granite of the Peninsula Pluton, part of the Cape Granite Suite, presenting several geotechnical and construction challenges typical of this coastal setting. A stressed shotcrete lateral support system was implemented by Franki Africa, to provide both temporary and permanent excavation support.

Location and problem statement

The site is located immediately above Victoria Road in the Bali Bay area, between Camps Bay Beach to the north and Bakoven to the south (Figure 1). The development required a deep basement excavation extending approximately 12 m to 14,5 m below an existing retaining wall system.

The existing retaining structures comprised a permanent anchored reinforced concrete retaining wall surmounted by a gabion wall and a three-storey residential structure above. The combined height of the existing retaining system is approximately 10 m. The proximity of these structures, together with the narrow site footprint, difficult access for rigs and adjacent properties, necessitated a carefully designed and executed lateral support system.

Site geology and subsurface profile

Geotechnical investigations were undertaken to inform the design and comprised three rotary core boreholes drilled to depths of between 16 m and 25 m. Standard Penetration Tests (SPTs) were carried out in soil horizons.

The site is located within a coastal bay formed in closely jointed, north-northwest-trending granite, with hard rock promontories on either side. The subsurface profile is dominated by deeply weathered granite of the Peninsula Pluton.

A typical soil and rock profile encountered on site can be summarised as follows:

- 0 – 2,5 m: Sandstone colluvium
- 2,5 – 3,8 m: Very stiff, fissured clayey silt, reworked residual Granite
- 3,8 – 6,4 m: Very stiff, slightly clayey silt, residual Granite
- 6,4 – 18 m: Very stiff, Clayey silt with scattered quartz grit, grading into very soft rock, residual Granite
- > 18 m: Very hard Granite bedrock

SPT results confirmed the progressive increase in strength with depth, transitioning from colluvial soils and weathered granite into competent granite bedrock (Figure 2).

Site geohydrology and constraints

Groundwater levels were recorded at depths ranging between approximately 9,7 m and 17 m below natural ground level. During excavation, only minor groundwater seepage was encountered, which significantly simplified construction and eliminated the need for active dewatering measures.

The project was subject to several constraints, including tight erf boundaries, neighbouring property agreements, and the narrow zone of soil remaining between the excavation face and the adjacent property's basement. These challenges were further compounded by the presence of the existing retaining wall system supporting a three-storey residential structure upslope on the eastern hillside face.

The existing retaining wall on the eastern boundary had previously been stabilised using grouted anchors. Permission was obtained to install additional permanent anchors extending into the neighbouring property to resist unbalanced earth pressures. Temporary anchors and soil nails were installed along the southern and northern faces.

Lateral support design

Back-analyses were carried out using slope stability methods to establish representative shear strength parameters. The lateral support design was undertaken using two-part wedge analyses in accordance with SANS 8006-2, supplemented by slope stability analyses and finite element modelling (Figure 3) to assess stability and predict ground movements.

The back-analyses considered the existing sloped concrete structure at the front of the site, which remained, at the time, from a previous development. The final system comprised a stressed shotcrete lateral support system with both temporary and permanent grouted anchors, geonails, and locally thickened shotcrete pads at anchor head locations.

Temporary berms were retained along sections of the northern

General setting of excavation at 115 Victoria Road in Bali Bay area.

Aerial photograph showing beach with numerous granite boulders.

Figure 1: Site location.

and southern boundaries where full-height lateral support was impractical. These berms were subsequently removed using a staged, slotted excavation sequence.

Construction and ground movement

Construction commenced in January 2025. Ground movements were monitored using high-precision survey measurements taken at regular intervals.

Given that permanent grouted anchors were detailed, rigorous quality assurance and quality control procedures were implemented to ensure that full double corrosion protection was achieved. Weekly inspections were conducted by Franki's design team to confirm that excavation profiles matched the design intent and that corrosion protection measures were correctly applied.

Movement in the range of (10-20 mm) was recorded, in line with our predictions and within acceptable limits. All anchors were acceptance-tested and approved in accordance with ISO 22477-5.

Corestones in granite profiles – A practical challenge

The presence of case-hardened corestones within granitic profiles presents a common challenge during excavation. When rock is encountered, construction teams often request permission to shorten anchor or nail lengths (this might occur at "current excavation level" in Figure 4). However, it is frequently unclear whether the intercepted material represents a corestone or continuous bedrock prior to further excavation or investigation.

If the intercepted material is a corestone, its geometry and extent are unknown. Premature decisions to shorten anchors or replace them with rock bolts may result in an inadequately stabilised support system as excavation proceeds to greater depths.

Figure 4 illustrates several potential scenarios encountered during excavation:

- Figure 4a: Original postulated lateral support design.
- Figure 4b: Corestone located within the failure wedge.
- Figure 4c: Excavation below an inadequately stabilised corestone, potentially resulting in instability or rock fallout or the requirement for additional/increased density of geonails or grouted anchors below its base.
- Figure 4d: Corestone partially intercepting the failure surface, with soil present behind. This might result in increased shear resistance on the failure plane, but the plane may also shift slightly and is difficult to assess. However when drilling a few anchors/geonails to the required depth would illustrate that there is soil behind the corestone.
- Figure 4e: Large corestone extending to bulk excavation level but not fully intercepting the failure plane. This scenario is very misleading as the face would show a full rock profile but the anchors/geonails will still be required to stabilise the cut as the failure plane is located in soil.

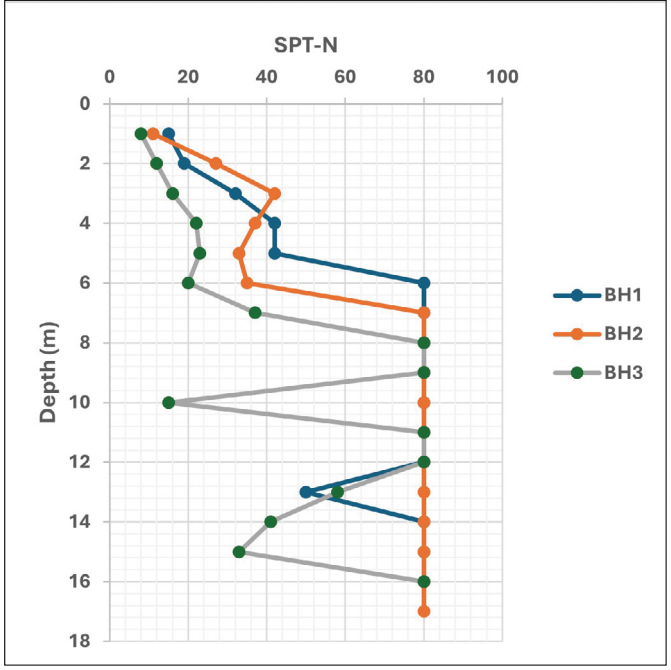

Figure 2: SPT-N versus depth.

To mitigate this risk, it is recommended that at least two anchors or nails per level be drilled to the full design length as a form of supplementary subsurface investigation to confirm continuous rock conditions. Only once continuity of competent rock has been verified should reductions in anchor or nail length be considered.

Conclusion

The basement excavation at 115 Victoria Road provides a valuable case study in lateral support design within deeply weathered granite. The combination of a stressed shotcrete support system, real-time monitoring, and rigorous quality control ensured the safe and successful construction of this deep basement.

This project highlights the importance of responsive geotechnical design, close collaboration between designers and contractors, and careful interpretation of subsurface conditions in complex geology. ⊙

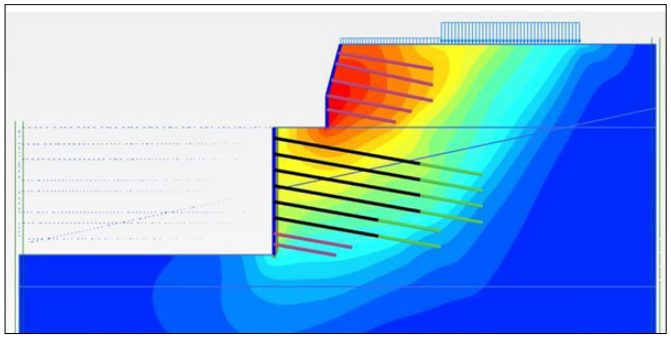

Figure 3: Finite element model used to predict ground movements and structural forces.

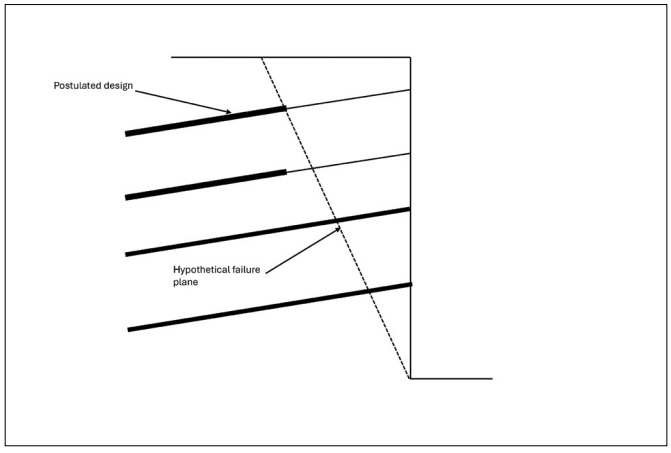

Figure 4a: Original postulated lateral support design.

TEAM
Frans van der Merwe: Senior Design Engineer, Franki Africa
Craig Pitt: Junior Design Engineer, Franki Africa
Gert Gouws: Design Engineer, Franki Africa

Figure 5: *Corestone intercepted in the temporary northern cut face with residual granitic soil below the corestone.*

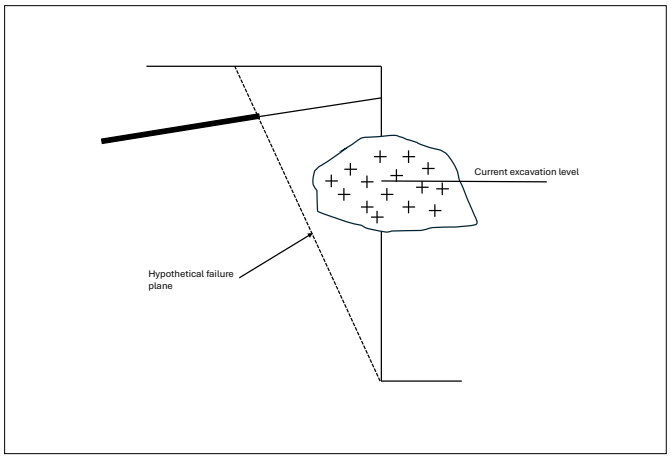

Figure 4b: *Corestone located within the failure wedge.*

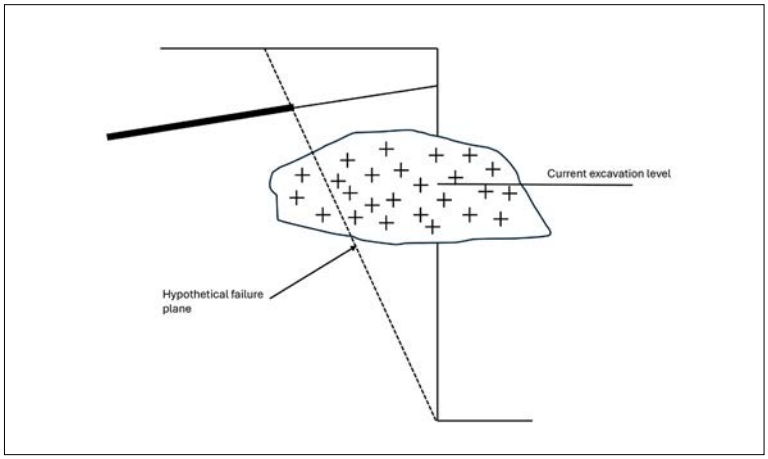

Figure 4d: *Corestone partially intercepting the failure surface, with soil present behind.*

