COVERING THE WORLD OF CONSTRUCTION

NOVEMBER 2020

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The importance of ethical leadership IN INFRASTRUCTURE DEVELOPMENT

FLY ASH RESEARCH PAVES WAY TO EVEN GREENER CEMENT

"It is about TRUE PARTNERSHIP," says SCANIA SA'S MD

ICONIC SANDTON building given a FACELIFT

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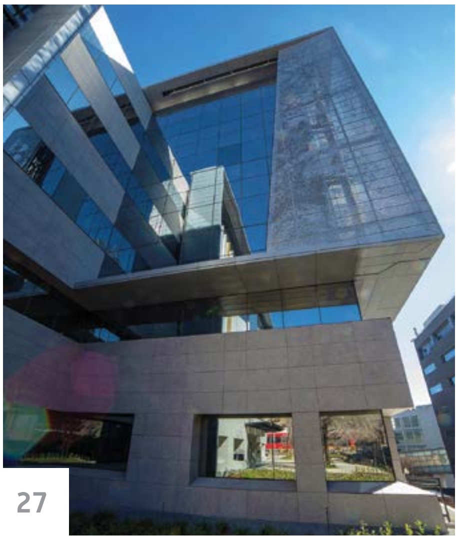

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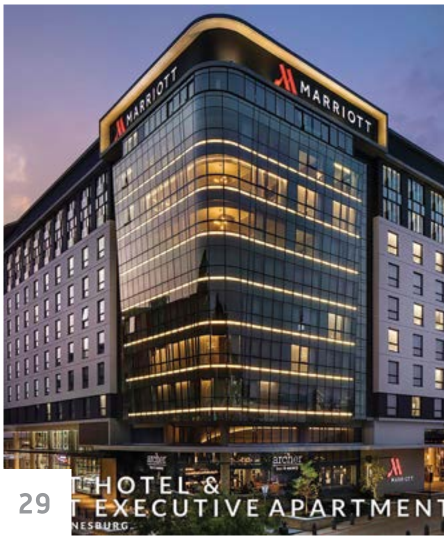

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ON THE COVER

The construction industry has been under enormous pressure over the last 24 months with many major construction companies either scaling down or closing. COVID-19 has further lowered confidence in this sector and will negatively impact the whole sector including OEMs' ability to deliver vehicles. Against this background Scania Southern Africa welcomed Fabio Souzaas its new MD in November. *Construction World* spoke to him and found a leader whose background is perfectly suited to captain this company through tough COVID-19 times.

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REGULARS

COMMENT

The devastating impact of the ongoing COVID-19 pandemic will be felt for a long time – some say years. More developed countries will recover faster, but the South African economy is maximally exposed to such devastation. President Cyril Ramaphosa, in a joint sitting of Parliament in October said he hopes that the implementation of the reconstruction and recovery plan will raise the average growth of the economy to around 3% over the next decade.

He stated that the country's recovery will be propelled by swift reforms that will "unleash the potential of the economy". This will be aided by a government that is committed to clean governance. We may have heard this many times before, but there is no real alternative. An attempt is better than nothing and a governing party's ability to save the masses (and its own relevance) is at stake – now more than ever.

Ramaphosa did state that any economic rebound requires the country to focus on interventions that will have a rapid and far-reaching impact. How effective this will be depends on the channels created, governance applied and expertise available. At the core of this is a massive infrastructure rollout that will form the basis of the first intervention.

"We have developed a robust pipeline of projects that will completely transform the landscape of our cities, towns and rural areas," says a buoyant Ramaphosa.

In true spin-doctor style he rattled off some impressive numbers: by the end of June 2020 there were 276 catalytic projects in the country with a combined investment value of R2,3-trillion. He added that some 50 strategic integrated projects and 12 'special projects' were gazetted in July 2020. These projects have been prioritised for immediate implementation while the regulatory processes have been fast-tracked to enable R340-billion of new investment.

Access to finance is a key consideration and Ramaphosa said that the Infrastructure Fund will provide R100-billion in catalytic finance over the next 10 years.

As a second intervention a major focus will be to rapidly expand the country's energy generating capacity.

"We are accelerating the implementation of the Integrated Resource Plan to provide a substantial increase in the contribution of renewable energy sources, battery storage and gas technology," said Ramaphosa.
In the immediate term agreements with Independent Power Producers to connect an additional 2 000 MW to the national grid from existing projects, will be finalised by June 2021. The current slow and inefficient regulatory framework will be adapted to facilitate new generation projects.

Whether all this will happen remains to be seen. At stake is an industry, a country and the lives of thousands.

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NYELETI CONSULTING WELCOMES NEW BOARD MEMBERS

Founded in 1999 with the vision to transform the consulting engineering industry, Nyeleti Consulting is welcoming three new members to its board of directors, who are set to continue the company's strategy in developing diverse young professionals to meet dynamic client needs. The current board comprises long-standing Nyeleti executives who are joined by three more skilled professionals from the firm's vibrant talent pool.

The new board, while sharing great responsibility, will still be actively involved in projects providing personal attention to detail and ensuring the company remains known for its depth of technical skill coupled and fast turnaround on projects. Even through the current pandemic, Nyeleti has continued to grow with a strong pipeline of projects to add to their extensive track record in structural engineering, transport and public infrastructure, and project management. Comprising over 75% black staff including technical staff and women, the company prides itself on the wide-ranging and engaging exposure it provides to new graduates and engineering technologists.

The board currently consists of:

- Abe Thela – Chairperson, CESA past president & Fidic Africa vice-president
- Sundran Naicker – CEO, SAICE past president
- Stephen Humphries – CFO
- Leshna Naicker – HR Director
- Pine Pienaar – Non-executive
- Stanford Mkhacane – Non-executive

The three new board members are:

- Rajan Padavattan – COO
- Francois le Roux – Financial Director, CSSA vice-president
- Gengan Govender – Operations Director

Founders of the company Stanford Mkhacane and Pine Pienaar remain non-executive directors and are proud to see their vision – started in 1999 – continue to thrive. Nyeleti Consulting was founded in recognition that transformation in the consulting engineering industry needed to be actively and urgently worked on in the new democratic age.

Pine Pienaar, former CEO, comments: "The move towards an inclusive and expert board started years ago through continued mentoring and coaching of young talent within the company. It is with great pride that I see many of those whom we as founders personally mentored, now entrusted as board of directors to continue this legacy."

Recently appointed CEO, Sundran Naicker, has said the new board will continue empowering an inclusive and diverse group of young, up-and-coming professionals. "We are passionate about ensuring there is a dedicated and skilled pipeline of professionals ready to embrace management opportunities and provide input and ideas in our decision-making." This proudly South African company competes with international names and has worked on a number of notable infrastructure projects including the Gautrain project, the ReaVaya public transport network, national and provincial roads network, and Medupi and Kusile power stations. ■

Impact of COVID-19 on building and construction sector persists into 2020Q3

The cidb SME Business Conditions Survey showed that, even though confidence edged higher, the broader business environment especially in terms of activity and profitability stayed more or less as weak (if not weaker) as registered in 2020Q2.

"What is significant is that underlying activity, especially in the civil engineering sector, continued on a relatively weak path even compared to 2020Q2. During this period, the construction sector was shut down for much of the quarter to contain the spread of COVID-19. One would have hoped for a more noticeable rebound now that the sector is allowed to operate more normally, albeit with stricter health and safety protocols in place," said Ntando Skosana, Construction Industry Performance.

Among general building (GB) firms, larger firms in Grades 7 and 8 remain the most pessimistic with confidence at 7 index points. From a provincial perspective, confidence in the Eastern Cape fell from 17 index points to 0, although activity was better, it remains weak.

Like general building firms, civil engineering (CE) firms in Grades 7 and 8 were the least optimistic with confidence at 12 in 2020Q3. The low confidence is supported by the activity index which points to a further contraction in 2020Q3, similar to that registered in 2020Q2. "It's disheartening that activity among larger GB and CE firms is struggling to regain the little momentum it had at the start of the year. It seems that even projects agreed on and awarded before the lockdown have stalled," notes Skosana. From a regional perspective, confidence was higher in the Western Cape (27) and KwaZulu-Natal (25), while none of the respondents in Gauteng were satisfied with prevailing business conditions.

The outlook for both GB and CE is downbeat as measured by the rating of insufficient demand for work as a business constraint. This suggests that activity growth will be lower for longer. "This is further emphasised by the comments from respondents, many of whom lament the slow pace at which tenders are being made available and awarded," said Skosana.

The sector is in a very difficult position with regards to current and available work. This prevailed even before the COVID-19

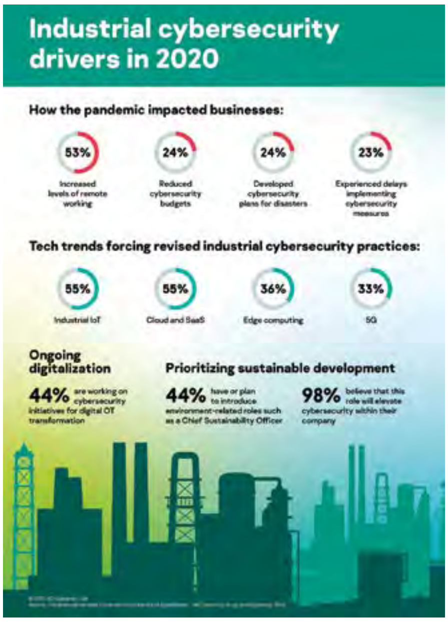
SEVEN CIRCLES of approval

The recent Kaspersky report 'State of Industrial Cybersecurity in the Era of Digitalisation' has revealed the main barriers that inhibit or delay implementation of industrial cybersecurity projects. The most common obstacles include the inability to stop production (34%), and bureaucratic steps, such as a lengthy approval process (31%) and having too many decision-makers (23%). These barriers may become a critical point in light of COVID-19 because they can affect the implementation of pandemic-driven operational technology (OT) security initiatives.

The cybersecurity race doesn't slow down, and every year many incidents, including high-profile attacks, are hitting industrial control systems (ICS). The pandemic lockdown introduced its own challenges in addition to the existing threat landscape. Industrial firms have to adapt to new norms including remote work, overnight digitalisation and new hygiene requirements, as well as specific pandemic-driven threats such as a massive growth in phishing attacks. Organisations need to make sure their protection is up to date with these changes and there are no open doors for malicious actions in ICS networks.

The above barriers however are what organisations will have to overcome when implementing cybersecurity projects. Remarkably, most of them refer to bureaucratic rather than technical obstacles – in total, almost half of organisations (46%) face red tape delays. In addition to the most prevalent – long approval times and numerous decision-makers – these barriers include protracted supplier selection and purchasing processes, as well as interference from other departments.

These barriers may become even more critical in the current post-lockdown period. The survey revealed that almost half of organisations (46%) expect to see changes in their OT security priorities as a result of the pandemic. These organisations will probably need to shift their security strategy on-the-fly and quickly implement new cybersecurity practices. While it can be challenging generally, due to the specific requirements of OT, the barriers for implementation can complicate and slow down the process even more. Some organisations will need to be even more conscious as they try to overcome these difficulties with decreased OT security budgets (24%).



"It's always more difficult to invest money and resources in projects without a clear return on investment, such as with cybersecurity initiatives. And while cybersecurity for OT is still a developing area, all these management barriers are quite natural. As a vendor, it is up to us to help customers eliminate these obstacles and simplify and speed up the implementation of protection measures. Our task here is to make ROI more transparent and showcase the risks for businesses so customers can understand the benefits from the very beginning and better justify them to C-suite or the board if needed," commented Georgy Shebuldaev, Head of Growth Center at Kaspersky.

In order to help industrial organisations accelerate the implementation of industrial cybersecurity projects, Kaspersky suggests the following steps:

- If an organisation doesn't have enough experience and practice in complex ICS security projects, it's better to implement solutions step by step: start with building organisational processes and adopting basic cybersecurity measures such as security gateways and endpoint protection. Then move to more complex projects such as network monitoring, intrusion prevention and SIEM. Industrial standards, such as ISO or IEC guidelines, can help to organise methods and increase the speed of project execution.
- Introduce a practice whereby all new OT systems are implemented with cybersecurity built-in. This should simplify further protection processes and give the OT security team the ability to test new protection tools on these parts of the infrastructure.
- Enable education and training for all teams including specific ICS security training for IT security and OT engineers and awareness to all employees. This will help different teams understand the risks and responsibilities of each other and increase the overall level of consciousness about cybersecurity.
- Choose a reliable cybersecurity solution for OT components and networks, as well as trusted partners for implementation. Kaspersky Industrial CyberSecurity solution includes dedicated protection for endpoints and network monitoring as well as ICS expert services and intelligence. The services enable cybersecurity assessment, incident response and obtaining the latest data about emerging threats and how to address them. The results of cybersecurity assessments may be helpful in justifying protection projects to the board. ■

lockdown, but post-lockdown shows little sign of improving.

"In July, 50 new Strategic Integrated Projects (SIPS) were gazetted in line with the emphasis by policymakers on infrastructure spending, along with other economic and social benefits, as a key tool needed to assist South Africa's economic recovery following COVID-19. While this is still the case, this quarter's survey results do not reflect any noteworthy movement toward implementation. In fact, one could argue that the increase in activity that the infrastructure drive will bring is desperately needed, sooner. ■

PPC RESULTS REFLECTIVE OF CHALLENGING ENVIRONMENT

PPC Ltd. a leading pan-African provider of quality building materials and solutions today announced its financial results for the 12 months ended 31 March 2020.

Roland van Wijnen, PPC CEO commented: "FY20 was characterised by difficult trading conditions, especially in South Africa. The global COVID-19 pandemic, which emerged during the last month of the financial year, further exacerbated an already difficult trading cycle. We acted swiftly to implement protocols to protect our employees, improve our competitiveness and preserve cash. While we have seen a decline in our financial performance, we also see that the actions we have taken to reposition PPC to deliver sustainable value for all our stakeholders are beginning to yield results. After the resumption of trading in FY21, the performance across all of our core businesses has been encouraging. I am proud of the way in which PPC employees have come together to drive performance to sustain our purpose to empower people to experience a better quality of life."

Cement South Africa and Botswana experienced double-digit year-on-year sales volume growth since June, with the volumes for the three months from July to September recording year-on-year growth of 20% to 25%. The international operations which were less affected by the COVID-19 pandemic, in aggregate, experienced strong growth in cement sales volumes since June. In the last three months from July to September, sales volumes in PPC Zimbabwe and PPC Barnet in the DRC, grew by 35% to 40% and 20% to 25% year-on-year, respectively. CIMERWA in Rwanda, experienced sales volume growth of 15% to 20% over the same period.

