

BY THE WAY



Creating wealth through infrastructure

ISSUE 09

July | August 2016



Gauteng e-toll roads are legal and valid

The Gauteng freeway network accommodates for 1.49 million vehicle trips and 1.7 million people travel on this vital artery between home, work and places of leisure.

The 201km e-tolled freeway system connects the three major urban areas in the province of Gauteng – Johannesburg, Tshwane and Ekurhuleni.

The upgrading of the Gauteng freeway – GFIP – was completed in 2012 to address a 20-year backlog in road infrastructure. It has now become an integral part of the transport solution for the province and a vital contributor to future economic growth.

A decision was taken by the Government to fund the construction and ongoing maintenance of the freeways through e-tolling. This is a system that is in place in many other countries of the world, including Austria, Malaysia and the USA – and the user-pay principle is also endorsed in the National Development Plan.

The South African National Roads Agency Limited – SANRAL – recently addressed criticism about the system, especially claims that it is over-priced and that it was introduced without a sufficient process of public consultation.

Serious flaws in criticism exposed

Nazir Alli, the CEO of SANRAL points to the fact that the project has been taken to court on five occasions and that there have been no findings of against it. The courts – including the Constitutional Court – also confirmed that the correct administrative

processes were followed prior to the decision to start with the construction of the freeways.

SANRAL issued a detailed statement in which it showed fundamental errors in the criticism against GFIP including wrong calculations based on the length of the network.

The Project Manager for GFIP, Alex van Niekerk, says critics of the programme confuse the cost of building a sophisticated freeway network in a densely-populated area such as Gauteng with rural highways elsewhere in Africa.

The GFIP programme did not only entail the construction of 201km of paved road surface, but also the costs of retaining walls, drainage structures and the relocation of existing services such as power lines and pipelines.

Following the report of the Gauteng Review Panel that considered the impact of e-toll tariffs on people in Gauteng, Government introduced a significantly reduced tariff per kilometre and a reduction in the monthly cap for e-toll tag holders. Road users with outstanding debt were also given a six months' period to settle with a 60% discount in place.

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This is why SANRAL is a top employer

The South African National Roads Agency was recently awarded the Top Employer Certification. This prestigious award recognises SANRAL’s commitment to offer a great working environment and to continue to strive to become an even better employer.

An audit conducted by the SA Board of People Practices – SABPP – has set down national standards and identified 13 reasons why SANRAL is considered to be a top employer.



1

SANRAL strategically manages its employees.

Each area of work has its own champion who manages and guides fellow employees, offering them guidance and attention to perfect their individual skills.

2

SANRAL identifies internal talent and nurtures it to reach its fullest potential.

One of its initiatives is the “Girl in Engineering”-campaign where young girls are given opportunities to study at tertiary level, with bursary holders eventually finding a job at SANRAL.

3

SANRAL is forward thinking.

It anticipates the risks in the organisation and puts measures in place to minimise them . Regular quality audits by the HR department improve the company’s efficiency and profitability.

4

SANRAL includes employees in its decision-making processes.

Valuable insights into the attitudes of employees are gathered through surveys. This enables the organisation to plan with the needs and concerns of employees in mind.

5

SANRAL offers learnership and bursary programmes.

It offers internal and external bursaries that enable aspiring engineers and artisans to study subjects

related to road construction. Many of these students eventually join SANRAL at the completion of their studies adding valuable new knowledge and insight to the organisation.

6

SANRAL manages its reputation at high levels.

The organisation’s working environment is comfortable and safe. Management holds each employee accountable for his/her work. Clear objectives are in place and employees receive feedback from management on how they can improve their work performance.

7

SANRAL recognises the hard work of its employees.

It rewards those employees who work smart and recognises those who go above and beyond the call of duty. Employees feel encouraged to perform at high levels and reach their organisational goals.

8

SANRAL goes above and beyond for its employees.

The organisation recognises the human elements of the employees within the work environment and offers them personalised perks that ultimately contribute to better and more efficient performance.

9

SANRAL offers top quality management of employee relations.

It is committed to ensure equal opportunities for all employees and prides itself in treating all workers fairly.

10

SANRAL leads with an exceptional organisational growth rate.

Its business operations are of a high standard and it is consistently looking at innovative new ways to serve its stakeholders.

11

SANRAL provides exceptional HR service delivery.

Employees enjoy significant medical and pension benefits that enable them to be financially secure upon retirement. Employees and their families are covered by subsidised medical aid benefits.

12

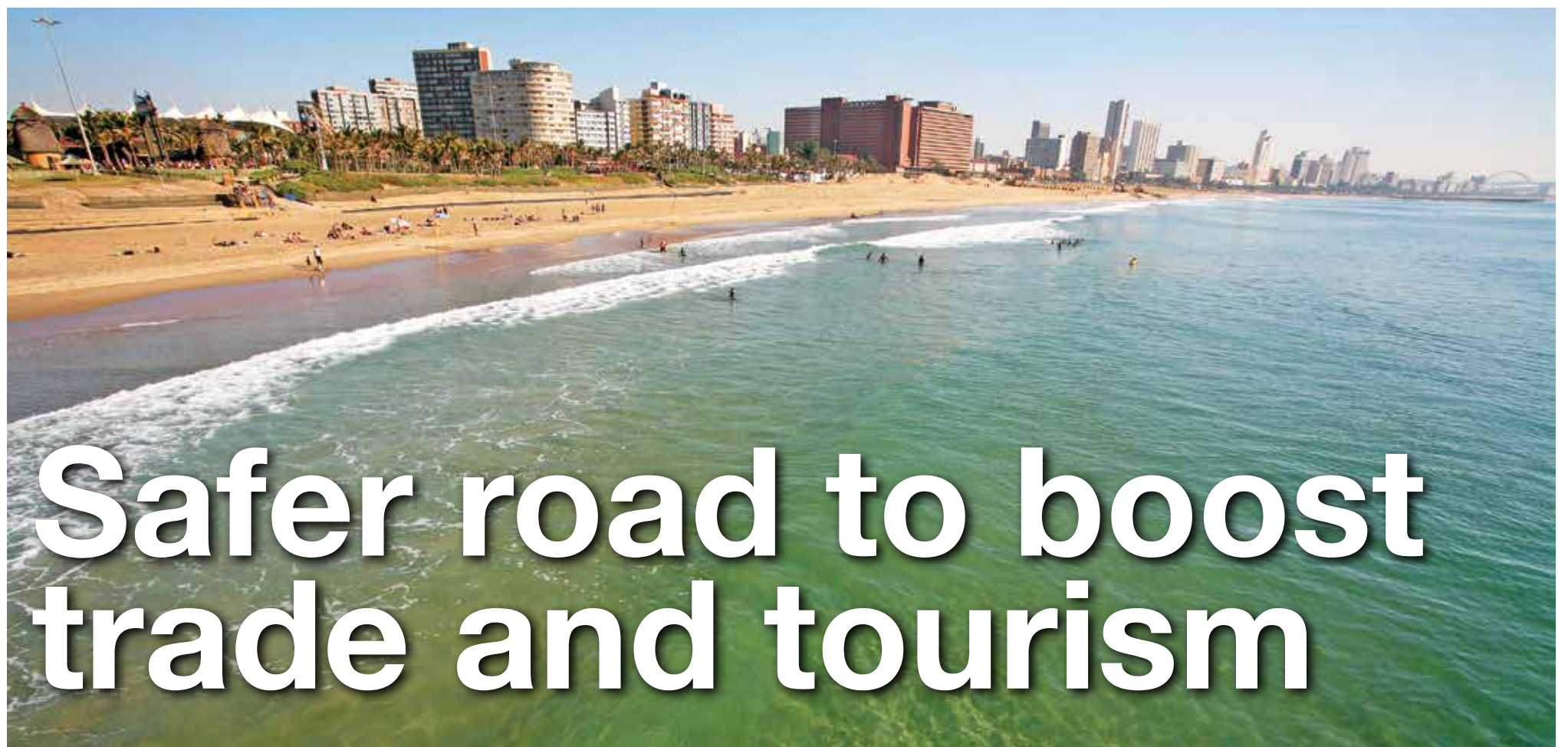
SANRAL makes use of advanced technology systems.

It has introduced leading-edge “Hummingbird technology” that offers a full range of services from up-to-date employment contracts to procedural assistance during grievance procedures.

13

SANRAL is implementing progressive HR measures.

All employees enjoy equal opportunities irrespective of their backgrounds. Self-directed learning procedures contribute to growth and development and employees are aware of their particular roles in the organisation and their expected contributions to its future growth.



Safer road to boost trade and tourism

Tourism, trade and commerce in northern KwaZulu-Natal will receive a major boost with the upgrading of the N2 freeway between Empangeni and Mtunzini.

The R1.4 billion project announced by SANRAL will also bring major safety benefits to a road that is carrying a significant load of traffic, including heavy duty and commercial vehicles, between the major industrial hubs of Durban and Richards Bay.

SANRAL's Eastern Region Manager, Logashri Sewnarain, says the project forms part of a multi-billion rand investment in the road network of KwaZulu-Natal.

The scope of work will include the construction of a second carriageway to create a dual freeway as well as the rehabilitation of the existing 33km stretch of road over a period of 40 months.

This will contribute greatly to safety on a stretch that has become notorious for its high rate of fatal accidents. *"SANRAL continues to implement various measures to improve the quality of the road environment and safety features that can reduce the risks of fatalities or serious injuries resulting from road crashes,"* says Sewnarain.

Two new interchanges are being built at Ehlaza and Mtubatuba while the new overload control facility at Ehlaza will enable traffic officials to monitor the safe movement of heavy trucks on the road.

Empangeni is a major transport hub in KwaZulu-Natal and the road carries a large proportion of road freight within the province.

The N2 is vital for the growth of the tourism industry in the province as it provides access to some of the country's best beaches and many world famous private and provincial-owned wildlife sanctuaries.



An upgraded N2 highway makes it easier for visitors to experience some of the best tourism attractions in Northern KwaZulu-Natal.

The Hluhluwe-iMfolozi Park is the oldest game park in South Africa and the only one in KwaZulu-Natal where all the members of the "Big Five" – lion, buffalo, rhino, elephant and leopard – can be observed. The Park has become world famous for its white rhino conservation programme.

The Park covers some 96 000 hectares and contains an immense diversity of fauna and flora. In addition to game viewing drives there are self-guided auto trails which provide information on both the management and natural history of the game reserve. Guided walks can be especially rewarding in the early morning and late afternoon.

The nearby Emdoneni Cat Rehabilitation Centre has become a sanctuary for the protection and care of rare species such as cheetahs, serval cats or caracals that have been injured or orphaned in the wild.

http://www.sa-venues.com/game-reserves/kzn_hluhluwe-umfolozi.htm

From the upgraded N2 it is easy to access the **Zululand Heritage Route** – "Route 66" – which takes visitors into the heart and pulse of the **Zulu Kingdom**.

The R66, begins at Dokodweni Toll Plaza on the N2 and ends some 250kms further north at the busy town of Pongola – but in this short distance, visitors have travelled through the picturesque towns of Eshowe, Melmoth and Ulundi.

The Zululand Heritage Route passes through territory that has given rise to events which have captured the world's imagination. Many of its valleys, once teeming with wild game, have been divided up into fertile farms but Zululand remains a place deeply rooted in its ancient traditions and Zulu Culture.

The rise of Shaka and the battles of the Anglo-Zulu War have inspired novels, television epics and movies. The scale and uniqueness of the annual Royal Reed Dance held each year in Nongoma continue to draw considerable international attention.

<http://www.zululandroute66.co.za/>

The **Umlalazi Nature Reserve** lies on the North Coast just outside Mtunzini. It makes up the northern section of the Siyaya coastal park – a 42km long stretch of unspoilt coastline.

It is the home of the palm-nut vulture one of the rarest birds of prey in Africa. Visitors can take three trails winding their way through mangrove forests in the reserve. Kids love to explore the mangrove swamps which are alive with red-claw fiddler crabs and mudskippers – tiny fish with frog-like eyes that can hop across the mud banks.

Bushbucks, blue duikers and zebras are often observed while crocodiles are sometimes seen lurking in the lagoons.

