ACP 1 FENCE

400/132kV GIS BUILDING
400kV FIRST FLOOR
132kV GROUND FLOOR

SECURITY BUILDING

132kV FEEDER 7 DUINE RWB

132kV SOL

OPEN PARKING AREA

ACP 1

132kV CABLE SERVITUTE

REACTOR 2

ROAD

PROPOSED CABLE JOINT POSITION

ACP 2

ACP 2 FENCE

132kV FDR 1 (DUINEFONTEIN)

400kV INTERCONNECTING FEEDER 1

400kV INTERCONNECTING FEEDER 2

132kV FDR 6

400kV FDR 6

400kV FDR 5

400kV FDR 4

AREA FENCED FOR BYPASS

400kV FDR 3

400kV FDR 2

400kV FDR 1

SAFETY FENCE

132kV FDR 5

132kV FDR 3 (F)

132kV FDR 2 (F)

132kV FDR 1 (F)

CABLE CROSSINGS

ROAD

132kV TERMINAL TOWER

132kV COLUMNS AND BEAMS

SUBSTATION & 400kV YARD SETTING OUT LINE

132kV YARD NORTH

132kV CABLE SERVITUTE

FEEDER 5

132kV CABLE SERVITUTE

FEEDER 4

AUX TRFR 1&2 (6,6kV/380V)

132kV YARD SOUTH

400kV SF6 SWITCH HOUSE

CONTROL BUILDING

132kV SF6 SWITCH HOUSE

FUTURE

PUMP HOUSE WATER TANK WORKSHOP AND STORE

ADMINISTRATION AND PARKING AREA

ADMINISTRATION AND PARKING AREA

T3 FIREWALL TO BE DEMOLISHED

T3

T2

T1

GEN 2 DUCT

9m ROAD

ACP 1 FENCES

ACP 2 FENCES

132kV SOL

RADIO REPEATER STATION

DUCT

CABLE TUNNEL ROOTING FROM GEN. TRANSFORMERS

CABLE TUNNEL

GIL TO CABLE CONNECTION (SEE NOTE 9)

WATER RESEVOIR

FENCE TO BE RE-ROUTED AS SHOWN. EXCESS EXISTING FENCE TO BE REMOVED.

SERVICE DUCT CROSSING OVER SF6 DUCT. REFER TO DRG. 0.46/3051 FOR DETAIL

AUX TRFR 1&2 (STANDBY)

T1

CONTROL ROOM

T2

SEE NOTE 9

400kV SF6 SWITCHGEAR BUILDINGS

SEE NOTE 9

SUBSTATION TERRACE LEVEL 14,00

ROAD

POLISHING PLANT

GENERATOR TRANSORMER 1

POLISHING PLANT

GENERATOR TRANSORMER 2

132kV SOL

COLUMN ROW 'A' OF MACHINE WALL

POWER STATION LEVEL = 8,00

SUBSTATION & 400kV YARD SETTING OUT LINE

GRAVEL ROAD

POWER STATION AREA

REACTOR 1

REACTOR 2

NOTES:

1) MINIMUM AIS CLEARANCE REQUIREMENTS:
-400kV
  > PHASE TO PHASE: 4000mm
  > PHASE TO EARTH: 3200mm
  > HORIZONTAL WORKING CLEARANCE: 4300mm
  > VERTICAL WORKING CLEARANCE: 5700mm
-132kV
  > PHASE TO PHASE: 1650mm
  > PHASE TO EARTH: 1200mm
  > HORIZONTAL WORKING CLEARANCE: 2300mm
  > VERTICAL WORKING CLEARANCE: 3700mm

ASSUMPTIONS:
-AIS TO GIS BUSHINGS LINE UP WITH STRINGERS
-AIS TO GIS BUSHINGS TO MAINTAIN MINIMUM PHASE TO EARTH CLEARANCE TO THE GIS BUILDING
-DOUBLE STOREY GIS BUILDING WITH DIMENSION USED: 192m x 20m.
-132kV GROUND FLOOR WITH 400kV ON THE FIRST FLOOR THIS CAN BE MODIFIED TO SUIT THE APPLICATION

