

PROJECT SHEET

SISHEN SOUTH DIRECT LINK

Client : HMG Joint Venture
Location : Northern Cape, South Africa
Involvement : Detail design and procurement
Value : R500 million
Purpose : To design a rail link between the Sishen South Mine and the Sishen Saldanha Ore Line
Duration : April 2007 – April 2008



R&H was appointed by HMG Joint Venture for the design and the procurement of a rail link between the Sishen South Mine and the Sishen Saldanha railway line. The preferred route, which connects directly to the Sishen Saldanha Line (at approximate ch 820km), is approximately 32km long. The line will comprise a single heavy haul line (60kg/m rails on PY concrete sleepers on ballast profile of 1600 m³/km) electrified at 50 kV a.c. and connecting the Sishen Saldanha line with a 1:20 right hand turnout. The line will carry 30 ton axle load traffic of 9 million tons per annum.

The project is undertaken in three distinct phases as follows:

a) Pre-design Phase

This phase includes the aerial survey, hydrology and detailed geotechnical studies. These studies are implemented in conjunction with the environmental study, which forms an integral part thereof.



b) Detailed Design Phase

R&H Railway Consultants is responsible for the detailed engineering of all rail and related works. This will include all works required to construct a complete heavy haul railway line inclusive but not limited to the following:

- Earthworks
- Trackwork
- Structures
- Drainage
- Electrification
- Signalling

c) Tendering and Adjudication

R&H Railway Consultants is responsible for compiling and adjudicating the tenders. It is envisaged that the works will be split into ten packages, i.e.;

- Earthworks (three tenders)
- Perway
- Bridges and Civil Structures
- Overhead Traction Equipment
- Signalling system (design and installation)
- Material supply (three tenders: sleepers, rails and turnouts)



RAILWAY ENGINEERING