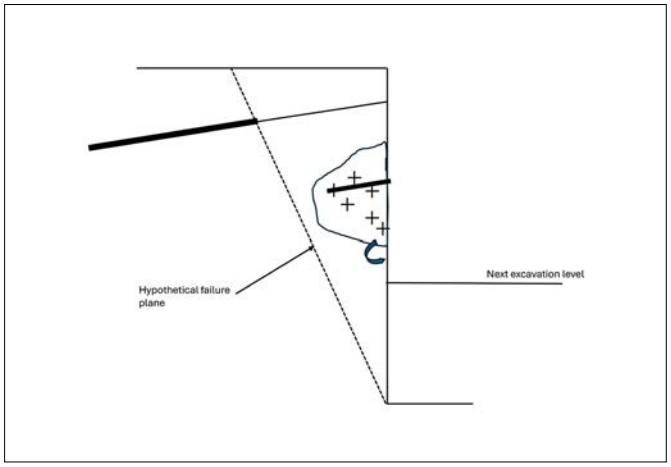

Figure 4c: *Excavation below an inadequately stabilised corestone, potentially resulting in instability or rock fallout or the requirement for additional/increased density of geonails or grouted anchors below its base.*

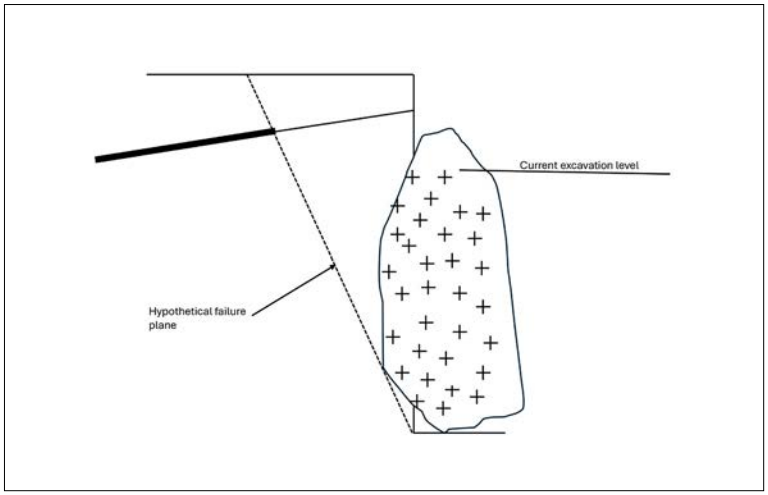

Figure 4e: *Large corestone extending to bulk excavation level but not fully intercepting the failure plane.*

Standing together since 1996, our staff and specialist equipment.

GEOCIV GROUP – 30 YEARS AT THE TOP OF THE PILE

Celebrating three decades of excellence, innovation and leadership in South Africa's geotechnical sector.

GEOCIV employees and leadership celebrating 30 years of excellence.

In 2026, GEOCIV Group proudly celebrates a remarkable milestone – 30 years of serving the construction, infrastructure and geotechnical engineering sectors in South Africa. What began in Durban in 1996 as KZN Piling has evolved into one of the country's most respected and capable geotechnical contracting groups, delivering complex foundation and lateral support solutions across Southern Africa.

Three decades is a significant achievement in any industry. In the highly specialised and often demanding world of geotechnical engineering, it is an accomplishment that reflects resilience, adaptability, technical excellence and an unwavering commitment to clients, employees and stakeholders.

From humble beginnings, the business established itself through hard work, technical competence and a determination to deliver projects safely and successfully. Through strategic acquisitions, organic growth, investment in people and equipment, and the successful navigation of changing market conditions, the company continued to expand its footprint and capabilities. Following a partnership dissolution and a period of restructuring, GEOCIV Group emerged stronger, more focused and better positioned than ever before.

Today, GEOCIV Group stands at the forefront of South Africa's geotechnical sector. The company operates one of the most advanced fleets of piling, drilling and lateral support equipment in the country and has built a reputation for tackling technically challenging projects that require innovative thinking and flawless execution.

Top of the Pile

While many companies strive for market leadership, GEOCIV Group has adopted a phrase that captures both its ambition and its position within the industry: **"Top of the Pile."**
The phrase is more than a clever reference to the foundation industry. It represents a mindset, a culture and a commitment to excellence that permeates every aspect of the organisation. It reflects a business that continuously strives to lead rather than follow, to innovate rather than imitate, and to deliver solutions that set industry benchmarks.

According to Greg Whittaker, Group Managing Director, the true strength of GEOCIV Group lies not only in its technical expertise or equipment fleet, but in the values that guide the organisation every day.

"Our value system is the lifeblood of our business. Equipment can be purchased, technologies can be adopted and markets can change, but values define who you are and how you operate. They are the foundation upon which our success has been built for the past 30 years," says Whittaker.

These values have become deeply embedded within the culture of the organisation and are embraced by employees across every level of the business.

The GEOCIV Group value system is built around ten core principles:

- **Accountability:** Taking ownership of actions, decisions and outcomes.
- **Teamwork:** Recognising that great achievements are only possible when people work together toward a common goal.
- **Tenacity:** Demonstrating determination and perseverance

in the face of challenges.

- **Honesty:** Maintaining integrity, transparency and ethical conduct in every interaction.
- **Innovation:** Continuously seeking better methods, technologies and solutions.
- **Domination:** Striving to be the market leader through superior performance and execution.
- **Excellence:** Refusing to accept mediocrity and consistently delivering the highest standards.
- **Commitment:** Remaining dedicated to clients, projects, colleagues and the broader business.
- **Pride:** Taking satisfaction in workmanship, achievements and the company's reputation.
- **Entrepreneurship:** Encouraging initiative, creativity and a proactive approach to opportunities.

Together, these values have shaped the company's culture and contributed significantly to its sustained success over three decades.

The geotechnical and construction industries have undergone substantial transformation since 1996. Technological advancements, evolving safety standards, increasing environmental awareness and changing client expectations have all required businesses to adapt. GEOCIV Group has embraced these changes and consistently invested in the future.

The company has built its reputation by combining traditional engineering principles with modern technology, ensuring that every project benefits from both experience and innovation. This approach has enabled GEOCIV Group to participate in some of South Africa's most significant infrastructure, commercial, industrial and residential developments.

However, the company's success is ultimately measured not by the projects it completes, but by the people who make those projects possible.

Over the past 30 years, hundreds of employees have contributed to the GEOCIV journey. Many have dedicated significant portions of their careers to the organisation, helping to create a culture of loyalty, professionalism and shared purpose. Their commitment, alongside the trust placed in the company by clients, consultants and contractors, has played an instrumental role in the company's growth.

As GEOCIV Group reflects on its history, it does so with gratitude for the many individuals and organisations that have been part of its journey. Every project, every challenge overcome and every milestone achieved has contributed to the story being celebrated today.

Yet this anniversary is not simply about looking back.

The construction and infrastructure sectors remain critical to South Africa's future development, and geotechnical engineering will continue to play an essential role in enabling that growth. GEOCIV Group is therefore focused not only on preserving its legacy but on building the next chapter of its story.

With a strong leadership team, an exceptional workforce, industry-leading equipment and a clear strategic vision, the company is well positioned to continue expanding its capabilities and delivering value to clients for decades to come.

As GEOCIV Group celebrates 30 years in business, it remains guided by the same principles that have defined its journey since 1996: hard work, technical excellence, innovation and an unwavering commitment to doing things the right way.

From KZN Piling to GEOCIV Group, the journey has been extraordinary. The lessons of the past have built a foundation for the future, and the future has never looked more promising.

After 30 years, GEOCIV Group proudly remains what it has worked tirelessly to become **Top of the Pile**. ⊙

A landmark Super Basement project showcasing the company's technical expertise.

GEOCIV Group's modern fleet of specialised piling and geotechnical equipment.

GEOBRUGG SOUTHERN AFRICA ANNOUNCES RELOCATION TO NEW MANUFACTURING PREMISES

The 34 km underground tunnel enables water transfer between the Polihali and Katse reservoirs, forming a critical link in the system.

Geobrugg Southern Africa (GeoZA), a leading manufacturer and distributor of high tensile steel mesh and safety systems, has announced that it will relocate its operations to new, larger premises in Mogale City in June/July 2026. The move forms part of GeoZA's growth strategy and will support increased production capacity, improved workflow and enhanced service to its customers.

The new facility, located at Building 14, Malibongwe Industrial Park, offers expanded factory and warehousing space, upgraded utilities and material handling infrastructure, and improved access for suppliers and logistics partners. GeoZA expects to commence operations at the new site from 30 June 2026, with production and customer deliveries continuing throughout the transition period.

"Our investment in this new facility reflects confidence in our market and our commitment to supporting customers with reliable supply, consistent quality and shorter lead times," said Wian Strydom, General Manager of Geoza. "The additional space and upgraded layout will enable us to optimise our manufacturing processes and create capacity for future growth."

All existing contact details, including telephone numbers, email addresses and banking information, remain unchanged. Customers, suppliers and other stakeholders are requested to update their records with GeoZA's new physical and delivery address with effect from 1 August 2026. Any time sensitive deliveries scheduled close to the move date should be coordinated with the GeoZA logistics team to ensure smooth receipt at the correct location. ⊙

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ADVANCING FOUNDATION STABILISATION THROUGH PRECISION GEOPOLYMERIC ENGINEERING

South Africa's built environment faces a persistent and often underestimated challenge: ground instability beneath existing structures. Whether driven by water infiltration, poorly compacted fill, expansive clay soils, or the gradual erosion of fine particles beneath foundations, the consequences — cracking walls, settling floors, sticking doors, and structural distress — are familiar to engineers and asset owners across every sector of the construction industry. ***By Antonio Pappalardo, Director — GeoPoly Systems SA***

Over the past 15 years, GeoPoly Systems SA's team has developed extensive practical expertise in geopolymeric ground engineering across a wide range of South African ground conditions and infrastructure environments. Today, GeoPoly Systems SA operates as a fully independent South African specialist contractor, delivering engineered geopolymeric ground improvement solutions tailored to local site conditions and operational requirements.

Drawing on years of in-field application experience, GeoPoly Systems SA delivers independently developed ground engineering solutions under the GeoPoly Precision Densification™ and GeoPoly Multi-Level Densification™ platforms — refined through practical application across residential, commercial, industrial, mining, and infrastructure sectors throughout Southern Africa.

How the material works

GeoPoly Precision Densification™ utilises a two-component expanding geopolymeric material system introduced into targeted subsurface zones through small injection points. Once activated within the soil matrix, the material expands in a controlled manner - filling subsurface voids, displacing trapped water, compacting loosely consolidated particles, and improving contact between the soil and supporting structures.

The process increases the density and stiffness of weak foundation soils while restoring support conditions beneath slabs, foundations, and infrastructure elements. The material achieves rapid early strength gain, allowing fast return to service in operational environments. Once cured, it is dimensionally stable, moisture resistant, and suitable for use in water-affected and environmentally sensitive areas.

