By expanding, improving and maintaining the N2 and N3 highways in KwaZulu-Natal, SANRAL is constantly improving mobility, productivity and road safety, creating jobs, helping communities and saving lives. SANRAL is the custodian of the economic arteries that bring lifeblood to the provinces.
Upgrading road infrastructure is crucial to unlocking the economic potential of KwaZulu-Natal and the country as a whole. We are pleased that our national roads agency (SANRAL) is investing billions of rands in KwaZulu-Natal to upgrade road infrastructure. This will contribute immensely to the attainment of our strategic goal of making KwaZulu-Natal a gateway to Africa and the world.

The expansion and upgrading of road infrastructure in the province are critical for a number of reasons. These include the fact that KwaZulu-Natal is the second most populous province - after Gauteng - with over 11 million citizens who make 19.7% of the country’s total population. It also attracts the second highest number of visitors, especially during the holiday seasons. Furthermore, our province:

• has the third highest number of registered vehicles at approximately 1.6 million, which is growing annually at an average rate of about 25 percent;

• has several international (Lesotho, Swaziland and Mozambique) borders and national (Free State, Mpumalanga and Eastern Cape) boundaries, perhaps more than all other provinces;

• has the country’s busiest ports, namely Durban and Richards Bay, and must thus handle overwhelming volumes of heavy vehicles carrying freight.

These multi-billion rand infrastructure investments in the province will not only facilitate the economic growth in the province but they will also enhance road safety.

Over and above this, SANRAL’s infrastructure investment in the province has contributed immensely to creating business and job opportunities for SMMEs and ordinary citizens of KwaZulu-Natal. Undoubtedly, this will go a long way in addressing the triple challenge of unemployment, poverty and inequality. It will also help accelerate government’s programme of radical socio-economic transformation which seeks to bring the majority of the previously marginalised into the mainstream economy.

KwaZulu-Natal has two major ports in Durban and Richards Bay and the expeditious movement of goods to the rest of South Africa and neighbouring countries is an economic priority. The upgrading of the N2 and N3 at a cost of more than R28bn will ensure that the required infrastructure is built to resolve the traffic congestion currently experienced by providing higher mobility and increased safety.

The N3 upgrade will boast a four to five-lane freeway per direction on an 80km stretch between Pietermaritzburg and Durban. The N2 upgrade will entail a four to five-lane freeway per direction over the 54km route between Amanzimtoti and Dube Tradeport.

The N3 upgrades will solve bottlenecks between Durban and Pietermaritzburg.

In an effort to fast-track empowerment in the road construction industry, SANRAL signed memoranda of understanding with suppliers of construction machinery that give small contractors access to these to allow them to participate more meaningfully in major construction projects.

Thus, new entrants will be attracted to the construction and engineering sectors, particularly black contractors, who will in turn grow their business and create jobs.

SANRAL has long recognised that the importance of transport infrastructure to economic growth creates opportunities for private investment in road development and management. Public Private partnerships (PPPs) are an alternative means of financing and operating the national road network, with the costs being recovered through user charges or tolls.

The mandate of the N3 Toll Concession which is to design, finance, construct, operate and maintain the section of the N3 extending from Cedara in KwaZulu-Natal to Heidelberg in Gauteng has seen millions of rands being poured into refurbishment and periodic maintenance of this stretch of the N3 to make it operationally more efficient and safer.

Roads are the arteries through which the economy pulses. By linking producers to markets, workers to jobs, students to school, and the sick to hospitals, roads are vital to any development agenda.

Rutted roads will give a rotten economy. Hence, SANRAL will always ensure that our roads are right and proper to make South Africa grow and develop.
Update on the N2 & N3 upgrades

The upgrades of the N2 and N3 in KwaZulu-Natal form part of the national government’s key Strategic Integrated Projects, SIP2: Durban-Free State-Gauteng Logistics and Industrial Corridor. The upgrade of the N2 will focus on a 55km length, from Lovu River, on the South Coast, to Umdboti, on the North Coast. The N3 upgrade will focus on an 80km section from Durban to Pietermaritzburg.

These upgrades will include the widening of the N2 and N3 carriageways, with four to five lanes in each direction, and the reconfiguration of most major interchanges along these route sections.

Ravi Ronny, SANRAL Eastern Region Design & Construction Manager, says due to the length and estimated cost of the entire N2 and N3 upgrades, the strategy is to split the corridor into a number of detailed design and construction packages.

Upgrading of the N2 and N3 is expected to take between five to eight years.

