



**SIGMA CONSULTING &  
SERVICES ENGINEERING**



**Delivering excellence**



[sigmaengineering.co.ke](http://sigmaengineering.co.ke)

# WE ARE

**Sigma Consulting & Services  
Engineering (SCSE) Limited**  
is an Engineering Procurement Construction  
(EPC) Company committed to offering  
excellency in Infrastructure Development  
and Provision of Engineering Consulting  
Services within the East African Region.



## Mission

To harness, develop talent and sustainably transform the Society through Designing and Implementing cutting edge Infrastructure and Engineering Projects for the human well-being and Economic Development.

## Vision

Become the leader in Professional Talent Base and in the number of Packaged and Completed Engineering Procurement Construction & Funded (EPC+F) Projects in East Africa by 2030.



## Our Capability

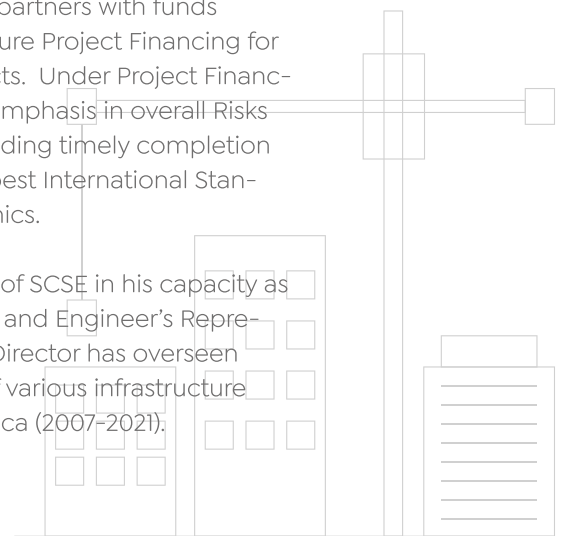
SCSE has a pool of experts with proven record and experience in Roads (Urban & Rural), Highways, Railways, Airports, Oil and Gas, Construction Supervision, Feasibility Studies, Environmental Studies, Economic Analysis, Traffic Studies and overall Project Management from Project conception to completion.

Under a dynamic global Engineering transformation, ICT is the platform for Designing and Implementation of Projects at SCSE. In addition, we value partnerships with highly reputable global Engineering Companies and thus outsource specialized services from the best in the Industry under

SCSE Mantra “Satisfying and Exceeding Customer Expectations”.

Innovatively, SCSE partners with funds providers' to structure Project Financing for all bankable Projects. Under Project Financing Models, SCSE emphasis in overall Risks Management including timely completion of Projects to the best International Standards and Economics.

The Main Principal of SCSE in his capacity as Managing Director and Engineer's Representative/Project Director has overseen implementation of various infrastructure Projects in East Africa (2007-2021).



## Construction Supervision Main Activities



- Approving Work Programme and Working Drawings prepared by the Contractor.
- Review of Existing data on the proposed road project.
- Preparing Land Acquisition and Utility Map. Drawings and Develop the Cost Estimates for the same.
- Ensuring the project road is constructed to the required standard, and within the contract sum. Reviewing and Approving the Contractor's Traffic Management Plan.
- Environmental and Social Impact Assessment and preparation of reports in compliance with applicable laws, assisting the Client with NEMA approvals for the project.
- Checking and forwarding interim and final payment certificates for approval by the Engineer.
- Evaluating Contractual Claims and forwarding recommendations to the Engineer.
- Conducting project cost appraisals and advice the Client.
- Carrying out of topographic surveys, hydrological and hydraulic studies, sub-surface soil explorations, materials surveys and preliminary boring and sub-surface investigation at sites of existing and proposed bridges.
- Detailed design of road, bridges, concrete drainage structures and grade separated junctions/fly-overs/underpasses/overpasses interchanges, structures, NMT facilities etc.
- Traffic studies, surveys, demand forecasting and traffic modelling.
- Pavement investigations with DCP, test of samples from trial pits, roughness measurements and BBD tests, identification of borrow pits.
- Preparation of Engineer's cost estimate.
- Construction Supervision.
- Providing training to Employer's personnel.
- Preparing all required reports including As-built drawings.



# PROJECTS



01

**Consultancy Services for Detailed Design and Construction Supervision of the Domestic Terminal Building, 2.5 km Runway, Parallel Taxiway, Cargo Apron and Fuel farm**

The project is in Kuajok Town in Warrap State in South Sudan

Status : ongoing

02

**Construction of Abiemnom Airstrip Consultancy Services for Detailed Design and Construction Supervision of Abiemnom Airstrip in Abiemnom Town in Ruweng Administrative Area in South Sudan**

The project is in Kuajok Town in Warrap State in South Sudan

Status : ongoing



# PROJECTS

## 03 Kuajok retail Concourse Consultancy Services for Detailed Design of Kuajok Retail Concourse

Location: Kuajok Town, Warrap State in  
South Sudan

Status: Complete



## 04 Juba Nimule Road Concept Design and Cost Estimate Report for The Construction of Juba - Nimule Road. The Project Start at Nimule town at South Sudan and Uganda Border in Central Equatoria State and terminates in the City of Juba in South Sudan.