Mtunzini is a paradise for "twitchers" and the annual Birding Weekend – in June – is among the highlights on the calendar. The four-day event gives bird watchers the opportunity to observe species such as woolly-necked storks, African finfoot and orange-breasted waxbills in their natural habitat.

The Umlalazi Lagoon is a popular attraction for water sport enthusiasts and ski boat fishermen who launch their craft from the Umlalazi River into the Indian Ocean. The area is also fast becoming a haven for surfers – but the beach is not protected by shark nets, because of its close proximity to a breeding ground for the Zambezi shark.

<http://www.mtunzini.co.za/umlalazi.htm>

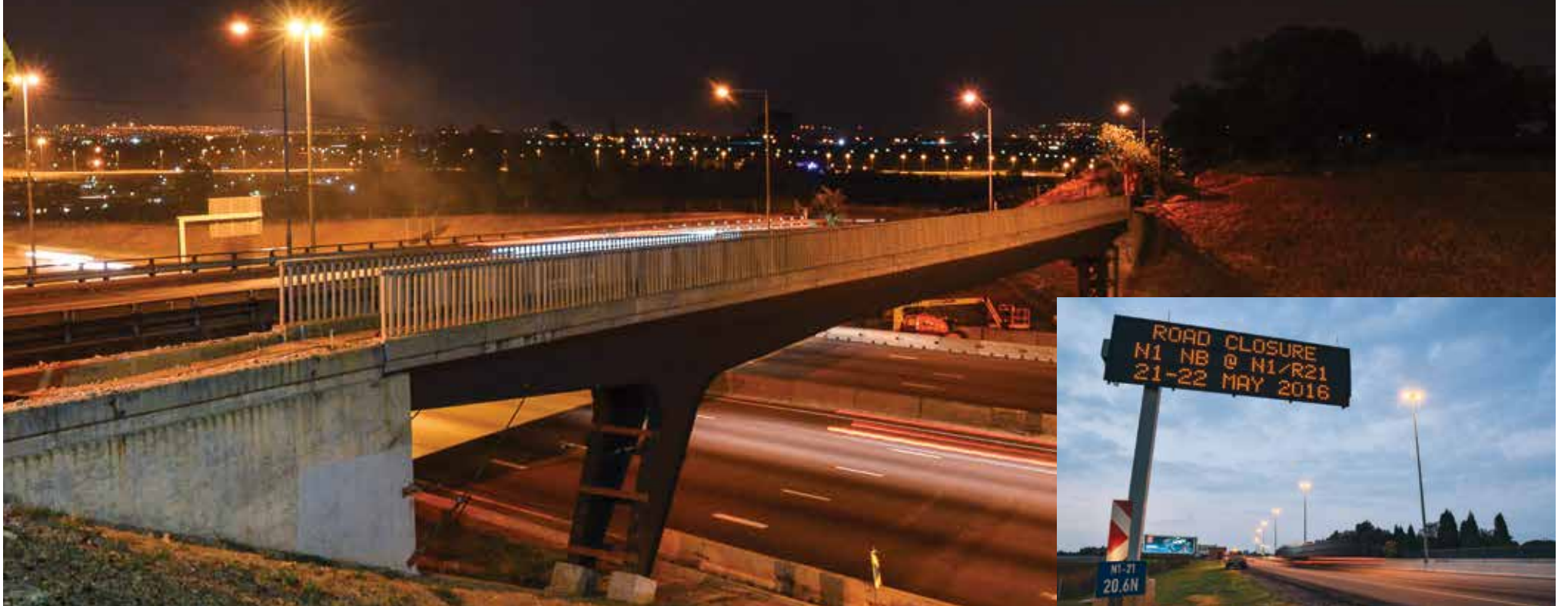
What the experts say...

"An efficient road network connecting KwaZulu-Natal to the rest of the country is important to advance spatial economic development in the province. SANRAL is an important partner to advance the province's gateway status..." – Mike Mabuyakhulu, MEC for Economic Development, Tourism and Environmental Affairs.

"The upgrading and expansion of the N2 is crucial to accommodate the ever-increasing traffic in the region..." Mike Patterson, vice-chair, SA Road Federation.

The N2 ... is vital for tourism, connecting the region's wildlife, heritage and recreational attractions to would-be visitors..." – Dave Savides, Editor: Zululand Observer.

New bridge to offer safe passage for pedestrians in Pretoria



A brand new pedestrian bridge at Erasmusrand on the N1 will provide a safe passage across the busy freeway.

The existing bridge was damaged in early 2015 when it was struck by a heavy-duty truck. Since then concerns were raised for the safety of pedestrians and SANRAL took immediate steps to stabilise the bridge.

Many pedestrians – including learners from the Hoërskool Waterkloof – made use of the bridge to cross the freeway on Solomon Mahlangu Avenue. The road itself connects suburbs such as Waterkloof and Monument Park with Elardus Park on the opposite side of the freeway.

Project manager, Alan Agaienz, says a specialised contractor took steps to stabilise the steel bridge

immediately after the accident. There were no safety concerns and SANRAL's consulting engineers monitored the state of the structure on an ongoing basis.

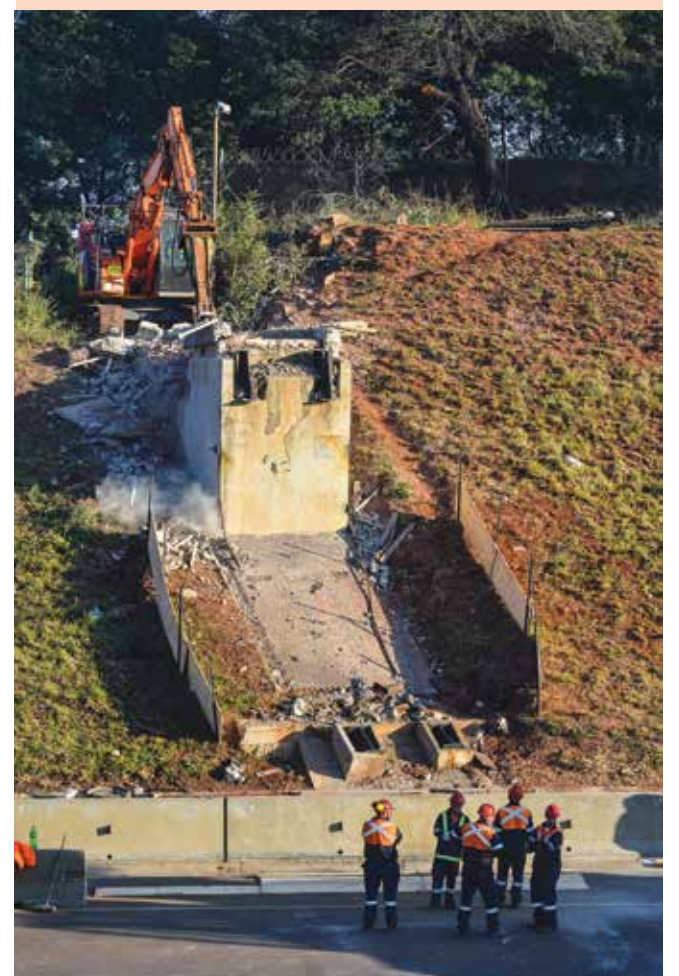
After public concerns were raised about safety issues the engineers conducted further inspections in January 2016 and found that movements in the structure can be attributed to normal temperature effects. There was no evidence that the bridge was deteriorating. There was also no danger of the bridge collapsing onto the freeway below.

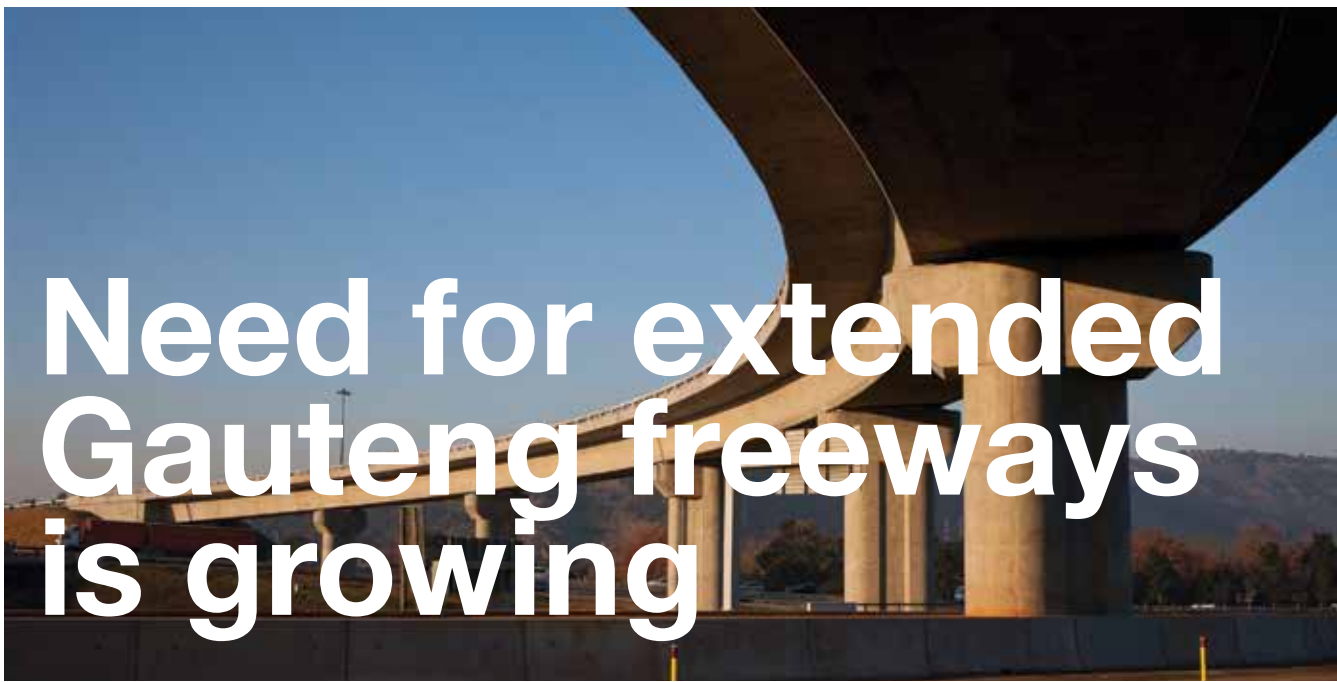
Old bridge demolished

Yet it was decided that the time had come for a new bridge. Rehabilitating the old one would have been costlier than constructing a new one. So a tender for the demolition of the bridge was issued and the successful demolition and removal took place during Saturday night, May 21.

"The safety of motorists and pedestrians is our primary concern," says Agaienz. "SANRAL is a responsible and accountable state entity and we never compromise on the safety of our road users."

The process to design a new footbridge is already under way. The construction start date is scheduled for March 2017.





Need for extended Gauteng freeways is growing

Traffic volumes on the roads in Gauteng will soon reach a point where construction must start on Phases 2 and 3 of the provincial freeway network.

The South African National Roads Agency – SANRAL – is ready to proceed with the construction of these vital arteries that will help to provide the foundation for future growth in the economic engine room of the entire region.

