

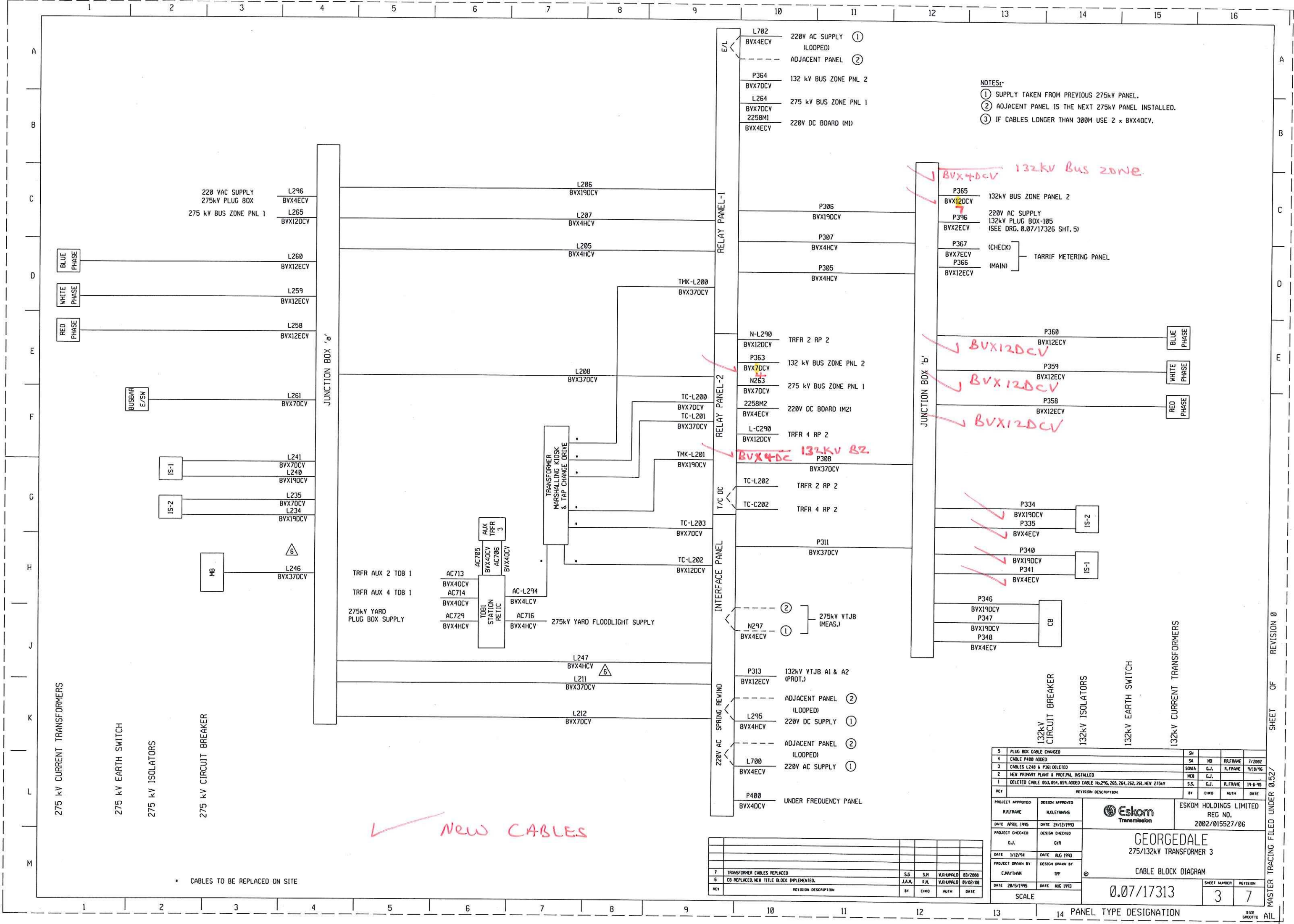
- NOTES:-
- ① SUPPLY TAKEN FROM PREVIOUS 275kV PANEL.
 - ② ADJACENT PANEL IS THE NEXT 275kV PANEL INSTALLED.
 - ③ IF CABLES LONGER THAN 300M USE 2 x BVX40CV.
 - EXISTING CABLES.

