

INSYNC

NEWSLETTER

Dec - 2023

INSYNC - The Official Newsletter of Naidu Consulting



**ADVANCING
SUSTAINABILITY
THROUGH DATA
SCIENCE AND
ESG INITIATIVES.**



Message From the MD

Dear colleagues,

As we approach the end of this remarkable year, I write to you with immense pride and gratitude for the incredible journey we've undertaken together as a pioneering civil engineering company. In the face of challenges,

we have not only persevered but have emerged stronger,

more resilient and more committed than ever to our vision of sustainable growth and delivering engineering excellence to our clients.

This year has been a testament to our collective determination and innovative spirit. Despite the uncertainties that have marked the global landscape, especially the devastation of climate change, we have continued to push boundaries, embracing new technologies and sustainable engineering practices that position us at the forefront of our industry.

We have shown that our commitment to sustainable practices is not just a trend - it is our pledge to the planet and future generations. As stewards of the environment, we ensured that our projects not only met the highest standards of engineering excellence, but also minimised

our carbon footprint towards net zero. We have constantly proven to our clients that our pursuit of sustainability is not just a moral obligation; it is a strategic imperative that differentiates us in a world where environmental consciousness is paramount.

We have achieved remarkable milestones in our quest for growth. Our dedicated teams have delivered projects that not only meet but exceed client expectations, showcasing our expertise and reliability. We have expanded our horizons, taken on projects that challenged our ingenuity and pushed us to new heights.

However, the path to sustainable growth is an ongoing journey and our success lies not just in the projects we complete, but in the relationships we build and the positive impact we create. As we enter a new year, let us remain united in our commitment to excellence, innovation, social transformation and sustainability. Let us continue to foster a culture that values not just what we achieve but how we achieve it - with integrity, collaboration and a steadfast focus on the future, which starts with achieving our goals set out in our 2024 Business Plan.

As we celebrate the accomplishments of this year, let them fuel our passion for the challenges that lie ahead in 2024. Let us set our sights higher, dream bigger and work together to achieve new heights of success. Together, we will continue to build a future that is not only structurally sound but environmentally conscious and socially responsible.

Finally, we must accelerate the transformative power of digital technology, data science and artificial intelligence (AI). These tools will empower us to innovate, optimise operations and unlock new possibilities. By leveraging data-driven insights, we will propel our company into a future where intelligent technologies drive our success and growth.

Thank you, once again, for your dedication, hard work and unwavering commitment to our shared vision.

Wishing you all a joyous festive season and a prosperous New Year. Safe travels and take care!

Best Wishes,

Mahendren

Mahendren Manicum
Managing Director

A Journey of Growth and Leadership

In a traditionally male-dominated field of civil engineering, the rise of women in pivotal roles is an indication of the evolving landscape of our industry. One such inspirational story is that of **Nana Dlomo** a young woman who embarked on a remarkable journey from a Technician to an Assistant Resident Engineer and eventually assumed the role of Resident Engineer. Her journey not only signifies personal achievement but also stands as a beacon of empowerment for women in our field.

The empowerment of women in civil engineering is not merely about providing opportunities; it's about creating an ecosystem where talent flourishes, where diversity of thought leads to innovation, and where barriers are dismantled to pave the way for more leaders like Nana Dlomo.

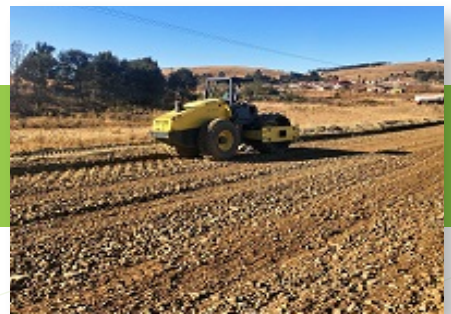
Starting her career as a technician, Nana navigated through challenges that often dissuade women from pursuing roles in engineering. Despite facing initial skepticism and encountering gender-based stereotypes, Nana's dedication and commitment to her work spoke volumes.

In the initial phases of her career, Nana thrived on technical knowledge and practical experience and evidence based facts. She immersed herself in projects, demonstrating problem-solving skills and an unwavering work ethic. With mentorship and guidance from seniors in the company, she ventured into more significant roles. The transition from a Technician to an Assistant Resident Engineer was not without hurdles. However, Nana's resilience and aptitude for leadership shone through. She embraced the challenges, constantly learning and evolving to adapt to new responsibilities.

Nana's success story in our industry is an indication to the changing dynamics within the industry and the importance placed on diversity and inclusivity at Naidu Consulting. It showcases the importance of fostering an inclusive environment that nurtures talent regardless of gender. Nana's journey not only shattered stereotypes but also emphasized the invaluable contributions that women bring to the field of engineering.