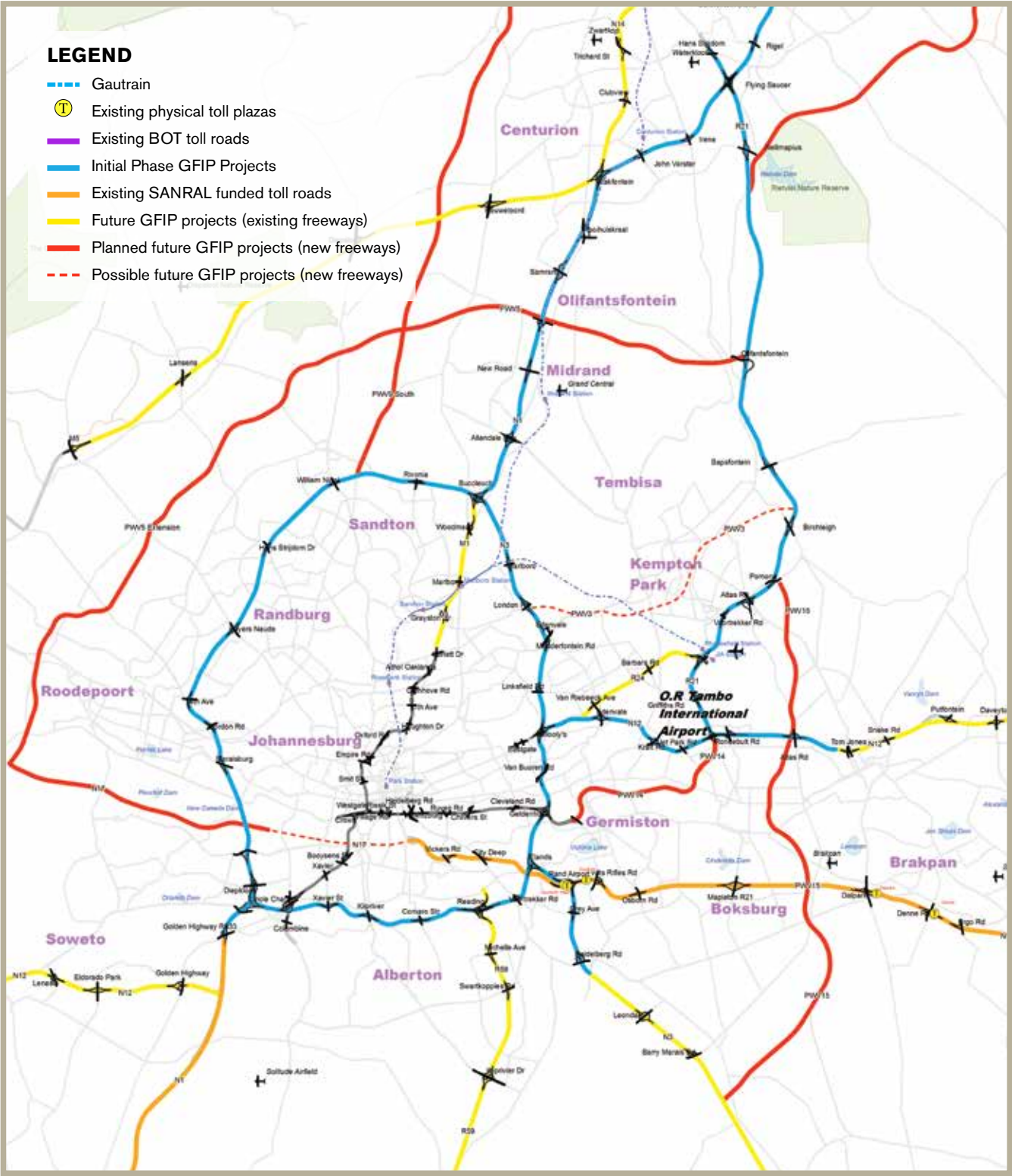
The Gauteng Provincial Government published its 25-year Integrated Transport Master Plan in 2013. This is a comprehensive blueprint for the development of transport networks in South Africa’s most densely populated province.

It sets out in great detail how different modes of transport – roads, passenger rail, freight movement and public

transport – must be integrated to support economic development and ensure the highest possible levels of efficiency.

The current Gauteng Freeway network – GFIP – is the first phase of an ambitious project to address a two-decade backlog during which no improvements to the overall capacity of the road infrastructure were made.

The considerable increase in traffic volumes on the freeways far exceeds the overall traffic growth. This means that the upgraded freeways are attracting large numbers of vehicles that would otherwise be using the congested provincial and metropolitan roads.



10 THINGS TO KNOW about the GFIP

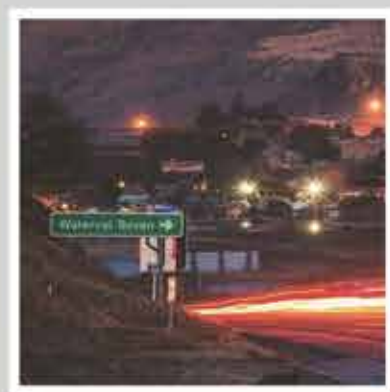
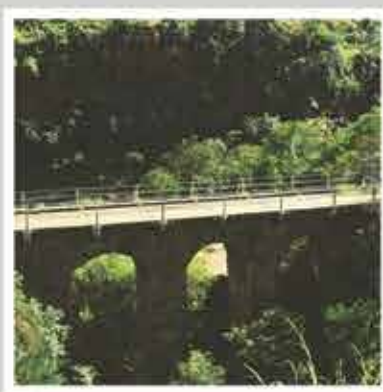
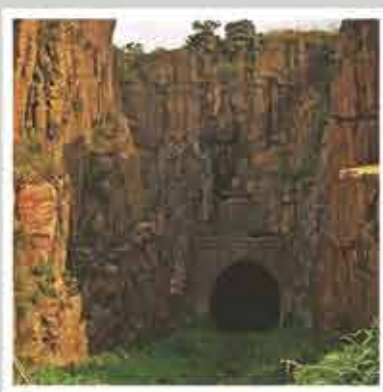
- The seed that blossomed into the GFIP started in 1998 with the Gauteng Toll Road Strategy document developed by the Gauteng Province.
- The GFIP comprises just 1% of SANRAL's entire network of 21 490km. It is 201km in length. Only 14.5 % of SANRAL's overall network is tolled.
- The current Gauteng Freeway Improvement Project is the first phase of an ambitious three-phase, road network expansion project of upgrading the freeway network to address decades-long backlog where no significant improvements to the road network was done and the roll-out of effective public transport has been limited.
- According to a research paper published in the South African Journal of Economics – which was conducted in Addis Ababa, Lagos and Johannesburg - a “one-hour reduction in waiting time improves welfare by 66% - 74%”.
- The GFIP freeway network accommodates for 1.49 million vehicle trips per day or 1.7 million person trips per day. The user cost for using the road is a maximum of R236 per month for tolls.
- Toll fees are affordable with just less than eight out of ten (78%) of light motor vehicle owners in Gauteng pay less than R100 a month to travel on the GFIP - of these, 44% will have regular e-toll bills smaller than R25.
- In 2015 the GFIP project saved the road user an estimated 443 000 vehicle hours per day of which 155 000 are on the freeway. At an average rate of R101 per hour per person and an average of 1.2 people per vehicle, this means that GFIP is saving Johannesburg R53 million per day in saved time alone. Added to this vehicle operating costs on a well maintained freeway that for greater periods during the day operate at free flow conditions are considerably lower than on pot-holed congested roads.
- In 2008/09 the traffic forecasters predicted that the levels of congestion experienced in 2006/07 would be reached in 2017 on the Phase 1 freeways unless further freeways are constructed, being the freeways proposed for Phase 2 and 3.
- The only major projects that have contributed in any way towards saving commuting time are the GFIP, the Gautrain and the Bus Rapid Transport system. The BRT does not operate on the GFIP network and the Gautrain costs for a single trip in the peak direction between Centurion and Sandton R60.00 in the morning and R54.00 on the afternoon return leg.
- The Quality of Life survey conducted by the Gauteng City Region Observatory – GCRO – canvassed the opinions of 30 000 respondents across the province. In response to a question whether respondents agree with the statement “I will never pay for e-tolls.”, a key finding was that road users who are satisfied with the quality of the roads are more likely to pay - 34% of those who are satisfied with roads agree with the statement ... and 42% disagree, indicating a willingness to pay. Moreover, the overall figures show that 80% of Gautengers surveyed travel to work either by taxi (33%) or in private vehicles as drivers or passengers (47%). Taxis and buses are exempt from paying e-tolls on the GFIP network.

DON'T JUST DRIVE THE N4, **EXPERIENCE IT!**



Take the N4 Toll Route between the capital cities of South Africa and Mozambique. Experience some of the most beautiful and mesmerising of landscapes in Africa.

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The scenic splendour of the Western Cape is the crown jewel of South Africa's tourism industry. This is where you'll find the Cape Winelands, majestic mountains, breath-taking sunsets, colourful farmlands and a beautiful stretch of coastline.

Connecting the Western Cape to the rest of South Africa are the N1, N2 and N7 which are built and maintained by the South African National Road Agency Limited (SANRAL).

The N7 stretches along the West Coast up to the Namibian border while the N1 goes up inland all the way to the Zimbabwean border. The N2 takes you almost to Mozambique, along the eastern seaboard.

The planned upgrading of the N1 and N2 as part of the Winelands Toll Project will allow for the capacity of these roads to be increased, which will relieve congestion. It will help to cut travelling time, making it more pleasant for people to visit the beautiful tourist attractions of the Mother City and surrounds.

Most visitors tour Table Mountain, Robben Island and Kirstenbosch Gardens. However, the lesser-known regions like the untamed wilderness areas, which are home to the famous fynbos and protea, numerous nature reserves and exquisite architecture are what draw those who want to explore more.

From wildlife to wine farms

In the northern part of the Western Cape lies pristine scenery that boasts vast arid plains and mountain ranges. The Cape Karoo is a dry, barren region with historic towns, plentiful wildlife, ancient fossils and rock art. It has been inhabited for over 500 000 years by the indigenous Khoi-San people, who have left their mark in caves and rock faces throughout the area.

The Karoo National Park is home to the endangered black rhinoceros, quagga and riverine rabbit. The surrounds have much to offer, from game hiking and 4x4 trails, mountain biking, safari tours and game drives to game lodges, nature reserves and guest farms.

From there you travel on the N1, leaving the Karoo way behind you as you travel through the Huguenot Tunnel, spectacular and one of the longest in the world, into the beginnings of the wine producing part of the province.

Closer to, and around the provincial capital, is the Cape Winelands region. This is where many of the country's best known wines come from, the produce of countless rows of vineyards that are hundreds of years old.

Prepare for a lengthy stay

Wine is king here, closely followed by culinary highlights. Historic Cape-Dutch homesteads and sumptuous restaurants abound. It is also famous for its dried fruit, wine tasting, olives, locally produced cheeses, as well as its leather factories, galleries and antique stores. Too much to do and savour in a short time – make your visit a looong one.

It also boasts world-class golf courses and numerous cycling, walking and hiking routes.

Seal Island is the only place in the world where one can experience great white shark natural predation, great white shark breaching and then cage diving, all in one trip. This miniature island is just off the shore of False Bay, a few kilometres from Cape Town.

It is home to 75 000 Cape fur seals, 24 different bird species and the great white shark. Dolphins, humpback whales and Bryde's whales are also found around the island. You take a boat from Simon's Town to get to Seal Island. This is a fascinating historic naval town with plenty of museums and places of interest. It boasts excellent seafood restaurants, and also Boulders Beach, where African penguins nest.

Beautiful and unique plants

A 13km drive from Cape Town city centre leads to the most beautiful garden in the world – Kirstenbosch. It is the first botanical garden to be declared a natural World Heritage Site by UNESCO. – Of the 9 600 species of plant life that are found here, around 70% occur nowhere else in the world.

The exquisite garden showcases the indigenous biodiversity of South African flora.

Much further north and beyond the ostrich capital of the world, Oudtshoorn, lies the spectacular underground wonder of the Klein Karoo – the Cango Caves, which offer a choice of heritage or adventure tours.

The caves are South Africa's oldest tourist attraction and consist of a series of hidden chambers cut deep into a thick rock layer. They have been described as one of the great natural wonders of the world because of their unique formations.

The Western Cape offers a little bit of everything for everyone, and you can get there on some of the world's best roads.

New link to ease congestion in Cape Town



Traffic congestion in Cape Town will be relieved after the completion of an upgrade of one of the most important interchanges in the Mother City.

A recent sod turning ceremony signalled the start of construction on the R60-million R300/Bottelary interchange in Kuilsrivier. Construction is expected to be completed in mid-2017.

This is a joint project between the South African National Roads Agency Limited – SANRAL – the Western Cape Provincial Government and the City of Cape Town. The City contributes 52% of the construction costs; the Province adds the remaining 48% and SANRAL has purchased the land required for the interchange. The Agency will also be responsible for the maintenance after the completion of construction.

Cape Town is widely considered to be the most congested city in the country as a result of increased investments and more people moving there in search of opportunities. The R300 and Bottelary Road are two of the most important arterials providing access to suburbs such as Kuilsrivier, Kommetjie and Blaauwberg.

