Introduction
Steel poles and masts are used in Rand Water's area of operations for public lighting, and the poles and masts are collectively referred to as masts. Quality of the masts is very important as failure could result in serious consequences.

As this is difficult to manage within the present Rand Water business structures it has been decided that SANS support structures will be relied upon to manage compliance to specification as well as quality. The implication to suppliers is that Rand Water will only purchase steel masts that comply with the relevant SANS specifications.

Scope
This specification covers Rand Water's requirements for steel masts for public lighting in accordance with SANS 10225.

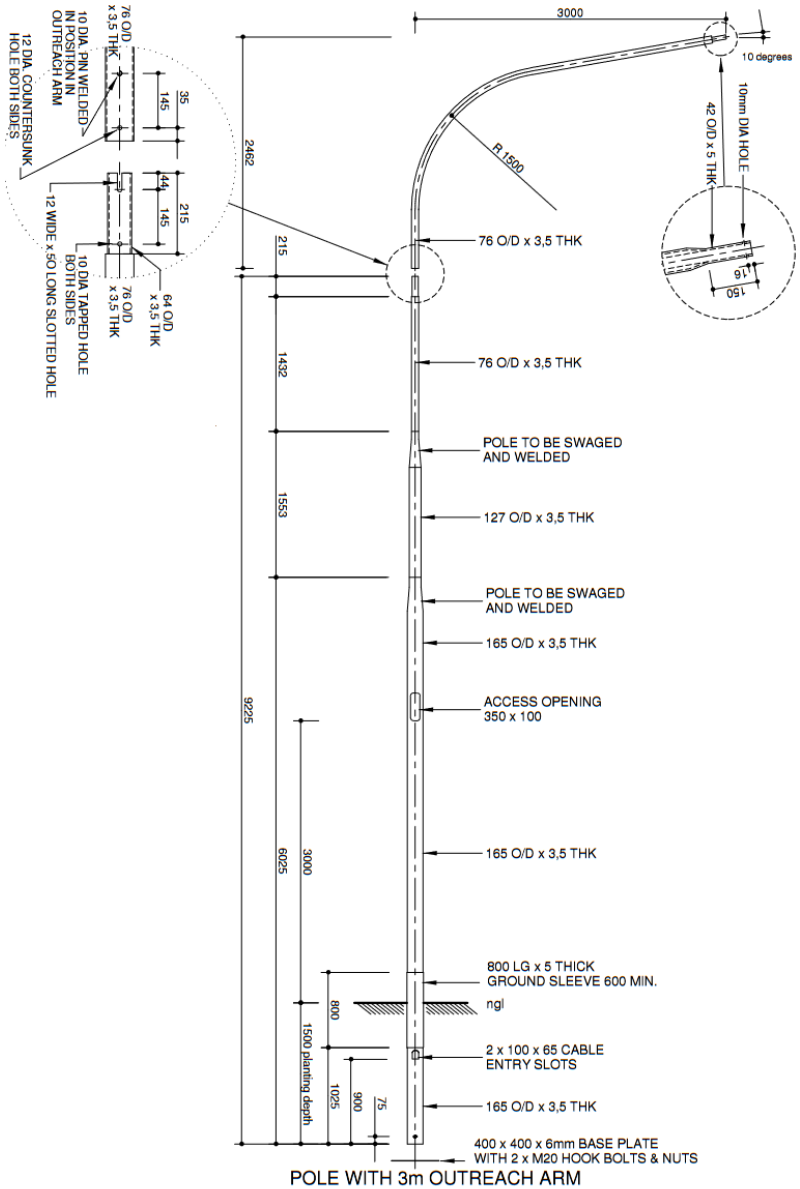
Normative References
The following documents contain provisions that, through reference in the text, constitute requirements of this specification. At the time of publication, the editions indicated were valid. All standards and specifications are subject to revision, and parties to agreements based on this specification are encouraged to investigate the possibility of applying the most recent editions of the documents listed below:
SANS 044-3:1983, *Welding – the fusion welding of steel. Part 3 – Tests for the approval of welding procedures and production welds.*
SANS 10225:1991, *Design and construction of lighting masts.*
SANS 657-1:1989, *Steel tubes for scaffolding and for structural and general engineering purposes.*
SANS 121:2000, *Hot-dip galvanised coatings on fabricated iron and steel articles – specifications and test methods.*

General
All masts shall comply fully with the requirements of SANS 10225 and this specification.

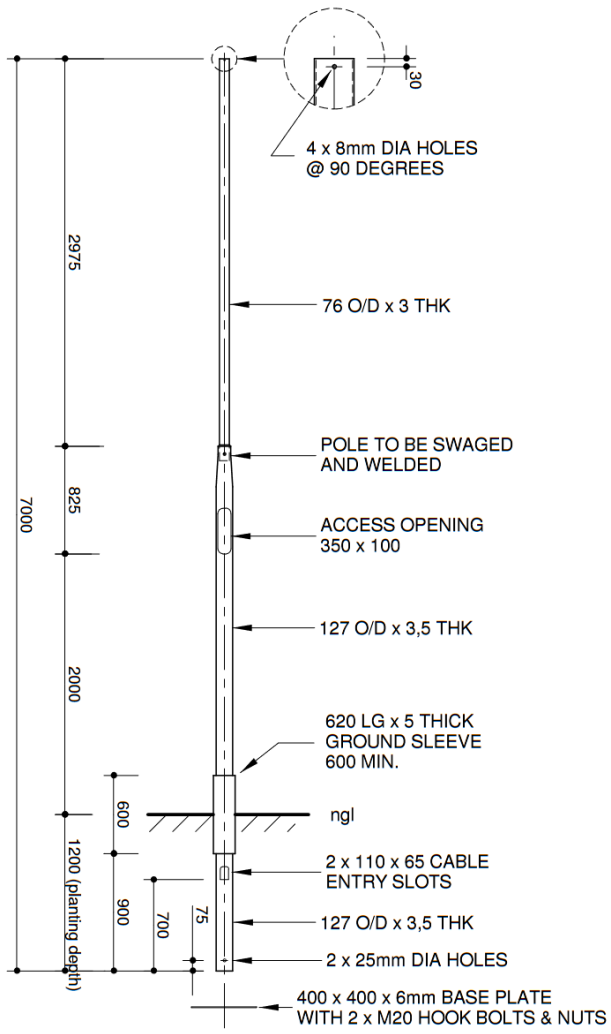
The masts shall be suitable for use at a mean altitude of 1 800 m above sea level in an environment subject to heavy industrial pollution at ambient temperatures of -15°C to 65°C.

The masts will be installed in locations subject to high wind loading (as detailed in clause 4.2 below) and high lightning ground flash density (> 10 flashes/km2/year).

The masts shall be designed, approved and certified by an individual who is professionally registered with the Engineering Council as a structural engineer in accordance with SANS 10225 and manufactured from new materials.



POLE WITH 3m OUTREACH ARM
MOUNTING HEIGHT = 10m



7m POST TOP STREET LIGHT POLE
MOUNTING HEIGHT = 5,8m

SCALE 1: 50