THIS DRAWING HAS BEEN CREATED ON A C.A.D. SYSTEM AND ANY AMENDMENT TO THE DRAWING MUST BE EFFECTED ONLY ON THE SAME C.A.D. SYSTEM

| REV | DESCRIPTION | BY | CHKD | DATE |
|-----|------------------------------------------|----|------|--------|
| 5 | PLUG BOX CABLE REVISED | SA | MB | 7/2002 |
| 4 | CABLE F314 ADDED | SA | MB | 7/2002 |
| 3 | CABLES C248 & F361 DELETED | SA | MB | 7/2002 |
| 2 | NEW PRIMARY PLANT & PROT./P.M. INSTALLED | SA | MB | 7/2002 |

| | |
|-------|---------------------|
| SHT 5 | BAY CABLING |
| SHT 4 | BAY CABLING |
| SHT 3 | CABLE BLOCK DIAGRAM |

| | | | | | | | | |
|--------------------------------------------------------------------------------------------------|--|-----------------|------|--------|------|------|-------------------------------------------------------|---------------------|
| DELETED CABLE 10/11/2001 ADDED CABLE 11/25/2001 NEW 275kV BUS ZONE PNL 132kV "A" INSTALLED | | S.S. | G.J. | R.F.R. | M.B. | DATE | SHT 2 | SINGLE LINE DIAGRAM |
| PROJECT APPROVED | | DESIGN APPROVED | | DATE | | DATE | SHT 1 | SUMMARY SHEET |
| PROJECT CHECKED | | DESIGN CHECKED | | DATE | | DATE | REFERENCE DRAWINGS | |
| PROJECT DRAWN BY | | DESIGN DRAWN BY | | DATE | | DATE | ESKOM HOLDINGS LIMITED REG NO. 2802/015527/05 | |
| C.MATTHEW | | C.MATTHEW | | DATE | | DATE | GEORGEDALE 275/132kV TRFR 4 CABLE BLOCK DIAGRAM | |
| SCALE | | SCALE | | DATE | | DATE | SHEET NUMBER 3 | |
| | | | | | | | REVISION 5 | |



NOTES:-
① SUPPLY TAKEN FROM PREVIOUS 275kV PANEL.
② ADJACENT PANEL IS THE NEXT 275kV PANEL INSTALLED.
③ IF CABLES LONGER THAN 300M USE 2 x BVX40CV.

BVX4DCV 132kV BUS ZONE

BVX12DCV

BVX12DCV

BVX12DCV

BVX4DC 132kV BZ

✓ NEW CABLES

* CABLES TO BE REPLACED ON SITE

| REV | REVISION DESCRIPTION | BY | CHKD | AUTH | DATE |
|-----|-------------------------------------------|--------|------|---------------|----------|
| 7 | TRANSFORMER CABLES REPLACED | S.G. | S.H. | V.J.H.M.P.K.D | 03/2008 |
| 6 | CB REPLACED, NEW TITLE BLOCK IMPLEMENTED. | J.A.K. | E.A. | V.J.H.M.P.K.D | 01/02/08 |

| | | | | | |
|---|-----------------------------------------------------------------------------|-------|------|----------|---------|
| 5 | PLUG BOX CABLE CHANGED | SH | | | |
| 4 | CABLE P400 ADDED | SA | MB | RELFRAME | 7/2002 |
| 3 | CABLES L248 & P361 DELETED | SONIA | G.J. | R.FRAME | 9/10/96 |
| 2 | NEW PRIMARY PLANT & PROTECTA INSTALLED | MB | G.J. | R.FRAME | 19-6-95 |
| 1 | DELETED CABLE 053, 054, 055, ADDED CABLE 162, 265, 264, 262, 261, NEW 275kV | S.S. | G.J. | R.FRAME | 19-6-95 |

| | | | | | | | |
|------------------|------------------|-----------------|----------------------|----|------|------|------|
| REV | PROJECT APPROVED | DESIGN APPROVED | REVISION DESCRIPTION | BY | CHKD | AUTH | DATE |
| | RELFRAME | KLETHANUS | | | | | |
| DATE | APRIL 1995 | DATE | 24/12/1993 | | | | |
| PROJECT CHECKED | G.J. | DESIGN CHECKED | GJR | | | | |
| DATE | 1/12/94 | DATE | AUG 1993 | | | | |
| PROJECT DRAWN BY | C.MAYTHAM | DESIGN DRAWN BY | TPF | | | | |
| DATE | 20/5/1995 | DATE | AUG 1993 | | | | |