- Approximate Length 200km
- Status: Complete

# PROJECTS



## 05 **Wau Kango Aweil Road Consultancy Services for Preparation of Concept Design and Cost Estimate Report for Wau - Aweil Road in South Sudan: Lot 5**

The Project Road starts in Wau, the State Capital of Western Bahr el Ghazal and terminates at Aweil which is the State Capital of Northern Bahr el Ghazal.

Status: Complete

## 06 **1.Aweil town Road Consultancy Services for Preparation of Concept Design and Cost Estimate Report for Aweil Town Road in South Sudan**

- Length 65km
- Status: Complete



# PROJECTS

## 07 **Design Review and Construction Supervision of Mau Mau Road; Kiambu County Section**

The entire project road measures approximately 250 Km long and has, on average, a 20m right of way.

*Length* : 250km

*Country* : Kenya (Ongoing)

*Funding* : Government of the Republic of Kenya (GoK)

*Client* : Kenya National Highways Authority (KenHA)

*Value* : USD. 90 Million



## 08 **Construction Supervision of Posta (Naibor) – Kisima – Maralal (A4) Road**

The project starts from Posta (Naibor) town Centre which is approximately 46 KM North of Rumuruti town and runs in a Northerly direction and ending at Maralal. This section traverses Laikipia and Samburu Counties of South Rift Region of Kenya.

*Length* : 65km

*Country* : Kenya (Ongoing)

*Funding* : Government of the Republic of Kenya (GoK)

*Client* : Kenya National Highways Authority (KenHA)

*Value* : USD. 50 Million

# PROJECTS



09

## Construction Supervision for the Upgrading of Kibwezi-Mutomo-Kitui-Kabati-Migwani (A9/B64) Road under EPC Turnkey Construction Contract

The Project which is based on FIDIC EPC/TURN-KEY conditions is about 220 km in Makueni and Kitui Counties and is part of the Mombasa-Isiolo-Addis Ababa Road Transport Corridor.

*Length* : 222km

*Country* : Kenya (2017-2022)

*Funding* : Government of the Republic of Kenya (GoK) and Government to Government Loan from China Exim Bank.

*Client* : Kenya National Highways Authority (KeNHA)

*Value* : USD. 200 Million

10

## Design Review and Construction Supervision: Construction to Bitumen Standard of Waiyaki Way-Red Hill Link Road (5 km)

Design, Tender Documentation and Construction Supervision of Bitumen roads project and bridge works.

*Length* : 5km

*Country* : Kenya (2016-2018)

*Funding* : Government of the Republic of Kenya (GoK)

*Client* : Kenya Urban Roads Authority (KURA)

*Value* : USD. 30 Million



# PROJECTS

## 11

### Construction Supervision of Kangema-Gacharage Road (C70)

The government of Kenya through Kenya National Highways Authority has earmarked funds for the construction of Kangema - Gacharage This Project road is in Murang'a County and starts at Kangema (Junction C70/C72) and ends at Gacharage (junction with A2 at Kangema Flyover).

*Length* : 35km

*Country* : Kenya (2012-2018)

*Funding* : Government of the Republic of Kenya (GoK)

*Client* : Kenya National Highways Authority (KeNHA)

*Value* : USD. 42 Million



## 12

### Construction Supervision of Multinational: Arusha-Holili/Taveta-Voi road Corridor Development Project. Phase 1: Upgrading of Mwatate-Taveta Road (A23) Section

The project road is situated in Taita Taveta County in the Coastal Part of Kenya and runs in an easterly direction through Taveta town, Tsavo West National Park, south of the Taita Hills to connect with the Nairobi-Mombasa road at Voi.

*Length* : 99km

*Country* : Kenya (2014-2019)

*Funding* : African Development Bank

*Client* : Kenya Urban Roads Authority (KURA)

*Value* : USD. 100 Million

# PROJECTS



## 13 **Consultancy Services for Supervision of Construction of Rumuruti-Maralal (C77) Road Phase 1: Rumuruti (Km 0+000) to Km 35+000**

The project road starts from Rumuruti town centre and runs in a Northerly direction and ends at KM 45+000 traversing Laikipia and Samburu Counties.

*Length* : 35km

*Country* : Kenya (2013-2019)

*Funding* : Government of Kenya through Development Vote

*Client* : Kenya National Highways Authority (KeNHA)

*Value* : USD. 32 Million

## 14 **Consultancy services for Construction Supervision of Rehabilitation and Upgrading of Langata Road (KWS Gate-Bomas Section)**

This Project road is the section of Langata Road from Kenya Wildlife Service (KWS) to Bomas of Kenya Junction in Nairobi County.

*Length* : 3km

*Country* : Kenya (2012-2016)

*Funding* : African Development Bank

*Client* : Kenya Urban Roads Authority (KURA)

*Value* : USD.36Million



# PROJECTS

## 15 **Consultancy Services for Construction Supervision of improvement of infrastructure (Mt. Kenya Phase 2 Central Kenya Roads – Lot**

This is an upgrade of rural roads from gravel to bitumen standards namely; Gatugi Jn 430 (E552), Iriaini–Mugaaini (E1682), Jn E552 Witima–Gaikundo–Tambaya, Jn Gichiche–Kiganjo TBC (E549), Kariki–Jn D430 (E459), Kiinu–Ngaru (E1679), Konyu–Mucharage–Kairo (E511) and Nyamari–Kihuri (E550).