For FY20, Group revenue was slightly lower for the period at R10,2-billion mainly due to a reduced contribution from South Africa cement. Group EBITDA of R1,6-billion was largely impacted by currency movements, hyperinflation accounting, the difficult trading environment exacerbated by COVID-19 and once-off costs. Finance costs decreased by 4% to R652-million. Overall profitability was impacted by impairments to property, plant and equipment, and intangible assets as well as fair value adjustments.

Cash available from operations decreased from R1,3-billion to R463-million, with cash generation impacted by amongst other things the decline in EBITDA, stockpiling of strategic inventories, hyperinflation in Zimbabwe and a reduction in payables. Capex was well managed and came in at the lower end of guidance at R650-million, a reduction of 16%. Gross debt rose to R5,8-billion at the end of March primarily due to currency movements which added R638-million.

Ronel van Dijk, PPC CFO commented: "We are committed to improve cost competitiveness and cash preservation is a major focus for FY21. On the back of the recovery in sales and the various cost and cash preservation measures already implemented, cash flows for the last few months have shown a positive trajectory and total borrowings in South Africa have been reduced by over R200-million"

Cement South Africa and Botswana experienced a decline in revenue of 11% to R4,8-billion and given its reduced ability to cover fixed costs, delivered 36% lower EBITDA of R613-million. Realised average selling prices for South Africa increased by 8% to 10% as the business continued with its drive to recover operational costs and improve returns. Cement volumes were 15% to 20% lower with the coastal regions experiencing a lesser decline. PPC estimates that the overall market contracted by around 7% to 10% for the period as demand was muted. Imports and blender activity further impacted the competitive environment, with cement imports increasing by 36% to 1,3-million tonnes for the period.

"Our sector is key to drive economic growth and employment and needs government intervention in the form of infrastructure spend and action against imports. PPC continues to engage the International Trade Administration Commission (ITAC) as part of a sector-wide submission on cement imports that are hampering domestic cement production. These measures are necessary to ensure that the cement industry is protected from unfair competition and remains sustainable, especially now given the impact of the COVID-19 lockdown on the broader construction sector," added Wijnen.

In the DRC, PPC Barnet achieved revenue growth of 5% to R607-million on the back of higher pricing and translation gains, and generated EBITDA of R94-million. While PPC estimates that market demand increased by 4% - 8% this was offset by a rise in imports from neighbouring countries. Cement producers in the DRC continue to lobby the authorities to increase the enforcement of existing laws banning imports.

CIMERWA, in Rwanda achieved revenue growth of 6% to R936-million due to higher pricing and volumes. Robust cement demand was driven by large infrastructure projects, growth in the retail market and export demand in eastern DRC.

EBITDA which declined by 8% to R226-million was however negatively impacted by higher operational costs incurred to improve the plant's output and as a result of the lockdown imposed by authorities.

In Zimbabwe, cement volumes declined by 15% to 20% in a market that contracted by a similar percentage. Revenue increased 29% to R1,9-billion, supported by higher realised prices, and EBITDA grew by 53% to R707-million.

Trading conditions in Zimbabwe continue to be impacted by the hyperinflationary environment, weak demand, unstable power supply and shortage of foreign currency, however, the business continues to secure large infrastructure projects in hard currency, has a suitable cost base aligned to the demand profile and remains financially self-sufficient.

"Over the next nine months we will take the necessary strategic and operational actions to improve the Group's financial position and performance. The capital restructuring remains a priority and the progress made substantially completes the initial steps required for a more sustainable capital structure to be implemented to position the Group for long-term growth," concluded Wijnen.

Revised facility documentation with South African lenders is expected to be finalised this month and standstill documentation with DRC lenders is expected to be finalised next month.

Negotiations are currently underway to restructure the DRC debt and remove its reliance on the Group as are plans for an equity raise in PPC International, with the quantum and timing to be confirmed in the first quarter of 2021.■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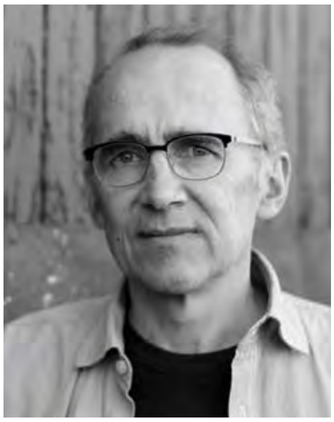
'KEEP ON WALKING' JUST TOOK ON A NEW MEANING

Cyril Ramaphosa, South Africa's walking president, set tongues wagging when he first took office thanks to his habit taking a brisk morning walk. From Gugulethu to Rosebank and the Cape Town seafront, the president hit the pavements, often attracting an entourage of followers. These moments proved more than just an opportunity to engage directly with a world leader, they highlighted the social value and cohesiveness which comes with breaking down physical barriers and bringing our streets to life with human interaction. **By Patrick McInerney, Malika Walele, Catharine Atkins and Christoph Malan Co-Arc International Architects**



The fact that Ramaphosa's daily ritual caused such a stir in South Africa is indicative of the closed nature of our high-walled suburbs and our segregated cities. In other parts of the world, French President Emmanuel Macron and Danish Prime Minister Lars Lokke Rasmussen can take a bike ride through Copenhagen without much ado. Or Thai King Maha Vajiralongkorn can cycle undisturbed in Lucerne, Switzerland. Or Icelandic Prime Minister Katrin Jakobsdottir can stroll, unaccompanied by a security detail, to her office. It barely raises an eyebrow.

In a healthy society, bumping into a president, an MP or the CEO of a global multinational should not be a newsworthy event. It should be the norm. In fact, as an architectural firm, we have long advocated for a more inclusive type of city, for doing away with walled communities and for a design ethos which flows from structure to streets – in the process, creating new opportunities for interaction and collaboration.

Separate, but not equal

Much of our current situation must be attributable to the apartheid-era planning approach. Although it must be said that, in recent years, unchecked crime and the associated fear of hijackings and home invasions has buoyed the development of estates and walled communities. The combined result is a spatially distant approach, an uncoordinated hive of separateness. And a far cry from the inclusivity which, as a nation, we speak of in such rapt tones.

Between the broken infrastructure and the traffic it's becoming harder and harder to walk the city in Gauteng, and indeed around the rest of the country. This is, of course, ironic given that the vast majority of South Africans are walkers and should be accommodated. In recent years, and in recognition of this fact, there has been some good progress made to correct the imbalance. But only in pockets. Under former City of Johannesburg mayor Parks Tau, and subsequently under the Democratic Alliance-lead administration, upgrades were affected to streets and parks in Soweto and several inner city precincts. But it is becoming increasingly clear that, as citizens, we need to take responsibility for our own pavements and for the health and inclusivity of our own neighbourhoods.

A call for collective action

The problem is that issues around urban planning, opposing the mushrooming of shopping malls and walled estates are far from being 'sexy' topics. As a result, there is no active citizenry demanding better amenities and a more intelligent use of community space. Many of us have gardens at home and private spaces to enjoy, so we don't raise our voices in support of the voiceless who need access to better communal spaces.

Investment in streets, squares, parks and other public amenities does not return a dividend that can easily be reflected on a balance sheet and, superficially considered, it is, therefore an unattractive development proposition to both the public and the private sector. But in effect its value is immeasurable. Since the advent of settled civilization spaces for public interaction have been the very backbone of our society, manifesting as the agora in ancient Greece, the forum in ancient Rome, the Kgotla in southern Africa, market places, streets, ceremonial squares and playgrounds in civilizations across the world. This is where society interacts, where culture thrives, where the economic pulse is tangible, and the social contract is visibly enacted.

We, as architects, have a role to play, but we cannot do this alone. What is so desperately needed is greater interaction between professionals and government, and ongoing consultation with communities to understand how to breathe life into our cities.

This call to action should, at this time, also be tied into the inevitable economic recovery and infrastructure drive that has been promised as part of South Africa's response to the COVID-19 crisis. Coupled to this should be a greater debate and reflection about the type of society we hope to see in the future.

Digital vs human, you decide

The lockdown period, and seemingly overnight change in the way many of us work and live, has certainly highlighted a different way of doing things – one enabled by IT and digital solutions and taking the form of a greater uptake of work-from-home opportunities. Given those in the economy who need to work in teams or manufacturing it is unlikely that manufacturing infrastructure will disappear, but COVID-19 has crystallised how easy it is to decentralise work and ensure greater flexibility in how we structure our time, where we live and what we require of our homes and our community spaces.

It means that, in a social transition tied to technology, that we look at greater investments into data connectivity and its availability at a community level. It's about ensuring, in particular, that poorer communities get the necessary Fourth Industrial Revolution tools – such as free WiFi or access to libraries with complimentary internet – to enable them to leapfrog into a greater economic participation.

While it's easy to consider the digital reality for institutions such as private schools, which can certainly teach remotely, this is much more of a challenge in poorer communities and townships. That is, unless we build a digital framework into our urban design planning which promotes equality.

But there is another side to this debate: The social isolation and community estrangement caused by protracted isolation. The psychology of this new world of work will bring with it unique challenges around social interaction. As part of the human experience, this is an emerging trend which those tasked with planning our cities and our homes must consider. In South Africa, for example, a work-from-home reality means we will be increasingly isolated in our own homes and gardens, compared with Europe or Latin America and Asia where the streets are designed to host that interaction. This highlights the importance of reactivating our streets, breathing new life into our underutilised high streets and working to make isolated shopping malls more interactive.

Human beings are social by nature. We can't just interact solely with the world through virtual means. A prime example is how everyone from joggers to dog walkers have taken back the streets since Level 5 lockdown ended, creating a place of interaction and exercise both in the urban centres and the suburbs. With the right foresight and planning, we could see this joviality unfolding on an even grander scale.

This is something which we, as urbanists, must be aware. Just consider that, after the end of the Spanish flu pandemic in 1920, the world erupted into a veritable party scene. The roaring 20s were a time of glitz and glamour, of dancing and merriment. An age of excess. You only need to read F Scott Fitzgerald's The Great Gatsby to taste the urge for frivolity and fun and human interaction that permeated that time.

Building party spaces for the future is, obviously, not the best response to the COVID-19 fallout. Instead, now is the time to reclaim our commons, to apply our minds to putting our existing spaces to better or different use, to increase the availability of mixed-use developments and to make it easier to live, work and play within more flexible spaces, more creative places and more easily accessible areas. This process will require better social spaces and parks and the opening up of our streets. This evolution can, and should, be a guided and collaborative process - one in which architects have an important role to play in ensuring that presidents and prime ministers can continue to enjoy a space to roam. ■

CONSULTING ENGINEERS – protecting lives and livelihoods

The absence of technical expertise in the procurement of infrastructure is starting to have an increasingly adverse effect on the quality and sustainability of our country's infrastructure. Consulting Engineers South Africa (CESA) representing over 580 South African Consulting Engineering Firms employing in excess of 21 000 people believes that we need to be building quality and sustainable infrastructure that stands the test of time keeping the health and safety of the population as the critical success factor and not placing them at risk.

Over the coming months CESA is embarking on a campaign aimed at bringing stakeholders in the Infrastructure Development arena together to deliberate and come up with sustainable solutions to the challenges that our country currently faces. Part of this campaign includes a series of Webinars, the first of which happened on 14 October entitled, 'Why has Government chosen Infrastructure Development as a key driver for economic growth and what needs to happen to make this a reality?'.

"If you are not using the correct design principles and you are not making use of Consulting Engineers to get you the most optimal and innovative design at the most cost-effective price for your project you are essentially trading with the lives and livelihoods of our population," states CESA CEO Chris Campbell. ■

BBF takes part in WHEELCHAIR WEDNESDAY 2020

BBF Safety Group is a proudly South African company driven not only by performance, but also a desire to bring about meaningful change. As Silvia Ceriani, the group's CEO explains, "We want to positively impact the communities in which we operate, the people we employ and the network of suppliers and clients we do business with."

Speaking of BBF's recent involvement in the Wheelchair Wednesday campaign, Vanessa Ronald, BBF Safety Group Senior Brand Manager says, "Port Elizabeth has been home to one of BBF's safety footwear manufacturing facilities since 1941, employing 450 people on a permanent basis. So when we were approached by the Association for Persons with Physical Disabilities (APD) to take part in in this campaign, it was a perfect fit with our business."

Wheelchair Wednesday is an initiative of the APD Nelson Mandela Bay that has taken place every August since 2011. The campaign has four key focus areas:

- Increasing awareness around the challenges faced by people with physical disabilities.
- Providing wheelchairs to those who need them.
- Improving accessibility in the built environment.
- Raising funds to support the ongoing activities of the APD.

Every Wednesday during the month the program runs, a group of business and community leaders spend four hours in a wheelchair as they complete a set of tasks to get a sense of the daily experience of people with limited mobility. At the end of their day, the wheelchair they have sponsored and used is handed over to a needy beneficiary selected by the APD.

Nic Ndawonde, one of BBF's Key Account Managers for the area, took part this year on behalf of the business, and describes the experience as nothing short of life-changing. "It's an experience more people should have – it wakes you up to the realities that other people face on an everyday basis," he says.

When talking about his four hours, Nic describes how the experience opened his eyes to how many everyday spaces are simply not accessible enough to people with mobility issues, and how disempowering this felt for him. "It's as though the world is designed for something you're just not equipped to do," he explains.

He also detailed the many ways in which he came up against numerous barriers when going about his day, including having to wait in his car until the driver next to him eventually moved away, allowing him enough space to exit his vehicle; struggling to negotiate tight spaces in public facilities and relying on a friendly citizen to assist him with opening a coin-controlled gate so that he could enter the restrooms; and not being able to properly go to a grocery store without someone to help open fridge doors or reach for high sitting items. He says he even struggled with the simple task of drawing money from an ATM because of something as small as the angle of the screen. "It just affects your freedom of movement and sometimes it's the simplest things you struggle with," he explained.

Nic ends by describing how the experience reminded him in a very real way of the impact business can have on communities – literally changing lives. He encourages companies to get involved and help where they can, explaining how one of the things he realised is that the smallest contributions can have the biggest impact on those who truly need it.

"As a group, we echo his sentiments, and are proud of Nic for taking part in this initiative to help raise the necessary awareness that will assist to bring about change for those living with mobility issues," says Ceriani. ■

Highest number of entries yet for AFRISAM-SAIA SUSTAINABLE DESIGN AWARD

This year's biennial AfriSam-SAIA Sustainable Design Award has received a record number of entries despite challenges relating to the COVID-19 pandemic, which compelled organisers to extend the submission deadline by three months.