Geopoly vs conventional methods

The construction industry has traditionally relied on underpinning, piling, excavation, and cementitious grouting to address foundation instability and slab settlement. While these methods remain suitable in certain applications, they often involve significant disruption, extended construction periods, and substantial reinstatement costs.

Conventional underpinning typically requires excavation beneath existing foundations, demolition of slabs and finishes, lengthy curing periods, and reinstatement of paving, landscaping, and drainage infrastructure. In occupied buildings, these processes may significantly disrupt operations and occupants.

GeoPoly Systems SA's geopolymeric stabilisation methods offer a non-invasive alternative in many applications. Using small access ports, geopolymeric material is introduced directly into weak subsurface zones - without excavation, without heavy construction equipment, and without damage to surrounding surfaces. In many cases, works can be completed within hours or a single working day while facilities remain fully operational. The process is monitored in real time using precision laser equipment to ensure controlled densification and accurate slab re-levelling where required. ⊙

POINTS TO REMEMBER

- Geopolymeric ground improvement addresses the underlying soil support conditions rather than bypassing the problem
- Works are typically completed rapidly with minimal disruption to operations and occupants
- No excavation means reduced damage to paving, landscaping, and surrounding infrastructure — and no reinstatement costs
- Occupants and operational facilities can often remain fully functional during the works
- The material system performs effectively in wet or moisture-affected ground conditions
- GeoPoly Systems SA brings 15 years of practical South African field experience in geopolymeric ground engineering
- Every project begins with site investigation and is monitored throughout the stabilisation process

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Geo Equip Africa (Pty) Ltd.
Registration No. 2021/719655/07

TERRAVUA: ENGINEERED GEOTEXTILE SOLUTIONS FOR DEWATERING, CONTAINMENT AND COASTAL PROTECTION

Across construction, mining, municipal works and environmental rehabilitation, project teams are under increasing pressure to manage water, sludge, fines, erosion and unstable ground more efficiently. Traditional solutions are not always practical, especially where sites are remote, access is limited, or large mechanical systems and heavy civil infrastructure are difficult to justify.

Terravua provides engineered geotextile solutions designed to solve these challenges practically and technically.

The company specialises in geotextile tube dewatering, sludge containment, pond rehabilitation, coastal protection and geosynthetic civil applications. Through its technical focus and international product support, Terravua assists clients from early assessment through to testing, product selection, supply and site implementation.

At the heart of the dewatering offering is the TITANTube® geotextile tube system. Sludge, slurry or fine material is pumped into a high-strength engineered geotextile tube, where solids are captured while filtrate water drains through the fabric. The process is simple, scalable and non-mechanical, reducing reliance on complex dewatering plants, belts, rollers and high-maintenance moving parts.

For mining, wastewater treatment, industrial ponds and construction-related slurry streams, this provides a practical way to reduce volume, improve solids handling and create a more manageable material for disposal, reuse or further treatment. Terravua supports these systems with bench-scale testing, polymer selection, dosing equipment,

pipework layouts, manifold design and on-site technical support.

Every sludge behaves differently. Solids concentration, particle size, water chemistry, polymer response and pumping rate all influence performance. For this reason, Terravua promotes a test-first approach, allowing clients and engineers to make decisions based on actual material behaviour rather than assumptions.

Beyond dewatering, Terravua also focuses on coastal and hydraulic protection works, where geotextile tubes and engineered geosynthetic systems can be used in revetments, breakwaters, groynes, dune reinforcement, scour protection and erosion control applications. These systems offer a cost-effective alternative or support layer to conventional rock-heavy designs, especially where constructability, access, environmental sensitivity and installation speed are important project drivers.

In coastal environments, geotextile containment systems can provide mass, filtration, separation and structural support while working with site-specific hydraulic forces. When correctly designed and installed, they can help protect shorelines, stabilise vulnerable areas and support long-term rehabilitation strategies.

Terravua's value lies in combining product supply with practical engineering insight. The company does not position itself as a box-drop supplier. Instead, it works with contractors, consultants, municipalities and industrial clients to understand the site condition, material behaviour, project constraints and required outcome.

Whether the requirement is to dewater sludge, manage mine fines, close a pond, stabilise weak ground or protect a coastline, Terravua provides practical geotextile-based solutions that are buildable, scalable and fit for purpose. ⊙

BUILDING FOR TOMORROW'S SUPPLY CHAINS - GROWTHPOINT'S NEXT WAVE OF LOGISTICS PARKS

South Africa's logistics and industrial property sector is shifting towards higher-performance, more efficient space. As supply chains evolve and businesses demand greater efficiency, resilience and sustainability, the need for modern, high-quality logistics space has never been greater. Growthpoint Properties is responding decisively to this trend, advancing a new generation of logistics parks that reflect both current market realities and future requirements.

Three developments in particular – Noka Park in Gauteng, Indlovu Logistics Park in Cape Town, and Tecoma Park in KwaZulu-Natal – show how strategic site selection, thoughtful design and sustainability-led thinking are shaping the next phase of industrial property in South Africa.

A market driven by quality and performance

Across the country, industrial property demand is shifting towards a clear "flight to quality". Tenants are increasingly moving away from older, less efficient facilities in favour of purpose-built, technologically enabled warehouses that support modern logistics operations.

E-commerce growth and faster supply chains require facilities that handle higher volumes with speed and precision. At the same time, tenants are prioritising sustainability, operational cost efficiency and energy resilience – especially in an environment where power security remains a concern.

Against this backdrop, Growthpoint has repositioned its logistics and industrial portfolio as a key growth engine, focusing on premium assets in high-performing nodes. The company's latest developments reflect this strategy in action.

Noka Park sets the benchmark in Gauteng

Located in the Riverfields logistics hub near OR Tambo International Airport, Noka Park represents a significant step forward for logistics infrastructure in South Africa's economic heartland.

Developed in partnership with Feenstra Group, the R700-million precinct is designed to deliver more than 52 000 m² of high-performance warehouse space across four buildings. Its location, just 3 km from the airport and with direct access to the R21 highway, positions it as a critical node for both national and international distribution.

Noka Park is explicitly tailored to modern operational demands. Facilities incorporate 12-metre clear heights, FM2-grade flooring and a mix of dock and on-grade access, enabling efficient goods handling at scale and supporting modern racking and distribution requirements. Importantly, the design also accommodates flexibility, with warehouse sizes suited to both mid-sized and large-scale operators.

The development also reflects a broader shift towards smarter, more sustainable logistics environments. Solar-ready infrastructure, LED lighting and energy-efficient design features are integrated from the outset, while the precinct itself is embedded within an environmentally sensitive area that includes preserved grasslands and natural water systems.

In many ways, Noka Park sets a clear benchmark for logistics space in South Africa: scalable, efficient and future-ready.

Building space that **drives industries forward**

In logistics, where time is the biggest commodity, success depends on premium space in established transport nodes, designed around how goods flow and how businesses operate day to day. The integration of efficient layouts, robust infrastructure and sustainability ensures every facility performs under pressure.

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space to thrive

GROWTHPOINT PROPERTIES

Indlovu Logistics Park unlocks scarce industrial land in Cape Town

While Gauteng remains the country's economic core, the Western Cape has emerged as one of South Africa's most supply-constrained industrial markets. It is in this context that Indlovu Logistics Park is taking shape.

Situated in Montague Gardens, one of Cape Town's most established and sought-after industrial nodes, the development is transforming the site of a former PPC facility into a modern logistics hub. With opportunities for well-located industrial land in the area increasingly scarce, the project represents a strategic redevelopment play.

The R578-million development will deliver approximately 38 600 m² of gross lettable area across nine maxi-units. These units are designed for flexibility, ranging from around 3 900 m² to 4 600 m², with the ability to combine into larger configurations – even up to a single 38 000 m² facility.

Location remains one of Indlovu's defining strengths. With access to major arterials including the N1, N2, N7 and key regional routes, the park enables efficient distribution across Cape Town, its port and airport, and broader regional markets.

The design reflects a strong focus on operational efficiency. Features such as nine-metre eaves heights, generous yard depths, dock levellers and weather-protected loading areas support seamless logistics operations.

Sustainability is equally embedded, with solar PV systems, natural lighting solutions, water harvesting and energy-efficient lighting all incorporated. These elements not only reduce environmental impact but also enhance cost efficiency and resilience for tenants.

Indlovu Logistics Park demonstrates how redevelopment of legacy industrial sites can unlock new value while meeting the evolving expectations of modern occupiers.

Tecoma Park strengthens KwaZulu-Natal's logistics backbone

KwaZulu-Natal's strategic importance as a logistics gateway, anchored by Durban's port and key transport infrastructure, continues to support strong demand for industrial space. Tecoma Park is Growthpoint's latest response to this opportunity.

Currently under development in Cornubia, one of the province's fastest-growing economic hubs, the R392-million project will deliver 36 830 m² of A-grade logistics space across eight units. Its proximity to key infrastructure, including King Shaka International Airport and Durban Harbour, reinforces its role within regional and national supply chains.

The park is designed to combine efficiency with flexibility. Units range from approximately 2 800 m² to over 5 000 m² and can be combined into larger configurations to meet tenant demand. Contemporary layouts ensure clear separation between truck movement, industrial operations and office functions, improving both safety and productivity.

As with Growthpoint's other developments, sustainability is a core consideration. Solar installations, energy-efficient systems and natural lighting strategies are integrated alongside landscaped green spaces that enhance the user environment.

Importantly, Tecoma Park forms part of a broader investment strategy that prioritises coastal metros and high-growth nodes, reflecting confidence in KwaZulu-Natal's long-term property fundamentals and continued tenant demand.

A national strategy taking shape

Taken together, Noka Park, Indlovu Logistics Park and Tecoma Park illustrate a cohesive national strategy: invest in prime locations, deliver best-in-class assets, and future-proof developments through sustainability and flexibility.

Each project responds to the dynamics of its region, reflecting Gauteng's role as a logistics powerhouse, the Western Cape's constrained land supply and KwaZulu-Natal's port-driven economy.

Across all three, the focus remains on quality, efficiency and long-term value.

For the construction and property sectors, these developments reflect a wider shift in how industrial space is conceived, designed and delivered, with closer alignment to modern supply chains and the realities of a changing economy.

As demand continues to evolve, it is clear that the future of logistics property will belong to developments that are not only well located, but also intelligently designed, operationally resilient and environmentally responsible. Growthpoint's latest pipeline shows that this future is already taking shape. ⊙

A R750-MILLION NEW DEVELOPMENT IN WATERFALL CITY

April marked a pivotal moment for South African business within the hospitality sector with the announcement of a R750-million investment to develop the new Waterfall City Conference Centre and Hotel. The development is a strategic collaboration between Attacq Limited and Rabie Property Group.

"Century City has shown what is possible when conferencing and hospitality form part of a carefully planned mixed-use precinct. It becomes an economic engine for the node, not just a venue. Partnering with Attacq in Waterfall City allows us to take that proven model and apply it in a precinct that's already built for scale, security, and long-horizon growth,'' says Leon Cohen, Group Chairman Rabie Property Group

The Waterfall City Conference Centre and Hotel will be operated by the same trusted team that has successfully managed Century City Conference Centre and Hotels for the past 10 years, thereby leveraging the expertise of the existing conference and hotel management team.