ESKOM HOLDINGS LIMITED
REG NO.
2002/015527/06

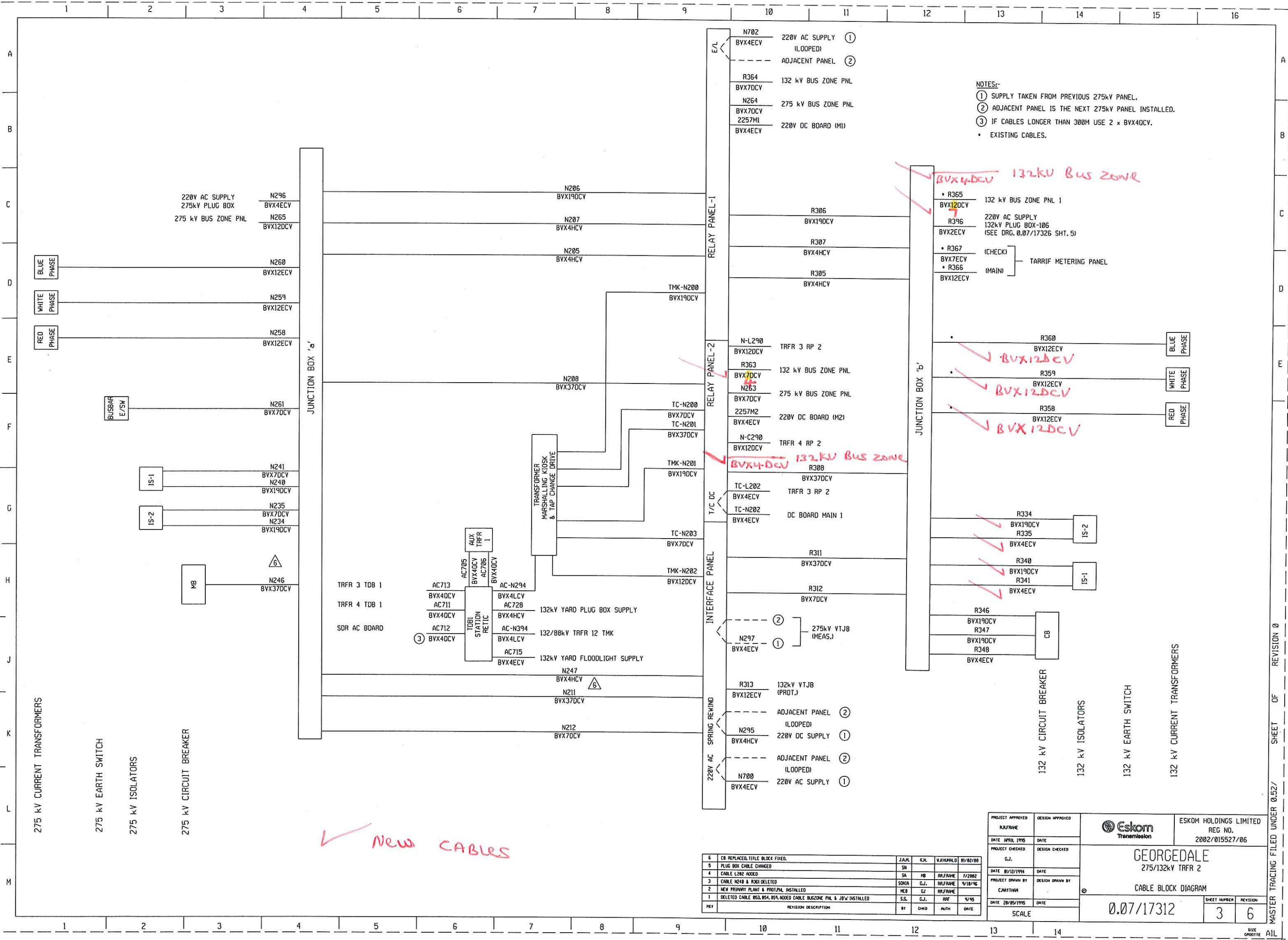
GEORGE DALE
275/132kV TRANSFORMER 3

CABLE BLOCK DIAGRAM

0.07/17313

| | | | |
|--------------|---|----------|---|
| SHEET NUMBER | 3 | REVISION | 7 |
|--------------|---|----------|---|

SHEET OF REVISION 0 MASTER TRACING FILED UNDER 0.52/



NOTES:-
① SUPPLY TAKEN FROM PREVIOUS 275kV PANEL.
② ADJACENT PANEL IS THE NEXT 275kV PANEL INSTALLED.
③ IF CABLES LONGER THAN 300M USE 2 x BVX40CV.
• EXISTING CABLES.

