



# Transmission Tower Foundation Assessment

## Utillix

is an expert in this field and our clients benefit substantially from our non-intrusive and non-destructive assessment methods.

We use the latest in non-intrusive, trenchless technologies such as Linear Polarisation Resistance (LPR) to provide indication of the presence and relative extent of corrosion in tower leg components below ground level, and Transient Dynamic Response (TDR) to locate anomalies including shaft restraints, over break, cracks, reductions in sections and zones of poor quality concrete of both pre-cast and cast in-situ concrete piles.

This analysis yields an overall assessment of the condition of the foundation and allows the owner to make informed and timely asset management decisions.



## LOCATION OF

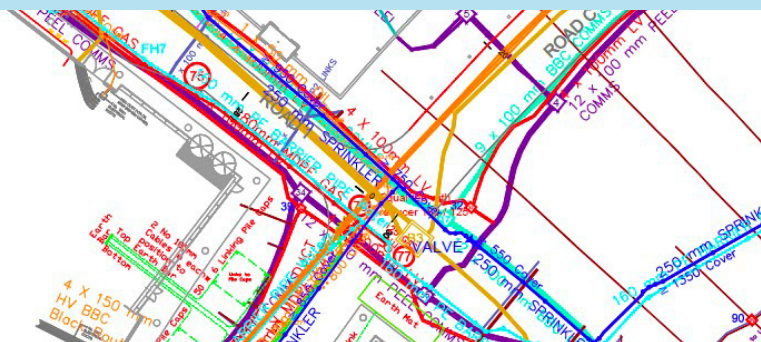
- ✓ Foundation Toe Level
- ✓ Waisting
- ✓ Cracks & Reductions
- ✓ Zones of Poor Quality
- ✓ Concrete Voids
- ✓ Steel Corrosion Rates
- ✓ Shaft Restraints



- Non-intrusive, cost-effective condition assessment
- Determine the structural integrity of the foundation
- Assess the potential life of steelwork
- Understand the risks associated with each tower
- Determine the foundation load-bearing

## Typical Transmission Tower Foundation Failure Mechanisms

- > Insufficient embedment of stubs into the block and lack of cleats resulting in uplift failure
- > Excessive foundation settlement due to compressible soils, mining subsidence or landslides
- > Corrosion of the embedded tower steelwork



Cape Town:

info@utillix.co.za | +27 68 190 0644

Johannesburg:

suleman.lakhi@utillix.co.za | +27 78 017 3109

Durban:

chris.otto@utillix.co.za | +27 68 190 0644

[www.utillix.co.za](http://www.utillix.co.za)