

THE DESIGN, MANUFACTURING AND INSTALLATION OF A NEW 400KV GIS, CONSTRUCTION OF A NEW CONTROL ROOM, MANUFACTURING AND INSTALLATION OF A NEW 400KV TRANSFORMER, CONSTRUCTION OF A ROAD AROUND THE SUBSTATION, MANUFACTURING AND INSTALLATION OF PROTECTION SCHEMES, DESIGN AND INSTALLATION OF AN AUTOMATIC CHOP OVER SCHEME, CONSTRUCTION AND INSTALLATION 400KV AND 132KV AIS EQUIPMENT, COMMISSIONING AND ASSOCIATED WORKS.

PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page	1
	Site Information	2
Total number of pages		

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PART 4: SITE INFORMATION

1. General description

Philippi Substation Extension project works will be within the boundaries of Philippi substation located in Hanover park township on the corner of Lansburg road and Greenturf road. City of Cape Town 132kV (Gas Insulated Switchgear) GIS substation is also within the boundaries of the substation. The main access road to the substation is the M7 James Gerwell drive

The coordinates of the substation are: -33.988827, 18.537231



2. Existing buildings, structures, and plant & machinery on the Site

Philippi substation has two existing buildings namely the existing control room and a pump house. The substation is equipped with 2 X 500 MVA 400/132 kV line-banked transformers. Details of existing foundations, trenches and earthmat are on drawing 0.03/8178.

The Substation has a security control room that is not in use

3. Subsoil information

Information regarding the subsoil is not available as the works will be within the existing substation and information on some old substations is not available. Geotechnical information of the site will NOT be provided by Eskom. The *Contractor* shall be responsible to conduct his own geotechnical investigation.

4. Hidden services

There are cables running through the terrace area that will need to be identified and care not to damage them should be taken at all times. The substation EA's will assist in the locations of these cables and some

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other services not Known. Any other hidden services that may be encountered on site will also need to be relocated. Before any excavation is commenced, it will be the responsibility of the *Contractor* to ascertain from the "Site Supervisor" the position of any existing services on site. Once these are indicated to the *Contractor* they shall be deemed "known". Any costs incurred for repairs to any "known" services shall be for the Contractor's account.

5. Other reports and publicly available information

5.1 Socio Economic Circumstances

Philippi Substation is situated in a crime and drug riddled area. The army was recently deployed to help with crime and drugs in the area. Philippi faces many social problems, including lack of education, violent crime, substance abuse, environmental degradation and a rise in the number of residents with HIV/AIDS. Schools in Philippi are often overcrowded, with low pass rates and are under-resourced with few extracurricular activities available to students. The average household income is R3, 200 or less, indicating that many residents holds low income jobs or lives on social grants. Successful graduates often move away from the township, leaving learners with few role models and little motivation to challenge local job seeking behaviours or believe that they can make something of themselves. Lack of information, networks and opportunities trap many into continued poverty and under-productivity.