

## PART 4: SITE INFORMATION

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## PART 4: SITE INFORMATION

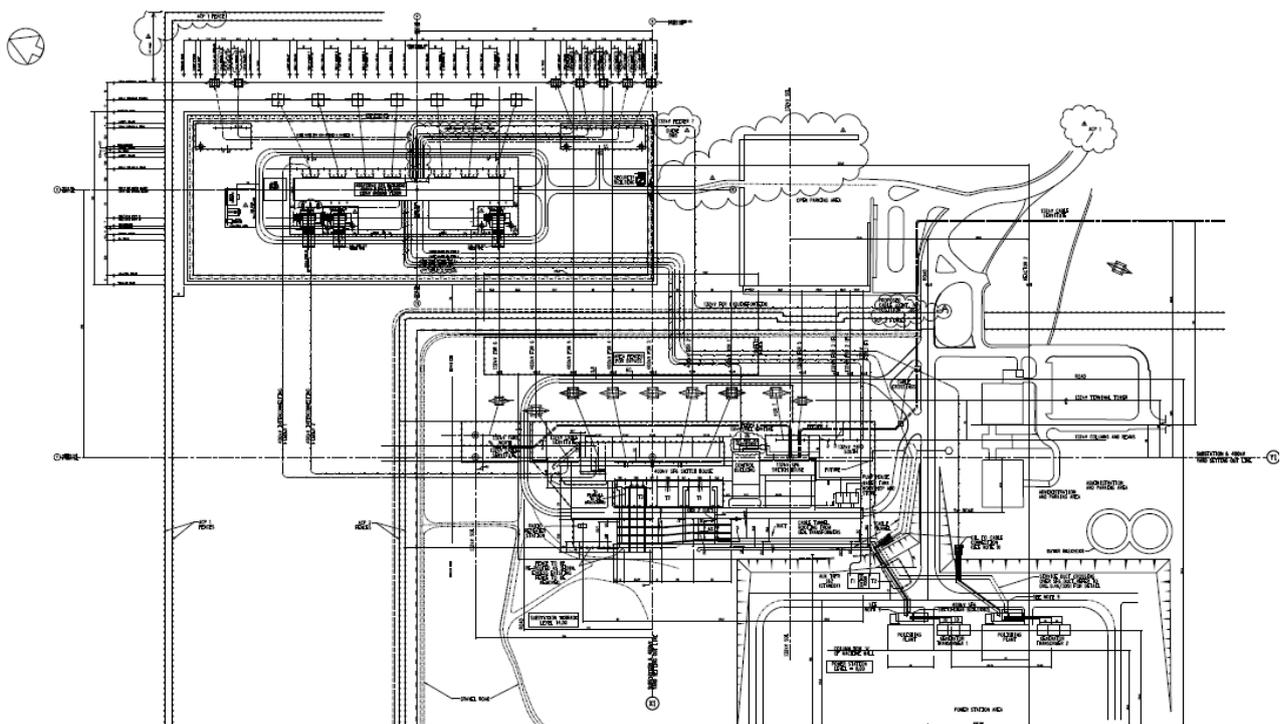
### 1. General description

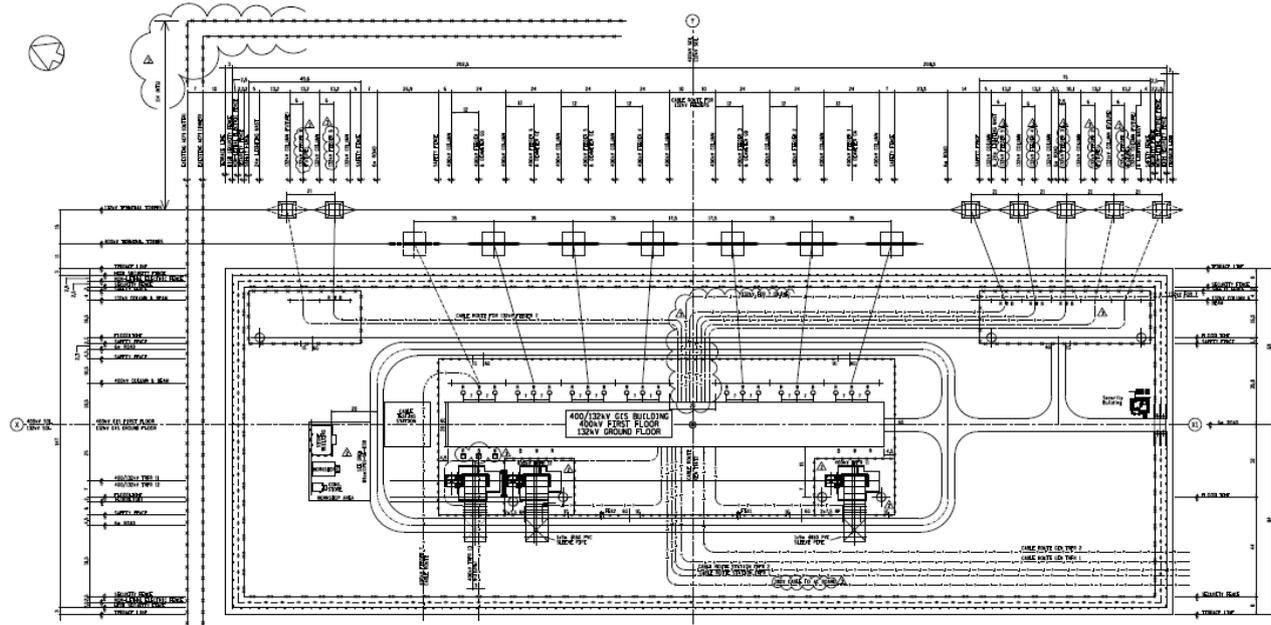
The existing Koeberg 400kV GIS equipment together with associated AIS equipment has been in operation for almost 40 years.

The existing 400/132kV GIS is now due for major refurbishment in order to improve the reliability of the system. This can, however, not be done without shutting Koeberg down for two short periods and taking one of the Generator Transformers out of service for the duration of the switchover, due to the problematic busbar configuration.

Koeberg Nuclear Power Station also intends to increase generated power through a project called Thermal Power Up-rating. The increased power will result in the 400kV GIS busbars being overloaded under certain contingencies.

The sketch below outlines the proposed project requirements for the Weskusfleur GIS 400/132kV substation.





**Proposed layout for the new GIS and associated services and cables.**

The *contractor* to take note that Koeberg Nuclear Power Station is an existing site, and there are underlying services that are not marked or recorded.

The *Contractor* to ensure that all underground services are scanned, recorded and provision should be allowed to deviate or work around the existing underground services

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

The contractor to integrate the new required services with the following:

- Existing GT rooms
- Existing Koeberg GIS Substation
- Existing Gen Transformers
- Existing Station Transformers
- Existing underground HV cable
- Work within a national key point area (Nuclear power station)

The above required integration required outages which will need approval from Koeberg NPS, Western Transmission Grid and Eskom National Control.