"This R750-million development is an example of how we continue to unlock long-term value within the Waterfall City precinct through strategic capital allocation and solid partnerships. As a business, Attacq remains focused on disciplined growth and on investing in assets that strengthen the precinct's position as South Africa's most connected, future-fit mixed-use destination. The precinct has consistently proven its ability to attract leading businesses, drive economic activity and deliver exceptional experiences - and this new Waterfall City Conference Centre and Hotel development is a natural next step in that journey," says Jackie van Niekerk, CEO of Attacq.

Over the past decade, Century City Conference Centre and Hotels have built a reputation for consistent excellence in the business events and hospitality landscape. As their portfolio has grown, so too has their responsibility to manage multiple assets with the same level of care, discipline, and intent. That growth has now taken the group beyond a single destination.

This expansion has led to the introduction of African Rain Collection, a new hospitality portfolio created to carry forward the legacy established in Cape Town while supporting the group's operations in Gauteng. Waterfall City Conference Centre and Hotel is the first major development under this umbrella.

African Rain Collection will oversee conference and hospitality assets in both Cape Town and Johannesburg, supporting the group's growing portfolio.

"The launch of African Rain Collection marks a natural evolution of what we have been building over the past decade. It reflects a deliberate shift from operating a single destination to stewarding a broader hospitality portfolio grounded in long-term thinking and disciplined execution.

Waterfall City Conference Centre and Hotel allows us to extend that approach into Johannesburg while maintaining the standards, culture, and accountability that define our work. Our focus is not growth for growth's sake, but thoughtful expansion where we can create real value for our clients, partners, and the precincts we operate in," says Gary Koetser, Chief Executive Officer of African Rain Collection.

The Waterfall City Conference Centre and Hotel will have capacity to accommodate up to 1 350 delegates in a single venue and 2 000 across 16 flexible spaces, complemented by open-air venues for outdoor events. The adjoining hotel will feature 180 rooms and apartments, an all-day dining restaurant, wellness facilities including a gym and spa, a swimming pool, and private dining spaces. Every square metre of the development has been meticulously designed to enhance operational efficiencies while catering to the needs of guests.

Designed as part of the broader Waterfall City precinct, the development reflects Attacq's integrated approach to sustainability, embedding resilience and long-term value creation into how its precincts are planned, developed and managed.

In an era where safety, security, quality standards, and connectivity are non-negotiable, Koetser says Waterfall City Conference Centre and Hotel has been designed for performance at every level. The Conference Centre is engineered for productivity, scale and elevated guest experiences, while the hotel provides a considered retreat for both business and leisure travellers. "This would not be possible without the continued support of our clients and the broader events industry," Koetser added.

Waterfall City Conference Centre and Hotel is set to be fully operational by January 2028, marking a definitive new chapter for African business and hospitality excellence and global connectivity. Bookings are open for conferences and events from January 2028 onwards. ⊙

BUILDING BELONGING IN THE CITY

Blok is reshaping urban living through design-led density, walkable neighbourhoods and people-first development. Construction World *spoke to Troy Squires, their Head of Marketing.*

For Blok, urban development is about far more than delivering apartments. The Cape Town-based developer has built its reputation on the idea that buildings should actively contribute to the neighbourhoods around them, creating connected urban environments that prioritise convenience, walkability and community.

At a time when South African cities are grappling with densification, rising property costs and changing lifestyle expectations, Blok has positioned itself at the forefront of a new urban living model. One that places human experience at the centre of development.

According to Troy, the company's approach differs fundamentally from traditional property thinking.

"Many developers focus strictly on yield per square metre. We focus on the value of the experience within those square metres," he says. "We measure city life in steps rather than kilometres."

That philosophy has become increasingly relevant as urban buyers shift away from the long-commute suburban model in favour of connected city living that offers greater convenience and quality of life.

Designing the neighbourhood, not just the building

Blok's developments are strongly influenced by the concept of the 15-minute city, where residents can access work, retail, recreation and essential services within a short walking radius.

The company begins each project by analysing the surrounding urban fabric and understanding how people move through the area. Walkability, access to amenities and the broader street environment all influence the design process from the earliest stages.

Rather than treating developments as standalone structures, Blok approaches each building as an extension of the surrounding neighbourhood.

This thinking directly shapes how space is allocated inside developments. While apartments are designed to be compact and efficient, communal areas are intentionally generous and highly activated.

Shared rooftop decks, co-working facilities, retail spaces and communal social zones are integrated into projects from inception. The aim is to create what the company describes as "integrated-neighbourhoods" that encourage interaction and strengthen community connection.

"If private spaces are intentionally efficient, communal zones must be exceptionally accommodating," says Troy.

The approach reflects a broader shift in urban living preferences, particularly among younger buyers and professionals who increasingly value access, flexibility and lifestyle over excess space.

Compact living without compromise

Blok's apartments are known for combining smaller footprints with strong functionality and high-end design. Achieving affordability, however, is not simply about reducing apartment size.

Instead, the company focuses on what Troy describes as intentional value engineering. "We believe that design has the power to improve lives, and that means making urban living accessible to a broader demographic without sacrificing architectural integrity," he explains.

Every aspect of the apartment layout is carefully considered to eliminate wasted space and improve functionality. Built-in furniture solutions, integrated workspaces and highly efficient kitchen and bathroom designs all form part of the strategy.

The company also works closely with established suppliers and appliance brands to ensure long-term durability and operational efficiency for homeowners.

At the same time, sustainability is becoming an increasingly important part of the urban living equation.

Blok incorporates solar systems, rainwater harvesting and water-wise infrastructure into developments, while the compact nature of its apartments naturally reduces overall resource consumption per resident.

The company believes higher-density urban living represents one of the most sustainable long-term growth models for modern cities.

Amenities drive modern demand

Changing work patterns and lifestyle expectations are also reshaping buyer priorities within the apartment market.

For Blok, amenities such as concierge services, co-working spaces and integrated retail are no longer luxury additions. They are essential infrastructure for modern urban living.

"The rise of hybrid work models has completely redefined the concept of a home," says Troy. "A building must now function as a workplace, a sanctuary, and a social hub simultaneously."

Co-working facilities allow residents to work productively outside their apartments, while concierge services and ground-floor retail create a hospitality-style living experience that prioritises convenience and accessibility.

This model also strengthens the investment case for buyers. High-quality amenities improve tenant demand, occupancy levels and overall building desirability, particularly within the growing short-term rental market.

Blok believes the balance between investor needs and resident experience is critical to long-term value creation.

"Our buildings offer everything from functional Compact Studio apartments to glorious Penthouse apartments," says Troy. "Ultimately, a building that is deeply loved and properly managed retains its capital value far better."

Finding value in emerging urban pockets

While Cape Town's Atlantic Seaboard and City Bowl remain among the country's most desirable residential markets, Blok continues to focus on identifying underutilised urban sites with future growth potential.

The company actively targets older low-density buildings and overlooked commercial properties that can be repositioned into mixed-use urban developments. By entering these locations early, Blok aims to secure favourable land positions before wider market demand accelerates.

"When the broader market catches up to the potential of that specific street or pocket, our early-stage buyers experience the strongest capital appreciation curves," says Troy.

This strategy reflects the company's longer-term view of urban development, where neighbourhood evolution and infrastructure investment play a significant role in determining future value.

A different vision for South African cities

Over the past decade, Blok believes South Africans have fundamentally changed the way they think about housing and urban life.

Traditional ideas around suburban living, large homes and isolated lifestyles are steadily being replaced by a growing preference for connected, experience-driven urban environments.

"We've learned that many people don't want to live in isolation," says Troy. "They want a connected urban lifestyle where they measure their days in steps, time saved and social interactions."

Blok sees itself playing an increasingly active role in shaping the future of South African urbanism through design innovation, mixed-use density and community-focused development.

Rather than viewing itself purely as a developer, the company increasingly positions itself as a precinct-driven urban player focused on creating environments that contribute positively to the broader city.

"We are here to show that when a building gives back to its neighbourhood, it creates an equitable, sustainable, and deeply loved urban environment where the community can thrive," says Troy.

OCTODEC'S INCLUSION IN FTSE/JSE INDICES

Index recognition of a second major REIT significantly invested in multifamily rentals signals growing institutional investment appeal of the sector.

The South African Multifamily Residential Rental Association (SAMRRA) has welcomed the inclusion of Octodec Investments to the FTSE/JSE All Property Index (ALPI) and the SA REIT Index as affirmation of the growing relevance of multifamily residential rental property as a core real estate asset class.

Octodec's inclusion, effective 23 March 2026, brings greater attention to the company, particularly from larger institutional investors, paving the way for increased demand for its shares, specifically from index-tracking funds and institutional portfolios that may previously have been precluded from taking off-benchmark positions.

For SAMRRA, which drives transparent value promotion for the multifamily rental housing asset class, the development carries special significance.

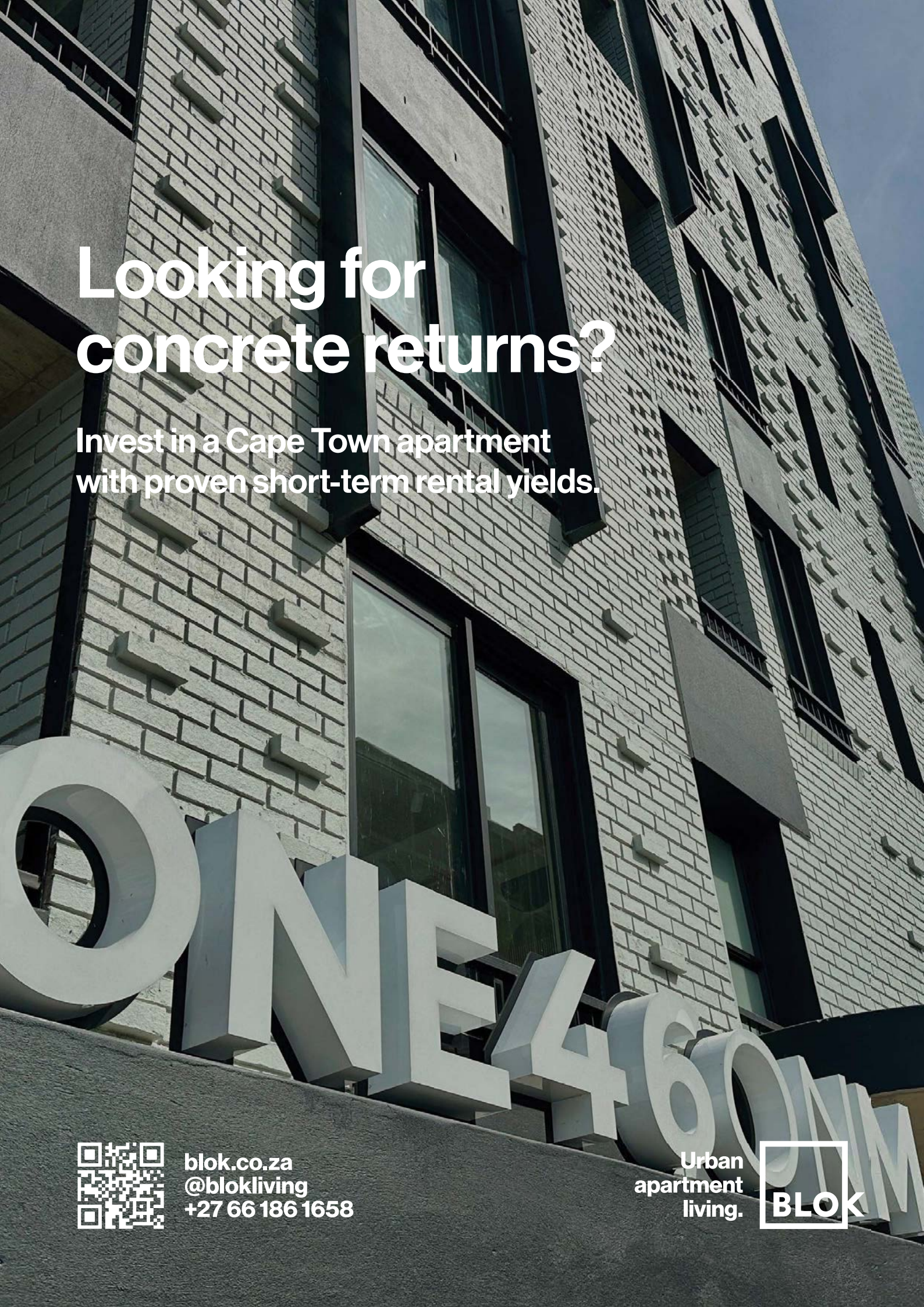
Octodec, under its City Property brand, holds the second largest residential property portfolio listed on the JSE. Within its R11,3-billion diversified portfolio, residential generates 35% of rental income across some 9 300 units. The company has been a pioneer in multifamily residential investment for decades, completing its first conversion of an office building into residential units in the Tshwane CBD as early as 1998, and is a long-standing advocate for multifamily housing in South Africa.