REQUIREMENTS:
-.dxf FORMAT OF THE GIS BUILDING LAYOUT (FRONT, TOP AND SIDE VIEWS) WITH DIMENSIONS INCLUDING AIS TO GIS BUSHING.
-.dxf FORMAT OF THE GIS TO AIS BUSHING OUTSIDE THE BUILDING (FRONT, TOP AND SIDE VIEWS) WITH DIMENSIONS.
-HEIGHT OF BUSHING FROM GROUND LEVEL AND DISTANCE FROM BUILDING WALL TO CENTER LINE OF BUSHING.
-.dxf FORMAT OF THE GIS LAYOUT WITHIN THE GIS BUILDING
-STATE PHASE TO PHASE, PHASE TO EARTH AND WORKING CLEARANCE.

NOTES:
1. FEK INDICATES FIRE EQUIPMENT KIOSK. FOR MORE DETAILS ON THE FEK SEE DRG 0.54/390 SH56.
2. ◆ INDICATES 24m HIGH FLOODLIGHTING MAST.
3. ALL TERMINAL TOWER POSITIONS ARE PRELIMINARY. FOR TERMINAL TOWER SEPEARATIONS SEE 0.54/4201.
4. FOR MORE DETAILS ON THE ENTRANCE GATES SEE DRG 0.54/7470.
5. NEW SAFETY FENCE TO BE CONSTRUCTED ACCORDING TO DRG. 0.54/4963 SHT 1-5 (PVC COATED OPTION)
6. NEW CABLE ROUTE ——— c — t ——— c — t ———
7. ○ INDICATES AIS BUSHINGS.
8. □ INDICATES GIL TO CABLE CONNECTION.
9. FOR DETAILS OF THE GENERATOR TRANSFORMER HOUSE AND ASSOCIATED GIL DUCTS, SEE DRGS:
WKoe11P01-SE-D54 SHTs 1&2;
WKoe11P01-SE-D55 SHT 1 &
WKoe11P01-SE-D56 SHTs 1&2.

TENSION PER PHASE IN kN	
400kV STRINGER (2 CONDUCTOR PER PHASE)	18kN
132kV STRINGER (2 CONDUCTOR PER PHASE)	9kN
EARTHWIRE	2kN

REV	REVISION DESCRIPTION	DRAWN	CHKD	AUTH	DATE
3	6,6kV/380V TRFR TO AC BOARD CABLE ROUTE, CABLE JOINT, CABLE CROSSING, ACP 1 & ACP 2 SHOWN. 132kV FEEDER SEQUENCE UPDATED.				20/05/2020
2	STAMP DETAILS CORRECTED, FENCE & GATES ADDED FOR 400/132kV TRFRS 11 AND 12. ADDITIONAL AUX TRFR ADDED (STBY).	CK	SS	MP	07/03/2019
1	SUBSTATION NAME CHANGED TO THE NEW APPROVED SITE LOCATION. SUBSTATION NAME CHANGED TO 'WESKUSFLEUR'.	LM	RR	MP	17/07/2017
0	NEW 400/132kV GIS YARD ADDED. NEW 132kV OUTDOOR YARD ADDED. CABLE ROUTES FOR 132kV STATION TRFR'S AND 6,6kV/380V TRFR TO AC BOARD. EXISTING PLANT IN THE GIS YARD. CABLE ROUTES FOR 132kV TOWS INDICATED BETWEEN NEW GIS YARD & NEW 132kV OUTDOOR YARD (AT EXISTING KOEBERG NPS)	DF	CT	MP	24/01/2017

06 STATION ELECTRIC

WKoe11P01-SE- REFERENCE DRAWINGS

APPROVED BY	M.PEFFER
DATE	24/01/2017
CHECKED BY	C. THOMAS
DATE	24/01/2017
DRAWN BY	D. FERNANDEZ
DATE	24/01/2017
SCALE	1:1000

Eskom

Eskom Holdings SOC Ltd
Reg No 2002/015527/30

DETAIL DESIGN
NOT FOR CONSTRUCTION
ORIGINAL DWG #: 0.46/701 REV 13
(AND DRWG NR. Koe14P08-C05)

WESKUSFLEUR
KEY PLAN

©

WKoe11P01-SE-D7

SHEET NUMBER 1 | REVISION 3

SIZE A0L