Road to boost economy

The new interchange will provide an alternative, quicker connection for motorists from Bottelary Road moving onto the R300 and connecting to the N1 freeway via two new lanes on either side of the interchange.

SANRAL's project manager, Renaldo Lorio, says the primary benefit will be to address congestion in the Brackenfell and

Kuilsrivier areas. The new road development will facilitate the imminent development of an industrial area that will create permanent jobs and boost the economic growth of the region.

The construction programme will provide jobs and opportunities to local sub-contractors in the City to the value of over R3.8-million.

As part of its congestion relief programme the City has committed an additional R750-million to be spent over five years towards various new roads and upgrades in the area. A substantial portion of the costs of these upgrades will be financed by private sector developers.

"The 60-million project is a great example of what can be achieved through partnerships"



Partnerships help communities to grow

Cape Town Mayor, Cllr Patricia de Lille, says the partnership is vital to achieving progress and responding to the needs of citizens in ways that connect them to economic opportunities. *"Tackling congestion will only be effective if all stakeholders work together to do things differently by changing behaviour and the way we use our roads."*

The City recently hosted a Congestion Summit to explore alternative solutions to address congestion in the region. Among the options considered are car share initiatives, flexi-time for workers and encouraging more people to use public transport, including the MyCity buses.

"The 60-million project is a great example of what can be achieved through partnerships," says the Western Cape MEC for Transport and Public Works, Donald Grant. *"Roads play a significant role in development, increase access to economic opportunities and contribute to the social functioning of communities."*

SANRAL project manager Renaldo Lorio said: *"The project demonstrates that road authorities SANRAL, the Western Cape Government and the City of Cape Town can work together by following an integrated approach to address the congestion in the greater municipal boundaries of the City."*

Growing footprint leads to major move

Major increases in SANRAL's responsibilities in the Eastern Cape have prompted the agency to increase its footprint in the province.

The Eastern Cape government has handed over the management of some of the vital provincial roads to SANRAL and it is also implementing projects on behalf of the Rural Access Programme.

SANRAL has increased its staff complement in the Eastern Cape from 21 to 78 in the past four years, says Mbulelo Peterson, the Regional Manager for the agency's Southern Region.

In addition to conventional engineering projects in the region SANRAL has also established a Centre of Excellence in Port Elizabeth. Some 26 candidate engineers are enrolled at the Centre to gain practical work experience prior to their professional registration – and this number will increase to 50 in the next two years. (see page 9)

A decision was taken to consolidate all SANRAL operations in one building in the Bay West area of Port

Elizabeth. Construction of the new building is underway and SANRAL plans to move into its new office facilities in early-2017.

Peterson says the expansion of SANRAL's footprint is not an indication that e-tolling will be introduced on roads in the Port Elizabeth area. *"There is not a proposal for e-tolling on the table and no feasibility study was conducted,"* he says.

Centre of Excellence trains next generation of engineers



Simon Peterson
Regional Manager:
South

Future transport engineers are honing their practical skills training at SANRAL's Centre of Excellence in Port Elizabeth.

The students – including bursary holders of the Eastern Cape Department of Transport – will spend time at the Centre and be taken through an extensive in-house mentorship training programme.

The SANRAL Centre of Excellence was established in 2014 and now has 26 candidates registered for technical skills training, including the four Eastern Cape graduates.

Upon completion of their practical skills training they will be able to register as fully fledged professionals with the Engineering Council of South Africa.

Linda Bovana, the Human Resources Manager at the Eastern Cape Department of Transport, says the province is exceptionally proud of the achievements of its bursary holders. *"We are committed to skills development – especially the scarce skills in transportation – and the relationship with SANRAL contributes to the professional development of engineers in the province."*

Participants at the Centre undergo advanced training in the design aspects of SANRAL's National Roads Project,



"We are committed to skills development – especially the scarce skills in transportation..."

including subjects such as geometric design, traffic analysis, materials investigations and utilisation; pavement evaluations and storm water drainage.

Fanie van Aardt, the mentor and engineer at the Centre of Excellence, says this is the first joint programme with the Eastern Cape Department. The candidates will also receive training at the SANRAL materials laboratory where they will analyse materials used during actual road construction under the supervision of their mentors.



Linda Bovana
Human Resources Manager
Eastern Cape
Department of Transport



Ntutuzelo Siyeka of Elliotdale in the Eastern Cape graduated from the Nelson Mandela Metropolitan University – NMMU – with a diploma in Civil Engineering.

"My mom could not pay for our education and my dad died when I was in grade 9," says Siyeka. "We were always encouraged to study. I am sure being at the Centre of Excellence will help me gain the experience I need."



Bursary recipient, **Abongile Siwendu** from Dutywa in the Eastern Cape, obtained his national diploma in civil engineering from the NMMU. He is continuing his studies towards a BTech, majoring in Transport Engineering.

"I can't wait to get experience so that one day I can design bridges and roads," he says. I want to go back to my home and motivate other high school pupils to further their education."



Sonwabile Dlanjwa from Mthatha in the Eastern Cape completed a national diploma in civil engineering at the Walter Sisulu University. When he is not engaged in his own studies Dlanjwa tutors high school pupils in maths and physics.

He comes from a humble background and his family depended on social grants.

"I know there are many young people who are not encouraged to study further because money is always the problem," says Dlanjwa.



Another alumnus from NMMU who is continuing his studies while enrolled at the Centre is **Yanga Mshweshe** from Tsholomnqa outside East London.

"I want other youngsters to know that they must not worry about their family situation. They must study and pass matric well so they may have better opportunities in life. My great grandparents raised me and I am grateful to them. They always encouraged me to study," says Mshweshe.



John Rammutla from Limpopo says he is grateful for the opportunity to be at the Centre of Excellence. As a former SANRAL bursary holder he graduated with a BSc-degree in Civil Engineering and is looking forward to the opportunity to work with some of the country's top professionals in the field.

"I am confident the centre will meet my expectations. I will be fully exposed to design experience when we work on projects on a massive scale," says Rammutla.



SANRAL bursary recipient, **Rudi Joubert**, graduated with a BEng degree from Stellenbosch University.

"The centre has grown exponentially since its inception which indicates it is going in the right direction. I am confident my expectations of the centre will be met," says Joubert.

CREDIT DOWNGRADE

possible scenarios for SANRAL

A downgrade of South Africa's credit rating will always cause some worry. However, it must be remembered that SANRAL's toll portfolio comprises only 15% of the roads agency's core business.



Inge Muller
SANRAL CFO

The toll portfolio is funded from the domestic market, says Inge Mulder, SANRAL's Chief Financial Officer. The agency has a government guarantee for its HWAY bonds, which is the current preferred funding mechanism.

Should a ratings agency downgrade the country – the sovereign credit rating – it would directly impact on the cost of borrowing, specifically for the bonds issued under the guarantee, which is almost R30-billion.

This is because the guarantee is directly linked to government and the bond yields, or interest rates, are linked to government bonds with similar maturities. So, even if SANRAL's risk remains the same, it would still be affected, says Mulder. This is because government bonds would become costlier, and SANRAL's cost of borrowing would increase.

"In theory, our credit rating is used by investors only for the non-guaranteed bonds - the NRA bonds - as they are exposed directly to SANRAL on these bonds. This is why these trade at higher spreads, which means the difference between the government bond yield and SANRAL's bond increases as the risk increases."

Non-toll portfolio not directly affected

"If we are downgraded, the risk increases and the cost of borrowing increases. If government is also downgraded, it will result in a 'double whammy!'"

Mulder says any downgrade has an impact on investors' view of the risk and that is why SANRAL believes that even the possibility of a downgrade will affect its auctions and, certainly, the price offered by investors.

Once an entity becomes "sub-investment" grade, it means that some investors, as a result of their mandates, are not allowed to invest in such an entity and would immediately try to sell any bonds they may hold and would not participate in any auction. The selling off of bonds will have a negative impact on the price and once again the cost of borrowing.

It is always critical to note that SANRAL's non-toll portfolio is not directly affected by a downgrade of the sovereign or SANRAL's rating, as credit ratings are used in the borrowing of funds, says Mulder.



Therefore, for 85% of the SANRAL portfolio there is no impact at all. Of course, indirectly, the sovereign downgrade would affect governments' ability to fund and the cost of its borrowing, which may have an impact on the allocation SANRAL receives for its non-toll portfolio in the next financial year.

"If we are downgraded the risk increases and the cost of borrowing increases. If government is also downgraded, it is a double whammy!"

Inge Mulder
SANRAL CFO

SANRAL'S FRAUD HOTLINE

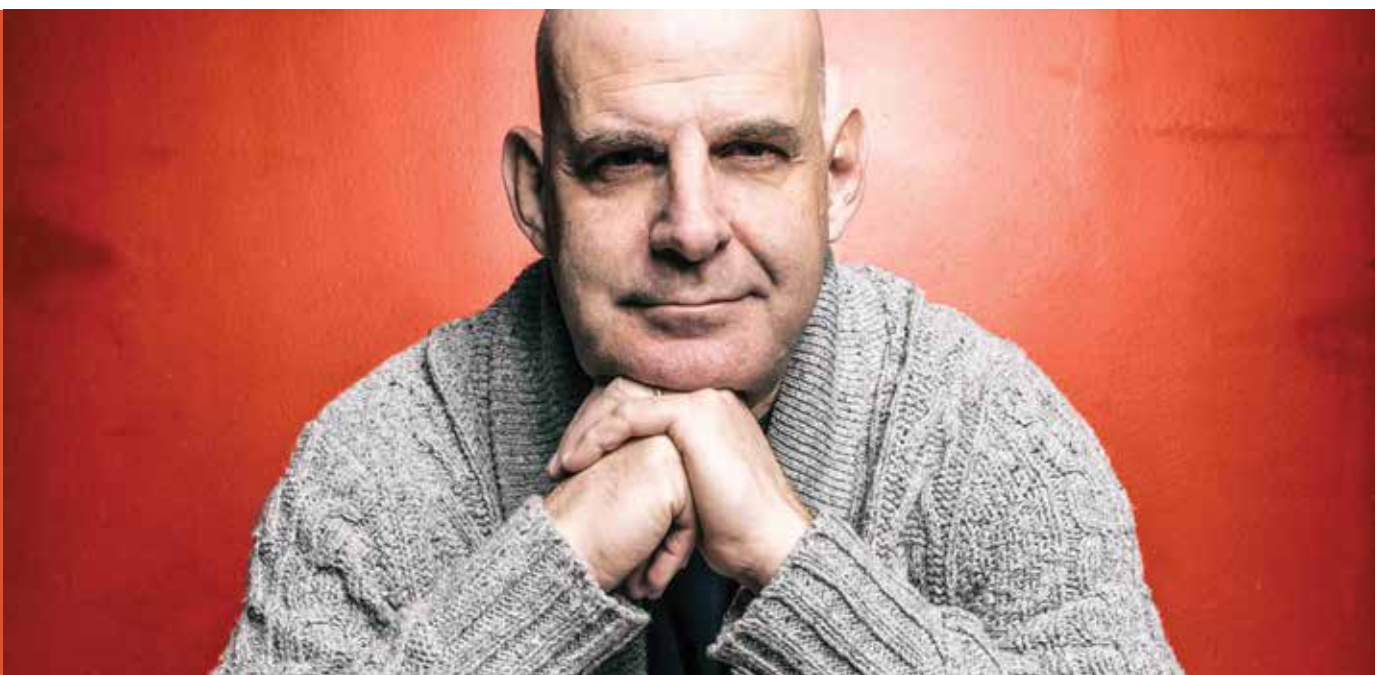
0800 204 558

is independently monitored by a firm of accountants. Reports on alleged fraud and corruption are sent to five senior officials in SANRAL to ensure that a number of people are aware of them. External investigators are appointed to assess serious allegations.

An examination of fraud hotline reports going back to April 2011 shows that not a single SANRAL employee has been implicated. Not one – out of 248 reports.