President Cyril Ramaphosa recently introduced the “stimulus package” as a new measure “to reignite growth, stimulate economic recovery and secure confidence in sectors affected by regulatory uncertainty and inconsistency”. Projects earmarked for the stimulus package will be funded from the existing budget envelope with R55bn already identified by the government for infrastructure projects nationally.

SANRAL’s allocation from the total stimulus package is some R3.5bn which will be used to initiate the SIP2 projects over the next two years. Two N2 project packages and five N3 project packages, identified as critical areas, were allocated the stimulus funding accordingly. The stimulus funding for these project packages has, therefore, assisted in the fast-tracking of the commencement of these projects.

The first N2/N3 construction package is now expected to be awarded by the end of 2019.

Once completed, the existing simple diamond interchange at Hammarsdale will be an upgraded semi-parclo (partial clover leaf) free-flow interchange.

This upgraded interchange will accommodate the increased volume of traffic resulting from the development of the area as a distribution node for freight logistics companies, including the 152ha Keystone Park industrial precinct.

The national and provincial importance of the Hammarsdale Interchange stems from its location on the N3 between the eThekwini and Msunduzi municipalities, its proximity to the rail line linking Gauteng to the Durban harbour, and the proposed inland container terminal at Cato Ridge. To fast-track construction of the interchange, SANRAL entered into a co-funding partnership with the eThekwini Municipality to share the R276 million cost of the project.

Stefanutti Stocks (Pty) Ltd were appointed in 2016 to undertake the construction of the new interchange. The planned upgrades include the construction of six new on and off ramps. The improved geometry of these ramps demands significant cuttings into the existing ridges, requiring the regular blasting activities which have become familiar to frequent travellers along the route.

A new five-lane lane overpass bridge with a precast beam deck and slab has been constructed to replace the existing bridge, which will be demolished once the ramps have been completed. The new bridge was erected across both carriageways of the N3 in a record four days by using a large crane to lift and place 46 beams, each weighing 37 tons, over two consecutive weekends.

Once the interchange has been completed, lighting will be installed to ensure the whole intersection is lit at night for increased safety of both pedestrians and motorists.

The project has presented the area with an excellent opportunity for local SMME development, and the creation of employment opportunities for the area’s largely unemployed population. Additional emphasis has been placed on training local labourers, ranging from generic skills training to NQF level training courses.

The upgrade of the interchange was scheduled for completion in November 2018 but has not been without complications and delays. Construction activities were interrupted for an extended period in 2018 by local business forums, extending the expected construction period to mid-August 2019.

Project Information Table

<table>
<thead>
<tr>
<th>N2 and N3 Upgrades</th>
<th>Project start: first N2/N3 construction package expected to be awarded by the end of 2019</th>
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<tbody>
<tr>
<td>Project value:</td>
<td>Project value: approx. R10bn for N2, R18.4bn for N3</td>
</tr>
<tr>
<td>Estimated project</td>
<td>Total labour estimated to produce over 15 000 jobs</td>
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<tr>
<td>duration:</td>
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<td>between five to</td>
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<td>eight years</td>
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INFORMATION TABLE

<table>
<thead>
<tr>
<th>Upgrade Hammarsdale Interchange</th>
<th>Project start: 18 May 2016</th>
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<tbody>
<tr>
<td>Project value:</td>
<td>Project value: R276m</td>
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<tr>
<td>Project end:</td>
<td>Project end: August 2019</td>
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<tr>
<td>Total local labour:</td>
<td>Total local labour: 4839 jobs</td>
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<tr>
<td>Total core labour:</td>
<td>Total core labour: 576 jobs</td>
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<tr>
<td>Total subcontractors:</td>
<td>Total subcontractors: 12</td>
</tr>
<tr>
<td>Total spent/earned by black-owned SMMEs:</td>
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N2 AND N3 UPGRADES
Project value: approx. R10bn for N2; R18.4bn for N3

Project start: N2/N3 construction package to be awarded by the end of 2019

Estimated project duration: Between five to eight years

Estimated to produce over 15000 jobs
The upgrading of a 33km stretch of the N2, between Mtunzini toll plaza and the Empangeni T-junction on the KwaZulu-Natal North Coast and which has been the scene of several fatal crashes, is nearing completion.

The almost R1bn project will result in a 14-metre wide, safer dual carriage highway, which will enable the key arterial road to cope with increased traffic volumes.

The upgrade of this section of the N2 commenced in March 2016. Technical challenges were encountered with the installation of up to 35m deep piles required for the construction of two major new bridges over the uMhlatuze and uMhlalazi rivers.