Before



After



SHAPING OUR COLLECTIVE JOURNEY TOWARD A BRIGHTER, **MORE SUSTAINABLE FUTURE**



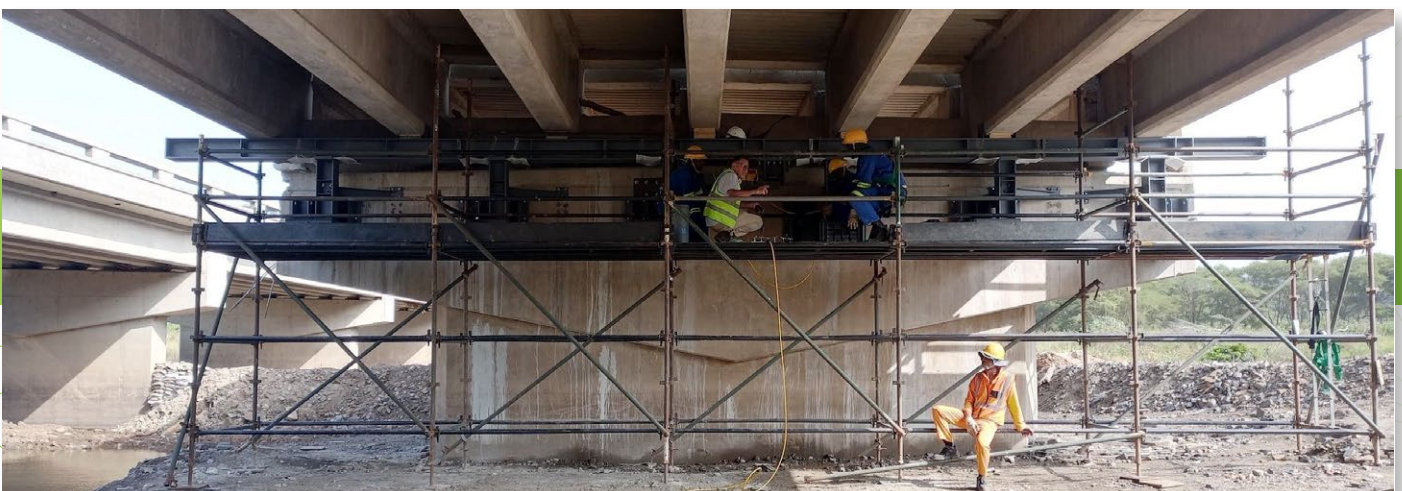
The essence of community lies not only in shared moments but also in our commitment to advancing environments that thrive harmoniously with the world around us.

Sustainability within our communities remains a cornerstone of our efforts, embodying the spirit of responsible stewardship. It encompasses a holistic approach that intertwines economic, social, and environmental facets, nurturing a delicate balance that ensures the well-being of our present without compromising the potential of generations to come.



The Mhlali River Bridge Rehabilitation

In the wake of the devastating KwaZulu-Natal floods of April 2022, an emergency project emerged: the rehabilitation of the Mhlali River Bridge. The bridge's structural integrity was compromised, demanding immediate attention. The bridge's 7-span reinforced concrete deck had displaced up to 600mm in a downstream direction and scour behind the bridge abutments had left the approach slabs of the bridge inadequately supported. Naidu Consulting responded promptly, undertaking emergency inspections, designs, documentation and schedule of quantities in the emergency timeframe requested for by SANRAL. Through meticulous planning and execution the work was completed which included the vertical and horizontal jacking of the bridge deck back into its original position, the complete replacement of the bridge's 98 bearings, the demolishing and reconstruction of the bridge approaches, and the retrofitting work to mitigate the adverse effects of buoyancy and debris load on the bridge deck in case of a future similar flood. The project stands as a testament to our commitment to infrastructure resilience and future sustainability.



SHAPING OUR COLLECTIVE JOURNEY TOWARD A BRIGHTER, MORE SUSTAINABLE FUTURE

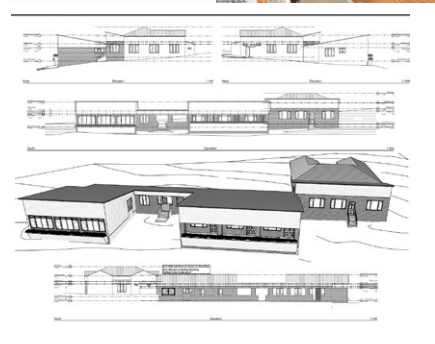
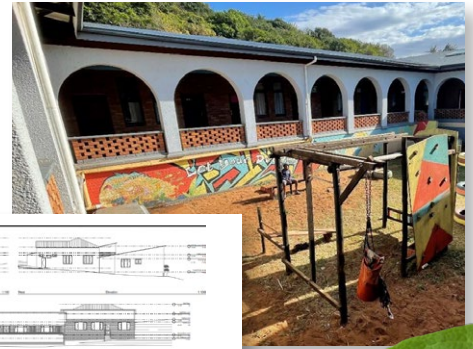
Girls and Boys Town Campus in Tongaat

The Girls and Boys Town Campus in Tongaat weathered the storm—literally and figuratively—in the aftermath of the April 2022 floods. Also with neglect over the years, the campus faced a dire need for restoration. Answering this call, the Bridges and Building team at Naidu Consulting embarked on a pro-bono endeavor, reviving the campus as a “second home” for 40 children and teenagers.

A comprehensive structural assessment was completed for the whole campus highlighting the areas of concern. With consideration of cost, environmental factors, being Amafa compliant, and emphasis on the preservation of existing structures, new elements were incorporated such as boundary walls, retaining walls, and underpinning to rejuvenate the campus to its former glory.

The Bridges and Building team of Naidu Consulting took up the task of reviving the campus as a pro-bono project. The team provided an array of services to Girls and Boys Town, such as, Program and Project Management, Quantity Surveying, Civil/Structural Engineering, Construction Administration and Construction Supervision.

Construction is also currently underway where Naidu Consulting is leading the construction supervision and administration. The site is set to be completely revamped.



Storm Damaged Schools

As part of our commitment to rebuilding storm-damaged schools, the Zombizwe High School project stands out as a testament to our capabilities as Program Managers, Project Managers, Quantity Surveyors, Civil and Structural Engineers.

The scope of work was essentially to construct a new school constituting of 11 blocks, which includes classrooms, an admin building, 2 courtyards with a netball court, parking area, and ablution facilities.

Sustainability aspects covered at the schools was;

- Installation of solar measures in the classrooms to mitigate the effects of load shedding
- Rehabilitation of existing borehole and installation of water purification plant to ensure that a school that previously did not have access to potable water now has access to water
- Provision of rainwater harvesting measures to save water
- Provision of energy saving light fittings to ensure the optimal use of electricity

Completing a two-year project in a mere ten months along the border of Swaziland, this initiative has been nothing short of remarkable. The installation of solar measures, water purification systems, rainwater harvesting techniques, and energy-efficient solutions has transformed this rural school. The school now boasts vital facilities, including a library, laboratory, paving, parking, and boreholes, along with solar panels providing energy sustainability.

