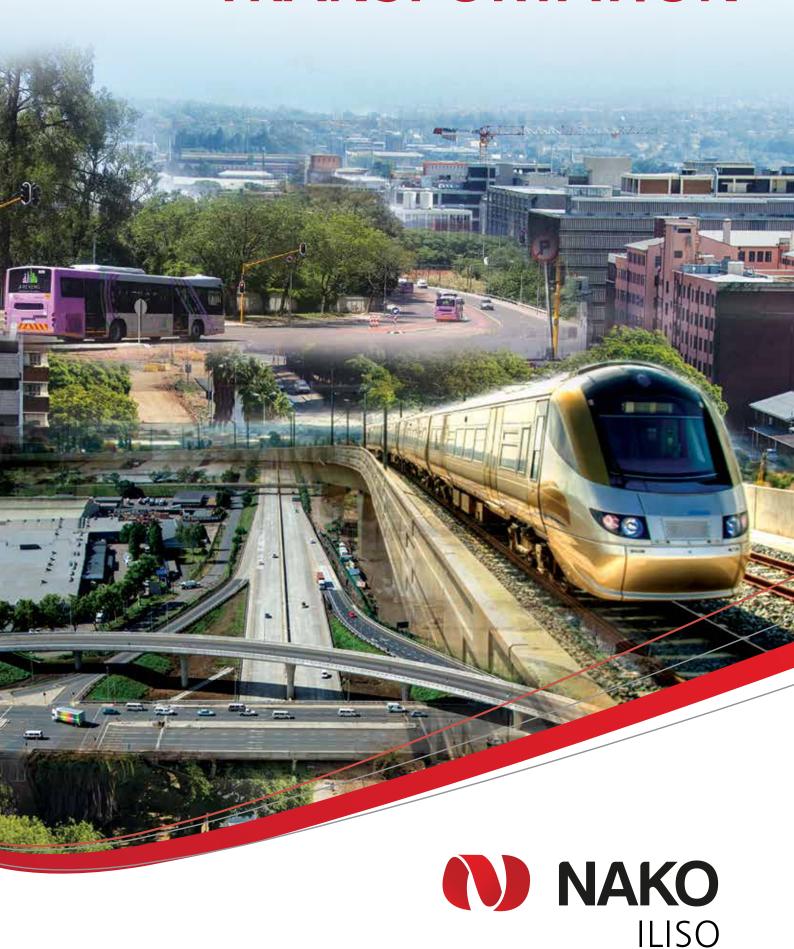
TRANSPORTATION



ABOUT US

ILISO Consulting (Pty) Ltd now trading as NAKO ILISO is an African Consulting Engineering and Project Management firm that specialises in engineering, environmental and project management services.

Established in 1995, NAKO ILISO is widely recognised as one of the most professionally managed consulting engineering firms in Africa today, with a team of directors and senior executives who are experts in their chosen fields. Each member of this formidable team offers a range of combined experience in their areas of specialty. In addition, NAKO ILISO has over 250 highly competent technical and support staff, all working together to deliver sustainable high quality assets that not only meet but also exceed client expectations.

With an enviable portfolio of award-winning contracts, NAKO ILISO is fully established in South Africa (all the major centres), Namibia (Windhoek), Uganda (Kampala) and Zambia (Lusaka). Furthermore, it undertakes projects beyond these borders in collaboration with strategic partners located in various countries, including Botswana, Nigeria, Lesotho and Mauritius.

With its strategically located offices and with the practical application of science and engineering principles that include the appropriate use of technology, NAKO ILISO continues to advance on its successes by building value for its clients through the successful planning, implementation and management of landmark and community based projects.

Thanks to a clear vision, a commitment to living its values and above all, its outstanding people, the reputation associated with the NAKO ILISO name is that of integrity, innovation, quality and service excellence.



TRANSPORTATION **DISCIPLINE GROUP**

NAKO ILISO's Transportation Discipline Group is recognised as one of the leading civil engineering firms currently operating in the Southern and East African markets.

With its extensive experience, a strong core of professional resources and excellent support staff – NAKO ILISO specialises in five transportation sectors: Integrated Systems Planning; Roads and Highways; Rail; Airports and Ports and Harbours.

With the full spectrum of clients from International down to Local Authority, Integrated Systems Planning and Roads and Highways have been at the core of NAKO ILISO's business for many years.

Over the last decade, NAKO ILISO has gained extensive experience and knowledge on rail projects and more recently on runways for aerodromes.

