



20m Tower

Designed to accommodate antennae with a combined surface area of no more than 10m² spread over the top 10m of the tower and spread evenly in a 360degree pattern around the tower.

Manufactured and installed by George Stott and Company (PTY) Ltd

For

Sizwe Group

Sizwe House, C/O Waterloo and Landmarks Avenue, Samrand, South Africa

Tower Address: 1455 Quality Street, Johannesburg



Completion Certificate

C & S Projects

Adriaan Naude

B-Eng (civil), Pr-Eng

31 Wrapped in Red
Dunblane
c/o 9th & Shamrock str
Bredell
Kempton Park
South Africa

Cell: 082 375 4593
Fax: 086 626 8225

COMPLETION CERTIFICATE BY PROFESSIONAL ENGINEER (STRUCTURAL SYSTEM)

Description of property: *20m High ,free standing, 4 legged, lattice communication mast*

Erected at: *Quality street, Isando.*

GPS: *S: 26° 08' 57" E: 28° 12' 24"*

Client Ref: *1455*


Engineer certificate in terms of section 14 subsection (2A) of the NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT (1977) as amended.

I, A.A Naude, the undersigned, have complied with my appointment as professional engineer to carry out the structural design, and inspections for the structure for the following:

The following inspections have been done and are hereby accepted:

- 1: Inspection on installation of screw piles
- 2: Inspection on completed structure

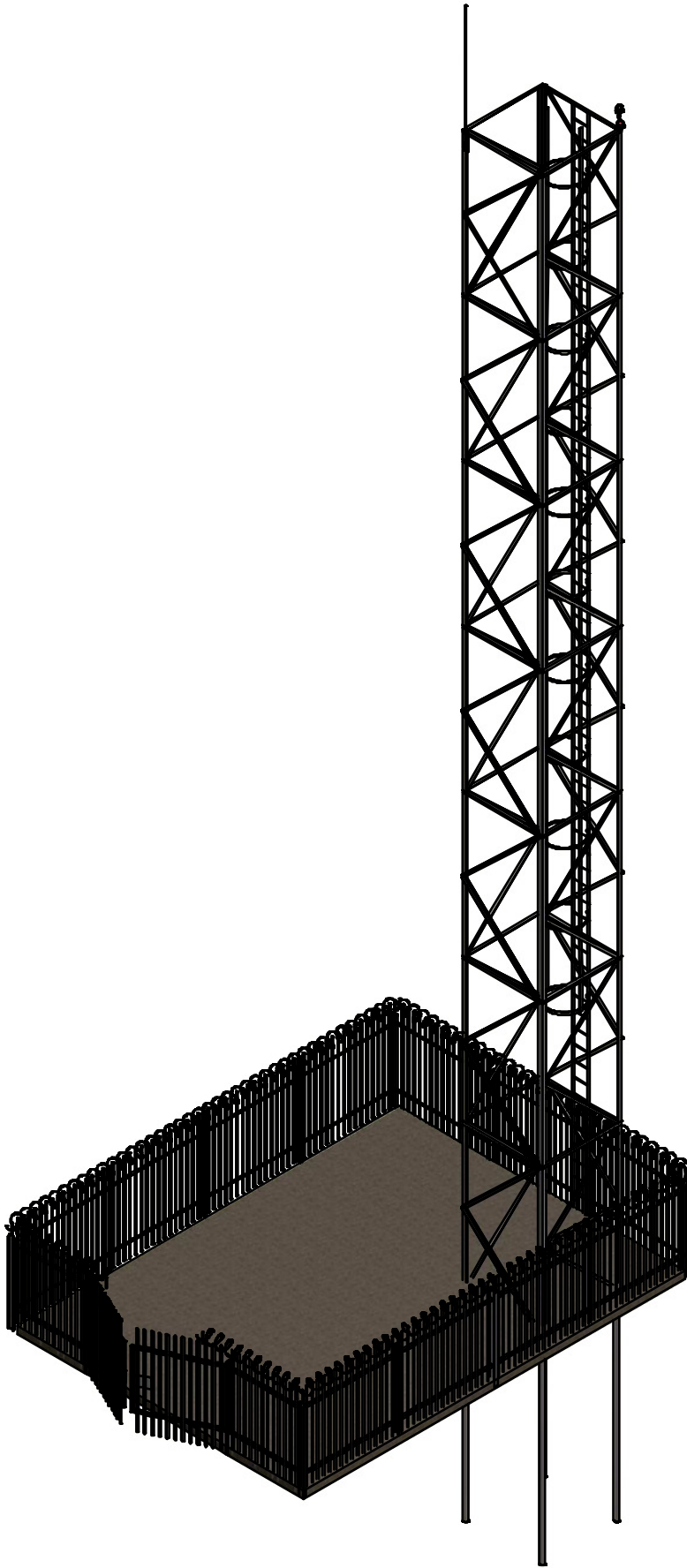



A. A. NAUDE

15/11/2011

A.A Naude (B-Eng Civil, Pr-Eng)
(2000 0163)

(Date)



ISO VIEW

DESIGN NOTES:

1) WIND LOAD: SABS 0160-1989

Cat 2
 Class B
 Wind speed = 40m/sec
 Return period = 1:50 year
 Height above sea level = 1200m
 Artificial height = 0m

2) ANTENNA LOADING

10m² Evenly distributed from 10 - 20m
 Cf = 1,2

Feeder cables: Total of 200mm wide
 for full length of structure

3) LOAD FACTORS @ U.L.S

Own weight of structure x 1,2
 Wind load x 1,3

4) WIND LOAD DUE TO MEMBERS

Calculated from Table 19 SABS 0160-1989

5) DEFLECTIONS

Max deflection at 0,7 x Wind load < 1,5% of the height

6) CONNECTIONS:

Bolt end distance for M16 & M20 bolts = 40mm
 Bolt pitch for M16 & M20 bolts = 70mm

M16 & M20 bolts to be GR 8.8

M12 bolts to be GR 4.8

7) Connections in other members:

Up to and including 60x60x5mm
 L = 1 No M16 GR 8.8 bolt, single shear

8) STRUCTURAL STEEL

All angle members to be Gr S355 JR
 All connection plates to be min of Gr 300 steel
 Ladder : Gr 300 steel



	INITIALS:	DATE:	DRAWING DESCRIPTION 20m MAST & SIRE		
DRAWN:	SS	2011/05/12	PROJECT/CLIENT: CELL C		
CHECKED:	BZ	2011/05/12	DRAWING NO: GS700_005	SCALE: NYS	SHEET 1 OF 1
QA:					REV 0