It joins SA Corporate Real Estate to become the second REIT with a substantial core multifamily residential holding to feature in the benchmark indices. Together, these two listed entities represent a meaningful and growing concentration of institutionally owned, professionally managed rental housing within South Africa's benchmark property indices.

For institutional investors, index inclusion of multifamily-weighted REITs resolves a longstanding structural challenge: the ability to gain greater benchmark-tracked exposure to multifamily residential rental income at scale. As the ALPI increasingly reflects the composition of South Africa's real estate economy, including its significant and growing residential rental component, portfolio managers, pension funds and specialist property funds are empowered to make considered, data-driven allocations to this sector.

A landmark moment for the multifamily rental asset class

"When the JSE's most important property benchmarks include REITs with major multifamily residential holdings, the message to the investment community is clear: this is a recognised, measurable and institutionally credible asset class. That recognition accelerates capital



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formation, deepens liquidity and elevates residential rental from a niche consideration to a core allocation," says Palesa Mkhize, CEO of SAMRRA.

The presence of both Octodec and SA Corporate in the ALPI (33 counters) and the SA REIT Index (18 counters) marks a milestone for multifamily residential rental as an investable, benchmarked asset class in South Africa.

"Octodec's inclusion in these indices marks an important milestone not only for our business. For many years, we have held a strong conviction in the long-term fundamentals of well-located, professionally managed residential rental housing, particularly in urban nodes where demand remains deep and resilient. This recognition reflects the growing institutional acceptance of multifamily residential as a core, scalable and investable asset class. It also enhances our ability to attract a broader base of institutional capital, supporting our strategy to continue investing in and improving affordable, quality housing in South Africa's inner cities," says Jeffrey Wapnick, MD of Octodec Investments.

A sector defined by resilience, transparency and increasing scale

The JSE's property indices play a key role in how listed property performance is measured, compared and communicated across the market. Inclusion in these widely tracked indices provides companies, and the property sectors they invest in, with enhanced visibility among domestic and international investors.

It also builds on SAMRRA's ongoing work to expand valuable relevant and transparent sector market intelligence. The association's initiative with Rode & Associates has established a quarterly performance tracking dataset to provide the credible, consistent data that underpins investment confidence. Currently covering approximately 60 000 residential units across both listed and privately held portfolios of SAMRRA members, it is the most comprehensive of its kind in South Africa.

The index developments come as the multifamily sector continues to demonstrate the operational, financial and transparency characteristics that drive institutional confidence.

The Rode data shows that vacancy rates across SAMRRA members' portfolios have remained consistently above 95% occupancy across the three quarters tracked since August 2025, levels notably stronger than those recorded in non-SAMRRA apartment stock, reflecting the appeal of modern units, integrated amenities and professional management. SAMRRA's members collection rates are above 98%, with bad debts consistently below 1%, comparing favourably with virtually every other real estate sector.

National apartment rental growth averaged 3,6% in 2025, modestly above consumer inflation, while declining interest rates have supported capital values and contributed to overall sector stability.

A compelling capital story

Together with patently high tenant demand, these numbers position multifamily rentals as a cornerstone of South Africa's modern housing solutions and an appealing option for institutional investment.

Three of South Africa's leading banks - Standard Bank, Absa and Nedbank CIB - are actively working alongside institutional multifamily rental investors at SAMRRA to build a stronger, more investable multifamily rental housing ecosystem.

This financial sector alignment, combined with the index recognition of major multifamily holders and quarterly performance tracking data creates a reinforcing cycle: greater data transparency, stronger institutional participation, deeper capital markets engagement and ultimately a more liquid and fairly priced asset class.

"SAMRRA will continue to champion this asset class, build the evidence base that supports investment and advocate for an environment that allows it to scale," concludes Mkhize.

Isphetho Developments launches **INQABA VIEWS RESIDENTIAL ESTATE**

Isphetho Developments officially launched its latest residential project, Inqaba Views Residential Estate, in April, marking a major milestone for the 75-unit development located in Botha's Hill within eThekwini's rapidly expanding Upper Highway corridor.

As a 100% black-owned, Level 1 B-BBEE developer, Isphetho Developments positions the project as part of a broader contribution to inclusive growth and economic participation within KwaZulu-Natal's residential sector.

Held at the development site on 14 Mkhize Road, the launch represented the transition from years of planning and investment preparation into active delivery. The event welcomed prospective buyers, stakeholders and members of the public, offering them an opportunity to engage directly with the project and experience the site first hand.

Rather than hosting a conventional showroom unveiling, the developer focused on a site-based experience that allowed visitors to explore the location, views and scale of the estate while accessing detailed buyer information and professional support throughout the day.

"Inqaba Views represents a critical transition for us, from years of preparation into physical delivery," said Phumelele Nzama, Founder and Chairperson of Isphetho Developments. "This launch is not only about starting construction activity; it is about demonstrating what is possible when thoughtful planning, strong partnerships and a clear development philosophy come together."

The launch included a ceremonial sod-turning event, stakeholder engagements and guided site walk-throughs from a purpose-built viewing deck overlooking the estate. Pam Golding Properties facilitated on-site sales enquiries, while ooba hosted a home loan pre-qualification and finance hub for potential buyers.

Attendees also had access to digital buyer resources, including estate layouts, unit plans and finish specifications, as well as opportunities to engage informally with the development team, consultants and local businesses involved in the project.

Developed as a secure sectional-title estate, Inqaba Views will comprise 75 modern residential units positioned on elevated land with expansive views across the Upper Highway area. The site offers convenient access to the N3 corridor, Old Main Road and the Hillcrest node, placing residents close to employment hubs, retail centres and lifestyle amenities.

The development targets the aspirational mid-market, appealing to young professionals, families, first-time buyers, investors and downsizers seeking contemporary lock-up-and-go living within a secure estate environment.

The project will be rolled out in phases. Phase One will include 24 two-bedroom, one-bathroom units measuring 62,7 square metres, with private gardens for ground-floor homes. Phase Two will introduce a further 51 units, including both two- and three-bedroom configurations.

Construction is expected to commence once remaining pre-sales targets have been achieved, with Phase One completion anticipated within approximately 10 months.

Beyond its residential offering, the development is expected to contribute positively to the local economy. Isphetho Developments estimates that approximately 250 direct and indirect jobs will be created during the construction phase, while the project will also support investment activity and deliver much-needed mid-market housing within the region. ⊙

Boogertman + Partners - creating spaces THAT DEFINE MODERN AFRICA

Boogertman + Partners is one of Africa's leading architectural practices. For more than four decades, Boogertman + Partners has honed an approach to architecture that delivers lasting value for clients and for the people who experience the spaces it designs.

The company's philosophy is rooted in a distinctive human-centred, contextually responsive and sustainable approach to design, underpinned by a collaborative ethos. With a reputation for design leadership and technological innovation, it combines creativity with rigor, enabling projects that are visionary, efficient and transformative.

As a partner-led practice, Boogertman + Partners works across a wide range of sectors, including commercial, residential, hospitality, healthcare, retail, education, industrial, transport, infrastructure and sports and entertainment, all within mixed-use developments. This structure has all the advantages of boutique specialist teams with the capacity to collaborate at scale. Boogertman + Partners' studios also include dedicated in-house expertise in interior design, landscape design, urban design and graphic design, offering a cohesive approach with multiple disciplines co-ordinated under one roof.

"We are guided by the principle of human-centred design," says Boogertman + Partners Senior Director Bob van Bebber. "Put simply: we design for end users thereby contributing to built environments that are more inclusive, resilient and enduring, ultimately benefiting our clients and their users alike."

This philosophy has shaped projects ranging from beloved national icons such as Soccer City and urban landmarks like Discovery Place and the Department of Agriculture, Land Reform and Rural Development (DALRRD) to exciting large-scale projects elsewhere on

Groot Phestantekraal View. *Photo by Dave Southwood.*

the continent, including the new WAICA Reinsurance Corporation West Africa Regional Office in Accra, Ghana, currently under construction, and God's Window Skywalk, which recently broke ground in Mpumalanga. Newly announced projects include the Cape Winelands Airport, Zanaco's new head office in Lusaka and the Bankenveld District City.

Recently completed projects include several retail developments: Groot Phesantekraal View (June 2025), Lion Pride Shopping Centre (July 2025), Lynnridge Walk (August 2025), Westown Square (March 2025), developed with MDS Architecture, Waterfall Walk (April 2025) and Sandton Gate Central (March 2026). Red Bull's South African Headquarters (September 2025) was a prominent corporate refurbishment, and the Lowveld Eye Institute in Mbombela, Mpumalanga, stood out among its healthcare projects.

The efficiency of many of its projects is enhanced through a fully digital workflow, with 100% cloud-based coordination enabling seamless collaboration across disciplines and locations.

Sustainability is a cornerstone of the company's practice. As a Gold Founding Member of the Green Building Council South Africa (GBCSA), it actively champion environmentally conscious design. Its projects consistently meet globally recognised sustainability standards, including Green Star, LEED, and EDGE certifications.

Through the Future Studio programme, it nurtures the next generation of African designers by offering bursaries, internships, job-shadowing and skills development opportunities. In East Africa, the company recently sponsored two architecture students to attend a design-tech entrepreneurship programme at Ubunifu College in Nairobi, the second of which recently launched.

Boogertman + Partners brings the same commitment and care to every project it designs. Above all, the company is guided by a belief in architecture as a force for good – materialising tomorrow through spaces that uplift, connect and endure. ⊙

Structural rehabilitation and post-tension STRENGTHENING OF PPC DUO-CELL SILO

A major structural rehabilitation and strengthening project at the PPC Hercules Plant has been successfully completed, restoring the structural integrity and long-term performance of a critical cement storage facility while allowing the plant to remain fully operational throughout the construction period.