Through its strong associations with consulting engineers that specialise in marine and harbour engineering, NAKO ILISO has been involved in the design of land side infrastructure integrated with harbour development.



PROJECT PORTFOLIO

Some notable projects are highlighted within each of the core competencies.

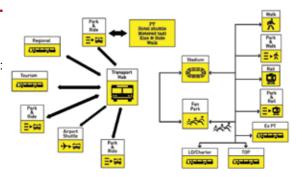
- 1. INTEGRATED SYSTEMS PLANNING
- 2. ROADS AND HIGHWAYS
- 3. RAIL
- 4. AIRPORTS
- **5. PORTS AND HARBOURS**

1. INTEGRATED SYSTEMS PLANNING

FIFA WORLD CUP™ 2010 TRANSPORT OPERATIONAL PLAN FOR DURBAN

NAKO ILISO formed part of the Consortium of Consultants appointed to develop Durban's Transport Operational Plan for the FIFA World Cup™ 2010. This included:

- Project Management/Co-ordination
- Demand Analysis
- Concept Development
- Pedestrian Network Plan
- Park and Ride Plan
- Detail Design of Infrastructure
- Implementation Management



INNER CITY PUBLIC TRANSPORT DISTRIBUTION SYSTEM FOR DURBAN

NAKO ILISO formed part of the Consortium of Consultants appointed to develop the Inner City Public Transport Distribution System for Durban. This included:

- Route Development
- Detailed Design of Infrastructure
- Implementation Management
- Signage Design



POLOKWANE – BUS RAPID TRANSIT (BRT)

Conversion of 12km of the existing roadway from the Polokwane CBD to Seshego into a BRT system comprising median stations, exclusive bus only lanes, mixed traffic lanes and adequate space for pedestrians and cyclists.



NELSON MANDELA BAY – BUS RAPID TRANSIT (BRT)

Conversion of Govan Mbeki Ave, Uitenhage, Commercial, Stanford, Kempston, Fettes and Harrower Roads into a BRT System.

GO DURBAN! - BUS RAPID TRANSIT (BRT)

The development of Trunk corridor C1A, which is a 10km section of the eThekwini (Durban) BRT System and involves the conversion of Newlands Expressway and Sea Cow Lake Road into a BRT system comprising median stations, exclusive bus only lanes, mixed traffic lanes and adequate space for pedestrians and cyclists.

AREYENG – BUS RAPID TRANSPORT

The development of Line 1 of the Tshwane (Pretoria) BRT system that involves the conversion of 33km of the existing roadway from the Pretoria CBD to Kopanong into a BRT system that will ideally support median stations, exclusive bus only lanes, mixed traffic lanes and adequate space for pedestrians and cyclists.





2. ROADS AND HIGHWAYS

IMPROVEMENTS TO DR CHOTA MOTALA ROAD **INTERCHANGE ON THE N3**

Improvements to the existing interchange involving the construction of 7 bridges, including a 220m long circular incrementally launched bridge; widening and rehabilitation of Dr Chota Motala Road and the N3 Freeway, using a Continuously Reinforced Concrete Pavement (CRCP).



REHABILITATION OF R27 FROM CALVINIA (74KM)

Rehabilitation and widening of 70km of existing roadway through a process of insitu recycling and stabilisation to the basecourse, followed by a Cape Seal surfacing.



KATOBA TO CHIRUNDU VIA CHIAWA ROAD, **LUSAKA PROVINCE, ZAMBIA**

Upgrading of 100km of national road from gravel to surfaced standards including the construction of major bridges and culverts. The road traverses rolling to mountainous terrain. The road also provides a critical transportation link between northern and southern countries within the east africa region.



TRUNK ROAD 19, MACLEAR TO MT. FRERE

Upgrading of 40km of provincial road from gravel to surfaced standards, including the construction of major bridges and culverts. A key element of this project was the use of locally sourced materials to mitigate against the high transportation cost of importing road building materials.

REHABILITATION OF N11, NEWCASTLE TO VOLKSRUST

Rehabilitation of 18km of the National Route involving deep in-situ recycling and stabilization, asphalt base and asphalt wearing course, and Ultra Thin Friction Course (UTFC) surfacing.

3. RAIL

RAISING OF RAIL OVER ROAD BRIDGE ON THE N3

The project comprised the jacking of a rail-over-road bridge on the N3 in Pietermaritzburg to increase the vertical clearance by 800mm. This was carried out in half width construction so that one of the two rails tracks could be kept operational during construction. The temporary rail works included cross-overs at either end and the permanent works comprised theregrading of the vertical alignment over a 400m length to accommodate the increased bridge height.