Dr. Luyanda Mpahlwa, past President of South African Institute of Architects (SAIA) and adjudicator of the award programme.

AfriSam Sales and Marketing Executive, Richard Tomes, says the significant number of entries bears testimony to the industry's commitment to finding solutions aimed at addressing local and global sustainability challenges, even in the face of a global pandemic and national lockdown that altered the fabric of everyday lives.

"As the sponsor of the AfriSam-SAIA Sustainable Design Award programme, we believe that to achieve sustainable goals across the African continent, transformation needs to be focused on Integrated design approaches, teaching, thinking and practice. "The lockdown shone an even greater spotlight on the need for sustainable practices, with several entries showcasing the industry's drive to ensure sustainable practices are implemented in all construction activities with a view of ensuring a better future for the people of the country."

Dr. Luyanda Mpahlwa, past President of South African Institute of Architects (SAIA) and adjudicator of the award programme says buildings and construction are significant contributors to carbon emissions and the industry has a responsibility to reduce these by using innovative methods.

"Buildings are made to serve people, and as an industry, we must place their needs at the centre of all that we do. Most importantly, we should not forget about the most basic design principles in achieving sustainability," he says.

Celebrating a decade of honoring sustainability excellence, the award programme recognizes the contributions that bring sustainable innovation to both urban and rural living environments through an integrated approach to communities, planning, research, architecture, building practice, natural systems and technology.

"The award programme places increased emphasis on design projects that are responsive to the social complexities, growth requirements and needs of marginalised communities in South Africa and throughout the African diaspora," explains Mpahlwa. "The criteria for entry must embody what the award programme is all about, including a strong focus on harmonisation, people upliftment, new ways of thinking, placemaking performance and leadership."

While an unprecedented number of entries have been allocated to the final round of judging across each category, there is compelling evidence that sustainability is no longer just a niche pursuit for the few, but is at the forefront of a number of projects today. Notably, the categories that received the highest number of submissions were *Category A: Sustainable Architecture;* and Category D: Sustainable Social Programmes.

Mpahlwa says the adjudicators are most encouraged by the number of entries received in Category D, which focuses on projects of social impact in the field of sustainability and the living environment.

"This shows a growing understanding that the AfriSam-SAIA Sustainable Design Award is not only about recognising sustainable architectural feats or sustainable practices relating to a single solution, but also those aimed at addressing several urgent societal issues relating to economic, environmental and social impact.

"This year's entries, and the thought and understanding that went into them, are evidence of the commitment by the industry to tackle our challenges head-on and I am excited to share them in the coming weeks," he concludes. ■

The importance of ethical leadership in INFRASTRUCTURE DEVELOPMENT

Considering the importance of infrastructure development in South Africa's economic recovery plan, the South African Institution of Civil Engineering (SAICE) hosted a thought-provoking panel discussion which addressed the necessity of ethical leadership in the corporate sector and public infrastructure development initiatives. The discussion was hosted by means of a webinar on 8 October 2020 and was attended by SAICE members, infrastructure stakeholders and the public at large.

SAICE CEO, Vishaal Lutchman.

The discussion was chaired by SAICE CEO, Vishaal Lutchman who provided context: "South Africa is facing many infrastructure gaps, both in the quality and quantity of infrastructure. While infrastructure development is hailed as our catalyst for growth and sustainable development, can we really achieve our goals if people entrusted to lead our initiatives are behaving unethically?" He said that public infrastructure should be executed for the common good, but social justice cannot be achieved without ethical leaders. This spurred commentary between panellists, who included:

- Professor Bonang Mohale, Chancellor of the University of the Free State and former CEO of Business Leadership South Africa.
- Mike Peo, Head: Infrastructure, Energy and Telecoms at Nedbank CIB.
- Gregory Skeen, Director: Programme Management at the University of Cape Town.

Commenting on irregular government expenditure and state capture scandals, Prof Mohale began by saying that South Africa has hit a moral low. "The term 'ethical leadership' is just for emphasis – because leadership cannot be anything other than ethical." He said that there are those in leadership positions who claim they are ethical just because they have not yet been found guilty, but this does not mean they have morals.

Skeen joined the discussion in agreement with Mohale, citing the scourge of "endemic corruption". He said that ethics is more than compliance. "It's not just about adhering to the law. It is about going above and beyond the various Acts and legislation, and making sure the things you do are right, consistently." Mentioning the Zondo commission, he said that when infrastructure isn't delivered, it is a direct result of corruption. "As civil engineers, we have the ability to make a huge difference in people's lives and the funds are available to do this, but we are being held back by the lack of technical capacity, corruption, and unethical decision making." He mentioned that this includes the private sector – "We mustn't think the problems are only in the public sector".

In agreement with Prof Mohale, Peo agreed that the concepts of leadership and ethics cannot be divorced. He also considered the wider economic context of the country: "The problem in South Africa is that manufacturing, tourism and mining are sectors we can no longer count on for growth – construction and infrastructure development remains the core for job creation. However, the jobs are not being created because the money set aside for development is not being spent, due to poor procurement processes and unethical leadership." He said that corruption has become the "ethic" of every state-owned enterprise but private sector is not innocent, as the culture spreads. Prof Mohale agreed, saying that "corruption had grown from being endemic, to becoming systemic," where a vicious and pervasive cycle is being experienced.

Prof Mohale said that despite current concerns, South Africans are resilient and will stand up against misconduct. "What we need is a new common enemy – a common purpose – rather than thinking about our personal best interests. We cannot be thinking about the next election – we need to be thinking about the next generation."

Discussing solutions, Skeen added that engineers have a role to play. "We often sit as gatekeepers for infrastructure development and can make an impact if we keep our eyes and ears open." He said that ethical business practices are absolutely critical for sustainability – attracting better talent, creating better brands, and improving repeat business.

In conclusion, Peo said that alternative procurement methodologies such as the public-private partnership model can be helpful in improving the situation. "It means you have multiple sets of eyes looking over projects, three sets of engineers assessing what is being procured, and how." ■

CONSTRUCTION INDUSTRY SEEKS SOLUTIONS TO 'DISRUPTIVE' LOCAL BUSINESS FORUMS

Business forums – groupings representing local communities who disrupt building sites – are here to stay and the construction sector needs to find ways to include them in construction projects. This was the outcome of a panel discussion comprising contractors, the South African National Roads Agency (SANRAL) and a body representing business forums held recently at MDA Attorneys' annual Collective Wisdom event in Johannesburg.

"It is unfair to characterise emerging contractors and business forums as hooligans and thugs. They are legitimate business people who want to participate in the projects in their areas," said Robert Ndlela, secretary-general of the Federation for Radical Transformation (FFRET) adding that the organisation was formed to deal with site disruptions as well as to ensure that members are actively involved in projects in their areas. He conceded that there are factions which exploit the situation to drive their own agenda, but emphasized the importance of open dialogue between contractors and business forums.

SANRAL's head of transformation, Ismael Essa, said that his organisation has invested heavily in creating a 14-point plan in its projects which includes pre-tender training for emerging contractors and identifying local resources in the design phase. "SANRAL's investment in training emerging local contractors equates to about 5% of contract value, but the contract risk sits squarely with contractors, who must bear and deal with civil unrest risk," said Essa.

Ayanda Notshweleka, MD of construction contractor Masakhane PM, disagreed. "It is incorrect that contractors should be at the coal-face with business forums. It is the employer, the designer of the work, who should have a clear understanding of the dynamics. Talking to local participants should be taking place at design phase, not once the contractor is already on site," he said.

Derek Goodwin, contracts director at Stefanutti Stocks, noted that there are several grey areas open to interpretation which should be clarified, such as the definition of what constitutes local labour and skills development requirements. "Meaningful skills transfer and transformation are important issues, so we should assign importance to them in our contracts. All parties should be involved - the contractor also has to meet the imperative of a low price for the works, while making allowances for skills transfer."

Ian Massey, Director at MDA Consulting

"Most contractors have shed jobs and there is little incentive to invest in skills training," says Ian Massey, Director at MDA Consulting. "A due diligence should be undertaken to identify the availability of required skills within designated groups in the area. We need a structured plan to ensure all workers complete projects with enhanced skills."

According to Notshweleka, three simple steps are required: structure documents to align with legislation, be clear on what is to be delivered and engage meaningfully with the community to which the project is being delivered. Essa called for flexibility, citing a clash of legislation between BEE rules and local involvement. "FFRET members cannot expand their enterprises if they are confined to a single geographical area. It doesn't make sense to have an emerging contractor with experience who cannot contribute to broader economic growth and transformation in a different region," he said.

MDA Collective Wisdom is held annually to promote the future of the South African construction industry through constructive dialogue. Says Massey, "This issue is emotive and complex, but we believe it is in everyone's interest to ensure that people have the opportunity to participate in the economy and construction and that all players can go about their business unhindered." ■

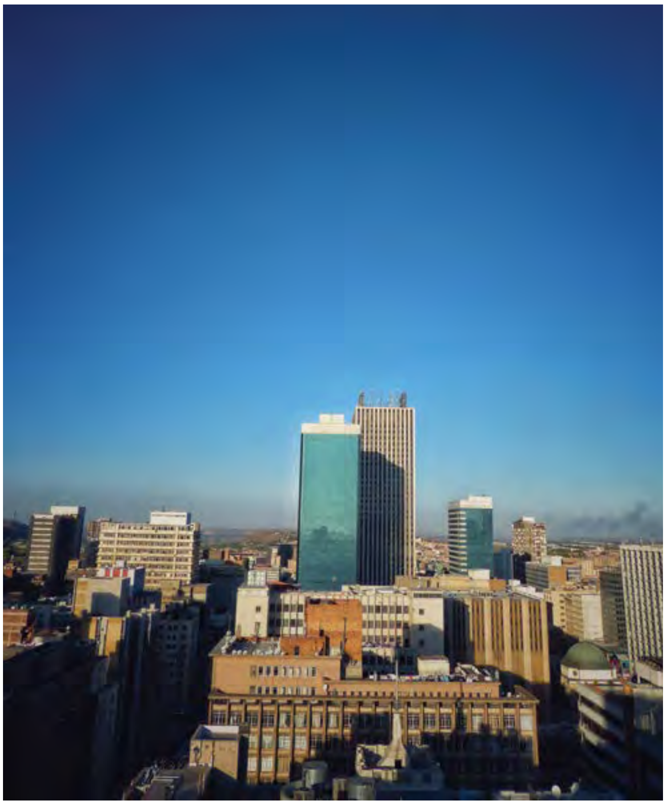
JOHANNESBURG IS ACCELERATING ITS PLANS TO BECOME A SMART CITY

Lloyd's, the world's leading specialist insurance and reinsurance market, today announced a new report: 'Cities at risk – Building a resilient future for the world's urban centres', published in association with Urban Foresight and Newcastle University. Using four global trends, the report analyses the risks affecting cities now, and in the future, and how these threats will affect urban areas.

The study aims to help city administrators and risk managers, as well as Lloyd's market insurers and brokers, understand the risks that will influence the design and function of cities in the coming decades. It provides insight into how these threats could be reduced and how local authorities and insurers are, and could be, working together to do so. The report emphasises the role insurance can play in helping municipalities transfer risks and how insurance data and approaches can help cities back better risk management decisions overall.

The report shows that more than half the world's population now lives in urban areas, up from a third in 1950, and this is projected to reach two-thirds by 2050. As a result, cities are the engines of the global economy. Large cities now account for around 75% of GDP worldwide, forecast to rise to more than 85% by 2030 (McKinsey Global Institute, 2016). These two trends are concentrating populations and economic assets, increasing the impacts and potential losses from disasters.

While urbanisation has occurred on an uneven basis every region of the world has seen an increase in urban populations over the last decades. The UN population index predicts that the global population will swell to 11 billion by the end of this century. Today, the most urbanised regions include Northern America (with 82% of its population living in urban areas in 2018), Latin America and the Caribbean (81%), Europe (74%) and Oceania (68%). At least half a billion more people will live in cities in 2025 compared to 2019. Africa and Asia will be home to 86% of new urban citizens.



The report presents seven case studies: London, New York City, Miami, Mexico City, Johannesburg, Riyadh and Shanghai. These cities have characteristics of other metropolises around the world and are used to demonstrate global issues and cross learning. The case studies also serve as scenarios to understand how specific risks are managed and mitigated at city level.

According to the findings, Johannesburg remains a mid-technological, weaker resilience city, despite being viewed as a key economic player in the southern hemisphere and as a gateway to the African continent for South African businesses. The report links this relative lack of resilience to the fact that efforts to address social problems have not been able keep pace with issues related to health, corruption, social inequalities and migration. Finally, it notes that Johannesburg's smart city plans could also be under threat from uncertainty over the security of electricity supplies.

COVID-19 has sharpened the world's attention on the capacity of cities to withstand the impacts of systemic risks such as pandemics, highlighting features that contribute to greater resilience as well as greater vulnerability. COVID-19 has also brought into focus the impacts systemic risks can have on our urban areas, with severe economic and social consequences extending across the world.

Trevor Maynard, Lloyd's Head of Innovation, said: "Lloyd's can work with cities to help them understand their risks and exposures, and the insurance industry plays a big role in helping mitigate these risks and improve their resilience. The Lloyd's market already has a lot of products meeting the needs of municipalities around the world and we are working on products that target policyholders' future needs. Nevertheless, there is still a long way to go to develop further interactions between cities and insurers in order to increase collaboration and understanding."

Graham Throwers, Head of Infrastructure & Investment, Urban Foresight, said: "The commissioning of this report was prescient. As cities continue to evolve, their shape and functional performance is being questioned like never before. Recent events have highlighted the importance of our great cities as concentrations of economic, political and social activity. They are also environments in which risks concentrate.

Amit Khilosia, Regional Head for Africa, Lloyd's, said: "Johannesburg has so much potential as a regional business and investment hub. We believe that – with the appropriate risk management plans – it can become the city we all know it can be. Together with our partners, we look forward to working with key stakeholders, including local authorities and governments, to assess all relevant risk factors and to better understand our customers' needs".

This report treats cities as highly interconnected systems of systems. In so doing it adopts a holistic view of urban risk. Cities at Risk aims to give cities the tools they require to preserve and enhance the lived urban experience whilst managing the many challenges they face. ■

The Imperial Wanderers
STADIUM GOES GREEN

The Imperial Wanderers Stadium is excited to partner with Imperial and the SolarSaver Group to bring much-needed solar power to South Africa's most iconic multipurpose entertainment lifestyle venue through the installation of a customised 250 kWp solar photovoltaic system.