Books for the long road

Book Review



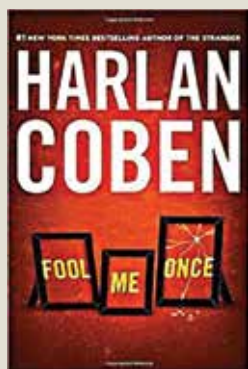
Masters of suspense again deliver tense dramas

Two old stalwarts are part of our focus - both Harlan Coban and Wilbur Smith are prolific writers who have their devotees all over the world. The rest of the appraisal goes to a completely unknown author - B A Paris - and another who came out of the running blocks with light romances and both are now entrenched in the thriller genre. C L Taylor, previously known for romantic comedies has now switched to heart-stopping thrillers.

Remember Coban's Tell No One, Gone for Good, The Woods? There were many more - he has 60 million books in print in 43 languages. His last seven consecutive novels (Missing You, Six Years, Stay Close, Live Wire, Caught, Long Lost and Hold Tight) were all on the New York Times bestseller list. His Fool Me Once was published last month.

Wilbur Smith, worldwide bestselling Anglo-African novelist, has an impressive list of more than 30 books, written over decades, to his name. Think of his historical adventures like The Sound of Thunder, A Time to Die, Golden Fox, Assegai, Bird of Prey, Vicious Circle, etc. Last month his Predator was added to this impressive list.

B A Paris has a Franco-Irish background and debuted this year with an attention-grabbing hit. Her Behind Closed Doors got attention worldwide. C L Taylor, previously known for romantic comedies, has a year or two ago, switched to psychological thrillers. She made her entrance with The Lie and delighted readers with last year's The Accident. In April this year she published The Missing

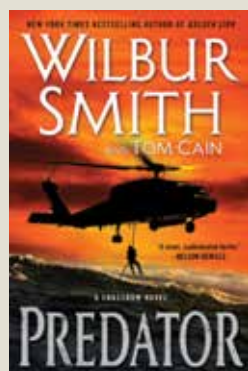


Fool Me Once
Harlan Coban

Your husband was murdered- you witnessed it. But then the unbelievable happens: you see the man you trusted and mourned, on the nanny cam -- alive, cuddling your daughter.....the man who was supposedly dead!

Death follows Maya Burkett, so her brother-in-law Eddie reminds her. She is ex-military; suffering from PTSD after a mission in Kuwait went horribly wrong. Prior to this trauma her sister was killed - and her husband Joe's mugging and death was by the same gun which ended Claire's life. To complicate matters the Iraqi mess was blurted out and exposed on the Internet.

She decides to do her own investigation and the reader walks beside Maya with bated breath ... at times a bit disturbed by Coban's formulaic approach to characters and happenings.



Predator
Wilbur Smith

Meet Hector Cross, ex-SAS officer, widower and security expert. He lost his wife through the evil machinations of one Johnny Congo, a man of many disturbing traits: psychopath, extortionist, terrorist and murderer.

Cross wants Congo done away with, and so does the US government. But first Congo must be located and thus the hunt begins. He is found- locked up on death row in the most secure prison in the free world, waiting for his execution date.

Both Congo and Cross are determined to do one thing: Congo wants to escape, he has before and he knows he can do it again. Cross wants the same thing but only to get hold of Congo and exterminate the 'rat'.

Cross faces danger and extreme physical limits, but he is wired by a long stretch of life as a security expert. The hunt is also emotionally draining. He is tested to the limits of endurance in the search for his prey.

As the title says: he IS the Predator.



The Missing
CL Taylor

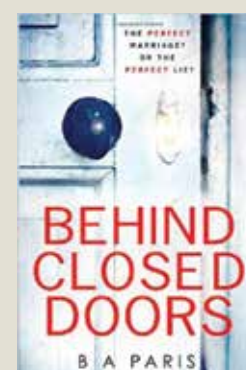
The reader is lured from the opening page right into the bosom of a family with a multitude of secrets. One starts off entrapped: this is a family, a place of safety, a pasture of trust ... but is it a safe haven?

You are now embroiled in the unknown at this heart of security? Guilt drenches you. The surfacing truth carves away the safety of your known familiar world.

This starts with the family sleeping peacefully. In the middle of the night the 15-year old Billy Wilkinson goes missing. His mother Claire and everybody else are guilt-ridden. Two facts are clear: Billy is still alive and no member of the family is involved. Or are they? Yes or no - could the instinctive motherly feeling be misguided? What about her husband Mark, their eldest son Jake and his girlfriend Kira?

We search for clues in this dysfunctional family. To top it all, mother Claire has blackouts, experiencing moments she cannot recall. Everybody is suspicious of everybody else. And the reader is mesmerized by contact with the absent Billy-through text messages!

Shocking truths are revealed and the reader skids through reality and lies, red herrings and puzzling facts. Enjoy the slip and slides.



Behind closed doors
BA Paris

We are faced with the perfect marriage: he is the wealthy, handsome, attorney; she is graceful, charming and attractive.

They have the perfect marriage: always together, like peas in a pod, manners exquisitely pleasing.

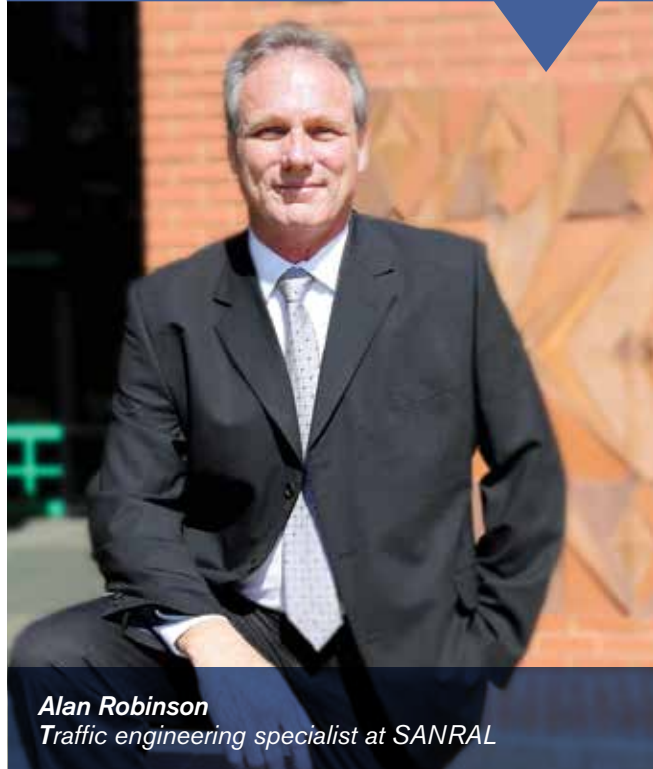
Perfection to be envied.

Or are we faced with the Janus two-faced reality. Why does Grace not make a move without Joe? Why does she not answer the phone, have tea with friends, work or have interests of her own?

Why is their bedroom window barricaded? How does her beloved sister Millie, a down-syndrome girl, feature in this suffocating plot? Why do we have this sense of foreboding from the word go?

Read on and be puzzled by this perfect marriage. Or perfect masquerade.

Perspective



Alan Robinson
Traffic engineering specialist at SANRAL

Plan and build now, to avoid future congestion

World-class transport infrastructure needs to be funded. Most sensible South Africans who use the national freeway network managed by SANRAL – stretching from Musina to the southern reaches of the Western Cape – would agree with this.

The current public debate is how to fund expensive investment in the future of the country. And how to adequately maintain it to ensure our road network continues to support future economic growth.

When it comes to infrastructure, conventional wisdom is that “Government must provide.” However, Government gets its money from the taxpayers and it has to be allocated prudently among a wide range of competing needs such as education, health care, welfare and safety and security.

Modern global trends point towards the user-pay principle for infrastructure – a concept that has been embraced by the National Development Plan, the Strategic Infrastructure Programme and the Treasury in its budgetary approach.

Open road tolling is most effective

Toll roads are a great example of the user-pay principle and electronic open road tolling is by far the most effective way to collect the money without having to add to the congestion problems through the construction of toll plazas.

It is the logical option but a social hot potato. For political reasons certain metropolitan governments would rather see the highways leading into their city centres be turned into giant parking lots – than to consider the construction of new roads funded by tolling.

The current Gauteng Freeway Improvement Project is the first phase of an ambitious project to upgrade the roads network serving the province. The expanded freeway had to be constructed to address a 20-year backlog during which no significant improvements to the capacity of the networks were done.

The GFIP freeway network carries 1.49-million vehicle trips – 1.7-million persons – per day. The user cost connected to commuting on this high-quality road amounts to a maximum of R225 per month plus the associated vehicle operating costs.

With these traffic volumes and the expected growth in revenue that will accrue from sensible South Africans who are willing to pay for the benefits of better road infrastructure there should be sufficient funds to operate and maintain the GFIP network and instil investor confidence to fund the much needed further expansion of the network.

Beat the frustration of congestion

The convenience and social benefits to consumers to travel on a well-maintained freeway at free flow conditions for most of the day far outweigh the frustration and productivity losses associated by travelling on pot-holed secondary roads.

As far back as 2008 traffic forecasters predicted that the level of congestion experienced prior to the construction of GFIP will again be reached by 2017 – unless the green light is given for the proposed phases 2 and 3.

It requires between five and ten years to design and build a major road infrastructure project. The planning and design phases for the new roads were completed in 2011 but implementation was slowed down by the e-toll issue.

An integrated transport solution that will sustain the economy of Gauteng and contribute to its future growth is required. This will include a switch in the movement of goods and services from road to rail, the further expansion of rapid rail and the much-needed improvements to public transport networks.

But is also requires the start of construction to phases 2 and 3 of the Gauteng Freeway Improvement Project. Failure to do so may have dire consequences for the economy of the region over the longer term.

The current Gauteng Freeway Improvement Project is the first phase of an ambitious project to upgrade the roads network serving the province.



What our users say

Letters

Warm words from Bela Bela farmers

Vital upgrades done by SANRAL on the R101 in Limpopo have elicited high praise from community leaders in the Bela Bela district.

In a letter addressed to Mr Ismael Essa, SANRAL's Northern Regional Manager, the Warmbaths Farmers' Association – Warmbad Boerevereniging – expresses its appreciation for the quality of the road linking the town of Bela Bela with Modimolle.

The Limpopo province last year requested SANRAL to take over the management and maintenance of provincial roads. Similar decisions taken by the Eastern Cape and North West have resulted in SANRAL's portfolio of national and provincial roads increasing to more than 21 000 km.

The R101 is used as an alternative to the N1 freeway for road users travelling to some of the northern towns of Limpopo. However, through the years the single-lane highway has deteriorated and became a safety hazard – especially during night time.

SANRAL's interventions, including the filling of potholes and other maintenance work have resulted in tangible improvements in safety and the road experience for motorists. And the progress is being noticed – and appreciated – as the letter from the Farmers' Association shows.

Northern Regional Manager
SANRAL
Pretoria

Attention: Mr Ismael Essa.

Repair and upgrading of R101 road.

Sir,
At a recent meeting of the Association the members decided to write to SANRAL to express our appreciation for the repairs and comprehensive upgrading done to the R101 road between Bela Bela / Warmbaths and Modimolle/ Nylstroom.

It is such a pleasure to now travel on the road. The road is dangerous because of its many turns, uphill and downhill stretches and we trust that the upgrades will lead to a reduction in vehicle accidents.

The work you did also had a positive influence on the local roads department because some of members are reporting that dirt roads have been levelled and are in a fairly good condition. This is an issue that should consistently be brought to the attention of local officials.

Once again, thank you, and please continue with your good work to keep this road and other roads under your management in excellent condition.

Yours,
Mrs L Grobler
Secretary



Johan van Schalkwyk @JOHAN_HANIBOY

#WellDone @SANRAL_za - great revamped N2 road between Mossel Bay and George



Thapelo Snandile @176b2c32e2fe49b

@SANRAL_za thank you for shesha lanes at tollgates



ESETHU HASANE @EsethuHasane

I drive home, SA roads massive Road Works sites, stops and goes from PTA to MTHATHA, annoying but exciting. @SANRAL_za is investing in roads





WHAT IS AARTO?

It is legislation aimed at providing for administrative management and adjudications of road traffic offences outside the Criminal Justice System. AARTO is an acronym for the Administrative Adjudications for Road Traffic Offences. It is guided by an Act of Parliament (Act No. 46 of 1998) as is currently implemented as a pilot in the Johannesburg and Tshwane Metropolitan areas. The Road Traffic Infringement Agency is responsible for coordinating the implementation of AARTO through-out the country.