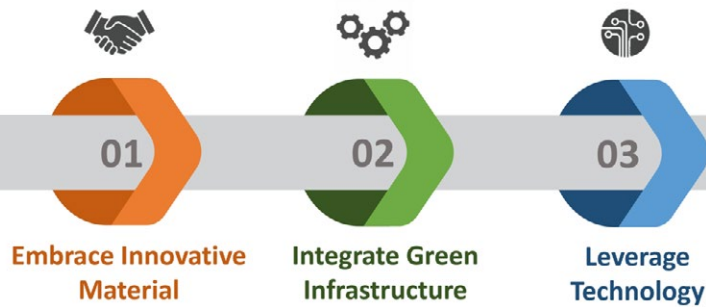
As we gather to reflect on the past year, it's clear that our collective journey towards a brighter, more sustainable future has been shaped by our unwavering commitment to nurturing environments that harmonise with the world around us.

At the heart of our business lies a dedication to sustainability, a value that remains a cornerstone of our endeavors. This ethos embodies responsible stewardship, intertwining economic, social, and environmental elements. It's a holistic approach that maintains a delicate equilibrium, ensuring the well-being of our present while safeguarding the potential for generations to come.

Paving Tomorrow: Navigating the Road to Sustainable Road Infrastructure



Pavement design faces a critical gap in sustainability amid the escalating challenges of climate change. Conventional materials such as asphalt and concrete contribute substantially to carbon emissions and exacerbate the urban heat island effect. Closing this sustainability gap requires a paradigm shift in pavement design. Embracing alternative materials, such as recycled asphalt and concrete aggregates, offers an environmentally friendly option. As extreme weather events become more frequent, traditional pavements prove vulnerable, demanding frequent repairs and escalating maintenance costs.



Investigating the available literature, it was noted that the primary climate stressors affecting pavement performance include:

Temperature – in relation to asphalt layers, increased temperatures can result in reduced resistance to permanent deformation and an increase in fatigue cracking, while low temperature affects thermal cracking. The most appropriate PG binder specification will be considered to ensure that heavy loading in extreme temperature zones is conservatively catered for in the binder performance.

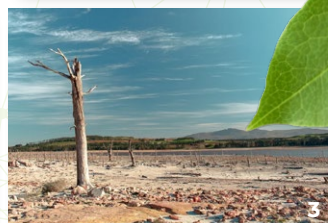
Precipitation – the selection of more conservative flood return periods must be seriously looked at to improve on long term drainage design. This may warrant increased culvert sizes. Excessive moisture and saturation of asphalt wearing coarse can lead to accelerated stripping due to pore pressure under traffic loading disrupting the bond coat adhesion performance. The superelevation and crossfall along the route will be maximised to ensure minimal impact due to surface runoff.

Groundwater – local conditions leading to groundwater surges will be assessed for a potential threat to the performance of layerworks i.e. high water tables and routine flooding. If warranted, improved subsurface drainage systems will be considered and motivated.

We recognise that the adverse effects of climate change exacerbate social and economic disparities. As regions face uninhabitability due to environmental shifts, communities are compelled to relocate, resulting in displacement and heightened competition for resources in new areas. This strain further burdens local economies and infrastructure, creating an environment conducive to deepening inequality.

To combat these challenges, we are compelled to adopt a comprehensive, collaborative approach.

In conclusion, raising awareness and championing sustainable initiatives in pavement design is an urgent imperative currently being advanced by our Pavement Engineering team at Naidu Consulting. By embracing innovative materials, integrating green infrastructure, leveraging technology, and nurturing collaboration, we can pave the way for resilient, environmentally conscious urban infrastructure that stands up to the challenges of a changing climate and contributes to a more equitable and sustainable future.



Source: *1: Dwindling water supply at Theewaterskloof Dam near Villiersdorp, Western Cape (Kevin Sawyer / Greenpeace); *2 (PHILL MAGAKOE / AFP); *3 (PHILL MAGAKOE / AFP); *4 (PHILL MAGAKOE / AFP)

Engineering Intelligence: Empowering Communities Through Innovative Projects Advancing Social Change and Paving The Way For A Sustainable Future

N3 Ashburton Upgrade

The N3 forms part of National Government's key Strategic Integrated Projects, SIP2: Durban-Free State-Gauteng Logistics and Industrial Corridor. The upgrade of certain sections of the N3 that have reached capacity, will raise efficiency along the corridor between Durban and the hinterland and improve access to Durban's export and import facilities. It will also ensure a seamless flow of passenger and freight along the N3.

Naidu Consulting was appointed by SANRAL in September 2015 to undertake the Engineering Services for the Detailed Design and Construction Monitoring for The Upgrade of the National Route 3, Section 3 between Ashburton Interchange (KM 0.8) And Murray Road (KM 5.9). Basemajor – CSC Joint Venture was appointed as the main Contractor on the 25 November 2022 at a project value of R 2 436 232 071.42 including VAT.