**3. Subsoil information**

The Contractor to perform their own geotechnical studies prior to commencement with earthworks. The Geotechnical Investigation report referenced (161395) is provided for information only.

**4. Hidden services**

The Site is an existing Transmission substation and Koeberg Power Station. The *Contractor* shall verify the position of all services and all other obstacles and existing services on the Site (e.g. manholes, cables, roads and the other existing services) before commencing construction in any particular area. The *Contractor* shall verify the positions of services and report to the *Supervisor* any services that are unidentified and/or identified.

Where any underground services are shown on the drawings, the *Contractor* shall provide and use equipment that is suitable for the location of underground service pipes and cables on the Site for as long as

THE DESIGN, PROCUREMENT, MANUFACTURE, CONSTRUCTION, INSTALLATION, TESTING, COMMISSIONING OF THE 400/132KV GAS INSULATED SUBSTATION (GIS) AT WESKUSFLEUR SUBSTATION AND DECOMMISSIONING OF KOEBERG 400/132KV SUBSTATION

is necessary to detect and locate such services and, if so ordered, he shall excavate by hand to expose such services in areas and in a manner and at a time agreed upon with the *Supervisor*.

The new proposed Substation and the cables to be installed will be constructed near existing Power station and substation where there are existing underground services. The Contractor is to provide for the identification and relocation of the existing underground services if necessary.

The Contractor to make use of Ground Radar Penetrating Scanning (GPRS) amongst other methods to identify the existing underground services.

## **5. Other reports and publicly available information**

1. Underground scanning report (PDP)
2. Geotech report (Subs)
3. Koeberg underground services layout (Koeberg-Koketso)
4. Weskusfleur Key plan Drawing rev3