ARE ALL TRAFFIC FINES ISSUED IN ACCORDANCE WITH THE AARTO ACT?

Not all traffic fines are issued in accordance with the AARTO Act. In fact, because AARTO has only been rolled out to the jurisdictional areas of the Johannesburg and Tshwane Metropolitan Police Departments, the Criminal Procedure Act is in use in the vast majority of jurisdictions in South Africa. Where an offence has been committed within these pilot sites, such offender will be dealt with in terms of the Criminal Procedure Act.

HOW ARE TRAFFIC INFRINGEMENTS / FINES MANAGED IN AREAS WHERE AARTO IS NOT YET OPERATIONAL?

Other parts of the country where AARTO is not yet operational, the Criminal Procedure Act No.51 of 1977 is used for managing road traffic offences. The AARTO Act decriminalizes minor road traffic offences so that those who commit them may be dealt with outside of the criminal justice system.

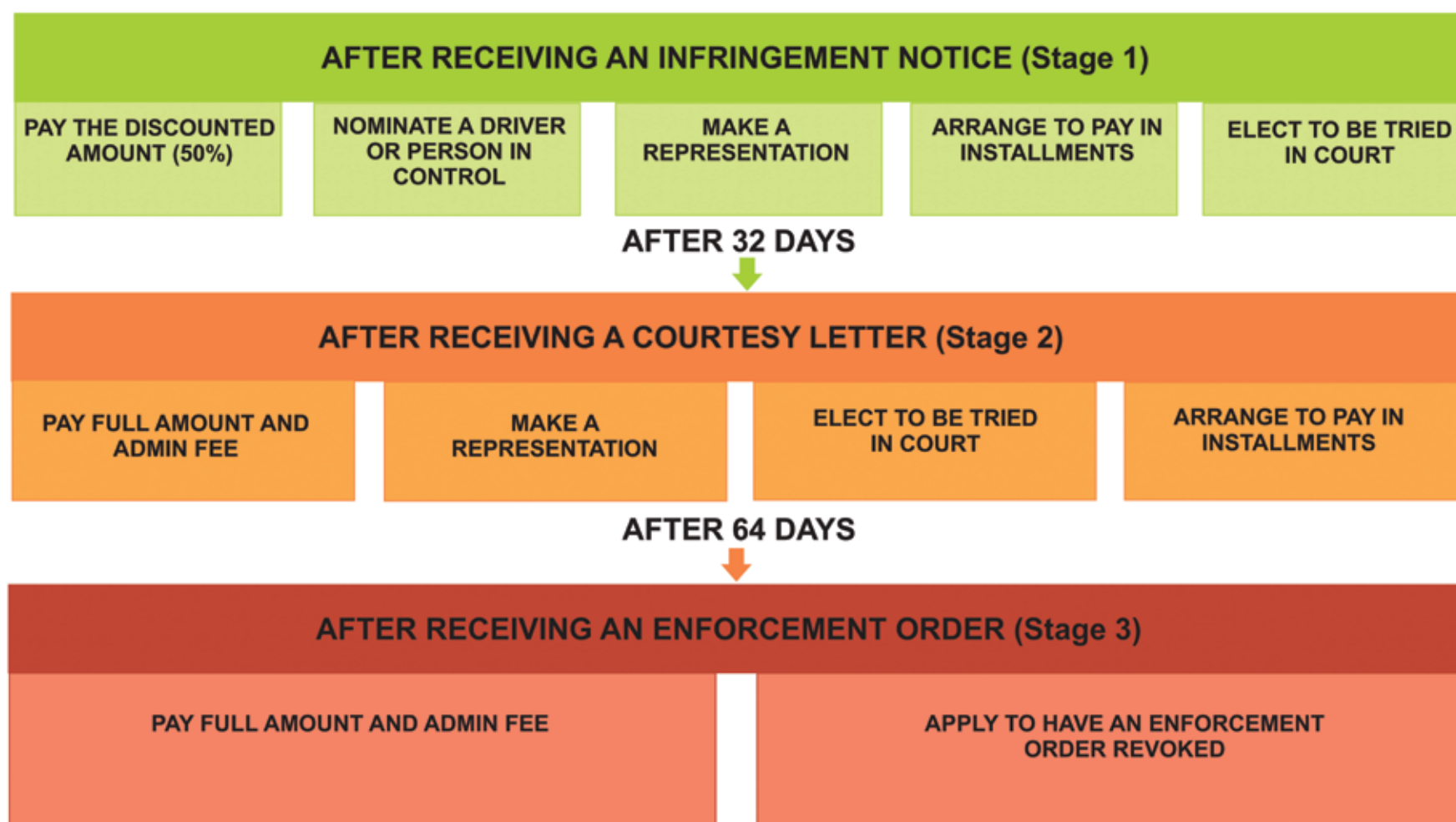
WHAT IS A TRAFFIC VIOLATION?

A traffic infringement occurs when one contravenes a known road traffic regulation or a road traffic sign as stipulated in the National Road Traffic Act (Act No. 93 of 1996) Regulations and its Amendments. These include but not limited to the following:

- Driver of motor vehicle to be licenced. No person shall drive a motor vehicle on a public road -
 - * "... except under the authority and in accordance with the conditions of a licence issued to him or her ...
 - * "... unless he or she keeps such licence or document or any other prescribed authorisation with him or her in the vehicle". Chapter IV, Section 12 (a) and (b) of the National Road Traffic Act (Act No. 93 of 1996).
 - * "No person shall operate a motor vehicle on a public road unless the requirements in respect of a certification of roadworthiness contemplated in subsection (4) in relation to such motor vehicle are complied with, and except in accordance with the conditions of such certification of roadworthiness.
 - * (3) No person shall operate a motor vehicle on a public road unless the requirements in respect of a roadworthy certificate contemplated in subsection (4) in relation to such motor vehicle are complied with, and except in accordance with the conditions of such roadworthy certificate".

For more information on scheduled road traffic offences administered under AARTO please refer to Schedule 3 of the AARTO Regulations

AARTO PROCESS



Daantjie Kat is retiring: who will follow in his footsteps?



The Department of Basic Education together with its partners the Department of Transport, the South African National Roads Agency and the Road Traffic Management Corporation has launched a competition to create a safety mascot.

The current mascot, Daantjie Kat, is retiring after advocating road safety for more than 4 decades. His replacement will have much more to do as he or she would be carrying messages to schools on how to prevent, respond or report violence, bullying, alcohol and substance abuse, and general safety threats.

- Learners between the ages of 9-15 years of age
- In public and independent schools
- Are invited to enter a competition
- And must draw a mascot on paper, design and produce it

- A written description of what the mascot is and what it represents, and why it should be chosen
- Only one entry per person / school will be accepted.
- Entrance for this competition is free, there is NO entry fee
- All artwork must be the entrant's original, hand-made creation. Photographs and computer-generated artwork will not be accepted
- All artwork must be flat and should not be less than 30 cm x 40 cm in size
- Artwork can be in any medium. Art techniques may

include scratchboard, pointillism, chalk, charcoal, dry brush, watercolour, crosshatch, collage, linoleum, printing or crayon.

All participating schools must complete and submit the registration form which can be accessed from <http://www.education.gov.za> or obtained at their district office.

For full rules, terms and conditions, visit the ChekiCoast facebook page.

Eight key lessons from international road safety experience

Road safety is a global priority and South Africa has joined the international efforts to reduce deaths and minimise the impact of injuries resulting from accidents.

The United Nations has launched a Decade of Action for Road Safety in 2011 to address the concern that nearly 1.3 million people are killed on the world's roads every year – and a further 50 million are disabled for life or severely injured.

In November 2015, the Minister of Transport, Ms Dipuo Peters, attended the high-level conference in Brazil where countries provided mid-term feedback on the implementation of the Global Action Plan. This was an opportunity to measure South Africa's success against international standards but also to learn from best practices adopted by other countries.

On her return Minister Peters said South Africa is making remarkable strides in the implementation of safety programmes – but there are also key lessons to be learned from the global experience:

1. Road safety management must be reconfigured to effectively address the key challenges in the country.
2. The mind-set of traffic policing must be shifted towards education and information for road users about the objectives behind traffic regulations.
3. The successful implementation of road safety policies is dependent on productive partnerships between government, the corporate sector, civic society and communities.

4. The youth must be increasingly mobilised to promote road safety policies and mobilise society.
5. Road safety education aimed at children must be stepped up and supported by active measures to promote safety devices such as child restraints in vehicles.
6. The "Safe Systems Approach" should be implemented for all future engineering and construction projects. This approach recognises the need to introduce engineering solutions to prevent deaths and reduce injuries in crashes caused by human errors.
7. Road safety management should be professionalised through academic development programmes and twinning partnerships.
8. There must be active participation from the business sector, civic society and NGOs to introduce road safety programmes and mobilise resources to extend education, training and awareness among all communities.

Bursary student perseveres to reach her dream



Londeka Ximba
Candidate Engineer in Transport & Traffic Management at N3TC

At 22, Londeka Ximba has come full circle, from being a bursary beneficiary of N3 Toll Concession to successfully completing her BSc Civil Engineering degree and now being employed by N3TC as a candidate engineer in transport and traffic management.

Through several of life's challenges Londeka's journey, from a small township school near Pietermaritzburg to matriculating with six distinctions from Marion High School in 2010, was not always an easy one.

"However, both my parents encouraged me to work hard and further my education," says Londeka.

"My father was the one who introduced me to the wonders of maths and science, and encouraged me to consider engineering as a career. Had my dad had the same opportunities as I, he would have made a brilliant engineer," says Londeka.

Londeka was first introduced to N3TC as a matric pupil. *"Rose Smuts, the project coordinator at PROTEC, the programme for technological careers in Pietermaritzburg put me into touch with N3TC after our matric results were released."*

This investment paid off when Londeka not only achieved brilliant matric results, but also obtained a full bursary from N3TC to study civil engineering. *"Throughout my academic career, I always hoped to get an opportunity to work for the company too. They really care about what they are doing, and for the people associated with them," says Londeka.*

"We at N3TC welcome you in our midst, Londeka. You are an inspiration and an asset. We hope to go some way in helping you achieve your dreams," says commercial manager, Con Roux, who has proudly walked the journey with her from their first meeting at PROTEC, through her student years, to now being colleagues.

Water provides relief for communities affected by drought



Bakwena N1N4 Toll Concessionaire has delivered more than 3-million litres of water to drought-stricken communities in Swartruggens since November 2015 – the bulk of this over the festive period.

Swartruggens, which lies along the N4 Platinum Highway in the North West, is one of the communities that has been deeply affected by the ongoing drought.

Bakwena holds the contract to construct, manage maintain and upgrade the N1 and N4 route, and has been working together with the Kgetlengrivier Municipality to provide water supplies to the stricken town.

Two water tankers providing 18 000 litres of water at a time were sent to assist the daily water requirements of Swartruggens residents.

"We are concerned about the wellbeing of communities along the N4 route and regularly engage with residents regarding road safety, health and environmental matters," says Bakwena spokesperson, Charmaine van Wyk. "It has been devastating to see the effects of the drought on the town."

For further information about the water programme or to find out when future water deliveries will be made, contact Bakwena on 011 519 0400, or at info@bakwena.co.za.

World-class route receiving upgrades



A number of road construction and rehabilitation projects are underway on the N4 Toll road that might affect the journeys of road users.

Section 1 and 2f - Gauteng Border to Witbank

The carriageway is being rehabilitated while the intersection at Balmoral is upgraded to accommodate peak hour traffic volumes going to Kusile. This project, valued at R200-million, is expected to be concluded in September 2016.

Section 4C - Middelburg to Arnot Interchange

Construction started in 2014 and major road works will continue till July 2016. It entails the construction of a new double-lane east bound carriageway, to ultimately consist of a divided highway, with the existing westbound carriageway rehabilitated and upgraded to a three-lane carriageway. The latter, includes extensive work on- and off the road, as well as the construction and extension of major bridges and culverts along this section of the road.

Section 4D – Arnot Interchange to Wonderfontein

Roadworks include the construction of a new double-lane east bound carriageway, to ultimately form a divided highway. November 2016 has been set as the completion date.