*Length* : 69km

*Country* : Kenya

*Funding* : Government of Kenya through Development Vote

*Client* : Kenya Rural Roads Authority (KeRRA)

*Value* : USD.31.6Million



## 16 **Consultancy Services for Feasibility Study, Detailed Engineering Design, Tender Administration and Construction Supervision of Nairobi – Thika Road (A-2) – (50 km-4 lane & service lanes 2-lane each side of the Highways.**

This Project road situated in Nairobi County is one of key projects spurring the economic growth of the County by elevating it to super-highway of 4x4 main road and 2x2 service roads totalling 50km.

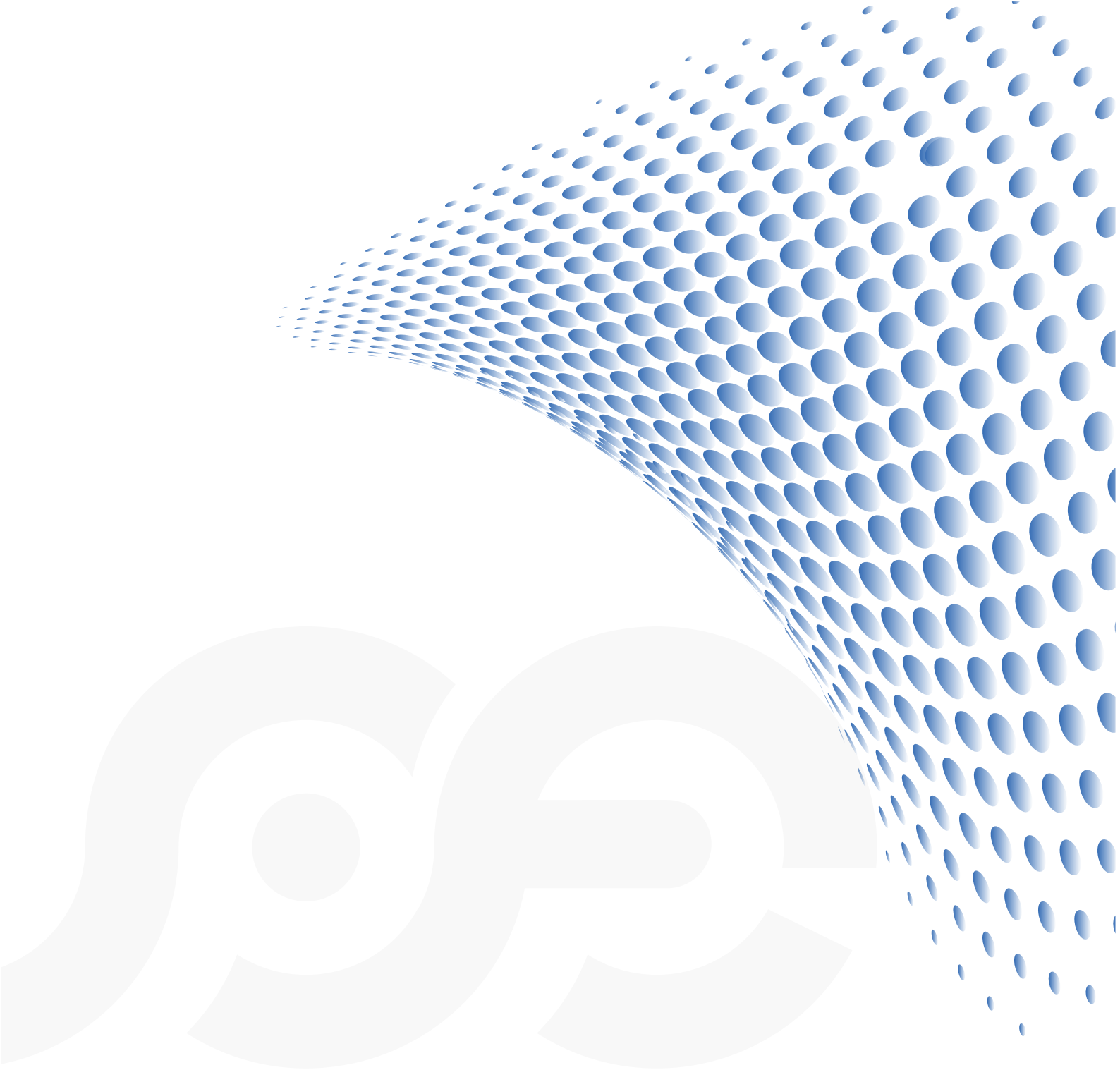
*Length* : 3km

*Country* : Kenya (2012–2016)

*Funding* : African Development Bank

*Client* : Kenya Urban Roads Authority (KURA)

*Value* : USD.36Million



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**Delivering excellence**



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