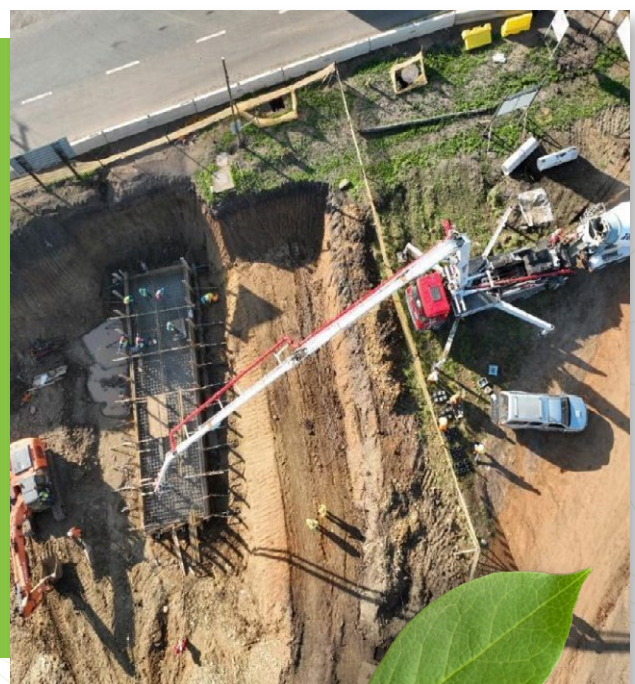
The design scope covered the reconstruction and upgrade of the existing Northbound/South bound carriageways from a 2-lane plus climbing lane carriageway to a 4 lane plus climbing lane carriageway. This configuration will accommodate the expected increase in traffic volumes with no major intervention over the next 30-40 years. It also includes demolishing the existing Ashburton Bridge to suit the widening of the N3 and reconstructing a 4-lane bridge. Additional to the Freeway upgrade, approximately 2.2km of the Umgeni Pipeline was also realigned as the existing pipe was located on the N3 Southbound widening. In order to ensure that the R103 provides a safe alternate route, rehabilitation of the existing road as well as widening for a climbing lane and cycle lane is also included in the scope of Works.



Notable features of the design include inter alia:

- The Ashburton Interchange – 4 lane bridge with Partial Clover Ramps
- 20m high engineered Fills utilizing 400kn/m Maccafferri Paralink, Dumprock and subsoils
- 370 000 m³ of Cut & Borrow to Fill
- 3 100 m of Soil Nailing
- 81 000 Tons of Asphalt
- 64 000 m³ of Continuously Reinforced Concrete Pavement using labour enhanced methods
- 26 000 m³ of concrete interlayer using labour enhanced methods
- CPG Targetted Enterprise to the value of R621 million
- Local Labour target of R208 million
- 2.2km of 53inch diameter Umgeni pipeline relocation
- Community Development Project to the value of R 45 million

The construction duration is 42 months with anticipated completion date of 24 August 2026.



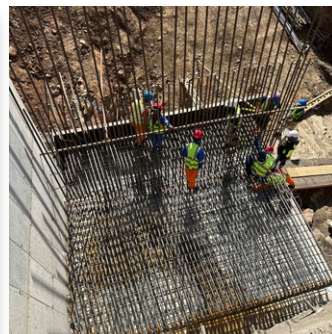
Engineering Intelligence: Empowering Communities Through Innovative Projects Advancing Social Change and Paving The Way For A Sustainable Future

N2 KwaMashu Upgrade (N2 from Kwamashu to Umdloti River)

This Contract is for the upgrading of 11 km of the existing N2 freeway. Between KwaMashu and Mount Edgecombe, there will ultimately be 5 lanes in the southbound direction and 5, increasing to 8, in the northbound direction heading up to the Mount Edgecombe Interchange. Two of the lanes will be constructed in each direction in the median, with a barrier wall up to 3½ metres high separating the carriageways. To the north of Mount Edgecombe there are 4 lanes in each direction, with the additional lanes being constructed in the median. Lighting is being installed along the full length of the road.

As with any contract of this size, there are numerous activities going on at once and our 30-strong supervision team is kept busy throughout. A comprehensive training programme has been compiled for 8 trainee technicians and candidate engineers who have been given every opportunity to gain valuable experience. In addition to this, 30% of the Contract value, or well over R300 million, must go to Targeted Enterprises. To ensure that they succeed, a CPG Hub has been established, where at any time they have access to computers, the internet and to even grab a cup of tea or coffee. There is a training facility and one experienced construction supervisor is allocated for every 6 contractors, to provide ongoing mentorship and support as well as helping with their daily costing.

On the technical side, all of the existing structures have to be extended to cater for the widening, gantries moved, extensive electrical work, drainage, earthworks, and layerworks. The asphalt surfacing is being done using the latest performance grading (PG) design and testing protocols. There is also extensive mechanically stabilised earth walls, up to 8.5 metres high, and soil nailing. The site laboratory also has a staff complement of around 30, with the latest testing equipment.



Our Sustainable Infrastructure Projects Sweep Multiple Awards

Shongweni reservoir – SANRAL SAICE National Awards

The newly constructed 6 Mℓ Shongweni reservoir, situated at the highest point in Ntshongweni, has significantly increased water supply to various regions in eThekweni, addressing historical supply constraints. It complements the existing 0.8 Mℓ Shongweni reservoir, forming a combined storage capacity of 6.8 Mℓ to meet future water demands in the rural area.

Valued at around R28 million, this community-oriented project was completed ahead of schedule after an 18-month construction period. It surpassed its 30% contract participation goals (CPGs), whilst creating 27 project-related jobs and providing accredited training to 38 community members.



Notably, during a natural disaster in April 2022, where KwaZulu-Natal faced severe flooding, the project team went beyond expectations. Despite the challenges posed by the floods, they assisted affected individuals by providing essential items, sponsoring resources for the community, and aiding in the repair of damaged infrastructure that affected local schools.

The project's impact extended beyond its intended infrastructure output, showcasing a commitment to community welfare. This proactive engagement led to the project receiving recognition, winning a Highly Commended Award in the Community-Based Project Category at the 2023 SANRAL SAICE National Awards.

Ultimately, this reservoir project exemplifies how infrastructure development can positively influence communities, enhancing their quality of life while showcasing a successful collaboration between stakeholders, the client, and the construction team.