The venue is one of the first stadiums in South Africa to 'Go Green'. The partnership with Imperial and the SolarSaver Group has enabled the installation of this system at Imperial Wanderers Stadium, and will reduce grid reliance for the purposes of powering the 28 000 capacity stadium.

"This is a huge step towards reducing the stadium's carbon footprint," says Stadium Manager Cyril Martin. "The stadium now boasts three sources of power, namely grid, generator and solar energy, which produces enough energy to run the stadium, especially on big international match days and non-cricket events. This is in addition to the stadium's existing world-class drainage infrastructure where all water, including rainwater, goes into a reservoir to ensure water is saved and re-used. The stadium seldom uses municipal water, if at all, and we always use borehole water for the grounds."

The solar installation was completed by the SolarSaver Group in partnership with Imperial – the naming rights sponsor to the stadium and leading integrated market access and logistics provider. The SolarSaver Group was founded with a view to offering clients a unique solar solution that does not require any capital or financial guarantees. The SolarSaver Group runs the largest fleet of self-financed solar installations in Southern Africa.

"The SolarSaver Group portfolio includes over 200 systems operated by SolarSaver under long-term power purchase agreements and rent-to-own contracts across South Africa and Namibia," said SolarSaver. "The installation at Imperial Wanderers Stadium forms part of the stadium's aesthetic with the solar panels situated in and around the stadium."

"The partnership forms part of the stadium's long-term strategic intent to 'Go Green'," said Central Gauteng Lions CEO Jono Leaf-Wright. "This means helping to protect the environment and sustain its natural resources for current and future generations. As stadium management, it is imperative to utilise more environmentally and ecologically friendly practices to sustain future generations. Everything we can do as society to help our country and planet, we must."

Leaf-Wright concludes by saying, "It is our collective responsibility as sport and business to find innovative ways to protect our planet, and we are very proud of both the partnership with Imperial and the SolarSaver Group, and being the leading stadium in the country to explore this space." ■

DIVERCITY'S R1,8-BILLION JEWEL CITY REDEVELOPMENT IN MABONENG

A magnificent new space has been added to the celebrated Maboneng precinct in the Johannesburg CBD.

Carel Kleynhans, CEO of Divercity Urban Property Fund.

The major R1,8-billion Jewel City redevelopment is a massive new extension of Maboneng, which adds a completely new dimension to this immensely popular and vibrant area, and expands what is very possibly Johannesburg's best-located integrated lifestyle space.

Divercity Urban Property Fund, which is renewing and re-energising the country's urban centres with its unique focus on inner-city precinct development, has completed the first phase of Jewel City in a two-year development programme.

Backed by the experience of some of South Africa's leading property investors and developers, Divercity's major shareholders and stakeholders are Atterbury and Ithemba, with cornerstone investors RMH Property and Nedbank Property Partners.

Divercity's redevelopment has converted Jewel City into the heart of a thriving, modern neighbourhood, and is reviving inner-city living. It connects to the landmark Arts on Main, and extends across six city blocks, which have been closed for decades and previously housed Joburg's precious metals and diamond trade, towards Divercity's redeveloped iconic Absa Towers Main.

The mixed-use Jewel City includes 2 700 apartments, which are enjoying exceptionally high levels of take-up, as well as 20 000 m^2 of commercial space. Its retail space is already fully let, and its offices are increasingly attracting businesses to the area which benefits from immediate access to all the amenities that employees value most.

A mid-city Melrose Arch, Maboneng's new Jewel City offers families a safe, amenity rich oasis in which to live, play and enjoy with expansive lawns and play areas, schools, medical facilities, offices, retail, recreation and public art – everything and more needed for a quality daily living.

Tebogo Mogashoa, Chairman of Divercity, remarks, "The reaction to Jewel City has been phenomenal. People naturally gravitate to spaces that are safe, beautiful and fundamentally good places to be. This is a great place that benefits from infrastructure and community, and we are thrilled that we were able to see its potential and redevelop this gem to make it a safe and wholesome for families, and full of amenities and job opportunities."

Carel Kleynhans, CEO of Divercity, adds, "We are very excited to share Jewel City. Seeing it now, it is difficult to believe that the biggest challenge we faced in its development was getting others to invest in Divercity's vision to build quality precincts in the city,

Jewel City redevelopment in Maboneng, Joburg.

and take a leap of faith with us. If anything, COVID-19 has proven the resilience of this asset class, and has validated the business case for strategic urban rejuvenation and strengthened our conviction."

Armond Boshoff, CEO of Atterbury South Africa, adds, "Jewel City in Maboneng is a blueprint for Divercity's strategy of inner-city precinct development that combines commercial buildings with affordable residential space to create inclusive and diverse neighbourhoods, and we intend to complete more developments in the same fashion. Divercity invests in communities, we are here to stay, and Jewel City is just the beginning."

Derrick Pautz, who heads Atterbury's Gauteng development, confirms the overwhelmingly positive market response to Jewel City, which was well ahead of leasing projections before COVID-19 emerged in South Africa. "The quality of the product – retail, residential and offices – is compelling and has been met with strong demand from tenants in all sectors. Much was invested in creating a place for people to enjoy, from transplanting 200 large established trees to providing public seating, an interactive fountain for children, public art and more. Jewel City sets a new benchmark for inner-city living and it is our hope that other property investors will join our efforts and embrace this approach."

The fully-let retail space at Jewel City has attracted major brands including Shoprite, Clicks, Pep, Afrodite Hair and Salon, Roots Butchery and Grill, McDonalds, and Chicken Licken as well as a Capitec Bank branch, the primary healthcare of Jewel City Medical Centre and the fun of Five's Futbol five-aside soccer fields.

Between all this is vibrant public space, an integral ingredient in any inclusive world-class 'live, work, play' precinct. It is also fully pedestrianised with a people-friendly walkway along Fox street. Its pedestrian walkways integrate it fully into the Maboneng precinct. Eight massive murals by local artists adorn the walls of each of the eight buildings that make up Jewel City.

Divercity's assets now stand at over R3-billion. But Divercity doesn't only to invest in and develop exceptional precincts, it also manages them – both the buildings and the public spaces between them – to the highest standards.

In the case of Jewel City, Divercity has worked closely with the City of Johannesburg in regard to cleaning and security in the precinct and its surrounds. By collaborating with the city, Divercity's leading urban management solutions have the ability to catalyse superbly managed urban areas for the city.

The official launch of Jewel City in Maboneng took place on 24 September, Heritage Day, and included everything that makes Maboneng great, with a safe celebration that embodied the sights, sounds and soul of this vibrant precinct, with a public programme of pop-up art, music, markets and more. ■

HYPROP RISES ABOVE COVID-19 CHALLENGES

HYPROP, a retail-focused REIT listed on the JSE, today reported annual results demonstrating management is navigating successfully through very uncertain times.

Morné Wilken, CEO of HYPROP Investments.

The operating environment in South Africa, which was difficult pre-COVID-19, was exacerbated by the virus outbreak, particularly after a very strict lockdown was imposed on 26 March 2020. Despite the stalled economy, management made progress towards achieving the Group's strategic objectives, which included growing trading densities by repositioning the South African portfolio and introducing capital-light revenue streams.

The Group's distributable income before the impact of COVID-19 was in line with guidance provided in September 2019, at 664 cents per share. The impact of COVID-19 reduced distributable income by R434-million to 493,4 cents per share. Revenue lost, on the South African portfolio, due to COVID-19 totaled R267-million, mainly R242-million of rental discounts and deferrals granted to tenants between April and June 2020. An additional estimated R25-million was lost on parking and Non-GLA income during the same quarter.

"This year will be recorded in history as one of the toughest years globally. The safety and wellbeing of our staff, tenants and service providers were our top priorities during all levels of lockdown and we worked very hard with tenants to survive the challenging circumstances as a collective. I am very proud of our team and deeply grateful to all our frontline workers, who continued to work hard during unprecedented times," noted Morné Wilken, CEO of HYPROP Investments.

Balance sheet

Significant steps have been taken to strengthen the Group's balance sheet. The Group's Dollar-denominated debt was reduced by $271-million over the last two years, from the proceeds of the sales of the African assets and refinancing Dollar-denominated debt in Rands while R1,2-billion of cash was retained from the 2020 financial year to repay debt. "Strengthening the group's balance sheet and its exposure to Euro- and Dollar-denominated debt secured by Rand-denominated assets are high priorities. These objectives will be achieved by lowering cash distributions, the exit strategy from sub-Saharan Africa and recycling assets," commented Brett Till, CFO of HYPROP Investments.

The Group's LTV at 30 June 2020 was 41,4%. It was negatively impacted by the decrease in the value of investment property as a result of COVID-19, some impairment on the African assets and the devaluation of the Rand. The Group's interest cover ratio (ICR) was 3,0 times at period end.

The South African portfolio

Good progress was made on the repositioning of the South African Portfolio. During the reporting period, exposure to the Edcon Group was reduced successfully and three new Checkers FreshX stores were secured as anchor tenants at The Glen, Rosebank Mall and Woodlands. The Group made good progress in completing three of the six solar projects in Gauteng, while Canal Walk secured a 5-Star Green rating.

We successfully concluded a portfolio deal with Massmart and agreed new 7-year leases on the Game stores, combined with upgrades to the new Game concept store, and new 10-year leases as well as upgrades to the latest specification for the Builders Warehouse stores at Atterbury Value Mart and Woodlands. The space vacated by the closure of Dion Wired has been relet, at Somerset Mall to Toys R Us, Hyde Park Corner to PNA, and Canal Walk to a new look flagship store for PEP.

The first SOKO District, which is part of the Group's non-tangible asset strategy, is scheduled to open in the Rosebank Mall in the first quarter of 2021. SOKO means "market", and the SOKO District will serve as a marketplace where retailers can rent space and reusable shopfittings via a flexible digital leasing platform, without the significant financial commitments in the traditional retail environment. The leasing platform is powered by data driven shopper, product and trend analyses, resulting in location recommendations that will match retailers, products and shoppers, across our portfolio.

"As the stringent COVID-19 lockdown levels are relaxed, we are seeing an increase in foot counts at our malls, and more activity and enquiries from potential new tenants. After months of lockdown, we are reaffirming that we are social beings who like to interact and experience life, justifying our strategy of creating safe environments and opportunities for people to connect and have authentic and meaningful experiences." said Wilken.

Retail vacancies were 2,4% at the end of the reporting period, with annual rental escalations maintained at a promising 7,1% and tenant retention at 91%.

The Hystead portfolio, Eastern Europe

The Group made significant progress in increasing the dominance of its centres in the Eastern European portfolio. It acquired the remaining 10% interest in City Center One East and City Center One West in Zagreb, Croatia.

Inditex recently announced its plans to close certain stores and increase its focus on online trading. Seven of Hystead's 32 Inditex stores, which include the smaller brands Oysho, Pull and Bear, Stradivarius and Bershka, are earmarked for potential closure in Delta City, Podgorica, Delta City, Belgrade and The Mall in Sofia. The leading Zara and Massimo Dutti stores will remain open at these malls. We have identified several potential replacement tenants and are in discussions with Defacto, Sportisimo, Nike, Terranova, Pandora, Tiffany, Cropp and House (part of the LPP Group).

Heartened by the performance of the Eastern European portfolio despite tough circumstances, Wilken commented: "We are on track with the repositioning of Skopje City Mall. The Hyper extension in The Mall in Sofia, Bulgaria, has been opened successfully. Our strategic target is to increase the dominance of our malls in this region through asset management initiatives, upgrading facilities, securing new tenants, rightsising existing tenants and extending malls, where appropriate."

In closing

The Board of directors has deferred the decision on the settlement of the interim dividend and the declaration of a final dividend until December 2020.

"We will continue to focus on implementing our revised strategy, preserving cash and strengthening the balance sheet. Unprecedented times also present unique opportunities and we will continuously consider ways to unlock value and identify growth opportunities.

"While the future remains uncertain, the focus on our tenant relationships remains imperative as we weather the storm together and ensure we retain the loyalty of our tenants and visitors whilst positioning ourselves to trade more strongly in the long-term," said Wilken. ■

Catalyst for construction growth: STUDENT ACCOMMODATION

One would be hard pressed to find a more attractive investment opportunity than purpose-built student accommodation. While property developers and construction firms rush to meet the demand, there is still a chronic shortage of accommodation. Earlier this year, the Department of Education acknowledged a need for approximately 300 000 more beds to accommodate students across the country.

Despite the ongoing demand, challenges around funding, approvals and accreditation are still a hinderance.

A no-brainer

For investors on the other hand, this opportunity is a no-brainer. Student accommodation presents less risk than residential and commercial property investing. Overheads and rentals are split between many tenants and rental payments are often made by corporate sponsors and parents (or guardians) for peace-of-mind.

While it may come as a surprise, TSK Bartlett, Managing Director, Keegan Bartlett says that COVID-19 has not put a dampener on demand. "However, this demand is not always met by supply. Investing in student accommodation can cost millions, if not billions, and in the current climate funding can be a challenge.

Adding to this is affordability by students in some cases," "Based off of recent local statistics, the occupancy rate sits at almost 100% across the country".

TSK Bartlett is currently building a 2000-bed student accommodation high-rise in Johannesburg Central; Bartlett believes that further investment into projects of this nature could be the boost that the construction industry needs.

"For the most part, infrastructure development has been put on hold so student accommodation could be that much-needed catalyst for growth in the interim".

Addressing the affordability issue by students, Bartlett notes that it is up to the industry and the public sector to find a mutual resolution. "Building safe and affordable housing is critical. Incorporating green building technologies will also help to reduce monthly expenses and maintenance costs".

Industrial builds continue to soar

In addition to the increase of student accommodation, Bartlett notes that large-scale industrial builds are still on the rise. "E-commerce is one of the key drivers behind this trend, and we look forward to observing this continued and unexpected growth during this unpredictable time," he concludes. ■

"It is about TRUE PARTNERSHIP" says SCANIA SA'S MD

The construction industry has been under enormous pressure over the last 24 months with many major construction companies either scaling down or closing. COVID-19 has further lowered confidence in this sector and will negatively impact the whole sector including OEMs' ability to deliver vehicles. Against this background Scania Southern Africa welcomed **Fabio Souza** as its new MD in November 2019. *Construction World* spoke to him and found a leader whose background is perfectly suited to captain this company through tough COVID-19 times.

Perfectly suited background

Fabio Souza started his career with Saint-Gobain in Brazil as a product engineer. Nineteen years ago he joined Scania, something he says prepares you for anything. "I had the opportunity to work in three different environments – one region and then two countries." The region he worked in was Latin America where he was the head of parts pricing.