The PPC Duo-Cell Silo Strengthening and Repair Project, valued at approximately R26 million, was delivered by specialist civil engineering contractor Smart Civils & PT Systems as a turnkey project with consulting engineers Jones & Wagener. The project was carried out between July 2025 and December 2025.

The project required advanced structural rehabilitation techniques and careful coordination to ensure repairs could be executed safely within an active industrial environment.

Structural assessment and intervention

In June 2024, vertical cracking was identified along the external wall of one of the plant's reinforced concrete duo-cell silos. The cracks resulted in the leakage of cement fines and the ingress of water, indicating structural deficiencies in the silo shell.

A detailed structural assessment was subsequently undertaken by PPC to evaluate the extent of cracking and to determine the condition of the reinforced concrete wall. PPC, with the assistance of consulting engineers, developed a recommended repair and strengthening strategy. PPC then issued a tender to a list of pre-qualified suppliers. After an extensive tender evaluation process, Smart Civil Construction was awarded the tender.

"Once the cracking was identified, the priority was to understand the structural behaviour of the wall and implement a repair methodology that would not only address the defects

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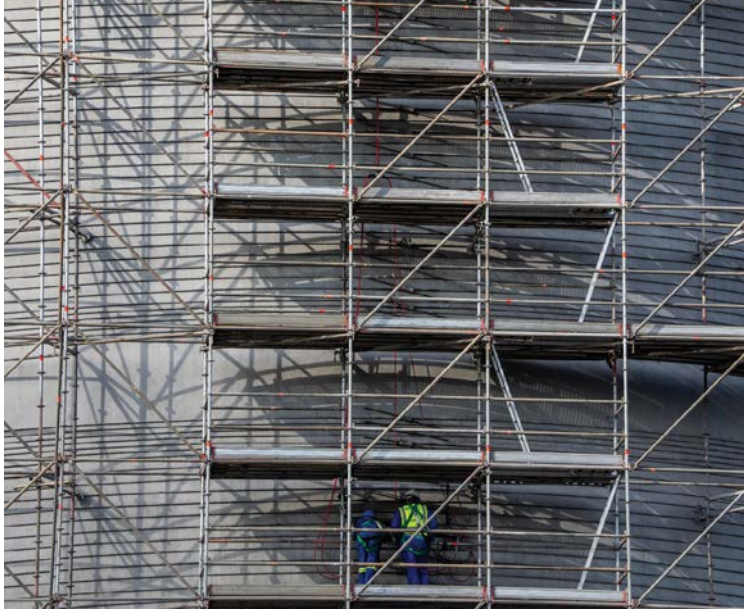

but also enhance the long-term performance of the structure," explains Grant Harli, lead engineer on this project from Jones & Wagener.

Based on the findings, a rehabilitation methodology was developed combining crack injection, localised concrete repairs, external strengthening through post-tensioning and the application of protective coating systems to restore the structure and mitigate future deterioration.

Rehabilitation methodology

As the main contractor, Smart Civils was responsible for executing the rehabilitation works in accordance with the engineering design and technical specifications while coordinating specialist suppliers and subcontractors.

The works began with detailed inspection and mapping of cracks and concrete defects across the external faces of the silo. Structural cracks were treated through pressure injection techniques, restoring continuity within the concrete matrix and preventing further leakage of cement fines.

Localised concrete repairs were undertaken in areas where deterioration or surface defects were identified, reinstating the structural and durability performance of the concrete.

A key component of the strengthening strategy involved the installation and stressing of external post-tension (PT) cables around the silo wall. The external strengthening system comprised 176 rings of specialised UV protected strand, each anchored at 180 degrees using Dywidag's ME Anchor. A total of 352 Dywidag anchors were installed. Each ring required four jacks to be operated simultaneously at each anchorage point to limit the lateral movement of the cables during stressing and ensure an even distribution of load.

"The installation of the external post-tensioning system provided additional circumferential restraint to the structure, effectively improving the load-carrying capacity and enhancing the overall structural performance of the silo wall," says Grant Harli.

Following completion of the structural repairs, a primer and specialised protective coating system was applied to the external concrete surfaces to improve resistance to environmental exposure and extend the structure's service life. The rehabilitation programme was completed with the installation of a waterproofing system on the silo roof.

Materials and repair systems were supplied in collaboration with Sika South Africa.

Working within a live industrial environment

Executing the works within a fully operational cement plant presented significant logistical and safety challenges. Continuous truck movements required careful management of site access and construction activities.

Segregated truck routes were implemented using signage and physical barricades, while structural bracing and anchoring systems were installed to protect scaffolding from potential vehicle impact.

Weather conditions, including periodic thunderstorms and heavy rainfall, occasionally suspended work-at-height activities. Weather allowances and daily forecast monitoring were incorporated into the construction programme to minimise delays.

Sporadic power outages and load-shedding also affected site operations. To maintain continuity, Smart Civils deployed a generator system to provide reliable power during outages.

Safety and logistics management

Access to elevated work areas relied on a shared Alimak elevator, used by both the main contractor and subcontractors. Controlled time allocations were introduced to manage personnel and material movement.

All scaffolding was erected by certified personnel in accordance with approved designs, with formal handover certificates issued before use. Routine inspections were conducted throughout the project, and fall-arrest systems were mandatory for all work-at-height activities.

The project was completed with a strong emphasis on safety, achieving zero safety incidents over its duration.

Successful project delivery

There were some operational and environmental challenges during the project, and the project was successfully implemented with effective workaround plans to counter the challenges.

"Strong collaboration between the PPC team, the supplier, and the consulting engineers kept the project on time and within budget. Due to the risks of working at heights, PPC ensured that dedicated safety personnel were deployed on the project." says Bevin Munsamy the PPC Project Manager.

An effective execution of the project was achieved without hindering day-to-day Plant operations.

"The innovative strengthening measures implemented have restored the structural integrity of the silo and enhanced its durability, ensuring reliable performance well into the future," says Clinton Barnes the Smart Civils & PT Systems site manager.

The project highlights Smart Civils' expertise in delivering complex structural rehabilitation projects within active industrial environments through a combination of advanced engineering solutions, careful construction planning and rigorous safety management. ⊙

A call for responsible water tank INSTALLATION IN SOUTH AFRICA

Recent events in the Northern Cape have once again brought South Africa's water reality into sharp focus. As communities increasingly rely on water storage to cope with unreliable supply, the importance of safety, correct installation, and responsible infrastructure choices cannot be overstated.

Water storage plays a critical role in household and community sustainability, but it also carries real risks if systems are poorly designed, incorrectly installed, or inadequately supported.

To that end, JoJo is issuing an open letter to consumers, installers, contractors, and public bodies, urging renewed attention to water tank safety and installation standards.

An open letter from JoJo on water tank safety and responsibility

South Africa is under growing water pressure and, for many households and communities, water tanks have shifted from being optional extras to essential infrastructure.

A full water tank, however, is more than a simple container. It is a structure carrying significant weight, and when placed on unstable ground or supported by inadequate stands, the risks increase significantly.

Recent events have reinforced the importance of correct installation, appropriate support structures, and regular maintenance in keeping water storage systems safe. This is a shared responsibility.

Proper installation is not a technical formality; it is a safety requirement. Engineered, load-bearing stands, level and stable foundations, strict adherence to installation guidelines, and routine inspections are all essential. When these elements are overlooked, manageable risks can quickly escalate, especially in environments where children and other vulnerable community members are present.

Quality beyond the product

Consumers are often encouraged to prioritise capacity and price when selecting water storage solutions. Yet true quality extends beyond the tank itself. The stand, foundation preparation, installation method, and ongoing maintenance all play a critical role in ensuring long-term safety.

As water storage becomes more widespread, education around these factors must keep pace. Safety guidance should be clear, visible, and consistently reinforced, whether tanks are installed by private contractors, municipalities, or community-based programmes.

A collective call

JoJo calls on all stakeholders to take proactive steps to prevent future harm:

- Municipalities and public bodies must ensure that tanks installed as part of water relief or infrastructure projects meet appropriate safety and installation standards.
- Installers and contractors must use fit-for-purpose, load-bearing stands and follow installation guidelines without compromise.
- Consumers and communities should ask questions, insist on compliant installations, and ensure that tanks and stands are kept secure and inaccessible to children.

Water insecurity should not introduce new risks to life and safety. Access to water must go hand in hand with responsible infrastructure decisions. ⊙

A NEW ERA FOR MUNICIPAL RESERVOIRS

SBS Tanks is a proudly South African, Level 2 B-BBEE manufacturer of engineered modular steel-panel water storage tanks. Headquartered in Pinetown, KwaZulu-Natal, the company has delivered water storage systems for municipal, mining, fire protection, commercial and water conservation projects across South Africa, USA and international markets since 1998.

From its 5 700 m² manufacturing facility, SBS combines factory-controlled production, Galvalume steel-panel tank technology, custom-fitted liners, in-house engineering, R&D product optimisation, dedicated project management and specialist installation teams. With tanks ranging from 12 000 litres to the new 5,2 megalitres, SBS Tanks delivers storage infrastructure designed for quality, safety, durability and longevity.

Storage as a service-delivery asset

For municipalities, water storage is no longer simply about holding capacity. It is about protecting service delivery, reducing programme risk and building infrastructure that is fast to install, practical to maintain and resilient under pressure.

This was the context behind the Kirkwood Water Supply Scheme in the Sundays River Valley Local Municipality in the Eastern Cape, where Amatola Water completed a bulk water infrastructure project to strengthen water security for Kirkwood and neighbouring settlements.

The scheme responds to a practical operating reality: the town relies on water from a canal system that must periodically be closed for maintenance. As infrastructure ages, more frequent maintenance is required. During these shutdowns however, the community are exposed to supply interruptions as sufficient water cannot be drawn from the system. “The project therefore had a very practical and public-service objective: provide additional storage capacity so that water supply could continue, while essential maintenance takes place upstream”, says Louis Fourie, from Gilgal-New Ground Joint Venture, the project’s consulting engineers.

As part of the scheme, SBS Tanks supplied two large ST31/09 (33 Ml) modular steel-panel reservoirs, providing approximately 6 ML of additional treated-water storage, similar to a previous project completed on the North coast of KZN. One reservoir was installed at Kirkwood Town, serving Kirkwood, Aqua Park and Bergsig, while the second was installed at Bontrug to support Moses Mabhida and Msengeni.

For SBS Tanks, the project demonstrates the growing role of modular steel reservoirs in municipal infrastructure - particularly where public-sector projects need to balance costs, delivery timelines, site constraints, long-term maintenance and resilience.

Moving beyond traditional reservoir thinking

Municipal reservoirs have historically been associated with concrete structures. Concrete remains a familiar and proven technology, but constrained budgets, rising costs, limited specialist skills and pressure to deliver faster are encouraging project teams to assess proven alternatives.

On Kirkwood, concrete was considered. However, the consulting engineer noted that budget was the determining factor, with modular steel offering significant cost and programme advantages. The selected reservoirs also needed to fit tight site footprints, making a smaller footprint-tank advantageous.

SBS Tanks’ modular bolted steel-panel system supported the project through:

- ISO9001 Quality-controlled manufacturing, with consistent, repeatable and auditable quality inspection points.
- High-strength Galvalume steel panels and a fitted internal liner that isolates the stored water from the steel structure, reducing corrosion risks.
- Speedy ground-up jacking installation by experienced crews.