When the project is complete, four agricultural overpasses over the N2 would have been lengthened; new bridges would have been built at the R34 Empangeni/Richards Bay interchange and at the P537 Port Dunford underpass; two road-over-rail bridges would have been constructed; and 16 major box culverts and numerous minor box culverts and other drainage structures would also have been built.

In addition, the height of two overpasses would have been increased by jacking up the bridges.

The sensors will send a signal to the Traffic Management Centre (TMC) in Pietermaritzburg where dedicated staff will be monitoring the lighting equipment. Security personnel will be dispatched to the site to apprehend the thieves who will be handed over to the police.

Mthethwa says sensors will be rolled out initially to safeguard the electrical equipment at Umgeni Road/M19 Intersection which has 242 light poles, and the freeway between Umdloti Interchange and Tongaat Town Plaza which has 582 light poles. Vandal-proof light poles will replace those that were cut down by cable thieves. Closed-circuit television cameras will also be installed and these will be monitored around the clock at the TMC to apprehend vandals.

It is estimated the security features at Umgeni Road/M19 Intersection and the freeway between Umdloti Interchange and Tongaat Town Plaza will cost about R15m. The sensors will send a signal to the Traffic Management Centre (TMC) in Pietermaritzburg where dedicated staff will be monitoring the lighting equipment. Security personnel will be dispatched to the site to apprehend the thieves who will be handed over to the police.

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Zakhele Mthethwa, Electrical Project Manager at SANRAL’s Eastern Region.
F or the first time in South Africa, a rating system dedicated for road projects and which promotes the use of sustainable best-practices in the planning, design and construction of roads, is being developed.

The Sustainable Roads Forum (SuRF) rating tool allows road authorities to set sustainability intervention targets for their projects and to start measuring and reporting them in a clear, transparent and aligned manner. The tool, which is being piloted on the N3 corridor upgrade between Durban and Pietermaritzburg in KwaZulu-Natal, provides a list of design and construction interventions, guidance for implementation and a unified method of reporting.

It also introduces the concept of a carbon footprint and attempts to start quantifying the reduction in the carbon footprint resulting from the interventions. Dumisani Nkabinde, Regional Manager - SANRAL Eastern Region, said unlike similar tools in use, SuRF’s rating tool is set up so that road authorities can set targets for relevant credits they wish to apply to specific projects for use by their service providers. These are then used for progress reporting purposes and final scoring on completion of the project phases.

There are currently 10 mandatory intervention levels for “best-practices”. These are:

- Relevant environmental, social and heritage resources related permits obtained
- Compilation of an Environmental Management Plan
- Proper disposal of hazardous waste
- Use of energy efficient plant
- Initial and follow-up pedestrian surveys
- Noise impact assessment
- Early community engagement
- Youth Skills Development (in-service training)
- Percentage of works reserved for labour intensive construction and targeted enterprises
- As-built data reporting.

The tool provides a unique focus on the socio-economic impact of road projects in the context of South Africa’s inequality, unemployment challenges, skills development and history of restricted movement.

“Several attempts have been made in the past to set up rating systems for the broader infrastructure industry such as roads, dams, buildings, power plants and toll systems but these took a one-size-fits-all approach. “Thus, the roads industry in South Africa started pursuing a rating system which would be entirely specific to roads.”

Royal HaskoningDHV undertook the earliest stages in developing a new localised rating system for the roads industry with support from SANRAL.

“South Africa is playing catch up as countries such as New Zealand, America and Australia have had a rating system for many years. “In these countries, sustainability in infrastructure provision is enshrined law. Their construction and consulting companies use the sustainability rating system as a business strategy and this gives them a competitive advantage over their rivals,” said Nkabinde, adding that South Africa should have adopted a mandatory rating system a long while back.

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- As-built data reporting.

The engineering bursary has a five-year work-back obligation. During this time SANRAL has developed a post-graduate programme that ensures students are able to register as professional engineers at the end of the programme.

The programme focuses on key area and includes 18 months at the SANRAL Design Academy in Port Elizabeth, 18 months on site, a few months at the soil testing laboratory and finally a few months working in the office as a project manager in training.

Candidates studying towards a university degree in BEng/BSc Civil Engineering or postgraduate in civil engineering are invited to apply for bursaries. Applications open on 1 June and close on 30 September.

Consideration will be given to needy students who have successfully completed Grade 12 or those currently registered for 1st, 2nd, 3rd, 4th year and postgraduate studies.

**Investing in tomorrow’s engineers today**

To ensure a pipeline of engineers to enable SANRAL to realise its mandate to finance, improve, manage and maintain the national road network, financial and career support is provided for high school pupils, university students and graduates.