From Brazil he moved to Mexico where he was the service director. This, he says, prepared him for his role in South Africa. In 2006 Mexico was considered one of the worst markets for Scania. The country was competing with American brands and in his seven years there he also had to deal with a swine flu outbreak in the country. "It was nothing like COVID-19 though. At the time, we were only selling buses and this market was devastated. These challenges required us to build a highly resilient organisation. To make matters worse swine flu was followed by the Lehman Brothers crash." As a company, Scania decided to do something different.

"We started servicing at customer facilities – something unprecedented, but which worked well," says Souza.

From Mexico he moved back to Brazil where he worked as Scania's service director. "Brazil is a complex and huge country – something that causes logistical challenges. It is the single biggest market for Scania in the world. During my time there I learnt how important relationships with dealers are: it is vital that the OEM sees the business through the eyes of the independent business owner."

In Brazil he says he learnt how crucial efficiency and resilience is – something he is bringing to South Africa.

He regards working in different countries as a distinct leadership advantage. "Living and working abroad opens your mind and makes you more flexible," says Souza.

The Southern African challenge

Moving to South Africa was a natural next step in his career. "I regarded this as an excellent opportunity. Besides being responsible for South Africa, Scania Southern Africa also includes Botswana, Namibia and Mozambique. The independent markets – Malawi, Zambia and Zimbabwe – are in addition to this which makes it interesting."

He says that although Brazil was a far bigger market, the Southern African market is far more complex. In Brazil, Scania did not work in the used market as the operators sold trucks themselves; nor was there a rental department in Scania Brazil. "Here it is a key part of the business," adds Souza.

"The COVID-19 has obviously caused difficult times, but on the positive side it has created the opportunity to change things fast," says Souza. "I changed things in three months that would have normally taken three years to change. The pandemic has brought us together as a team," explains Souza.

Building true partnerships

Souza confirms that Scania's market share of 14,6% last year was good because it was a normal trading year. Going forward he believes that the South African heavy commercial vehicles sales will be around 9 000 to 10 000 vehicles (of the normal 12 000). "Now that lockdown restrictions have eased I am hoping that the market will return to normal. We have experienced delays in bringing product to market, but because we reacted fast and have taken action, I am confident that we will deliver good results," Souza believes.

In terms of the construction segment that Scania entered a few years ago, Souza says Scania's long-term aim is steadfast. "We want to compete in this segment. However, government will have to inject funds into infrastructure and building projects."

Despite this, Souza maintains that Scania's advantage is that it is a wholly owned organisation. "This includes our finance solution which translates into a benefit for our customers with regards to our ability to offer a total solution. During the pandemic we have been able to reschedule payments for customers that were struggling. We have put a huge effort into supporting customers in this tough period as, for us, it is a partnership and we are in it for the long-term. Everyone needs to now be more efficient. When it comes to fuel consumption, we know that we are the best in class. This is a global phenomenon that is thanks to development of the new generation of Scania trucks."

"I would like to leave behind the strongest organisation possible. I want Scania to be the point of reference and benchmark for Construction and Mining, from our back offices to our workshops."

Souza furthermore says that customers now rely on total customer care like never before – an inefficient truck is simply no option. "Our dealer network is well positioned and strategically positioned and it is well placed to support customers too," explains Souza. "We are flexible and act quickly," he explains, "and we are well placed when it comes to giving our customers unique solutions for their operational requirements."

All areas of the business are combined as Scania understands that customers are not solely reliant on the chassis' profitability. "We prefer to take a holistic view on profitability," says Souza.

"The pressures of industry to be profitable is not unique to our industry. It won't be easy to maintain profits in the current climate. This will drive the industry to be more professional and care more about the little details that can affect the bottom line," says Souza. "For instance companies will now be encouraged to train their drivers better. I am confident that Scania has a strong foundation as a company and a strong dealer network. We have the right people and products in place," he says'. "I think Scania will enhance its position in the region."

Souza's contract as MD is for three years. "By November I would have been here for a year. I will move on in two years. I would like to leave behind the strongest organisation possible. I want Scania to be the point of reference and benchmark for Construction and Mining, from our back offices to our workshops. I want everyone to realise that we really care about our customers," says Souza.

"If I can embed this in people's minds, I have done my job." ■

To find out more about Scania South Africa's flexible financing offers for Mining and Construction visit ***www.scaniasza.com/newtrucks***

FUSO WEATHERS THE STORM

Construction World spoke to to Ziyad Gaba, the Head of FUSO Southern Africa about the brand, how it is positioning itself and how it views future growth.

How has FUSO managed to weather the storm that is the COVID-19 pandemic?

It has been a massive challenge and disruption to our normal business. The hard lockdown meant a freeze in production as well as marketing or business related activities. Returning to business operations was gradual due to the reduced staff capacity and gradual build-up to operate at 100%. However as FUSO we have put measures in place, acted swiftly to allow flexibility and ensure business could continue as close to normalcy as possible.

By being flexible to the changing environment and constant communication to our dealer partners and customers, we have managed to resolve many challenges presented to us. I believe we have emerged stronger out of the crisis. COVID-19 has had its challenges but it has also presented an opportunity for businesses to reinvent and find better ways of operating.

What is your outlook of the commercial vehicle industry given the current economic climate?

We expect the total truck market to be significantly down YoY, especially in the LDT and MDT segments which will be more than 20% less than 2019. However, the last quarter has shown some signs of recovery in the market and the HDT market shows some signs of resilience until year end.

Where are the growth opportunities for FUSO?

The growth will come from construction – our FJ26-280C has been well accepted by the market and sales are increasing.

Are there any exciting projects planned for FUSO?

Several new products are being evaluated, including a solution for short/medium distance HDT market. Our developments in the aftermarket business, including FUSO Value Parts, will give us further opportunities to grow in the coming months.

What are your expectations for 2021?

We expect business to remain tough as the economy will recover slowly. However, we are cautiously optimistic of moderate growth in 2021 and improved growth between 2022 and 2023. Recovery post-COVID (and all unknown factors as a result of this), will surely bring about its own challenges. But as FUSO we know we have a valued brand and we will continue to provide exceptional service no matter the climate we find ourselves in. We are now more dedicated than ever to ensure sustainability in our brand and our brand promise of 'Simply Better Trucks.' ■

CTRACK FREIGHT & TRANSPORT INDEX INDICATES A TWO-SPEED RECOVERY

A full year after the Ctrack Freight Transport Index turned negative the recovery is now well and truly underway. The biggest decline for a moving quarter on a year ago was for the June 2020 quarter which saw a decline of 22,5%.

Currently the moving quarter decline in August compared to a year ago is 12,9%. This is still a reasonably large decline, however the decline in all sectors apart from pipelines is slowing, while Road and Sea freight are now only declining by single digits.

Encouragingly the Ctrack Freight transport index showed a 5% improvement between the month of August and July. This is the second improvement and the first after the June recovery of 24% from May 2020.

The best part however is that on a quarter to quarter basis the Ctrack Freight Transport index increased with a very strong 8% as it includes part of that June monthly rebound.

A highlight is that the 8% increase between the quarter to August and the quarter to May is the first time in 13 months that the index is positive again and it is almost a certainty that the broader transport sector will contribute positively to growth of GDP in the third quarter.

"The announcement by President Cyril Ramaphosa that South Africa is moving to Level 1 of Lockdown regulations has meant a continued increase in business activities," comments Hein Jordt, Managing Director of Ctrack SA.

"South Africa is ready to get back to work and at Ctrack we are ready to work with our customers to aid them in getting their business back to a level that they were before and beyond," he adds.

The only sector that seems out of sync with the rest is the pipeline sector as nearly 200 days of less than usual motor car traffic has reduced the need for fuel. At the beginning of the pandemic this sector was also out of sync, as the need for petrol and jet fuel declined and tank storage space had to be found for these products in inland tanks, a factor that is still hampering fuel flows somewhat.

The recovery is in swing

The Freight transport sector is making a massive comeback, but it now seems that it will be a two-speed recovery.

Air freight will take longer to recover as it relies on passenger flights to get going on a large scale again. International passenger traffic in countries like China and South Korea, who were of the first to suffer COVID-19 effects, is yet to return to 50% of passenger capacity. Given the slow recovery in passenger air travel, one should not expect a return to normal for at least another three quarters.

Secondly, in South Africa the work from home movement and social distancing will keep petrol consumption lower than before, as it is the fuel that most commuters use on a daily basis.

Lastly, Ctrack expecst that the warehousing sector will only boom at a later stage thanks to an increased move towards online shopping. ■

Charting a course beyond the pandemic FOR THE EAST AFRICAN PROPERTY INDUSTRY

East Africa has long been a challenging region for property developers to operate in, and not as buoyant as other markets. With COVID-19 triggering a recessionary environment, the property industry, always deeply affected by changes in the economy, is identifying areas of resilience and pockets of opportunity. As investors and developers step back, regroup and respond in innovative ways, the need for insight from local partners is more critical than ever, **says Matthew Renshaw, Chief Operating Officer of pan-African property solutions company Profica.**

Renshaw says that perceptions, rather than reality, are often a strong driver of business decisions on the African continent, and they are often skewed. "In an environment where regions and countries are being affected in different ways, you need to understand what's happening on the ground. In East Africa, we always see a strong resilience and will to thrive through challenging conditions that prevail, rather than just surviving. We believe that consistent international interest, continued investment flows and a stronger regulatory environment in countries including Kenya are positive indicators."

For construction projects underway, Renshaw says the impact of strongly regulated curfews has been felt across the industry. Estimates put construction cost increases at an average of 10% since lockdown measures were imposed, challenging the viability of projects should this continue. "The labour force is less accessible, although wage bills remain the same for less productivity. There have been delays in availability of imported material, especially for electrical equipment, steel and interestingly concrete," says Renshaw. "Projects are progressing at a slower pace, based largely on local availability of materials, and we continue to assess the impact project by project."

According to Renshaw, investors and clients are entirely re-evaluating the viability of projects in extreme cases based on widely-felt sectoral impacts – particularly in the retail, entertainment and hospitality sectors, which have been hit hard. "Financiers are relooking at feasibilities and wanting them to be rerun in the middle of projects. We may see shifts in focus to accommodate changing demand, such as developments moving from commercial to being a mix of residential and commercial. We anticipate a lot of repurposing and re-evaluation of strategies in the next few months."

As Profica provides construction solutions to clients right through the project development cycle, from inception to project close-out, Renshaw and his team have considerable experience in how developments are packaged. "Feasibility studies are even more critical, and we're able to package developments with a focus on sectors with short term yield, as well as future-proof them for repurposing as areas develop." Renshaw believes East Africa can remain a relatively strong hub with healthcare, logistics, warehousing, commercial and residential sectors showing some resilience. "The need for investment in essential areas such as residential projects, healthcare facilities, data centres and other technology services is marked, and COVID-19 has further accelerated this need. Responsive changes in the commercial occupier space are coming to the fore. At the moment, we are seeing widespread caution across the industry, with investors and developers holding back for more certainty. However, the time will come to move forward and grasp the opportunities in key areas."

Office space

Renshaw says that the team is seeing contrasting approaches from large global clients for the post-COVID world. "Some clients believe that once the vaccination has been found, we will quickly go back to pre-COVID normality and businesses will still need large, group offices rather than remaining with remote working arrangements. A major factor still impacting on remote working possibilities in many African countries is reliable access to electricity and the internet."

On the other hand, Renshaw explains that many other tenants have realised that remote-working flexibility works well for both productivity and cost-saving and plan to have only a third of the workforce in the office at any time. "There will be a need for smart, less open-plan design and hot-desking flexibility. There will be a focus on co-working spaces rather businesses leasing large properties. Either way, offices and technology will need to support a strong need for management to be able to supervise, collaborate and engage in a range of formats."

Renshaw believes smart building technology will definitely be accelerated post-pandemic, including occupancy monitoring. Working spaces will also need to be easily disinfected and well-ventilated, even using antimicrobial substances in materials.

In an environment where demand is changing, Renshaw says repurposing of existing assets will become more prevalent. "We are seeing an increase in commercial spaces being repurposed into residential in the South African environment, and this may be something we'll see in the other regions. New buildings in business hubs will need to be future-proofed for flexibility of purpose."

Healthcare

East Africa will need to catch up on the lack of healthcare facilities of acceptable quality, says Renshaw. "COVID-19 has been a shot across the bows for many countries and we may see healthcare now getting more of a focus. Africa's medical research capability has also grown tremendously and there is some interest in the medical supply industry as well. The need for both clinical spaces and pharmaceutical developments will increase."

Datacentres

"Countries across the African continent now have to leapfrog when it comes to evolving technologies. We will continue to see rapid growth in data-hungry new technologies, including the accelerated roll-out of Broadband, Artificial Intelligence, Cloud, 5G and the Internet of Things(IoT)," says Renshaw. "The ability to rapidly adapt and implement, as well as operate and secure business-critical data enables businesses to survive shocks to the economy, with the data centre at the core of this. There is a concentration of submarine cable landings in Mombasa and we are starting to see meaningful investment in connectivity in East Africa, one of the least-connected regions in the world. Profica has geared up with specialist partners, CBRE and their Data Centres Solutions team based in Europe, to increase expert project delivery services for data centres in Africa.

Logistics and warehousing

Renshaw highlights that e-commerce growth will continue in Africa, with the pandemic as a major catalyst, and world-class logistics hubs and warehousing will be needed to support this with consumers moving towards a no-touch model. "We will see a greater need for fulfilment centres and sophisticated, centrally located warehousing. Logistics businesses will require more space for stock to be held."

Hospitality

Globally, sectors relying on social interaction, tourism and travel have been fundamentally affected by the pandemic and East Africa, with tourism contributing up to 10% of GDP in Kenya, is no exception. However, Renshaw highlights specific opportunities in the region. "While Kenya has an oversupply of hospitality infrastructure, there is a shortage in Tanzania, especially in tourist and business hotspots. As activity resumes, even on a more limited basis, there may still be demand."

Renshaw concludes, "Thriving past COVID-19 requires a medium to longer-term strategy – opportunities such as working on how existing assets can be repurposed and seeing how distressed assets can be dealt with. Projects are starting again, and industry players must ensure they are strategically positioned. We don't know what the future normal is, but key areas may move quite quickly. The most agile businesses who can take advantage of evolving market opportunities will survive. Now is the time to find the opportunities, innovate and reinvent ourselves to face a new reality." ▪

ICONIC SANDTON BUILDING given a facelift

Since 2016 the City of Johannesburg has embarked on an ambitious programme to renovate its iconic but dilapidated buildings throughout its suburbs, and while the 3 Alice Lane building was renovated by its owner, it continued this familiar trend of restoring older buildings in the city. Not only is a restoration significantly more cost-effective than rebuilding, but if properly planned, the building can continue to operate during restoration.