“The factory visit gave the client confidence, being very impressed by SBS’s advanced manufacturing capability, which helped reinforce trust in the technology before delivery,” said Louis.

Site logistics and programme certainty

Access was one of the project’s practical challenges. The reservoirs were located on elevated sites, and moving large infrastructure components into position required daily planning.

The modular nature of the SBS system proved valuable as the materials could be delivered to the main construction camp and shuttled to the reservoir positions using smaller vehicles traversing up the hillside.

The two reservoirs were built in parallel by experienced SBS Tanks crews, using the company's jacking methodology. SBS Tanks's professional project management (PM) services provided a single co-ordinated point of contact, the installation teams, Ruwacon and project representatives, from order placement through manufacturing, installation, commissioning and handover.

Enter climate change

The project also provided an important engineering lesson. During the commissioning phase, one reservoir was exposed to a period of extreme wind shortly after practical completion. SBS Tanks received notification on a windy Monday in July that visible inward panel displacement had occurred, and an engineering team was immediately sent to site the next day to inspect.

The tank had been designed for a standard 154 km/h, three-second wind gust in an empty state, far exceeding tender specifications and standard operating calculations for that region. However, wind data from a local weather station 4 km away showed that wind speeds exceeded this threshold, with gusts reaching over 200 km/h over several days.

The event caused localised inward deformation with slight buckling at the wind girts and uprights.

Engineering an in-situ solution

SBS Tanks investigated the incident, assessed the reservoir and recommended repairs with a solution engineered specifically for this site. After conducting a finite element analysis of the ST31/09 tank, the solution comprised three rolled tubular wind-ring stiffeners around the full circumference of the tank, fixed to the uprights at the top three panel bolt lines.

The strengthened model showed that general inward displacement of the upper shell was eliminated, with little-to-no displacement at the wind girts. Because the reservoir is modular and bolted, SBS could repair and strengthen the affected area in situ, without demolishing or reconstructing the asset.

The second reservoir, although not affected in the same way, was also strengthened as a proactive measure.

A stronger municipal case

The Kirkwood Water Supply Scheme shows how modular steel reservoirs can support modern municipal water infrastructure in practical ways:

- SPEED: controlled factory manufacturing and rapid installation shorten delivery timelines.
- COST CERTAINTY: cost-effective per kilolitre storage can improve the reach of public-sector budgets.
- FOOTPRINT EFFICIENCY: large capacity can be delivered on constrained sites.
- LOW MAINTENANCE: low-frequency inspections and liner cleaning reduce lifecycle complexity.
- ADAPTABILITY: tanks can be configured, expanded or strengthened as site conditions require.
- PROJECT SUPPORT: dedicated engineering, project management and SHEQ/HSE support from design review to handover.

At Kirkwood, the two SBS Tank reservoirs are more than steel structures on a hill. They form part of a broader water security system that helps protect communities from disruption during planned canal maintenance. The project also reflects a wider shift in infrastructure thinking. Municipal water storage must be cost-effective, fast to deliver, practical to maintain and resilient enough to adapt to changing site and climate conditions.

For SBS Tanks, the project reinforces the company's role as a provider of engineered water storage infrastructure. With large-capacity modular tanks now reaching up to 5,2 ML, and with in-house engineering, manufacturing and project support, SBS is positioned to support municipalities and contractors seeking alternatives to traditional reservoir construction.

In Kirkwood, the outcome was practical, but for the construction industry, the lesson is broader. The future of municipal water storage will not be defined by capacity alone. It will be defined by how effectively public-sector projects adopt proven technologies that help contractors overcome cost, access and programme constraints while delivering resilient, adaptable and long-term infrastructure for the communities they serve. ⊙

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Five solutions municipalities can implement to fix SOUTH AFRICA'S WATER CRISIS

"Before building new dams or pipelines, we must stop losing the water already flowing through our systems," says Tshidi Mndzebele - award-winning engineering professional and CEO of AvenirHoldings.

South Africa's worsening water outages are not primarily the result of water scarcity, but of failing municipal infrastructure – and the crisis can begin to stabilise far faster than many realise.

March marked Water Awareness Month in South Africa, highlighting the growing urgency to protect the country's water resources and address failing infrastructure systems that are threatening supply in many cities and communities.

Infrastructure and engineering solutions company AvenirHoldings says it is ready and equipped to support municipalities with the technical expertise required to restore failing water systems through rapid, targeted interventions.

"Government must ensure that engineers form a central part of the solution. As a proudly South African infrastructure and engineering firm, AvenirHoldings has the technical capability to support municipalities in addressing the country's water infrastructure crisis", said award-winning engineering professional and CEO of AvenirHoldings, Tshidi Mndzebele

A webinar recently hosted by *Engineering News* brought together various industry stakeholders to address the strengthening of water supply infrastructure and services – further demonstrating the urgency of solving South Africa's water crisis and the importance of practical engineering-led solutions.

"Municipalities can recover large volumes of lost water within months by focusing on practical engineering solutions rather than waiting years for new mega-projects to come online," says Mndzebele.

According to the Department of Water and Sanitation reports, South Africa loses about 47% of treated water before it reaches consumers due to leaks, ageing pipes, illegal connections and poor maintenance.

The Auditor-General of South Africa estimates municipalities lost R14.89 billion worth of water in a single year, highlighting the enormous financial and infrastructure cost of system failures.

"South Africa is not running out of water – we are losing the water we already treat," says Mndzebele.

At the same time, government estimates suggest more than R400 billion will be required to rehabilitate municipal water and sanitation infrastructure, while many critical projects face delays of two to five years due to planning and capacity constraints.

"Many municipal pipelines and pump systems are operating decades beyond their engineering lifespan. But with the right technical interventions, municipalities

can stabilise supply far faster than many people expect."

Five practical solutions municipalities can implement now:

- Pressure management systems
  Reducing excessive pipeline pressure through automated valves can significantly cut pipe bursts and water losses while extending infrastructure lifespan.
- Advanced leak detection
  Acoustic sensors and digital leak-detection technologies allow engineers to locate underground leaks early, preventing millions of litres of water loss.
- Smart monitoring systems
  Real-time monitoring of pumps, reservoirs and pipelines helps municipalities detect failures immediately and prevent outages from escalating.
- Structured infrastructure maintenance planning
  Lifecycle asset management – including scheduled pipe replacement and pump refurbishment – prevents the costly cycle of emergency repairs.
- Strengthening municipal engineering capacity
  Many municipalities lack sufficient technical expertise. Partnering with engineering and infrastructure specialists can rapidly strengthen planning, project management and maintenance.

"If South Africa reduced water losses even by 10–15%, it would significantly increase available supply in many cities almost immediately."

With cities such as Johannesburg experiencing recurring outages, Mndzebele believes stronger collaboration between municipalities and engineering specialists is critical to restoring water security.

"Water security is fundamentally an infrastructure challenge – and infrastructure problems are solvable," she says.

"With the right engineering partnerships and maintenance discipline, South Africa can stabilise its water systems far sooner than people think." ⊙

AVX Engineers completes key study to UPGRADE RURAL ACCESS ROADS

Access to reliable roads remains a critical challenge for many rural communities in South Africa, particularly in the Eastern Cape. Addressing this need, multidisciplinary consultancy, AVX Engineers, has completed a detailed geotechnical investigation and road design study to support the upgrade of gravel access routes into safer, more durable surfaced roads linking communities to markets, schools, healthcare facilities and agricultural centres.

Camagu Xintolo, MD of AVX Engineers, explained that the report assessed traffic patterns, pavement conditions, geometric alignments, drainage systems and environmental factors, while integrating a community-focused training and skills development programme.

With support from the South African National Roads Agency, detailed assessments of access roads were conducted to identify potential routes for development. Xintolo highlights that the project employed extensive test pits and Dynamic Cone Penetrometer (DCP) testing across multiple roads to map subgrade strength, layer thicknesses, and failure mechanisms, in line with TMH1 and TRH14.

"This data-driven approach ensured pavement designs were tailored to actual ground conditions, preventing under-design that leads to premature failure or over-design that inflates costs," he said. Xintolo emphasised that intrusive investigations should be prioritised early in the design phase of any road project, especially where more than 50% of the surface exhibits severe defects.

The study further identified that the project site is located within a moist sub-humid climatic region, with a Thornthwaite index value between 0 and 20, which has significant implications for material selection in road construction. "Careful consideration must be given to surfacing materials, particularly regarding their sensitivity to temperature fluctuations. This is especially important when using hot mix asphalt, as the incorrect material selection could lead to performance issues under varying climatic conditions," he stated.

Blocked culverts, overgrown vegetation, informal earth drains and insufficient cross-fall were also identified as primary contributors to continued erosion and rutting. "In our view, protection against these elements must be treated as structural priority, as it directly contributes to the longevity of the road surface," Xintolo added.

Proposed interventions included culvert repairs and replacements, stone-pitched drains and adherence to velocity guidelines to protect structures and soil stability. This underscores that effective drainage, designed with topographic and hydraulic considerations from the outset, is as critical as the pavement itself in climate-vulnerable regions.

Conservative geometric design enhances safety and longevity

"Even at a modest design speed of 40 km/h, inconsistent horizontal and vertical alignments compromised safety and operational efficiency on this project. As a result, non-compliant curves were realigned, cross-sections optimised with proper side drains and chambers and used elevation profiles to guide improvements," Xintolo highlighted. These measures demonstrate that rural roads benefit from geometry aligned to recognised standards, reducing the risks of accidents and improving operational performance without requiring high-speed design specifications.

Risks such as land acquisition needs, for widening, environmental sensitivities, statutory compliance, and budget overruns were also identified at an early stage. "Mitigation measures included landowner engagement, environmental screening, occupational health and safety audits, and stakeholder mobilisation through a Project Liaison Committee. Early and inclusive risk planning is essential in rural settings where social and regulatory complexities can significantly impact project timelines," he said.

Upgrading rural gravel roads to surfaced standards delivers benefits that extend well beyond the immediate project footprint. "Durable surfaces reduce long-term maintenance costs thus freeing up public funds for further infrastructure investment, while improved geometry and drainage enhance road safety for all users, including pedestrians and non-motorised transport. Improved connectivity resulting from road upgrades also supports agricultural productivity in the region, and market access and essential services to the community, which will continue to drive local economic growth in underserved communities," Xintolo concluded. ⊙

AVX Engineers MD Camagu Xintolo.

FUCHS LUBRICANTS SOUTH AFRICA expands local footprint WITH NEW POLOKWANE BRANCH

FUCHS LUBRICANTS SOUTH AFRICA has announced the opening of a new branch in Polokwane, marking a significant milestone in the company's ongoing expansion strategy and reinforcing its commitment to supporting key industrial sectors across the northern regions of South Africa.

The new branch, which officially opened in May 2026, will enhance FUCHS' ability to supply high-performance lubricants and technical support to customers in Limpopo and surrounding areas. The region is a vital economic hub, home to major mining operations, agricultural production, logistics corridors, and manufacturing activity - all of which rely on advanced lubrication solutions to improve efficiency, reliability, and equipment longevity.

FUCHS' investment in Polokwane follows a series of strategic expansions over the past two years, including capacity and infrastructure upgrades at its production facility in Gauteng, distribution network enhancements in the Western Cape, and the move into a new facility in Gqeberha in the Eastern Cape during 2025. Together, these developments significantly strengthen the company's national footprint and improve its ability to serve customers with speed and technical expertise.

