TRANSPORTATION:
Railway
Engineering
Services
Our background
GIBB is a leading multi-disciplinary engineering consulting firm based in South Africa with 67% Black ownership. The firm has a strong African orientation with a wide geographical footprint on the continent.

The firm has been operating since 1956 and has proven capabilities in delivering world-class projects of any magnitude. GIBB prides itself on delivering high quality projects underpinned by an independently certified ISO 9001 quality system since 1999.

GIBB recognises and appreciates the potential offered by the African continent. Accordingly, GIBB has, over the years, developed an in-depth understanding of the challenges of developing infrastructure in Africa. This has contributed to the firm's position as the partner of choice for the private sector, state owned enterprises (SOEs) and governments who seek knowledgeable people, with proven experience and the expertise to respond to the numerous infrastructure demands and needs of the continent.

Our experience
GIBB has executed various and complex projects across various sectors and engineering disciplines across many African countries. The firm remains committed to achieving excellence in every project, and is proud to be the firm of choice for the continent’s greatest engineers, who are leading experts in their fields. GIBB’s technical expertise is enhanced through our relationships with various global partners.

GIBB is conscious of the environment in which it operates in and continuously seeks ways to offer sustainable solutions on its projects.

The winning combination of top talent, in-depth industry knowledge, well-earned reputation for excellence and commitment to timeous, within budget delivery ensures that the client is guaranteed ultimate success of every project. GIBB’s long track record of industry awards is a testament of the recognition by our industry peers.

Our service offering
In addition to its traditional service offerings and in line with GIBB’s objectives of providing comprehensive solutions to clients, SVA International, one of Africa’s leading architectural practices has joined forces with the GIBB Group of firms. This has expanded the GIBB offering beyond engineering, to architecture and urban planning.

With offices in all major cities in South Africa and the rest of Africa, SVA’s areas of expertise include retail, hospitality, commercial, health, education and residential.

Our project exposure
The GIBB Group of firms operates across the entire Africa continent and has recently undertaken projects in: Angola, Botswana, Ghana, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Swaziland, Tanzania, Uganda, Cameroon, DRC, Mauritius, Ethiopia, Senegal, Kenya, Djibouti, Gambia, Zambia and Zimbabwe.

Our markets
The markets GIBB operates in are:
- Transportation
- Freight and Logistics
- Power and Energy
- Water
- Sanitation
- Housing and Community Infrastructure
- Property Developments in retail, hospitality, commercial and residential
- Geotechnical and Tunnelling
- Natural and Built Environment
- Mining Infrastructure
- Health Infrastructure
- Education Facilities
GIBB’s Railway Engineering provides the full spectrum of rail and rail-related services. These services range from specialised requirements (relating to perway, signalling, electrical, rolling stock and operations) to large multi-disciplinary project services, often involving all of these elements. For such large projects, GIBB offers a comprehensive range of services encompassing project feasibility, design, procurement, construction and operational activities. In particular, GIBB’s extensive experience on Public Private Partnership projects (PPP’s) demonstrates its capabilities in managing highly diversified project portfolios.

The following list of service offerings provides an indication of GIBB’s project capabilities:

**Design**
- Pre-feasibility and feasibility studies
- Topographical and geotechnical surveys
- Route planning and geometric design
- Earthworks and pavements
- Substations and OHTF
- Signalling and telecommunications
- Asset life-cycle planning
- Rolling stock
- Facilities

**Procurement**
- Specifications
- Tender management
- Sub-consultants

**Construction**
- Construction monitoring
- Payment certification
- Testing and commissioning

**Operations**
- Condition assessment
- Maintenance management
- Performance evaluations
- Incident investigations
- Refurbishment

GIBB implement the controls required on all its projects to assure that they are delivered to clients’ requirements, on-time and within budget. GIBB’s internationally recognised quality management system enables project delivery of the highest standard to meet clients’ expectations.
Projects demonstrating GIBB’s Railway Engineering Services

**Moses Mabhida Commuter Station**
*CLIENT NAME*  
Passenger Rail Agency of South Africa (PRASA)  
*LOCATION*  
Durban, KwaZulu-Natal, South Africa  
*PROJECT VALUE*  
R160 million  

**GIBB responsibilities**  
- Feasibility study  
- Railway infrastructure planning and design  
- Train operations analysis  
- Project management and construction monitoring  
- System interface design, testing and commissioning

**Gautrain Rapid Rail Project**
*CLIENT NAME*  
Gauteng Provincial Government  
*LOCATION*  
Johannesburg, Pretoria and Ekurhuleni, South Africa  

**GIBB responsibilities**  
Member of clients’ engineering and commercial team responsible for:  
- Passenger demand forecast  
- Route planning and station location  
- Operations output specifications  
- Construction assurance and utility relocation  
- Preparation and adjudication of concession contract

**Kazungula Bridge**
*CLIENT NAME*  
Ministry of Transport (Botswana) and Road Development Agency (Zambia)  
*LOCATION*  
Namibia/Zambia/Botswana/Zimbabwe border  
*BRIDGE LENGTH*  
930m  

**GIBB responsibilities**  
- Design review of track and electrical work  
- Design review of border facilities  
- Environmental management services  
- Tender documentation  
- Contract supervision

**Kalagadi Manganese Railway Siding**
*CLIENT NAME*  
Kalagadi Manganese (Pty) Ltd  
*LOCATION*  
Hotazel, South Africa  
*SIDING LENGTH*  
19 km  

**GIBB responsibilities**  
- Design of private siding and staging yards  
- Design of formation and bridge structures  
- Procurement of contractors  
- Construction supervision  
- Testing and commissioning of perway, OHTE and signalling
**PROJECT NAME**
Port Harcourt Monorail

**CLIENT NAME**
Ministry of Transport, Rivers State Government

**LOCATION**
Rivers State, Nigeria

**GIBB responsibilities**
- Route planning and station location
- Project management and construction assurance
- Testing and commissioning
- Procurement of operations and maintenance contractor
- Performance monitoring

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**PROJECT NAME**
Rolling Stock and Depot Procurement

**CLIENT NAME**
Passenger Rail Agency of South Africa (PRASA)

**LOCATION**
South Africa

**PROJECT VALUE**
R123 billion

**GIBB responsibilities**
- Passenger demand study and rolling stock needs analysis
- Infrastructure interface specification
- Depot location study and technical specifications
- Depot infrastructure concept design
- Tender preparation and evaluation

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**PROJECT NAME**
Malawi Scoping Study

**CLIENT NAME**
COMESA

**LOCATION**
Malawi/Zambia/DRC/Angola

**GIBB responsibilities**
- Condition assessment of existing rail infrastructure
- Rail capacity analysis
- Terms of Reference for a feasibility study to increase capacity
- Assessment of Lobito port capacity

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**PROJECT NAME**
Minas de Revuboe Mine

**CLIENT NAME**
Talbot Group Investments, Australia

**LOCATION**
Tete, Mozambique

**GIBB responsibilities**
- Areal topographical survey
- Water resource and flood hydrology and design
- Train operations and rolling stock study
- Railway infrastructure and bridge designs
- Signalling, telecommunications and yard lighting design
Railway Engineering Services projects

Capacity increase analysis  
OHTE refurbishment  
Cape Town Station electrical projects

National rail passenger plan  
New PRASA station at Rhodesfield  
Signalling upgrades

Stations operational upgrades  
Bridge City rail link and station  
Infrastructure condition assessment

Sasol level crossing evaluation  
Rail substation and OHTE  
Re-evaluation port operating assets
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