Our Sustainable Infrastructure Projects Sweep Multiple Awards

TONGAAT WATER TREATMENTS WORKS REPAIRED IN 105 DAYS – CESA AON AWARDS

The Tongaat Water Treatment Works (TWTW) in Kwa-Zulu Natal faced severe damage due to heavy rains in April 2022, affecting water supply to approximately 90,000 Tongaat residents. To fix this, Naidu Consulting and MSW were hired to swiftly repair various infrastructural damages caused by the floods within 105 days.

The flooding at TWTW submerged crucial equipment like pumps, motors, electrical gear, and damaged buildings and processing equipment. The urgency to restore water supply prompted a project turnaround time of 105 days, a significant challenge for the team.

Ensuring future sustainability a decision was made prior to the commencement to move the motor control centre from the pump room to a high elevation in a separate building.

Naidu Consulting, known for innovative solutions, employed a skilled team to assess risks, timeframes, and innovation to meet the strict deadline. The project required unconventional methods, demanding constant problem-solving unique to this situation.

Transparent communication was maintained with stakeholders and local leaders to gain community support and meet project targets while empowering local contractors. Collaboration between all parties minimized delays and risks, ensuring innovative engineering solutions were implemented.

Naidu Consulting actively assisted in commissioning pumping systems and aided in the restoration process, ensuring the supply of clean water to the community within the demanding 105-day timeframe.

This proactive collaboration led to the project receiving recognition, winning the CESA Projects Under R50million Category. The judges observed that this project represented an extraordinary accomplishment achieved through innovation, collaboration, and community involvement. The project substantially diverged from typical industry practices, especially in its execution, demanding a diverse team to continuously devise and put into action solutions. This effort resulted in the creation of distinctive solutions tailored specifically for this project. Throughout the construction phase, the project's scope continuously expanded, incorporating further enhancements to the site without hindering the implementation process.

Naidu Consulting was also recognised at the Construction World: Best Projects 2023 Awards where we were presented with the Special Mention Consulting Engineers Award for our involvement in the above two projects that positively impacted our Communities.

It's a testament to the dedication and hard work of our incredible team. A heartfelt thank you to everyone involved - this win reflects our collective efforts and dedication to excellence. Here's to making waves and building a sustainable future, together!



Sustaining A Better Tomorrow Through Engineering Intelligence

Empowering Our Future Leaders By Embracing The Digital Shift

Our newly launched Digital Council aims to cultivate employee proficiency in cutting-edge technologies like AI, BIM, Data Science, and Big Data & Analytics. These skills are vital for navigating our industry's evolving landscape, advancing Engineering Intelligence within our operations.



Digital council (from left): Rowan Paul, Suvan Seetal, Thobekile Ngcobo, Nitesh Singh, Yasthil Krishundutt, Sthabile Sibiya, Leall Williams, Devesh Ramghulam, Zain Ebrahim, Lwazi Kuse, Kresen Manicum.

Forging the Future of South African Engineering with BIM.

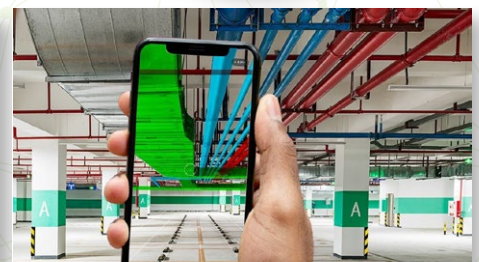
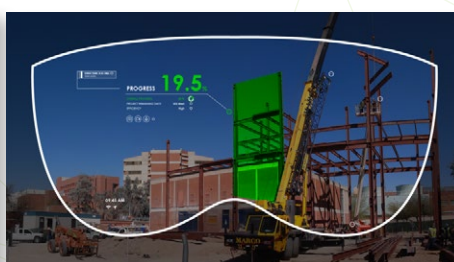
Naidu Consulting stands as a trailblazer in South Africa's dynamic engineering landscape, championing innovation through the adoption of Building Information Modelling (BIM). BIM isn't just a tool but a transformative philosophy revolutionizing project delivery by reshaping how infrastructure is conceived, designed, and realized.

Our BIM journey at Naidu Consulting transcends traditional engineering barriers. By embodying seamless collaboration between designers and construction teams within a unified digital environment, we accelerate decision-making and infuse creativity into every project stage. This approach distinguishes us as pioneers in the field.

Immersed in a virtual realm, our young engineers leverage BIM to foresee and tackle challenges in real-time, ensuring unparalleled efficiency and precision in project execution. This isn't solely about technology adoption; it's about reimagining possibilities.

Naidu Consulting's embrace of BIM extends beyond local impact, offering global opportunities. Through detailed digital representations, we effectively convey our vision worldwide, positioning ourselves as a formidable presence in international engineering, showcasing South African excellence.

Beyond our offices, a palpable energy resonates through each project, reflecting our commitment to crafting a legacy of innovation, collaboration, and excellence. We're not just shaping the built environment; we're pioneering a future where South African engineering leads the way.

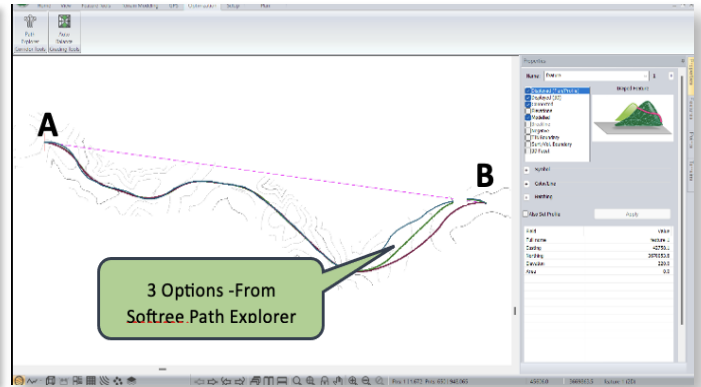


Sustaining A Better Tomorrow Through Engineering Intelligence

Smart Mobility

Naidu Consulting views Smart Mobility as a transcendence from the traditional transportation approaches through the integration of cutting-edge technology combined with data-driven insights and innovative strategies. At its core, smart mobility envisions a future where transportation systems are not just efficient and convenient but also environmentally conscious and safe. It aims for efficient, convenient, eco-friendly, and safe transportation systems.