Section 6E – Elandsvalley

This extensive road rehabilitation project involves the overlaying of the existing carriageway. Given the nature and positioning of the road works, daytime Stop/Go's will be in effect throughout construction activities. The project started late last year and is expected to be concluded at the end of February 2017.

Section 15 - Hectorspruit to Komatipoort

This project will see the construction of new climbing lanes in this section, as well as rehabilitation works to improve ease of travel. Work is earmarked to be completed at the end of August 2017.

This is the year to become healthy. And By The Way will help you achieve this. We will share recipes with you to boost your immunity, keep you alert and strong on the roads (and at work) and above all, recipes which are healthy and tasty.

Padkos



Try Quinoa to warm your soul

Quinoa (pronounced keenwa) is a vegetable protein and is naturally gluten-free and contains all the essential amino acids. This means that it is considered a complete protein but is easier to digest than meat protein. It is also packed with iron, B-vitamins, magnesium, phosphorus, potassium, calcium, vitamin E and fibre.

Health benefits of Quinoa:

- Potentially anti-inflammatory
- Helps lower cholesterol
- Helps lower blood pressure
- Helps balance blood sugar levels
- Supports weight loss efforts

How to cook Quinoa:

This pseudo-grain is cooked the same way as couscous. So don't be afraid.

Start by rinsing the quinoa (properly) under cool running water to prevent it being bitter and to enhance its nutty flavour once cooked.

The ratio to cook quinoa is 1:2. One part quinoa and two parts water (or any other cooking liquid you prefer). You might want to use homemade stock or coconut milk...or just water. Depending on which dish you are preparing. It swells when cooked and it absorbs the flavours you cook it in.

Bring the liquid to a boil and then stir in the quinoa. Reduce the heat to low and simmer for 15 minutes. Remove it from the heat and let it stand (covered) for another 7 - 10 minutes.

Fluff the quinoa with a fork to help separate the grains.

Quinoa is very versatile and can be mixed with fresh ingredients and served as a salad, or served as a side-dish cooked with spices and served with melted butter, mixed with roasted vegetable or stirred into soups.



Wholesome quinoa and oats cinnamon, pear and almond porridge

A bowl of this steaming porridge will not only warm you stomach, but also your soul. It bursts with flavour, texture and nutritional value.

Makes 18

- 1/2 cup rolled oats**
- 1/4 cup quinoa**
- 1 teaspoon chia seeds (optional)**
- ± 400 ml full cream milk, almond milk or coconut milk**
- pinch salt**
- 3/4 teaspoon ground cinnamon**
- pinch cardamom (optional)**

Also...

- 1 ripe fresh pear, cut into bite size pieces**
- coconut flakes, dry roasted in a pan**
- raw almonds**
- pitted dates, chopped**
- 1 banana, sliced**
- honey**

Method

- Bring the milk (or coconut milk/almond milk) to a boil.
- Slowly add the oats, quinoa, chia seeds (if using), salt and spices.
- Turn the heat much lower and let the porridge simmer (10 - 15 minutes) while stirring every now and then.
- When nearly all the liquid has been absorbed it should be ready.

Serve while still steaming hot and add the pear, coconut flakes, almonds, dates, banana and honey according to taste.



Nutritious and easy egg muffins

These 'on the go' muffins are perfect for breakfast, lunch, as a snack or great as lunchbox fillers for the kids. If you are vegetarian, replace the meat with shredded spinach or kale, mushrooms or peppers. Be creative and make these muffins your own.

Makes 18 bite-size mini-muffins

- 1/3 cup chorizo sausages, bacon or leftover chicken, chopped**
- 2 large organic eggs**
- 1 cup cooked quinoa**
- pinch salt**
- pinch white pepper**
- fresh thyme (according to taste)**
- 1 cup mature cheddar cheese, grated**

Method

- Pre-heat the oven to 180 °C.
- Mix all the ingredients in a bowl.
- Prepare the muffin tin with cooking spray and divide the mixture evenly into the muffin cups.
- Bake for 20 minutes and eat as is, or serve with fresh basil pesto.

Great start leads to excellent finish

Start to Finish Trading cc, an emerging contractor in KwaZulu-Natal, has rapidly carved a name for itself in the competitive construction industry – and now affords seven people a livelihood.

Owned and managed by Gravis Sabelo Dlamini, the company provides specialist services such as the construction of barrier walls, concrete roads and V-drains.

He and his colleagues have gained valuable experience while working on two major SANRAL projects – the N2 between the Umdloti Interchange and Tongaat Toll Plaza and the N2/Ballito Interchange.

“Participating in these projects has taught me how important it is to be professional,” says Dlamini. It also offered the benefits of essential training and skills development for the company’s employees.

Dlamini says the biggest challenge he encountered was to learn how to operate a breaker machine, which is used to break concrete. *“My employees can now work with any machine. I always maintained the view that finances will come later; let us master the skills required for the work first,”* he says.

The stability flowing from participation in the major construction work has enabled Start to Finish Trading to open offices at Kwandengezi, west of Durban.

Safety and planning are important

One of the key learnings of working with SANRAL was how to compile quotations. *“Before, I would just name a price for my service without making thorough calculations. Now I am better informed about how to do costing and to manage the financial implications.”*

The safety of his employees and people in the working area is of paramount importance for Dlamini. His approach is to prepare work for the day and delegate tasks and responsibilities to the team accordingly.

“Be patient, as nothing comes easy; never be greedy and remember to always be loyal.”

His advice for developing SMMEs is: *“Be patient as nothing comes easy; never be greedy and remember to always be loyal.”*

As he welcomes more opportunities from SANRAL, he is confident that the hard work he has invested in growing his company will bear fruit and enable him to contribute meaningfully to job creation.

“In the near future I plan to be equipped with tractor-loader-backhoe machinery and trucks to increase the efficiency of my operations and service delivery,” says Dlamini.

“Participating in these projects taught me how important it is to be professional...”



A piece of land originally intended for road building near Knysna in the southern Cape, has now become available for housing development.

Speaking at a handover of the 72 hectares of land to the Housing Development Agency, Transport Minister Dipuo Peters said it was encouraging to see land becoming available for the building of decent accommodation.

The initial intention was that the piece of land would be used for the construction of the N2 Bypass close to the town of Knysna. Following a process of extensive community consultation, a decision was, however, taken to make it available for the development of an integrated human settlement project.

An agreement for the transfer of the land was recently signed at the Khayaletu Community Hall. The Minister of Housing, Lindiwe Sisulu, referred to the development as a “national priority project,” and said it will offer different tenure options, including rental accommodation and bonded homes.

Nazir Alli, the CEO of SANRAL says government listened to the concerns of Knysna residents and took a joint decision to transfer the land.

SANRAL considered various options for the alignment of the road which is intended to improve the N2 in the southern

Cape and relieve congestion pressure on Knysna, one of the fastest growing nodes in the region.

Another alternative is to build the road deeper into the inland but because of the topography of the region this will be an expensive option which will require short-term funding.

The environmental implications of this alternative alignment have also not been evaluated. Unfortunately, the only other option is for the growing traffic volumes to continue to be directed through the centre of Knysna,” says Alli.

Testing lab guarantees the quality of SANRAL roads



Two of the candidates at SANRAL's Centre of Excellence, Lindokuhle Mahlangeni and Sandiswa Jekwa, have donned white coats to work at the new materials testing facility in Port Elizabeth. They are joined by senior laboratory manager, Jeremy Dick, and SANRAL's materials specialist in the Southern Region, Sean Strydom.

A new laboratory to test the quality of material used in road maintenance activities has just been opened in Port Elizabeth.

The testing facility will contribute to the value of the world-class national road infrastructure delivered by SANRAL in the Eastern Cape.

The laboratory will also double up as a skills development programme where graduate engineers in SANRAL's experiential learning programme can gain experience in the field of materials engineering.

The properties of the construction material used in the development and upgrading of SANRAL's road network are now tested at the PE laboratory. This offers SANRAL a second-tier quality assessment tool to compare with the results coming from other tests.

Independent tests confirm accuracy

"Having an independent comparison is widely regarded as one of the most valuable tools to check the accuracy of the laboratory," says Sean Strydom, SANRAL's Southern Region materials specialists.

"The accuracy of the test results has a significant impact on whether we accept or reject the quality of work in our efforts to deliver roads that are in line with international standards. Any additional confirmation of accuracy is of great value to us."

Strydom says SANRAL will, through this initiative, ensure that remote site material labs are compliant with the quality management standards required by the South African National Accreditation System.

The new engineering materials laboratory consists of testing facilities to test the properties of soils and gravel, asphalt, concrete and bituminous binders.

Boost for training of emerging engineers

South Africa's next generation of engineering professionals will benefit greatly from the new testing facility for road materials established in the Eastern Cape.

It will also serve as a training centre for students at SANRAL's Centre of Excellence who can build their understanding of materials engineering through practical experience.

Some 26 engineering graduates from across South Africa are currently following a three-year in-house training programme at the Centre of Excellence which will assist them to become registered professional engineers.

"From a developmental perspective it is critical to ensure the country's future engineers have a fundamental understanding of the properties of material used in road construction," says Simon Peterson, SANRAL's Southern Region Manager.

Hands-on training add to knowledge

The current generation of senior engineers was deployed to commercial or provincial laboratories after completion of their studies. However, through the years there was a disinvestment in facilities where testing of road materials could be done. Only one provincial facility has retained its accreditation from the SA National Accreditation System, says Strydom.

The intention is that upcoming engineers will spend between three and four months at the road materials testing lab as part of their advanced training.

They will be involved in hands-on testing procedures and guided to understand the limitations of road material tests in terms of the methods and interpretation of results.

"From a developmental perspective it is critical to ensure the country's future engineers have a fundamental understanding of the properties of material used in road construction"

Mount Frere - born female engineer with big plans for the future



Abongile Nkonyana
Trainee Project Manager at SANRAL

Abongile Nkonyana has fond memories of her childhood in Mount Frere, Eastern Cape, where she was born. As a little girl, Abongile had a passion for maths, science and drawing and this eventually led her into a career in engineering.

Abongile is currently a trainee project manager at SANRAL and says that the roads agency has played an important part in her career and school life. *"I started with SANRAL when I was in high school,"* she says. Abongile obtained top marks and was awarded a bursary by SANRAL to study Civil Engineering after completing her matric.

She has learnt a lot in her time at SANRAL: *"I have learnt about more than being an engineer. I have learnt to be responsible person all round."* She is currently based in the Northwest Province where she is working on the N14 project. *"I am excited – it's very interesting work."*

Abongile says she is aware how important the work she is doing is. *"Civil engineers build infrastructure that is vital for the country. They build the roads that connect people and places,"* she says.

Abongile looks forward to making her own personal contribution to this. *"I would like to work for a few more years, complete my post-graduate studies."* She is currently registered at WITS university for her masters and aims to register as a Professional Engineer in the next four years. *"I know that in future I will be a project manager in an award-winning project,"* she says.

In the long term however, she sees herself playing a role in training young engineers. *"I want to be a lecturer and shape young minds the way that my lecturers shaped mine. I want to teach them to be good engineers,"* says Abongile.

"I have learnt about more than being an engineer. I have learnt to be responsible person all round."

Engineering runs in the family

SANRAL engineering intern Lukhanyo de Beer was born in the Karoo town of Aberdeen in the Eastern Cape, where he drew his inspiration from his late grandfather and uncle who both worked as material technicians.

He was fortunate to be introduced to the field of engineering at an early age. It was then that he decided to pursue a career in civil engineering while taking part in job shadowing opportunities, which his grandfather and uncle had organised for him with different companies during the holidays.

Raised by a single parent, Lukhanyo grew up with financial problems as an ongoing reality. It was these challenges that compelled him to pursue his career so that he could improve his life and that of his family.

"For me education is important, as it teaches one how to be a better person in life. It teaches you the value of discipline which provides a person with the ability to learn and grow. Without discipline, the value of education is likely to be defeated. Education is a self-empowering tool that will lead to independence later in life," Lukhanyo says.

For him the SANRAL bursary meant that he had been given opportunities to further his studies. *"During my studies, the support I received from my colleagues at the SANRAL Northern Region office made it possible for me to achieve a post-graduate degree,"* he said.