This is according to Pherdy le Roux, Managing Director at GVK-Siya Zama's regional business in Gauteng - a leading construction company that worked on the building. "The project was commissioned by the Public Investment Corporation for its tenant Bayport Financial Services, designed by ARC Architects and the renovation took 18 months to complete."

"We fitted a new glass and aluminium façade to bring the forty-year-old building, situated in the heart of Sandton, in line with its iconic neighbours, one of which is The Leonardo and Michaelangelo Towers," said Le Roux. "The five-story building was built in the '80s and the dated precast concrete panelling and flush window design detracted from the value of this prime property in the economic heartland of Johannesburg."

The most significant part of the renovation was the addition of the new façade, which required specialist construction skills which seem to be all but lost with the demise of so many of the big names in South African construction.

"The new façade consists of a full glass wrap of the building with a ventilated tiling system cladding the ground floor. The east elevation facing Alice Lane features a perforated aluminium screen with a design of trees in the panelling. Blue LED lights backlight the screen to highlight the perforated design at night."

The north elevation was divided into three sections with an eyebrow, wing cladding and a tongue frame highlighting these. All three sections were constructed of powder-coated aluminium to fit in with the design aesthetic of the suburb.

The fact that the building was live with more than 600 people working there during construction proved challenging in terms of safety, noise and access. Specially designed cantilever scaffolding had to be used to allow all work to be done on the outside of the structure.

To minimise noise, construction lead GVK-Siya Zama did not use conventional construction methodologies but instead found alternative construction methodologies which were instrumental in making the project feasible. As is common with façade installations of this nature, the work required exacting precision, even more so due to the use of different materials, such as glass, structural steel, tiling and aluminium cladding.

Le Roux adds that due to the duration of the work and the fact that the building was occupied during the project, the structure had to remain watertight for the entire period. In addition, the discovery of unexpected asbestos and services during construction added to safety concerns and complexity of the task and had to be mitigated.

Le Roux pointed out that adding a new façade to an old building is a challenge. "We do a lot of façades in the normal course of our work, but working on an old, fully occupied building requires additional care and planning. In the end, all kudos to the client and the architects. This new skin has really brought the building to life again, probably adding a good few decades to its appeal. Renewing buildings presents landlords with a viable option to keep their assets current by adding decades to the life of a building at relatively low cost," he concluded. ▪

WORKPLACE DESIGN SOLUTION FOR DELOITTE

When global professional services firm Deloitte decided to consolidate its offices into its new African headquarters, bringing together 3 700 employees in a custom-designed building geared for future expansion, it turned to Paragon to conceptualise the workplace design solution. The architecture and interior architecture company clinched the bid for the project at the end of 2018, just when it was completing its award-winning fit-out of the new Discovery Place head office in Sandton.


Left: ***Paragon Associate, Dale Friedman.*** *Right:* ***Paragon Director, Claire D'Adorante.***

The 42 500 m^2 Deloitte development in Waterfall City in Midrand, Johannesburg is known as River Creek. It is a 50/50 joint venture between Attacq and Atterbury. River Creek comprises a ground floor, six office-space storeys and four basement parking levels with almost 2 000 parking bays. "As a large single-tenant facility, this fully digital, connected 'smart' building has been designed to enable a dramatic cultural shift for this progressive organisation," comments Paragon Director Claire D'Adorante.

The aesthetic interior design concept conceptualises a distinct and identifiable Deloitte brand experience through the extensive and deliberate use of its primary and secondary brand colours. Balanced with warm timbers and the extensive use of planting, a natural and inviting indoor environment flooded with natural light from the central atrium has been created.

The six levels of workspace incorporate a dramatic cascade of colour, representative of the Deloitte brand colours, which enhances the overall brand experience of the facility, as well as providing a distinct way-finding mechanism. Large open floor plans, with no cellular offices, allow the multiple business units to easily share working spaces and building facilities as well as enabling interaction, collaboration and social engagement.

To offset the loss of traditional offices, a variety of cellular and open-plan collaborative spaces have been provided to deal with the need for quiet and also for group working spaces. The ground floor has been designed to create a seamless client experience and be open and welcoming for the client-facing meeting and training rooms, as well provide all the shared lifestyle facilities.

A coffee shop, restaurant, pub and an external pizza oven complete the overall employee experience. The ground floor is also home to Deloitte's new Xcelerator experience comprising eight distinct and unique spaces that offer clients a range of high-tech opportunities and digitally immersive experiences to ideate and prototype breakthrough solutions.

The workplace strategy was conceptualised around a 'neighbourhood' and 'energy' concept, explains Paragon Associate Dale Friedman. Zones of higher energy, linked to louder and more active environments, are located nearer the primary circulation routes and zones of intersection. This ensures that these spaces are active and promote collaboration and interaction.

The lower-energy functions, which require greater focus and a quieter space, are located further away from the central core to aid in the focused work required here. Each neighbourhood has all the same collaboration areas that allow for the varied task-based functions required. The atrium edge has also been activated through the incorporation of an agile and task-based workspace corridor, affectionately known as the 'race track' and connected by the link bridges.

As Deloitte works mainly on laptops, these shared collaboration spaces enable staff to work where they feel comfortable, based on the task at hand. The multi-generational workforce also meant from the get-go that a 'one-size-fits-all' design principle would not work. "Everyone can find a type of setting best suited to them and their task, meaning happier staff who enjoy their working environment," highlights Friedman.

Technology was the next important element. It is critical that someone can sit down anywhere and have all the necessary tools at hand. "Often technology can be challenging to use and frustrates people when you cannot connect easily. Therefore, it was an important driver to ensure that technology was a seamless support for users," stresses Friedman.

A custom-designed iconographic signage system with integrated QR codes, developed specifically for Deloitte, provides users with information on how to use each agile workspace and is linked to the 'smart' building system. QR codes allow users to easily find out more about the workspace, such as the particular etiquette for the quieter spaces to the more collaborative settings, and also how to connect to the technology and log any faults that users may experience. ■

DOUBLE RECOGNITION AT THE AFRICAN & ARABIAN PROPERTY AWARDS 2020

Bentel has won awards in two categories for Mixed Use Architecture for the Harbour Arch Mixed-use development, in Cape Town, and Hotel Architecture for the Johannesburg Marriott Hotel & Marriott Executive Apartments Johannesburg Melrose Arch in Johannesburg, South Africa.

The African Property Awards is a novelty awards scheme instituted to recognize and appreciate the efforts of the real estate and construction sector. Bentel Associates International entered into two categories, being Mixed Use Architecture and Hotel Architecture, for which they both were awarded.

The Developer of both developments, Amdec Property Developments, appointed Bentel for Architecture and Interior Design services for the Marriott Hotel & Marriott Executive Apartments and Site Master-planning for the full development and Architectural services for the first tower at Harbour Arch.

ABOUT JOHANNESBURG MARRIOTT HOTEL & MARRIOTT EXECUTIVE APARTMENTS

'One on Whiteley', is a new mixed-use development planned as an addition to the very successful Melrose Arch development, a pioneer of 'New Urbanbism' in South Africa. Located in the north-western corner of the precinct, along Atholl Oakland and Sunnyside Roads, the development incorporates hotel, residential, fitness and dealership components, and will contribute to the creation of a sustainable and diverse urban fabric environment that is, Melrose Arch.

As part of this new mixed-use development, the 306-key Marriott hotel and 84-key Marriott serviced apartment offering is branded under the Marriott Hotels and Resorts and Marriott Executive Apartments brands respectively, and operated by Marriott International, one of the largest and leading international hotel operators. As this is a signature new-build property for the establishment and development of the brand's footprint across the African continent, particular attention has been given to the design and adaptability to fit with local conditions and how it responds within the existing mixed-use precinct. The hotel contains banqueting and meeting rooms, hotel pool facilities and landscape courtyard, a fitness centre and numerous food and beverage outlets, with the occupants of the executive apartments been able to utilise these facilities at all times.

ABOUT HARBOUR ARCH

The brief from the Client was to create a contemporary, urban and pedestrian friendly development. Although this development has been envisioned as a precinct, consisting of six buildings, it can be read as one building over four city blocks. Three roads, Martin Hammerschlag way, Louis Gardner and Jack Craig Street, dissect the site and ground floor of the building in an east-west direction. The pedestrian movement at the moment is non-existing and by creating an active edge along these streets, it is the intention to attract people into the development. This east-west movement is connected by a north-south arcade underneath the building with a public piazza in the middle. Restaurants and retail activate all edges of the ground floor.

The vertical circulation to the 8th floor is placed within the central arcade either side of the piazza. People can easily access the 8th floor with its park, retail and restaurants. All users and visitors to the development, including the future occupants of the apartments and hotels, will access the vertical circulation on 8th floor and walk through the park and shops to another set of lifts to take them into each of the six buildings. This ensures that the urban environment is active and a pedestrian culture encouraged as per the New Urbanism theory. Excellent views towards Table Mountain, the docks and sea beyond, can be experienced on the 8th floor and rooftop viewing decks in all the buildings.

Various types of apartments are provided with a larger units taking advantage of the views.

In representing South Africa under the two categories, Bentel is now waiting in anticipation for the outcome of the award competition, as these entries are pitted against other mixed-use and hotel projects from other countries in Africa, for the 5-star prize. ■

OXFORD PARKS PHASE 2

Oxford Parks is an architectural focal point along Oxford Road in Rosebank. On completion, this site will house five buildings on a master basement structure. Oxford Parks Phase 2 is a testimony to meticulous coordination on the part of Concor Buildings to ensure the concurrent construction of three different buildings would run smoothly.

This phase includes the simultaneous construction of 203 Oxford Road – Life Healthcare's new 10 000 m^2 head office, 8 Parks Boulevard – a 4 000 m^2 multi-tenanted building housing inter alia Metier Private Equity and G+D Currency Technology, and 6 Parks Boulevard – 3 400 m^2 offices for Arup, Sony Music and Sony Publishing.

The buildings, together with Phase 1 199 Oxford Road, were designed to complement each other, and their respective footprints fit together in a jigsaw puzzle configuration, proportionately occupying the site to optimise the usage of this prime pedestrian precinct with its generous public environment.

Through bold yet sensitive design of the buildings, together with the hard and soft landscaping of the outdoor piazza area, a natural environment was created ensuring a harmonious blend of business, life and leisure for the end user. Accommodating all parking in basements has shaped a precinct that is pedestrian friendly and offers a safe retail experience.

Oxford Parks Precinct showing Building 1 to Building 5.

Martin Muller, Concor Buildings' contracts manager, explains that all the buildings are constructed to be compliant with Green Star design requirements. 199 Oxford Road in Phase 1 achieved a 5-Star Green Star rating. All specifications on the project are in line with Green Star requirements and the buildings in Phase 2 are also designed to achieve 5-Star Green Star ratings.

A comprehensive Environmental Management Plan was adopted that amongst many criteria, specified the installation of waste management systems to maximise recycling from waste generated on the project. Another environmental intervention was the installation of state-of-the-art HVAC systems in all the buildings presenting energy saving, efficiency and sustainability features including air-cooled systems to eliminate water usage.

To optimise energy usage during occupation, different striking façades provide the respective buildings with both aesthetic interest and added energy benefits.

Muller emphasises Concor Buildings' commitment to health and safety on site. "Creating a strong safety culture is always a challenge on bigger projects with a large number of subcontractors but Concor's pledge to its Stop.Think.Act initiative has seen active involvement becoming a trend on site."

"Visible Felt Leadership from the entire production and safety team ensures that contractors, subcontractors and tenant contractors execute work safely at all times. This is vital as on average there are 350 workers from 22 different contractors on site and this will increase as tenants start with their fit-out activities," he says.

The COVID lockdown added a new level of challenges and anxiety to the construction industry. According to Muller, through early preparation and policy implementation, Concor Buildings ensured it was ready to start again on site once the lockdown restriction relaxation allowed construction to commence on 1 June 2020. Implemented daily scanning points, wash stations, social distancing measures, signage and continual communication led to construction activities being back on track from day one after the restrictions were removed. Risk management became a particularly important part of this project considering that the lockdown delayed construction by more than two months. Concor Buildings has clearly demonstrated its agility value by completing the buildings in, or close to, the originally contracted completion dates.

During this period, Concor Buildings ring-fenced long-lead manufacturing items and key focus points with the client, subcontractors and suppliers. These pro-active interventions ensured all materials were delivered on time allowing subcontractors to finish off when the client required the areas for tenants to take occupation. These measures also ensured the contractor could mitigate most of the additional costs due to the COVID lockdown period, ensuring practical completion (PC) dates are achieved as per the contract.

Sony Music, Sony Publishing and Arup have taken occupation of 6 Parks Boulevard, which was completed on time. The first and second tenants in 8 Parks Boulevard took official occupation on 1 September 2020, a week earlier than the extended practical completion date of 9 September 2020. Again, testimony to Concor's agility and commitment to meeting project targets.

The Life Healthcare tenant installation in 203 Oxford Road started ground and first floor handover on 10 August 2020 with all other floor level handovers on track with overall building practical completion on 2 November 2020. This date, which was extended due to lockdown delays, will be achieved through client and professional team assistance, identifying risks and dealing with these before they occur, dedicated resources and time management on the buildings.

Muller adds: "As is the case on all the projects we undertake, quality plays a major part in the execution of this project. Progressive snagging is implemented to ensure that works are checked and signed off as completed by each trade. This practice results in a minimised snag list of items to attend to once the buildings are complete, ensuring that the end user experience is not spoiled by contractors fixing incomplete works once tenants have taken occupation."

This was a particularly challenging period, but through Concor Buildings' commitment to its values, one of which is care, the contractor is still producing an upmarket and modern product while demonstrating care towards all parties on site and careful attention to the various features of this complex project. ■

KEEPING NOKA CAMP IN THE LAP OF LUXURY

ElectroMechanica (EM) to its channel partner Integrated Home & Office for the Noka Camp luxury cliff-top lodge in the Lapalala Game Reserve. Completed at the end of last year by Lepogo Lodges, the developer is currently busy with a Phase 2 expansion of the project.

The high-end system contributes to the guests' overall comfort and control of their villas and reduces the lodge's operating costs by improving the site's energy efficiency, explains Ryan Whitelaw, Product Manager for Building Automation.