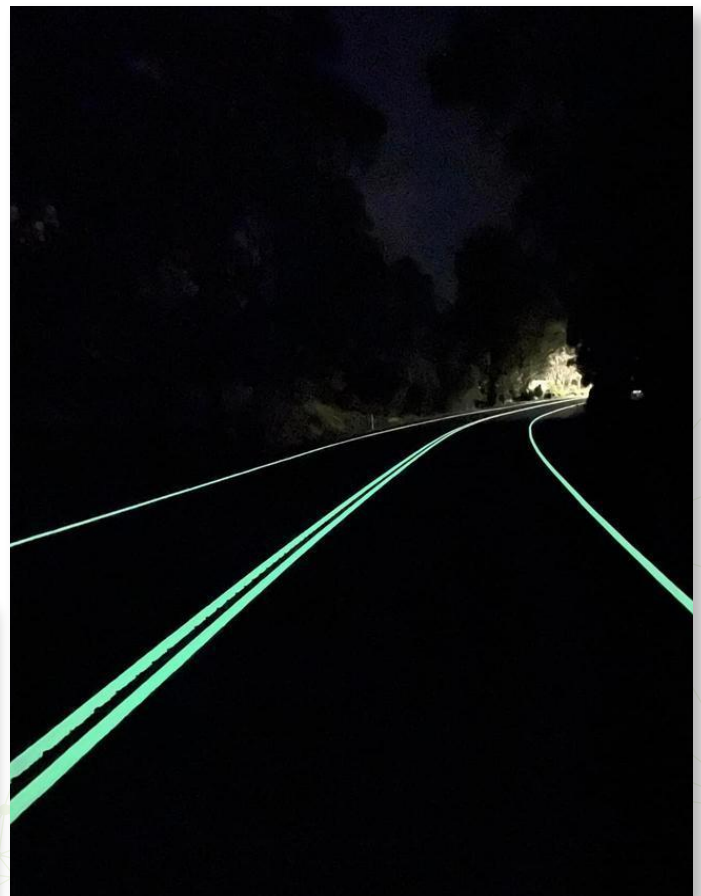
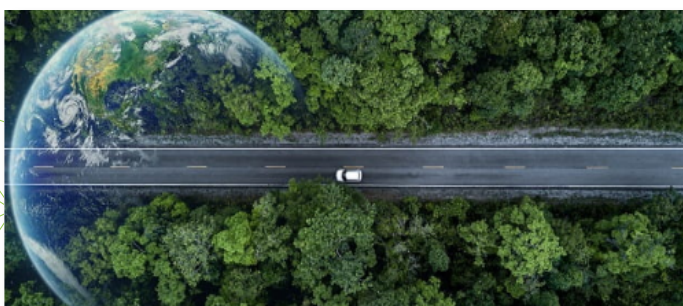
On strategic projects like the SANRAL N5/R74 Interchange, Naidu Consulting focuses on achieving a zero-carbon footprint by using digital tools to plan eco-friendly construction routes and minimize material use. They prioritize reuse and recycling through systematic material planning to reduce carbon impact during construction.



To enhance their services, Naidu Consulting utilizes 'Softree,' a Canadian geometric design package. They employ features like Vertical Alignment Optimization for cost-effective designs and Path Explorer to explore route options efficiently.

They're exploring innovative technologies like glow-in-the-dark road markings and illuminated concrete kerbing to improve driver visibility, traffic flow, and pedestrian safety. Research continues to extend the longevity of these technologies for better results and increased safety.

Naidu Consulting aims to integrate renewable energy, communication advancements, and innovative concepts into designs to enhance transportation sustainability and safety. These efforts not only bring immediate improvements but also pave the way for future advancements in smart engineering practices, benefiting urban mobility and safety.