The scholarship programme is applicable to learners from Grade 10 – 12 and is based on academic excellence and financial need. Applicants must have a high aptitude towards mathematics (70% pass) and physical science (70% pass).

SANRAL offers school fees, hostel fees where applicable, school and sport uniforms, books and stationery and extra maths and physical science classes where necessary.

The engineering bursary is for students who may study at any accredited university of their choice throughout South Africa.

The bursary covers tuition, registration, accommodation, meals, books/equipment plus compulsory excursions and seminars, and a living allowance.

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WHAT IS SANRAL?
The South African National Roads Agency SOC Ltd (SANRAL) was established in April 1998 by an act of Parliament as an independent company to operate South Africa’s national road network. It is a public company with share capital within the requirements of the South African Companies Act and governed by a board of five members. The Minister of Transport is the sole shareholder of SANRAL, representing government.
SANRAL is a state-owned entity (SOE), category 3A, and is not allowed to make a profit. It is not a business enterprise. It is responsible for a national road network of 22,214km. This network is gradually expanding, as a growing number of provinces request the agency to take over the management of their primary roads.
SANRAL’s role is to be an implementing agency for road planning, construction and maintenance, on behalf of the Department of Transport.
WHICH ROADS ARE SANRAL RESPONSIBLE FOR?
Most of the national roads – the “N” roads – with minor exceptions, such as a stretch of the N14 in Gauteng and the N2 between Cape Town International Airport and the city centre.
There are also some provincial and municipal roads in the Eastern Cape, Mpumalanga, Limpopo and the North West that have been incorporated into our network.
WHY DOES SANRAL TOLL ITS ROADS?
Of our entire network, only 2,948km are tolled. Roads are the arteries of our nation – they connect major cities, towns and villages in rural areas. Roads bring economic growth, tourism, social development and create economic opportunities for all citizens. But they need to be maintained.
Roads deteriorate over time, due to environmental and other influences, such as traffic flow, weather, ultraviolet radiation, truck overloading, etc. And maintenance is not a once-off occurrence – it is continuous. This isn’t just applicable to the road itself, but also to the verges, road markings, grass on the verges and the clearing of debris from incidents, among others.
The maintenance of roads is extremely expensive, as is upgrading them to keep up with growth and the managing of congestion. To fund this, we cannot rely solely on tax. In these instances, the user-pay principle is applied. This decision is never made lightly or rashly.
WHERE IS SANRAL’S EASTERN REGION?
KwaZulu-Natal and Free State and includes 2,881km of road.
WHAT IS THE CONDITION OF SANRAL’S ROADS IN THE EASTERN REGION?
The pavement is generally in a good to very good condition due to continuous maintenance being undertaken. The breakdown is as follows: Fair-25%, Good-35%, Very Good-40%.
WHAT ARE SOME OF THE MAJOR PROJECTS BEING UNDERTAKEN IN THE EASTERN REGION?
- Upgrading of the N2 from Munjaceni to Empangeni
- Dualling the N1 from Ventersburg to Kroonstad
- Dualling the N2 from Mtunzini to Empangeni
- Dualling the N1 from Ventersburg to Kroonstad
- Dualling the N2 from Mtunzini to Empangeni
- Dualling the N1 from Ventersburg to Kroonstad
- Dualling the N2 from Mtunzini to Empangeni
- Dualling the N1 from Ventersburg to Kroonstad
- Dualling the N2 from Mtunzini to Empangeni
- Dualling the N1 from Ventersburg to Kroonstad
IF I WOULD LIKE TO WORK FOR SANRAL, HOW DO I GO ABOUT IT?
SANRAL offers internal and external bursaries to assist aspiring engineers and technical staff to enter the field of road construction. We also encourage skills development in related fields – community and economic development, project management, marketing and communication and general administration. Please contact our human resources department at 012 844 8000, or send an email to info@nra.co.za.
HOW CAN I CONTRACT FOR WORK WITH SANRAL?
Construction work is only given out on tender. SANRAL’s procurement philosophy is aimed at broad-based BEE.
To read the entire Supply Chain Management Policy and Procedure Manual in PDF format and look for contracts advertised on the SANRAL website, visit www.sanral.co.za
HOW DO I BRING ROAD CONDITIONS TO SANRAL’S ATTENTION?
The agency has special maintenance teams in place to respond to unplanned events, such as major accidents or floods, and is able to respond immediately.
In addition, we have a 48-hour turnaround time, from reporting to repairing of a pothole on our national roads. If you want to report a problem, simply visit www.nra.co.za for contact details of our regional offices and concessionaires.