BVX40CV 132kV Bus Zone

• R365
BVX120CV 132 kV BUS ZONE PNL 1
R396 220V AC SUPPLY
132kV PLUG BOX-106
(SEE DRG. 0.07/17326 SHT. 5)
• R367 (CHECK)
BVX7ECV
• R366 (MAIN)
BVX12ECV

R360 BVX12ECV BLUE PHASE
R359 BVX12ECV WHITE PHASE
R358 BVX12ECV RED PHASE

R334 BVX190CV IS-2
R335 BVX4ECV
R340 BVX190CV IS-1
R341 BVX4ECV

R346 BVX190CV CB
R347 BVX190CV
R348 BVX4ECV

132 kV CIRCUIT BREAKER
132 kV ISOLATORS
132 kV EARTH SWITCH
132 kV CURRENT TRANSFORMERS

✓ New CABLES

| REV | REVISION DESCRIPTION | BY | CHKD | AUTH | DATE |
|-----|-----------------------------------------------------------------------|--------|------|----------------|----------|
| 6 | CB REPLACED, TITLE BLOCK FIXED. | J.A.M. | E.M. | V.A.H.M.A.L.D. | 01/02/00 |
| 5 | PLUG BOX CABLE CHANGED | SA | HB | RA.F.R.A.N.E | 7/2002 |
| 4 | CABLE L202 ADDED | SONIA | G.J. | RA.F.R.A.N.E | 9/18/96 |
| 3 | CABLE N240 & R361 DELETED | MEB | G.J. | RA.F.R.A.N.E | |
| 2 | NEW PRIMARY PLANT & PROT. PM. INSTALLED | S.S. | G.J. | RRF | 9/95 |
| 1 | DELETED CABLE B53, B54, B55, ADDED CABLE BUSZONE PNL & JB'S INSTALLED | | | | |

| | | | | |
|----------------------------------|-----------------|----------------------|-----------------------------------------------------|--|
| PROJECT APPROVED RA.F.R.A.N.E | DESIGN APPROVED | | ESKOM HOLDINGS LIMITED REG NO. 2002/015527/06 | |
| DATE APRIL 1995 | DATE | | GEORGE DALE 275/132kV TRFR 2 | |
| PROJECT CHECKED G.J. | DESIGN CHECKED | CABLE BLOCK DIAGRAM | | |
| DATE 01/12/1994 | DATE | 0.07/17312 | | |
| PROJECT DRAWN BY C.NATHAN | DESIGN DRAWN BY | SHEET NUMBER 3 | | |
| DATE 20/05/1995 | DATE | REVISION 6 | | |
| SCALE | | SHEET CROQUIS AIL | | |