Integrated Home & Office installed and programmed the system, which uses the KNX bus system from Hager to control everything from underfloor heating to blinds, air-conditioning, lighting, motorised doors and mosquito netting. Presence detectors on the walkways control the solar-powered lighting for increased energy efficiency.

The Hager KNX system is a highly adaptable solution that is ideal for large-scale residential and commercial projects requiring a wide range of functionalities. Developed for complex and demanding installations, the range of KNX devices offers advanced configuration possibilities in the ETS software.

Hager is a founding member of the KNX open standard, and has been designing robust and reliable KNX devices for over 30 years. Hager's open electrical infrastructure solution provides for a state-of-the-art building automation architecture.

It enables digital smart service integration and is open and ready for use by third parties. This not only increases user comfort and satisfaction, it also allows facility managers to optimise the building management.

Berker B.IQ control keypads from Hager were fitted in each villa for centralised control of individual functions. In addition, orion plus distribution boards were also installed in each villa to house the KNX equipment and Hager switchgear.

Featuring sheet steel or glass-reinforced polyester, the orion plus enclosures are suited for the harshest conditions and can be applied for wet and mechanical use. There is an option for a mounting plate or DIN rail, dependent on the automation application and current distribution.

The Hager solution forms part of EM's extensive product range of high-quality industrial electrical goods, motor control switchgear and electronic automation products for a range of clients and market segments. End users include wholesalers, consultants, building contractors, system integrators, switchboard and panel builders and also engineering procurement companies. ■

CONCRETE SOLUTIONS FOR WIND TURBINE BASES

The remote location of wind farms and the sheer volume of concrete required for wind turbine bases are among a range of challenges facing contractors, but CHRYSO Southern Africa has the solutions.



*Left: **Since wind turbines are typically constructed in remote areas, delivering readymix concrete quickly from the plant to the construction site can be difficult.** Middle: **CHRYSO® Retarders can facilitate the long-haul delivery of the readymix concrete or create a slower rate of cure.** Right: **CHRYSO® Retarders and CHRYSO® Superplasticizers from CHRYSO Southern Africa provide the solution to challenges faced with wind turbine base construction.***

With large towers, some over 100 m in height made up of 20 m tower segments, wind turbines require strong and durable foundations of reinforced concrete to keep them grounded and secure. Each concrete foundation – or base – is in the region of 20 m in diameter and 1,8 m in height, with a portion buried below the surface.

Since wind turbines are typically constructed in remote areas, delivering readymix concrete quickly from the plant to the construction site can be difficult. Even with site batching, there are often awkward and long distances from the batching plant to the foundations.

In addition to this, high slump concrete is often required for wind turbine foundations due to possible issues with concrete placement and consolidation, which may occur as a result of congestion of reinforcement in the foundation. Segregation is a danger when dealing with high slump concrete, as this compromises its durability.

CHRYSO® Retarders can facilitate the long-haul delivery of the readymix concrete or create a slower rate of cure. These quality admixtures also allow for concrete to be placed without fear of cold joints forming and enable concrete to remain plastic long enough to be fully compacted.

To counteract this, CHRYSO® Superplasticizers can be used to create a cohesive low viscous and durable concrete mix. One of the most popular for this type of application is CHRYSO® Fluid Optima 100. This admixture is not water sensitive and assists in producing robust concrete mixes that are easy to use even under the most challenging conditions. These mass concrete placements tend to be high in Portland cement and therefore often suffer from the build-up and dissipation of heat during the hydration process. This can lead to thermal contraction cracking as soon as the concrete hardens – compromising the structural integrity and durability of the foundation.

Thermal contraction cracking can be avoided by using supplementary cementitious materials (SCMs) like fly ash or slag in combination with Portland cement. This option is not only environmentally friendly, but also economical. However, SCMs can impact on the early and late age strength development of concrete.

Applying a curing compound from the CHRYSO® Cure Range to the foundations will reduce the incidence of shrinkage cracks and promote better strength gain characteristics. Curing compounds also increase the concrete's impermeability, making it more durable.

a.b.e., which is a CHRYSO Group company, supplies duragrout WF for grouting and bedding of structural elements and other patch repair systems that may be required for wind turbines.

In a further innovation, CHRYSO has partnered with Maturix to develop an innovative sensor solution with a digital cloud platform to monitor the maturity of the concrete. It has been used worldwide on more than 350 in-situ and precast projects. This cloud-based solution helps the construction industry to monitor concrete curing and hardening through hydration temperature measurements. ■

TCI finalises online concrete
TRAINING PROGRAMME FOR NEXT YEAR

The Concrete Institute's School of Concrete Technology (SCT) has finalised its programme of online training courses for 2021. Fourteen courses are planned, including the start of the pinnacle of concrete diploma courses: Advanced Concrete Technology.

John Roxburgh, senior lecturer at the SCT, says the SCT ran its last lecture-driven course at the end of March 2020 and was forced, due to lockdown regulations, to abandon lecture room training after that. "But we fortunately had experience in delivering e-learning courses through SCT41 and SCT42, the UK's Institute of Concrete Technology's General Principles and Practical Application courses, which the School has presented on an e-learning basis for several years. This proved invaluable for a fast conversion of all the more popular SCT courses onto an e-learning platform and within two months, the SCT could offer 10 different courses online. These courses, where applicable, have been granted the same CPD accreditation as the lecture room-based courses."

Roxburgh says the SCT quickly learnt that the online course versions offer some surprisingly good advantages. These included:

- Substantial reduction in costs (major online discounts will still apply next year);
- Flexibility for the student with work- or time-constraints;
- No travel and accommodation needed;
- More time available to study;
- Better understanding of the subject through a three-pronged approach that includes self-study with tests, videos that can be watched repeatedly, and face-to-face contact with the lecturer on electronic meeting platforms.

"Because of these significant benefits, the concrete and concrete-related industries have welcomed online training and the School's training has resulted in many satisfied students graduating and receiving online course certificates in 2020."

The School is gearing to present its next Advanced Concrete Technology (ACT-SCT50) course for the Institute of Concrete Technology at the beginning of 2022. "As acceptance for this prestigious programme requires a pass in the SCT41 and SCT42 courses, it is advisable for prospective ACT-SCT 50 students to complete the SCT41 and SCT42 courses next year. The examinations for these will be written in May 2021."

Roxburgh adds: "For those looking for a career in concrete technology, there are many opportunities available. South Africa has a massive need for competent concrete practitioners in admixture sales, laboratories, construction companies, ready mixed and precast concrete suppliers, concrete repair facilities, cement and aggregate production, and mining, to name just a few sectors. The SCT has structured a progression of course levels that will allow a prospective student to enrol at a level that matches his or her competency. There are no short cuts to becoming a good concrete technologist and study is essential.

The SCT has all the educational requirements to help meet these goals," he states. ■

Hannes Meyer, Cementitious Executive, AfriSam.

FLY ASH RESEARCH PAVES WAY TO EVEN GREENER CEMENT

South Africa's pioneering role in the use of fly ash in cement production opens the door for the country to reduce its carbon emissions while retaining a strong and innovative cement sector.

This is according to Hannes Meyer, Cementitious Executive at South African construction materials leader AfriSam, who says the local sector has already made great strides in reducing its carbon footprint. By incorporating fly ash – as well as ground granulated blast furnace slag (GGBFS) – in its cements, AfriSam reduced its carbon emissions per tonne of cement by over 30% between 2000 and 2018.

There are other environmental benefits from using more fly ash, including a reduction in the amount of coal ash that power stations must dump on surface. About two-thirds of the ash produced worldwide still ends up in ash ponds or landfill sites, says Meyer. Fly ash comprises the fine particles of coal ash that rise with flue gases from burning coal, and is usually removed by electrostatic precipitators or bag filters.

"Fly ash extends the volume of cement while adding valuable cementitious qualities to the final product," Meyer says. "This on its own reduces the amount of energy-intensive clinker that must be produced – thereby economising on the energy our plants must consume."

More than that, he says, the use of fly ash can also replace the traditional non-renewable products in the manufacture of clinker. These include limestone and shale, which have to be mined at considerable cost. AfriSam has been researching this area for some time, with exciting results.

"The use of fly ash in clinker production means less carbon dioxide is produced," he says. "Usually, calcium carbonate in the limestone must first be converted to calcium oxide, and this generates carbon dioxide. The calcium in ash, however, has already been converted in calcium oxide and silicate form."

Meyer highlights the strategic importance of this kind of research and development for the future of the South African economy. He urges that revenues from the government's recent carbon tax be carefully channelled into incentivising this kind of innovation in the market.

"The carbon tax needs to play a supportive role in gearing up the economy for a low-carbon future," he says. "This is in fact vital to off-set the negative impact that the tax could have on the cement sector's global competitiveness and its capacity to retain or create jobs."

The danger of the tax rising to unsustainable levels in future was that local clinker manufacturing facilities could be moved offshore to untaxed jurisdictions. The cheaper clinker would then be imported, and the number of jobs required to produce cement locally would drop significantly. ■

PPC AND CHC-SA PRIMX JOINTLESS FLOORING PROPELLING SA CONSTRUCTION FORWARD

Focused on providing the market with quality materials and solutions that are 100% local, PPC and CHC-SA PrimX Jointless Flooring partnership has become an example of what the future of construction promises to bring to South Africa. With the global pandemic having shown the value that comes with flexibility and innovation to solutions, this partnership raises the design and execution methods of concrete floors.

Traditional concrete floor specifications will require a standard 30 MPa mix supplied daily by a ready-mix plant without any specific effort to address shrinkage. This method is limited to 4,5 m x 4,5 saw cuts or 30 x 30 m (900 m^2) Steel Fibre Reinforced jointless panels. Depending on the load requirements (e 75 KNbtb 150 KN), a slab of 180 mm could be constructed. If shrinkage is not addressed, 100 m of joints begin to open within months of casting and begin to curl, eventually leaving severe joint damage. Clients begin to carry huge maintenance costs to repair the 100s of joints and damaged equipment while making an effort to manage the hazard this becomes in the workplace. Armed with the knowledge that traditional concrete cracks and curling were a result of the drying due to shrinkage, the partnership between PPC and CHC-SA PrimX Jointless Flooring optimises the concrete mix for improved shrinkage characteristics presenting a real focus on quality to the South African market.

"Seeking out partners who are invested in the innovation of the sector has been an integral part of our business. Having invested 128 years into the research and development of our materials, the science behind the development and innovation of our materials has been developed to position us as a catalyst that strengthens the capabilities of the sector," explains Dave Miles, Business Unit Head, PPC Materials.

As a customer-focused business, PPC continues to create a team that is empowered to pioneer new ways of doing business. This includes understanding and facilitating the outcomes and ambitions of the contractor who is determined to be competitive through the inclusion of world-class technology into the construction process. With South Africa's construction environment being about 30 years behind global developments, the partnership between PPC and CHC-SA PrimX Jointless Flooring propels South Africa's construction environment forward.

"PrimX provides high-performance SFR concrete with a focus in reducing shrinkage through the addition of special additives, careful mix optimization and quality control throughout the whole production process to ensure a predictable standard for PrimX. Finding a partner who is was able to obtain a quality washed crushed sand as well as washed natural river sand filler was key for our success in South Africa and on the African continent," explains Brett Meadway, PrimX Technical Sales Manager.

"We are uncompromising on the quality, strength and density of the concrete we must receive throughout the project. With testing taking place from supply to final product, we have created an ecosystem that is driven by a commitment to ensuring our product guarantee is achieved. Limited only by day joints, our solution saves 100s of meters of joint damage, allowing for a load requirement of 75 kN btb 150 kN on a 90 mm lab. With no additional reinforcement with mesh, construction time for the same size of a slab is approximately 30% shorter. This gives a project manager about a month extra in construction projects while saving clients' money due to the no curling and controlled shrinkage PrimX floors when cast flat, stays flat for its lifetime," continues Meadway.

At the forefront of this partnership is a labour force of young South Africans who are provided with training that is on par with their international counterparts who work on similar projects.

Jabulani Moeketsi, who has been working on the project since the start describes his contribution to the project, "I have seen what the future of my job will be here in South Africa. We are saving time while removing curling and shrinkage in our jointless flooring. With the backup support from a concrete engineering team in PrimX' lab, the ongoing support of PPC and its scientists, a predictable consistent quality in PrimX jointless flooring has been made available here. ■

Click on this QR code. The video showcases how this project has been working under lockdown conditions to bring the construction sector country forward through the introduction of jointless flooring into construction, saving up to 80% in maintenance costs and about a month in construction time.

Jointless Flooring in South Africa – final product.

NEW CSR ROADMAP CO-CONSTRUCTED AS PART OF THE UN PRME INNOVATION CHALLENGE

Manitou Group, a worldwide reference in handling, access platforms, and earthmoving, and a student team at the Asian Institute of Management in Manila presented the strategic orientations of the Group's new CSR roadmap, thanks to a nine-months work with the students. A work based on the objectives set by the United Nations within the framework of the PRME Initiative (Principles for Responsible Management Education).

Launched in 2007 by the United Nations, the PRME Initiative aims to incorporate sustainable development principles in business and management schools and develop the students of today into the responsible decision-makers of tomorrow.

In order to foster collaboration between companies and business schools focused on sustainability, PRME instituted the "PRME Innovation Challenge programme" in 2017. The program is an opportunity for companies to collaborate with innovative student teams from various business and management schools across the world. Nikolay Ivanov, Manager, PRME Secretariat says: "With more than 800 signatories around the world, the PRME initiative is expanding every year. Through this Innovation Challenge, we hope to help companies like Manitou Group achieve their CSR objectives while providing real-life engagement opportunity for students at PRME schools. Bringing companies and Higher Education Institutions together allows us to expand our stakeholder engagement while involving future generations of decision-makers."

For this 2020 edition of the Innovation Challenge, Manitou Group decided to join forces with a team from the Asian Institute of Management in the Philippines. The objective of this collaboration: continuing the transformation and advancing the Group's CSR strategy in line with the expectations of its employees, customers, suppliers, and partners. Aude Brézac, CSR Director, explains this choice: "The critical analysis of our current approach and the methodology that the students have proposed to consult with our stakeholders won us over in particular. Given the global scale of the group, the cultural differences within the team combined with their international perspective of CSR challenges were also important elements in our decision."

This Innovation Challenge offers mutual advantages. The students are trained in sustainable management through practical case studies, while Manitou Group gains from quality support in redefining its CSR strategy. The report by the Asian Institute of Management team was greatly appreciated by the jury at the Finale: "This presented solution addresses well the jury's criteria. The methodology and the level of work were particularly impressive. Students have spent a lot of time to involve all stakeholders of Manitou Group. They also have taken into consideration the global innovation & transformation processes in their very ambitious recommendation".