The Development of a New Province-Wide KZN-IDMS Protocol Agreement

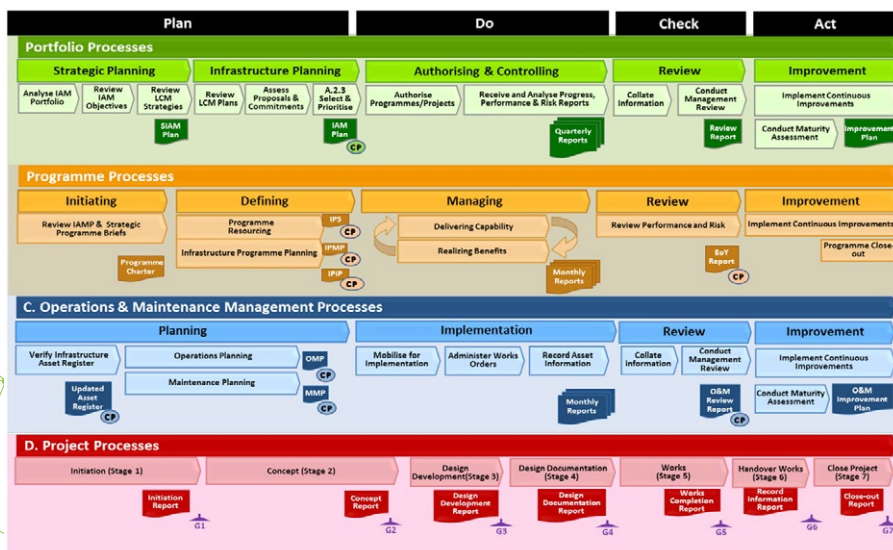
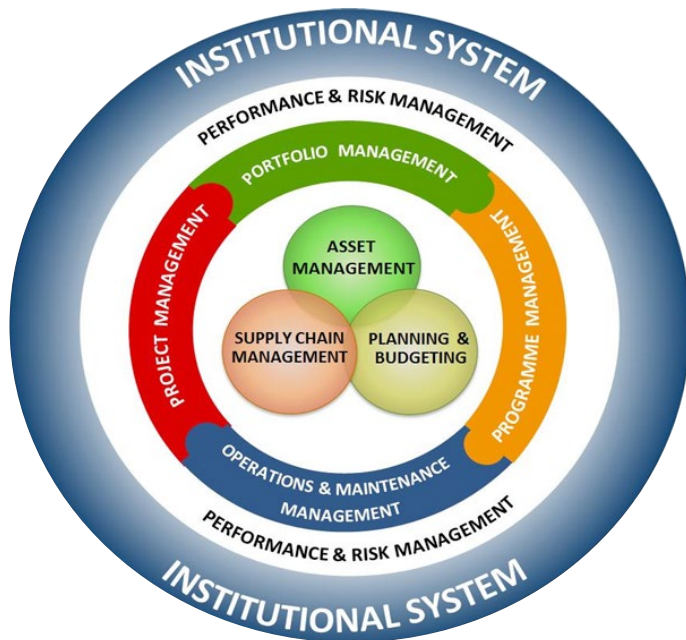
Naidu Consulting (Pty) Ltd was appointed by KwaZulu-Natal Provincial Treasury (KZN PT) to review the 2012 KwaZulu-Natal Provincial Infrastructure Delivery Management System (KZN-IDMS) Framework for the Health and Education sectors, and the development of a new Province-Wide KZN-IDMS Protocol Agreement. The Protocol Agreement incorporates current strategies and legislation that is specific to infrastructure delivery and establishes a set of minimum FIPDM requirements (refer to Figure 1) for government's infrastructure delivery and procurement activities that is aligned to the construction industry and related built environment services.

The IDMS is a system that has been adopted by government for the management of Infrastructure Planning and Budgeting; Infrastructure Procurement/Supply Chain Management; Infrastructure Delivery; Infrastructure Operations and Maintenance and Monitoring and Evaluation of Infrastructure projects and programmes. (refer to Figure 2) Figure 1: Minimum FIPDM Requirements

In 2012 Provincial Treasury championed the formulation of the KwaZulu-Natal Infrastructure Delivery Management System Framework for the Health and Education sectors, Public Works, and Provincial Treasury only. The 2022 Protocol Agreement will extend the framework to the nine (9) provincial departments viz:

- Department of Agriculture;
- Department of Social Development;
- Department of Transport;
- Department of Cooperative Governance and Traditional Affairs;
- Department of Human Settlement;
- Department of Arts and Culture;
- Department of Sport and Recreation.
- Department of Economic Development, Tourism and Environmental Affairs; and
- The Office of the Premier.

The Project team in consultation with KZN PT and the nine (9) provincial departments worked together in drafting a Protocol Agreement covering the best governance structures at a departmental level and provincial level (administrative and executive). This is intended to assist KZNT PT to manage, monitor and report on progress of implementation/ institutionalisation of IDMS in the Province.



Through this project, a library of applicable Acts, Legislations, Regulations, Guidelines related to IDMS has been created.

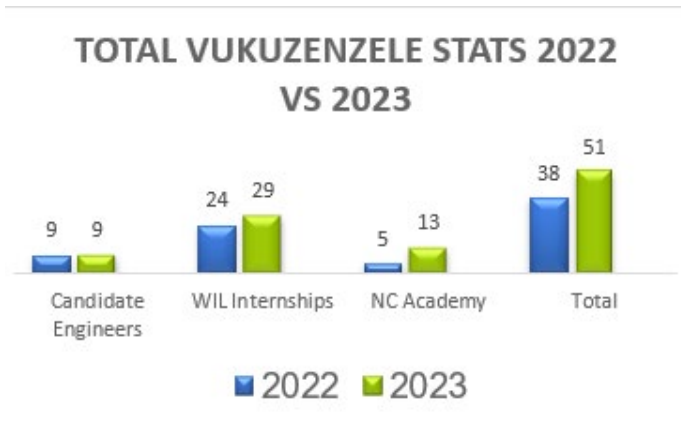


*Source of figures above: National Treasury Instruction Note 3 of 2019 - 2020 Annexure A

Raising the Bar for Sustainable and Inclusive Growth: A New Era

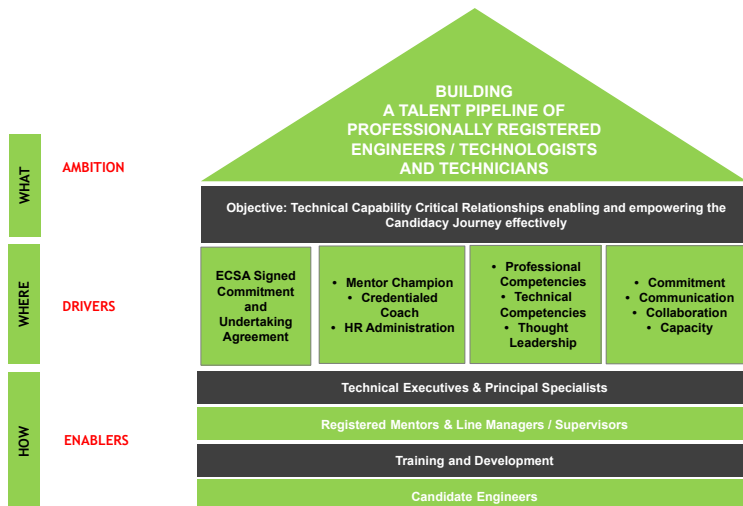
Vukuzenzele Program

Through our pioneering Vukuzenzele Program, we are revolutionizing economic empowerment and sustainability by nurturing a cohort of young individuals, fostering their journey into adulthood with robust economic prowess. Our initiative is a dynamic force, continually expanding and diversifying our learning and development initiatives to equip the youth with indispensable life skills. We retained all our NC Academy students from 2022 in project positions in 2023 as well as increased our 2023 intake of Work in Learning Internships (WIL) and NC Academy Students.