"This new Polokwane branch is a key step in bringing FUCHS closer to our customers," said Paul Deppe, Managing Director of FUCHS LUBRICANTS SOUTH AFRICA.

'"Limpopo is one of South Africa's most important mining and agricultural regions, and establishing a physical presence here strengthens our responsiveness, deepens customer relationships, and ensures direct access to our technical expertise and product range. The Polokwane branch enables us to support customers more efficiently, reduce lead times, and enhance operational performance across the critical sectors driving the regional economy."

Deppe further noted that the expansion reflects strong market demand and long-term confidence in South Africa's industrial future. He highlighted recent investments from increased production capacity to strengthened regional distribution networks, as proof of the company's commitment to supporting the growth and resilience of local industry.

The Polokwane branch will offer product storage, distribution, and sales support, ensuring customers benefit from faster delivery and expert guidance tailored to their operational needs.

"Our strategy is clear: we are expanding our footprint to better support our customers and grow alongside them," Deppe said. "This is about building capacity, strengthening partnerships, and ensuring FUCHS remains the trusted lubrication partner for South African industry, now and into the future." ⊙

THE COST OF INCORRECT LUBRICATION

At an industrial plant, lubrication is not always top of mind – until something breaks. Unfortunately, by then the damage is done. Sam Kekana, Technical Sales Representative at Lubrication Engineers (LE) South Africa, has spent years working with plant maintenance teams across a range of industries, and he has seen where lubrication goes wrong and what it costs companies when it does.

"Lubrication is critical for most types of machinery across an industrial plant," says Kekana. "It directly supports machine reliability; but only when the right product is chosen, stored correctly, applied properly and backed up with planned maintenance and condition monitoring. When any one of those elements fails, you start to see problems."

Common mistakes

Across the sites he visits, Kekana finds the same issues recurring. Poor lubricant storage and handling top the list, followed closely by incorrect product selection, over- or under-lubrication, cross-contamination and a lack of lubricant monitoring.

Each of these failures leaves a physical trace. Excessive heat is often a sign of over- or under-lubrication. Unusual noise typically points to insufficient lubrication or a product that cannot handle the load. Vibration, while commonly associated with low lubrication levels, can also result from misalignment, loose bolts or an uneven machine base. These issues can significantly reduce bearing life and cause mechanical failures that are costly to address.

Which equipment is most at risk?

Some equipment is particularly sensitive to lubrication quality. Electrical motors need the right amount of lubricant (not too much or too little) to operate reliably and gearboxes require the correct viscosity grade of oil to run efficiently. When either of these conditions is not met, the consequences show up quickly.

To avoid this, correct lubrication reduces friction and wear between moving surfaces, prevents corrosion and suppresses foaming that can compromise oil film integrity. At a plant level, this translates into less downtime, lower energy consumption and longer equipment life. Products such as LE's Almagard® Vari-Purpose Lubricant can help plants achieve this, says Kekana.

"If a machine is sliding smoothly, it will operate efficiently at the right torque," he adds. "Electrical motors that are well lubricated operate with less load on them. They maintain the right settings and perform effectively," he adds. This has a direct impact on electricity usage, which can contribute to important cost savings in industrial operations as well as reducing their environmental impact.

The cost of poor lubrication

When lubrication fails, the cost goes beyond the price of a replacement component. Kekana says there are four main direct cost implications: breakdown costs from replacing damaged machinery; labour costs from calling in contractors during unplanned stoppages; spare parts procurement; and lost production, including damaged product and the revenue lost while equipment is down.

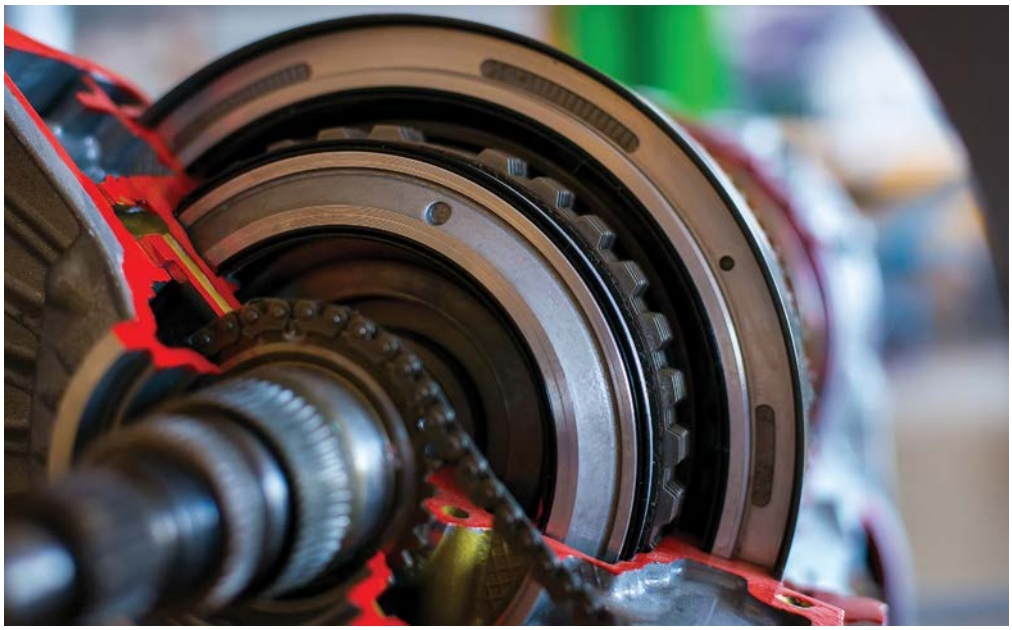
"I have been to a site where the client had an issue with grease leaking out of a bearing because of high temperatures. To replace the bearing meant about four hours of downtime, which directly affected their production. I recommended the correct lubricant for the application, and the bearing has remained in service without failure since," says Kekana.

For plant operators, the initial cost of a high-quality lubricant is almost always lower than the combined cost of an unplanned breakdown.

Getting the right support

Kekana says that getting lubrication right is not just about choosing a better product, it is about taking a systematic approach that covers product selection, proper storage and handling, correct application quantities and intervals, and ongoing monitoring through oil analysis.

Along with the high quality and long lasting lubricants that LE supplies, Kekana says that the company's on-site technical support, oil analysis for predictive maintenance, training and contamination control guidance help customers to get the most benefit out of their lubricants – all of which helps to avoid critical downtime and equipment failures. ⊙



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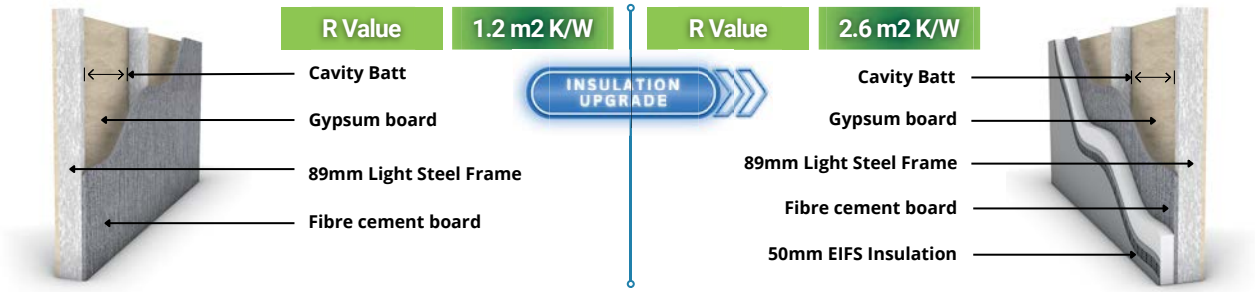
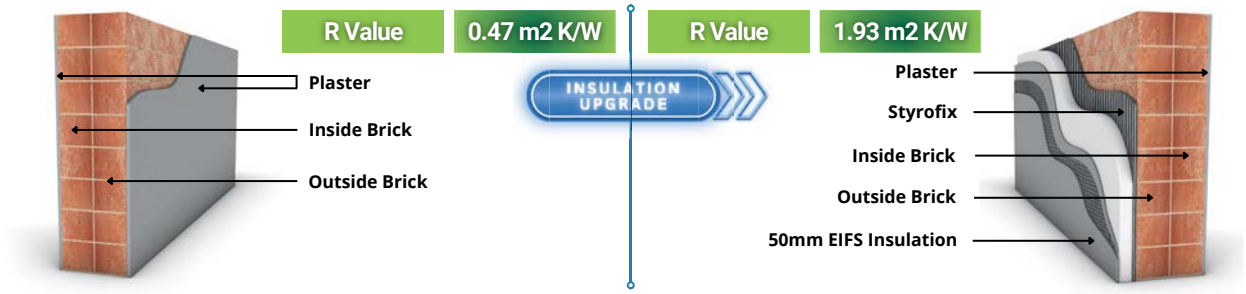
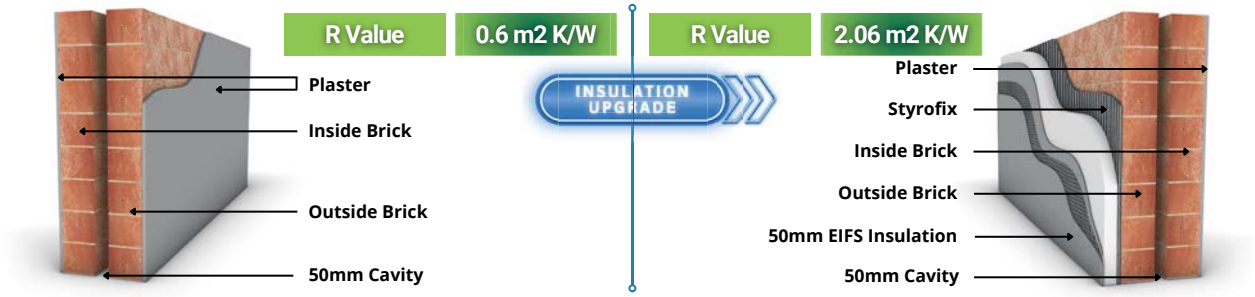


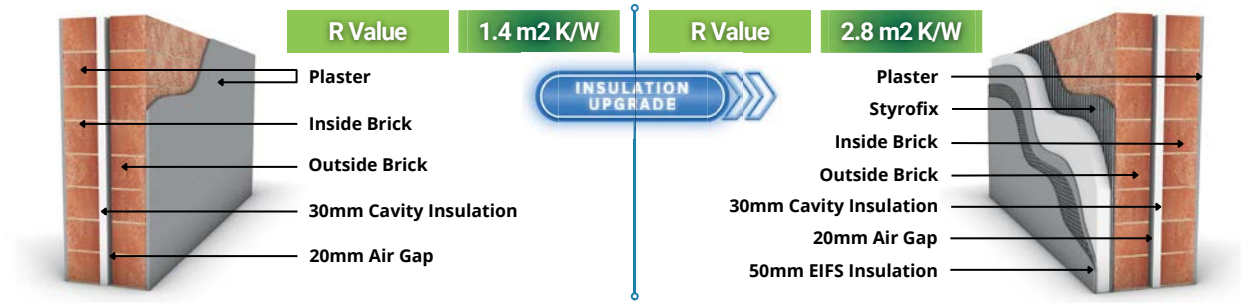
External Insulation with Brick Walls



External Insulation with Cavity Brick



External Insulation with Insulated Cavity Brick



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