Aude Brézac notes: "We are really proud of our winning team! I would like to thank the MBA students of the Asian Institute of Management for their efforts over the past 9 months in a particular context and for the quality of their work. We had continuous and constructive exchanges during this period, and they brought us a fresh perspective with innovative and inspiring practices from benchmarks to challenge our strategy. Their restitution was also professional and well appreciated by our Executive Committee. We must continue our efforts to make environmental and societal challenges sources of added value and differentiation."

Thanks to this collaboration with the Asian Institute of Management, Manitou Group is committed to implementing an action plan in the coming years to achieve the goal set by this new CSR roadmap. ▪

Doosan excavator art installation shines in Prague

Doosan is a proud partner of the 'Signal' Light Festival taking place this month in Prague in the Czech Republic. In its role as a leading manufacturer of construction machinery, Doosan has supplied one of the company's DX160W-5 16 tonne wheeled excavators to form part of a new art installation that highlights the importance of responsible behaviour by humans when dealing with our natural environment.

The DX160W-5 wheeled excavator is the centrepiece of a new art installation called 'The Machine', which is intended to create a very strong ecological message and is the vision of Markéta Jáchimová, a young artist active in the Czech and Swiss artistic scenes. She has turned the excavator into a piece of art to express her feelings towards the extensive use of nature by humans.

Commenting on Doosan's role in this established Czech festival, Kevin Lynch, Marketing Communications Manager for Doosan Infracore Europe, commented: "Doosan is one of the leading global producers of construction machines. We are proud to be able to cooperate with the Signal Light Festival and present our great machines in an unusual way. Sustainable development has always been important for Doosan and we are pleased that our 16 tonne excavator is supporting this very important message."

The Signal Light Festival is a four-day festival of light art and emerging technologies held annually in October. It provides a platform for lighting designers from the Czech Republic and abroad to create lighting installations in streets and public spaces across the city, including several famous historical landmarks.
The Machine art installation is located at the entrance of the Industrial Palace of Výstaviště Praha, which is a venue for many of the business, industry and international trade fairs that take place in Prague. ▪

SKILLS AND EQUIPMENT MAKE THE DIFFERENCE

Projects carried out under emergency conditions are generally more taxing than planned demolition works.

"Our skilled personnel, combined with our well-maintained fleet of demolition equipment, means that we can respond to emergency projects quickly and effectively, with the team working as a cohesive unit," comments Jet Demolition Contracts Manager Kate Bester.

"The benefit of 28 years' experience in challenging demolition projects means that we are typically able to rapidly assess a compromised structure and to effectively work with other first responders to integrate demolition with supplementary services, while keeping all team members safe," highlights Bester. Jet Demolition has responded to emergency situations all over the country and abroad.

Probably the most crucial aspect of demolition under emergency conditions is the ability to respond without introducing additional risk to an already compromised situation. When an unforeseen emergency arises, difficult considerations to be taken into account typically include any imminent danger to be mitigated immediately and alternative methods and approaches to what would have been implemented under non-emergency conditions, as well as how much time is available to make arrangements for onboarding and travel.

"Our default approach to any project is a cautious and keen focus on detail. Subsequently our team is well-equipped to handle most situations within a short timeframe." Jet Demolition has always focused on instilling a safety culture throughout all levels of the organisation. "It is impossible to train for the unknown – all we can do is to maintain our focus on safety, ensuring that all personnel are as prepared as they can be for any project which comes our way," highlights Bester.

Responding to a fire-damaged building is very different to responding to a bridge collapse. "In addition, we will not start working before risk-assessing the structure and area. Our entire team participates in this process, which is absolutely crucial in ensuring that there is full awareness and alignment of our intended approach," explains Bester. Due to the nature of emergency works, Jet Demolition's response is mainly be guided by the client.

In some instances, sufficient information is available to assess the establishment and resource requirements remotely. In other instances, the site is visited first before making preparatory arrangements. "We are fortunate to have a good network and support from a range of stakeholders, both internally and externally," adds Bester. While assessing the site physically, preparatory instructions are relayed to head office, who in turn liaise with the safety teams, transporters and crew. This careful and concise liaison generally facilitates rapid response, with all persons continually briefed and informed as events unfold.

In emergency conditions, operational, engineering and safety representation is mobilised as a priority, enabling the initial assessment of works. "We also liaise with emergency personnel on-site, who are often able to give accurate and considered commentary on the status of the structure. This enables provisional planning in preparation for the full establishment of all other resources to site. Before any works are undertaken, we also consult with the full team, gathering assessments and ideas based on a pooled knowledge base before finalising our method. This ensures full awareness of all risks on-site, as well as a well-coordinated and aligned approach to the works," elaborates Bester.

The most important aspect of the works in an emergency situation is to ensure that the team is well-prepared and wholly focused on the task at hand. "We adequately prepare for and look after staff welfare while on-site. We implement regular rest periods during projects of this nature, and ensure that a second, fully-staffed team is ready to relieve the first at shift changes," notes Bester. Typical on-site redundancy includes additional management and safety personnel, all assisting to continually assess and reassess the works as it is executed, concludes Bester. ■

LEASING VERSUS OWNERSHIP IS NOT A CLEAR-CUT DECISION

To lease a fleet of vehicles versus ownership is a decision most fleet operators and businesses will have to make from time to time. The choice is a complex one, and making the right decision isn't always as clear cut as one might think or hope it is. **By John Loxton, WesBank Head of Fleet Management & Leasing**

While financial considerations are most obvious, these are not the only factors to take into consideration. Trucking routes, seasonality, organisational preferences, the type of operation, and even the configurations of a fleet must also be considered.

Each organisation has unique needs, which is why a flexible leasing solution that allows customers to select a variety of options should be investigated. The ultimate decision will depend on what is best for the fleet operator and the company at a given point in time.

Irrespective of how a vehicle is financed, the cost of finance is usually the largest single cost of owning and operating a fleet of vehicles, other than for long distance transport, where fuel is the largest cost element by far. There are a few options for financing vehicles, including an outright purchase, financial leasing and an instalment option. No matter which option is chosen, in today's times, the focus for fleet managers should be on achieving the lowest cost of ownership.

Full maintenance leasing from a third-party provider remains an advantage over the ownership model for a variety of reasons, the foremost of which are purchasing power and an expansive, reliable maintenance and support network. This is especially true for larger fleets where the business is motivated by the benefits from tax structures and cash flow. For example, a larger fleet may not need the depreciation benefit that comes with financing a loan and will decide to take advantage of leasing's lower payment options, which then allows them to basically allocate the monthly lease payment as an expense. This also provides for shorter vehicle life cycles and allows them to take advantage of the latest technologies as they become available. There is no one-size-fits-all solution, and customers should have an ability to determine their own terms, financing arrangements, and the service delivery method of their choice. A major benefit of financing a fleet is it that it offers fleet operators a specific, customised finance structure, with terms that match their specific needs.

More and more fleet operators are also acknowledging that while they need trucks for a job, they don't need to own them. They want productive vehicles to increase driving time, and to manage the rising cost of equipment, mainly due to emission rules and to new technologies that promise tremendous value. This places more emphasis on maintenance, with the need for more highly trained technicians, and more training as information coming off the trucks has to be understood.

The result is that more companies are seeing that running fleets and trucking is not their core capability and they are becoming more and more comfortable with handing that function over to a specialist with buying and procurement experience, one that is able to assist with specifying the right trucks and equipment for their needs, as well as the ability to provide the all-important maintenance to ensure uptime.

At the end of the day it is not about one option being inherently better than the other, but rather which one is a better fit for an organisation's financial circumstances and total operations. What is highly beneficial for one company may prove to be a real problem for another. ■

"Each organisation has unique needs, which is why a flexible leasing solution that allows customers to select a variety of options should be investigated."

MAPEI's new waterproofing, uncoupling & ANTI-FRACTURE MEMBRANE

Mapeguard UM 35 is the new decoupling waterproofing membrane from Mapei. Suitable for use with cracked, damp and imperfectly cured substrates, when installing ceramic, porcelain and stone material on interior and external floors. It is used by applying the membrane between two applications of Mapei adhesive, in order to accommodate any potential stresses and to improve the bond strength of adhesive applied on both sides.

When used as a waterproofing membrane, Mapeguard UM 35 is completely watertight with the capability of protecting substrates from water penetration, resulting in increased durability. Mapeguard UM 35 is suitable for waterproofing balconies and terraces by creating an uncoupling and vapour compensation layer on damp substrates and/or on substrates that are not fully cured.

Available in 30 x 1 m rolls, the design structure of the membrane makes it easier to distribute the adhesive. The dimples on the surface of the membrane are filled which prevents air being trapped, and instead ensures complete coverage between the tile and membrane. Thanks to the air channels on the back of Mapeguard UM 35, any humidity present in the substrates can evaporate without affecting the tile finish.

Additionally, its semi-transparent backing makes application much easier for installers to check and ensure the coverage of adhesive when bonding the membrane. This additional benefit also helps to easily locate the presence of potential elements on substrates, such as drains, which makes any essential cuttings to the membrane straightforward.

The membrane allows the control of cracks in the substrate, while allowing the distribution of stresses on floorings subject to heavy loads, it also ensures long lasting protection from water infiltration.

Mapeguard UM 35 may be used in the following surroundings:

- new residential buildings and residential buildings under renovation;
- commercial surroundings;
- hospitals;
- hotels;
- balconies and terraces;
- bathrooms. ■

E-commerce a boom for materials-handling equipment

The application of lithium iron phosphate (LiFeP04) battery packs allows supply chain to continue without disruption during COVID-19 pandemic

Technology has played an integral role during this difficult year for every industry, but one sector that has perhaps seen the biggest gain is e-commerce. This has proven a key driver of warehousing and logistics demand.

According to Statista market and consumer data, the e-commerce industry in South Africa is expected to achieve R62-million in revenue in 2020 and 10% year-on-year growth. With a projected total of 31,6 million local users by 2024, it's clear that online shopping is only going to become more prevalent, especially during the COVID-19 pandemic. The high volumes are, in turn, affecting the way that these companies operate.

The general rule of thumb is that e-commerce requires three times the logistics space of traditional storefronts. Therefore it is reasonable to assume that South Africa will see a much greater investment in warehouse space to support local e-commerce.
As a result, improvements in racking, logistics and building technology have seen an increase in warehouse clear eave heights, often as high as 15 m, as well as an increase in yard depths, sometimes in excess of 45 m.

CHASE Technologies supplies LiFeP04 battery packs for forklifts in materials-handling applications. This is a critical economic sector that has to continue operating with minimal disruption.
"The application of LiFePO4 technology in forklifts represents the latest advance in motive power in this sector," comments General Manager Brent Frazer.

LiFePO4 battery packs are more cost-effective, maintenance-free and environment-friendly. A long lifespan means these batteries do not have to be recycled as often. They can be opportunity charged, meaning more uptime when needed.

These battery packs are also revolutionising the market for electric industrial equipment such as reach trucks. Such high-power energy cells offer a major total cost of ownership advantage over traditional lead-acid batteries. Increased capacity means improved warehouse efficiency and handling capacity.The flexibility and throughput of any warehouse operation is boosted, ensuring high availability of critical equipment such as pallet jacks. "Supply-chain management has never been more efficient and productive thanks to these developments," concludes Frazer. ■

CHASE Technologies supplies LiFeP04 battery packs for forklifts in materials-handling applications.

Flexible tiles and planks FOR POST-PANDEMIC OFFICES

The flexibility of carpet tiles and planks allows designers to experiment with different spatial options – a capacity which is most important in the COVID-19 office environment. Tiles and planks can help define areas such as meeting points, activity or quiet zones, way-finding design, and how to use flooring creatively to demarcate social distancing.

KBAC Flooring now stocks the Danish producer, Ege's new The Highline Express Tile Collection, which takes full advantage of flexibility to adapt to diverse requirements.

With flooring more important than ever in architectural and interior design, tiles and planks are now recognised as important materials for the office of today. The new range from Ege is designed to optimise space, functionality and to meet the needs of employees, with design options that bring emotions and senses into play.

Highline Express designs are available in square 48x48cm and 96x96cm tiles and with the addition of the rectangular 24x96cm plank, there is scope to combine the three options to create unique flooring.

The Highline Express Tile Collection offers many standard designs that can be recoloured and produced in one of six different cut or loop qualities. In production, Ege uses its own blend of New Zealand wool renowned for creating a healthy and comfortable indoor environment.

Sustainability is a keyword in the new range as Ege's Highline Express flooring is made with Econyl yarn derived from abandoned fishing nets and other industrial waste; and fitted Ege's patented Ecotrust tile backing, produced from old plastic bottles. ■

The functional heavy duty impact traffic door

The Apex SR 9000 heavy duty impact traffic door combines functionality with longevity and allows easy movement of pedestrians and goods. The locally manufactured door also manages to blend into any environment as a result of its sleek, modern design.

Many market sectors require an attractive looking door, but need one that is robust and can withstand constant traffic moving through the opening. This is according to Wim Dessing, sales executive at Apex Strip Curtains & Doors, who says this particular insulated traffic door has found popularity as it is also a cost effective option.

"We actually find that customers often specify this particular door upfront, as it has an established reputation for quality construction and durability," he says.

The door is manufactured from a 3 mm ABS skin which retains its physical properties down to temperatures of minus 40°C. The low maintenance skin is impervious to moisture, acids, petroleum products, animal fats, rodent, insects and salt solutions.

The door's insulation characteristics are enhanced by its high-density, non-CFC urethane foam core. The patented honeycomb framework and flexible urethane foam insulation provide optimum stability and superior soundproofing qualities.

Standard vision panels, constructed from 3 mm clear polycarbonate sheeting, are available in a number of custom sizes and are scratch-resistant and UBC compatible for enhanced visibility. Windows can be mounted in various positions on the door, and double pane vision panels can be installed for use in refrigerated areas.

Dessing says wear is always an issue on impact doors, and to prevent excessive wear on the perimeter edges the door panels are bull nosed with a minimum radius of 8 mm. This significantly reduces maintenance on the doors.

The Apex SR 9000 doors are mounted on an internal welded steel perimeter with corner gussets, using a CMI type 'V' gravity hinging system. Gasket keys are moulded in place and retain gasketing without the use of screws, rivets or other fasteners. High bumpers are also fitted to the door panel to further absorb impact from forklift trucks and carts. This also reduces stress on hardware and mount assemblies. ■