Lukhanyo de Beer
Engineering Intern at SANRAL

The work opportunity he received allowed him to expand his career by putting theory into practical experience. He has been seconded to a number of private entities in the country, seeking to further develop his engineering skills.

He is hoping to learn as much as he can from his experienced colleagues while being exposed to different fields at SANRAL and ultimately become one of the best upcoming engineers in the country.

"I am fortunate to be based at one of their biggest road reconstruction projects at the moment in Mpumalanga province, along the R23," says Lukhanyo.

With regard to the contribution he is making to infrastructure development in the country, Lukhanyo would like to make sure that the projects under his control will improve the lives of South Africans.

"To realise this, firstly I would like to gain all the necessary experience in my field, which is what SANRAL is helping me to achieve. Secondly, register professionally with the Engineering Council of South Africa (ECSA), where I will be able to solve well-defined problems and make my own recommendations when necessary. Thereafter, I plan to practice as one of the trusted professional engineers in the country," concludes Lukhanyo.



And the ‘green transport Oscar’ goes to...

Environmental innovators, movers and shakers were recently recognised for their pioneering efforts at the Eco-Logic Awards in Cape Town.

SANRAL sponsored the Transport Award at this annual event which brings together thought leaders, celebrities and top executives in business and the public sector to celebrate creativity in the green environment.

Referred to as the “Oscars” of the environmental community, the glamour seen at the function was in keeping with the theme and spirit of the evening.

The sponsorship of the Transport Award underlines the importance SANRAL attaches to sound and sustainable environmental management which is part of the agency’s DNA. *“We have a long-established and proven commitment to implement global best practice when building and maintaining South Africa’s 21 490km road network”* says Heidi Harper, Corporate Services Executive for SANRAL.

“The Eco-Logic Awards is SANRAL’s way of showing how deeply committed it is to rehabilitating and returning our areas of operation to their sustainable pre-operational state, so that they may still be viable for the use of future generations.”

The Eco-Logic Awards Judging panel evaluated hundreds of entries before it honoured 14 winners in the different categories. Each of the projects and initiatives showcased through this competition makes a measurable difference in the lives of ordinary South Africans.

“We have a long-established and proven commitment to implement global best practice when building and maintaining South Africa’s 21 490km road network”

Heidi Harper
Corporate Services Executive for SANRAL.



Heidi Harper (centre) from SANRAL presenting the winner’s trophy to representatives of BEN.

Bicycle initiative wins gold

The latest winner of the SANRAL Award is the Bicycling Empowerment Network – BEN – which also represents the agency’s approach “to create the new out of something old.”

Established in 2002, the Bicycling Empowerment Network aim is to address poverty and mobility through the promotion of the bicycle in all its forms. BEN imports used bicycles from overseas, distributes them to low-income areas and trains the recipients of the bikes in aspects of safety and maintenance.

Through the establishment of Bicycle Empowerment Centres in cities it encourages city administrations to promote the planning and provision of infrastructure that promotes cycling.

Louis de Waal, the Chairman of BEN says: *“We believe in the bicycle as part of the solution to mobility and poverty alleviation. Through the creation of 17 Bicycling Empowerment Centre’s and the distribution of over 12 000 new and used bikes, we are beginning to address job creation and access.”*

“Our training programmes are ensuring that bike recipients are safe and in control of their bikes. Winning the award gives organisations such as ours an avalanche of publicity and raises our profile in a way that we ordinarily wouldn’t have been able to achieve on our own.”

Here's to **strong** women
May we **know** them
May we **grow** them



Inge Mulder
Chief Financial Officer

Mpati Makoa
Environmental Manager



Heidi Harper
Corporate Services Executive



Alice Mathew
Company Secretary and
Risk Officer



Logashri Sewnarain
Eastern Region Manager

SANRAL is committed to creating a path of growth and development for women in engineering and in business to ensure long-term sustainability of critical skills in our economy and our country. We salute all those female trailblazers and achievers who dared to join us on the road less travelled.





A season of art and culture



Do winter like the cool kids - at a festival, writes Lebohang Thulo

Forget everything you have heard about winter. The season that has traditionally been associated with slowing down – at best – and hibernation – at worst – is everything but.

Those who are in the know can testify that the colder months have adventure, travels and endless fun to offer.

While I have always been a fan of winter – I am a July baby born in the height of a particularly cold snap – it wasn't until I experienced one of South Africa's most popular arts festivals that I was completely sold.

The season that I had so long thought of as a time to remain homebound, I discovered was the perfect opportunity to immerse myself into the arts, culinary delights and colourful eccentrics, all in a rustic and bohemian setting.

Fortunately, we at the southern tip of the continent are spoilt for choice when it comes to arts and cultural festivals to explore - from the Klein Karoo, to the Eastern Cape to our neighbour, Swaziland.

So, pack warm, hop in the car and get ready to celebrate the best of the continent's creative talents. Some are actually held in autumn and you may miss this year's offering. But, never mind, plan now for next year. Here are some options to consider:

The National Arts Festival Grahamstown

The National Arts Festival is one of South Africa's most popular cultural festivals and the biggest annual celebration of the arts on the African continent.

The event which typically runs for 11 days is held in the university city of Grahamstown in the Eastern Cape, about an hour away from Port Elizabeth. The festival runs from the end of June to early July.

Expect everything connected to the arts. From drama, dance, physical theatre and comedy to opera, music and visual art exhibitions. There are also historic tours of the city and surrounding historic places.

The city's clear crisp days and cold evenings make it the ideal location to enjoy big slabs of carrot cake, curry and glasses of red wine.

The Bushfire Festival, Swaziland

Now in its tenth year the MTN Bushfire is one of Swaziland's best attended festivals offering a line-up of local and international artists.

The festival takes place in May every year and is made up of numerous arts and cultural activities.

This year the festival took place from 27 May with a line-up bringing together artists from over 17 countries including Ghana's sizzling-hot artist Blitz the Ambassador, Mali's Songhoy Blues and South African super-group, Mafikizolo.

If you are game, the Swaziland border is just a little over four hours away from Johannesburg.

AfrikaBurn, Tankwa Karoo, Northern Cape

Every year Stonehenge farm, located in Tankwa Karoo in the Northern Cape hosts AfrikaBurn, a festival of music, art and performance.

The six-day event held usually in late April and early May is probably best known for the elaborate costumes worn by visitors, most in the style of Mad Max's post-apocalyptic world.

AfrikaBurn is an official Burning Man regional event. The highlight of the festival is the construction of temporary artworks which are then burnt at the end of the event.

Attendees are expected to bring their own water, food and any other supplies necessary to survive a week in the Karoo.

South African Book Fair, Johannesburg

No book-lovers worth their salt will think of missing out on the country's largest book festival. Every year the event, held in late July, brings together exhibitors from over 30 countries.

While the three-day fair is held in Johannesburg, its venue of Turbine Hall in Newtown gives the event a creative and urban edge.

Whether you are looking to make new acquisitions for your book shelf or are looking to meet and listen to a beloved author or attend literary workshops, the fair is a must-attend for all book lovers.

Games and puzzles to keep you entertained on the long road.

Captivate & Fascinate

Spot the Difference

Find five differences in these Road Safety Art competition's winning drawing by Lana Laubscher.



Crossword

some answers can be found in By The Way

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
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ACROSS CLUES

A1	Where is the new pedestrian bridge in Pretoria
M1	Extremely fat
S1	Measurement
A2	Cleaning device
K2	Stick used in India for goading elephants
G2	Males
Q2	A mixture of lime and gravel
A3	Evoking or expressing pity
L3	Acronym: SA National Roads Agency
S3	Kalashnikov assault rifle
A4	Abbr. Anno Domini
D4	Abbr. Old English
G4	Internet domain name for Tokelau - island in South Pacific
J4	Domain name for Iceland
Q4	An assistant
C5	Which corridor connects three provinces
J5	Abbr. a Member of Parliament
M5	A form of present tense used with he, she, it
P5	Symbol for Herz
S5	Internet Protocol
C6	Abbr. Extra Terrestrial
F6	Barbie's male friend
J6	Public transport
N6	Sweetened carbonated drink
S6	Acronym. Automobile Association
A7	Type of tree
E7	Great attraction of Western Cape
S7	Abbr. teetotaler
A8	Used for pulling thread
H8	Steal
M8	City in Nebraska, on Missouri river
S8	Latin for Elsewhere
A9	Three-toed sloth
M9	Type of what necked storks found in KwaZulu-Natal
J9	Refers to all people in general

L10	Abbr. International Organisation for Standardization
B10	Producing scorn
S10	Either ...
E11	Local militia of an Anglo-Saxon shire
K11	Abbr. Emergency Room
N11	Those who are afraid
A12	For which industry is the N2 vital?
I12	Change from wild state
C13	U.S. Customs border cargo release mechanism
S12	Abbr. for Ex Officio
O13	A narrow continuous mark
A14	Abbr. for nota bene
F14	Hypothetical force formerly thought to be responsible for natural phenomena
I14	Any metamorphic rock that can be split into layers
P14	Expressing mood without talking
A15	Sixth letter in Greek alphabet
F15	Relating to the pope or papacy
M15	Variant of Kif - another name for marijuana
A16	Opposite of out
G16	HR Manager at Eastern Cape Dept of Transport
R16	Sick
A17	Durban car registration
E17	An exclamation
H17	Elliotdale graduate from NMMU
O17	Silk, wool, cotton or nylon fabric
A18	A line on a map connecting places with equal rainfall
K18	Abbr. for Western Australia
P18	National flower and cricket team
H19	An exclamation of surprise or enquiry
M19	Refers to speaker or writer
S19	Abbr. for Not Specified
A20	Name of SANRAL's Eastern Region Manager
S20	Abbr. Artificial Intelligence

DOWN CLUES

A1	KwaZulu-Natal town where N2 freeway is upgraded
B1	Used by vehicles and people
C1	Suitable for circumstance or purpose – appropriate
G1	To afflict or affect severely
H1	Any of various devices used to facilitate reckoning
I1	Sumerian sun god
K1	Irish for dad
M1	Ruminant mammal from Central Africa
O1	Abbr. for Erythrocyte sedimentation rate
N1	Bread for hamburger
Q1	Where is SANRAL's new overload control facility?
S1	Less common word for radiate
T1	Name of Vice-Chair South African Road Federation
L2	Abbr. non-smoker
D3	Sound made by owl
E3	Snakelike fish
J3	The N1 goes up inland to which country's border
K4	Past tense of spin
C5	An idea or element of social behaviour passed on through generations
F5	Slang used for inhabitant of Oklahoma
N5	Chemical symbol for Scandium
P5	Which is the oldest game park in KZN
B7	Loyal, Faithful - Old English
E7	International car registration for St Lucia
I7	... and behold - look, see!
M7	Adult female pigs
N8	Slang for loitering or walking aimlessly
O8	Internet domain name for Angola
Q8	Symbol for aluminium
G9	A tract of land used to rear livestock
E10	Acronym for Gauteng Freeway Network

F10	Widely cultivated Asian plant used as condiment
H10	Abbr. for Bachelor of Divinity
L10	Wrath
S10	Lyric poem
A11	Name the other town from which N2 is upgraded
K11	Measurement
C12	Opposite of down
D12	Method for detecting distant object
M13	To put a question
Q13	Chemical symbol for nickel
R13	Kingdoms
B14	To form or force a curve- plural
R14	To touch quickly and lightly
I14	Editor of Zululand Observer
J14	Type of earth and mud – used for sculpting
N14	Outlet for water
D15	Chemical symbol for Argon
H15	Abbr. Point of Sale
K16	Opposite of old
L16	Abbr. also known as
T16	Cold drink made with yoghurt or buttermilk
S16	Any of various woody climbing plants
E17	Used for seeing
O17	Internet domain name for Greece
Q17	Abbr. for Occupational Therapy
F17	Chemical symbol for Neon
N18	An accepted level or average – a state of equality
H19	Third tonic solfa – music
C18	Internet domain name for an organisation
J19	Seventh tonic solfa – music
M19	Informal for mother
E16:	Nocturnal flying animal

Competition

Enter to win one of three MP3 players. Simply take a picture while driving on SANRAL roads, caption it and include #My SANRAL Road Trip and share on Instagram, Facebook or Tumblr. Judges decision is final and no correspondence will be entered into.