BRIDGE CITY RAIL LINK PRELIMINARY DESIGN

This included the Planning Review and Preliminary Design of the Bridge City Rail Link Project. The project comprised of 3km of new rail infrastructure linking the Ntuzuma Node to the existing Durban rail network terminating at Duff Road. The scope of work included the Bridge City Station design; the Perway design, which included the design of high earth embankments and bridges and viaducts; OHTE; as well as Signalling and Telecommunications.

GAUTRAIN PRELIMINARY DESIGN FOR WORK PACKAGE DP6

NAKO ILISO was a member of a consortium comprising international and local partners for the preliminary design of Work Package 6 from Marlboro to Centurion. NAKO ILISO was also responsible for the Earthworks, Drainage, Structures, Roads and Utility Services (EDSRU) component.



4. AIRPORTS

CAPE TOWN INTERNATIONAL AIRPORT

This project comprised of Traffic impact assessments for the Cape Town International Airport over the last decade, and more recently the redesign of the internal road network incorporating the MiCiti Bus Rapid Transit lane and station.



UPGRADING AERODROME IN MKUSHI, ZAMBIA

NAKO ILISO was appointed for the full engineering services for the upgrading of the Aerodrome in Mkushi. This involved the location of a new site, positioning of the runway, runway geometrics to suit aircraft as per client requirements and the pavement design.

UPGRADING AERODROME IN SERENJE, ZAMBIA

Full engineering services for the upgrading of the Aerodrome in Serenje from gravel to surfaced standards. The scope of work included runway geometrics to suit aircraft as per client requirements and pavement design.

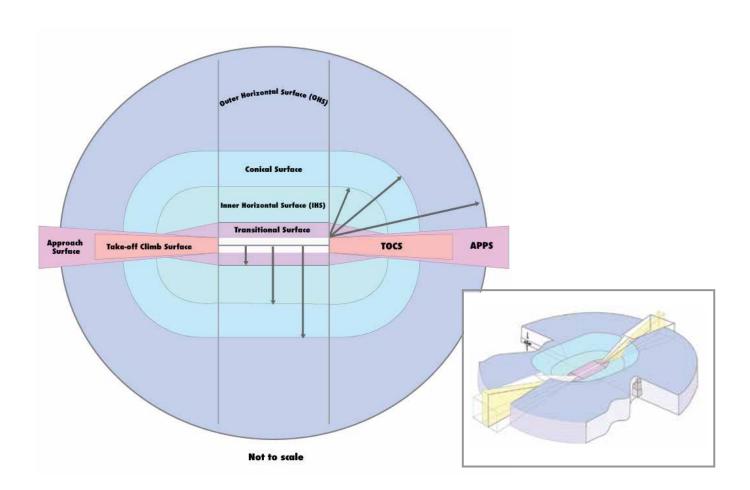


UPGRADING AERODROME IN MPIKA, ZAMBIA

Full engineering services for the runway geometrics to suit aircraft as per client requirements and pavement design for surfaced standards.

UPGRADING AERODROME IN CHINSALI, ZAMBIA

Full engineering services for the upgrading of the Aerodrome in Chinsali. The scope of work included runway geometrics to suit aircraft as per client requirements and the pavement design.



5. PORTS AND HARBOURS

DURBAN HARBOUR ENTRANCE WIDENING

NAKO ILISO formed part of a consortium of consultants for the detailed design and construction stages for the widening and deepening of Durban Harbour's entrance channel. NAKO ILISO were responsible for the quayside infrastructure.





DURBAN OLD AIRPORT SITE DIG-OUT-PORT

NAKO ILISO formed part of a consortium of consultants to undertake a port planning study for the proposed Durban Airport Dig-Out Port. NAKO ILISO were repsonsible for the transportation planning and bulk infrastructure studies.

TRANSNET LONG TERM PLANNING FRAMEWORK

NAKO ILISO formed part of a consortium of consultants for producing Transnet's long term planning framework. NAKO ILISO were responsible for the road network requirements.

DURBAN CONTAINER TERMINAL RECONFIGURATION

NAKO ILISO formed part of a consortium for the reconfiguration of the Durban Container Teriminal at Pier 1 and Pier 2. The primary objective of the project was to inform a Transnet decision on the long term development of container handling at the Port of Durban.







A further list of projects is available on request.

Head Office

203 Witch-Hazel Avenue, Highveld Techno Park, Centurion, 0157
PO Box 68735, Highveld, 0169
T +27 (0)12 685 0900 F +27 (0)12 665 1886
www.nakogroup.com