Mentorships

Moreover, our unwavering focus also remains on preparing our employees for the future, arming them with cutting-edge competencies essential for business evolution. These encompass pivotal skills like AI, BIM, Data Science, and digital expertise tailored for the engineering sector's progressive landscape.



Within our mentorship framework, we've engineered pathways for our budding engineers to immerse themselves in projects aligned with the 11 ECSA outcomes. This strategic approach not only exposes them to varying levels of responsibility but also empowers them to achieve significant milestones while cultivating crucial engineering expertise. Our program allows them to fortify these skills seamlessly, eliminating the need for a radical shift in their core roles."

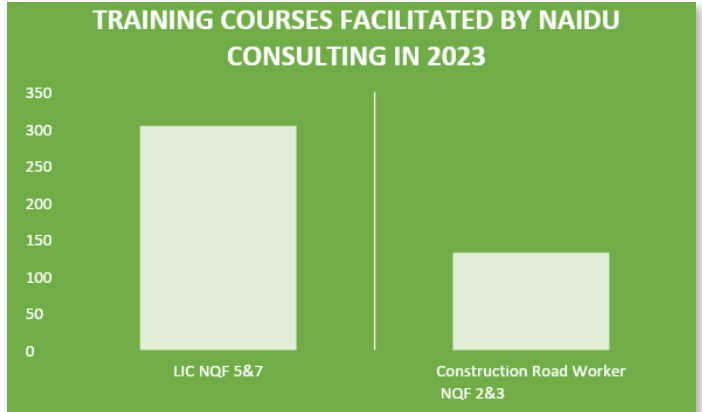
We had five staff members attain their professional registration status in 2023.



Raising the Bar for Sustainable and Inclusive Growth: A New Era

Transforming Lives Through Economic Growth and Job Creation – CETA Accredited Training Courses

In the past year, our training initiatives have witnessed unprecedented growth. Our 2023 training programs expanded to include modules catering to construction workers across various Unit Standards under the Construction Road Worker qualification. This strategic diversification not only addresses management of construction projects, but also empowers ground-level workers.



ESG

ESG Principles are woven into the fabric of all our project-based initiatives and our daily business operations; below showcases some of our efforts in 2023



Our Environmentally inspired solutions

Our Ambition:

- We prioritised decarbonisation by using LED lights for efficient energy consumption and installing sensors to prevent unnecessary light usage.
- We saved an estimate 1.6 trees through our e-learning platform if we had to print learning material for 369 learners across 9 provinces.
- We saved an estimate 2.17 tonnes in CO2 emissions from not flying to provinces due to virtual training.

- We achieved a balance between in-person client engagement and virtual interactions to minimise travel and cut down on carbon emissions.
- We ensured continuous adherence to our ISO 14001 DEKRA Certification, aligning our environmental practices with international standards while remaining compliant with our country's legislation and regulations.

- We reduced office paper purchases by 18%, from the prior year.
- We led the initiative for office waste management and segregation at our Durban office, aiming to minimise waste through the principles of reduce, reuse, and recycle.

Our Socially inspired solutions

Our Ambition:

- We are wholeheartedly embracing the digital transformation through AI, Big Data, and Analytics, aiming to empower our workforce and unleash their creative potential, and enabling advancements of meaningful connections with others. We actively advocate for and advance Contractor Participation Goals on all projects.

- Specify higher labour intensive content on projects to increase community involvement through job creation.
- We advocated for wellness during the year in terms of various initiatives.
- We contributed to the following Corporate Social Initiatives: Stationery to Mpolweni Primary School, SPCA Drive, SAICE Beans and Beansies Collection, Projectors and Screens donated to Victoria and Maidstone Schools, Beach Clean Up, Sanitary Pad Collection, Packs for Ethembeni Disabled School, Toiletries Drive, Gogga Bags for the Aged.

- We ensured continuous adherence to our ISO 45001 DEKRA Certification, aligning our Health & Safety remaining compliant with our country's legislation and regulations.

Our Governance inspired solutions

Our Ambition:

- We uphold a robust code of conduct and ethics that serve as the cornerstone of our ethical practices, supporting and reinforcing all our policies, procedures, and processes. Our robust code of ethics is reinforced with our ECSA and SAICE company memberships. We continually ensure delegations of authority are in place and followed.

- ISO 9001 DEKRA Certification complies to an international standard for Quality practice aligned to our country's legislation and regulations.
- We actively welcome transformation, and our BBBEE Level 1 Compliance is a evidence to how we've leveraged this opportunity to collaboratively create solutions contribute to the growth of previously disadvantaged individuals, and addressing the intricate challenges stemming from economic exclusion.
- FIDIC, NEC, COTO, COLTO, GCC competence.

- Skills and capacity development of staff and many stakeholders allows us to promote the positive benefits that LIC and EPWP has on contracts through our application of good governance. The integrated management system allows good governance through compliance audits and this aids all stakeholders to limit the Legal and Financial Risks that may be associated with the lack of understanding of the importance of the governing compliance criteria.