



C3.1: SCOPE OF WORKS

STATUS

In the event of any discrepancy between the Scope of Work and any part of the SANS 1200 Standardized Specifications, the Bill of Quantities or the Drawings, the Scope of Work shall take precedence and prevail in the Contract.

C3.1.1 Overview of the Works

This contract entails the Implementation of the Conditional Assessment on the Emalahleni Water Supply Scheme, particularly the Water Treatment Plant.

C3.1.2 Extent of the Works

The Scope of Work envisaged to be carried out under this Contract is summarized as follows:

Witbank Water Treatment works

Administration Building

Civil Works

- Overall refurbishment of building required including
 - a. Roof repairs
 - b. Ceiling repairs
 - c. Painting
 - d. Dust extraction
 - e. Ventilation
- Construct 2 Guard House facilities at the two entrance gates

Mechanical Building

Civil Works

- Overall refurbishment of building required including
 - a. Painting
 - b. Windowpane replacements
 - c. Door repairs

Electrical Works

- Purchase a new generator to ensure the optimal function of the WTW plant - generator will provide electricity for the offices, lights and clarifiers.

Inlet and Dosing Facility

Civil Works

- Provide OHS Equipment
- Construct an emergency outlet to collect flood water
- Construct water sump including pump for removing excess flood water
- Replacement of 900mm and 600mm diameter steel pipes with GRP pipes
- Refurbishment of lime feeders
- Replacement of 600mm and 900mm isolation valves
- Stormwater Management

Mechanical Works

- Corrosion protection of valves (recoating of valves)
- Replacement of Rectagrids that are missing and the ones that have corroded
- Replacement of old valves
- Refurbishment of Silos and instrumentation
- Reinstatement of the automated system for Lime dosing
- Supply maintenance ride on lawn mover and forklift and scissors trolleys

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Electrical Works

- Refurbishment of electrical Panels
- Refurbishment of dosing motors

Sedimentation Tanks

Civil Works

- Repair concrete damaged areas on new sedimentation walkway to prevent damage to the rotor wheels
- Overall refurbishment of building required - mechanical workshop for the plant.

Mechanical Works

- Repair wheels and replace the rubbering of clarifiers.
- Refurbish gear boxes of 8 tanks clarifiers.
- Replace the missing mixer at tank clarifiers.
- Replacement of desludge valves on clarifiers.
- Candice system overflow weirs to be replaced and refurbished.

Electrical Works

- Replacement of motors, required VSD system Candice system
- Refurbishment of all panels required Candice system
- Refurbishment of 7 motors and replacement 1 missing motor clarifiers
- Refurbishment of panels required clarifiers.

Chlorination building

Civil Works

Look at additional space for filtering facility to accommodate chlorine and other storage requirements

Mechanical works

Crawl beam to be repaired.

- Refurbishment of the chlorine dosing system
- Replacement of chlorine dosing system and crawl beam. Additional chlorine storage facility required and dosing system for additional future demand.

Electrical Works

Backwashing system

Electrical Works

- Replace existing Generator

Witbank Dam Raw Water Pump Station

Civil Works

- Guard House and Conservancy Tank
- Installation of Valve Chamber outside of PS refurbishment of the 900mm diameter valves

Mechanical Works

- Abstraction point Witbank Dam - Replacement of internal pipework and valves in dam wall. As well as valves and pipes on delivery and suction side.
- Refurbishment of the existing KSB WKLn 350/2 pumps at the pumpstation
- Corrosion protection of Valves and pipe works.

Electrical Works

- Supply delivery and installation of 1045 kW GEC electric motors rated at 1489 rpm.
- Refurbishment and rewiring for easy operating of the main panels for the pumpstation
-

Tenderer

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Witbank Quarry and Quarry Pump Station

Civil Works

- Quarry dam wall to be sealed
- New fencing required for transformer location.

Mechanical Works

- Refurbishment of pipework's and valves required
- Refurbishment of pumps will be required to ensure all is working according to requirements.
- A new steel structure to be installed at the quarry dam to accommodate the submersible pumps and a platform for operations and maintenance
- Installation of a crawl beam to safely and effectively operate the pumping system.
- Supply and Installation of a submersible pump set on a duty standby configuration with a flow of 700 l/s and 30m Head
- Supply and Installation of the following pumps
 - KSB 250/33, SA 13101 D-PED
 - KSB X-STREAM 250/32
 - KSB ETA 250-33 at the Pumpstation Building

Electrical Works

- Panels housing to be upgraded and to effectively manage and support
- Refurbishment required for electrical panels.

POINT B

CIVIL

General upkeep which will include

- Grass cutting
- Tree trimming
- Painting
- Repair windows, gutters and roof at pumpstation.
- Re-use of decommissioned concrete water tower.

MECHANICAL

- Repairs at pumpstation (3 x pump repairs).
- Replacement of the pumps at water tower (2 x pump).
- Refurbishment/replacement of pipe specials and valves of the reservoirs, water towers and pumpstation.

ELECTRICAL

Repairs at pumpstation

- 3 x motor repairs (110kW)
- PS panel repairs
- Replacement of motors at water tower pumpstation
- 2 x motor (160kW)
- Pumpstation panel repairs

Tenderer

Witness 1

Witness 2
128

Employer

Witness 1

Witness 2