CURRENT TRANSFORMERS

ISOLATOR 1

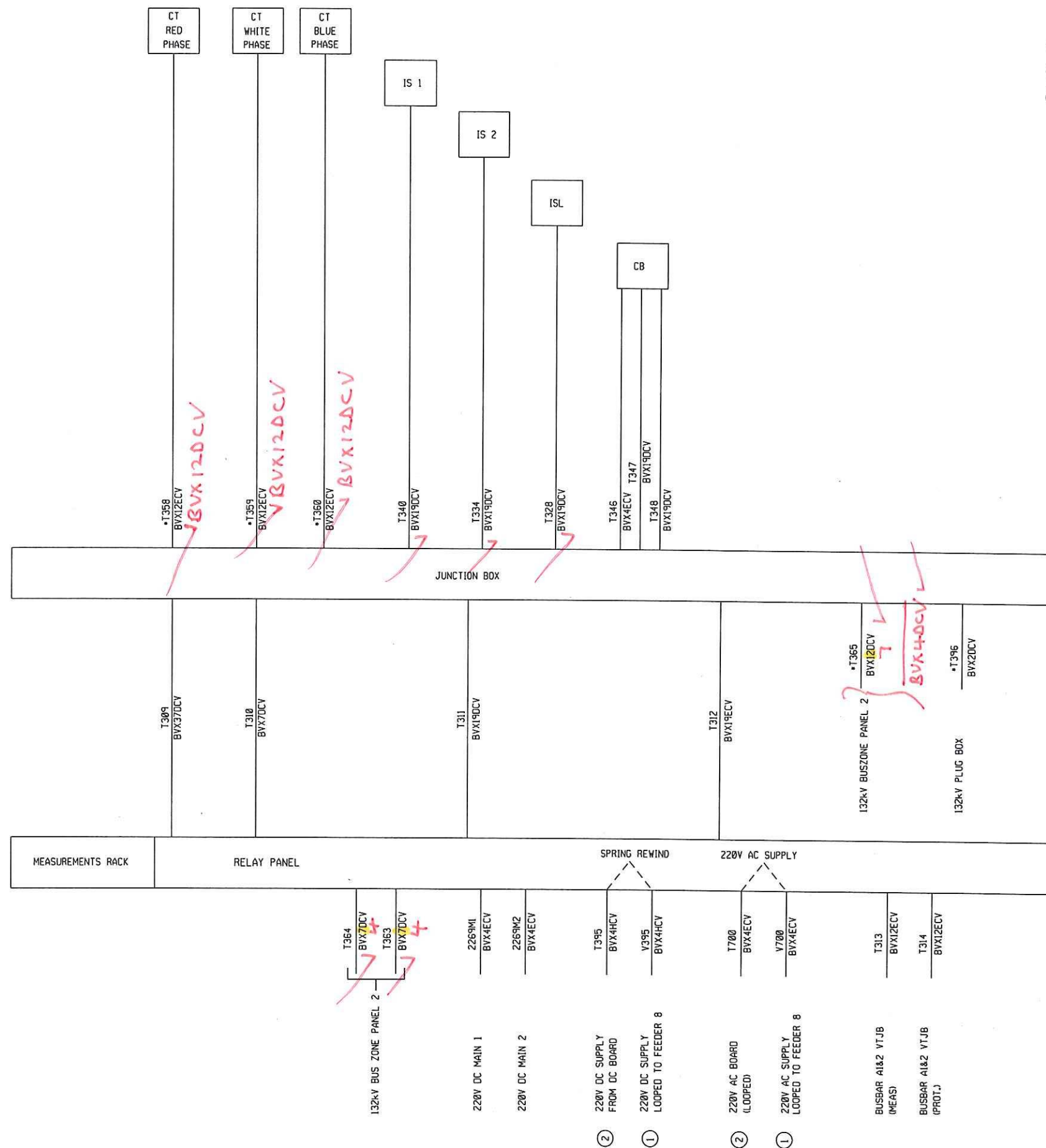
ISOLATOR 2

LINE ISOLATOR

CIRCUIT BREAKER

NOTES:

- ① TO NEXT 132kV PANEL.
- ② FROM PREVIOUS 132kV PANEL.
- 3 * EXISTING CABLES.



new cables

THIS DRAWING HAS BEEN CREATED ON A C.A.D. SYSTEM AND ANY AMENDMENT TO THE DRAWING MUST BE EFFECTED ONLY ON THE SAME C.A.D. SYSTEM

| | | | | | | | |
|---------------------------|----------|----------|------------------------------------------|-----|------|-------|---------------------|
| 2 | REVISION | 15/01/95 | CABLE 1700 & V395 ADDED. | DLT | GJ | SHT 4 | DAY CABLEING |
| 1 | L.L.A. | 17-1-95 | NEW TRUNKWAY PLANT & PROT. PM. INSTALLED | EC | GJ | SHT 3 | CABLE BLOCK DIAGRAM |
| 0 | | | FIRST ISSUE / EERSTE UITREIKING | | | SHT 2 | SINGLE LINE DIAGRAM |
| REV | AUTH | DATE | REVISION/REVISIES | BY | CHKD | SHT 1 | SUMMARY SHEET |
| PROJECT | SCALE | DATE | INDEX REF/DOEKSTREE | BY | CHKD | | REFERENCE DRAWINGS |
| | | | | | | | VERWYSINGSLESTENDE |
| EASTERN NATAL REGION | | | | | | | |
| GEORGEDALE | | | | | | | |
| 132kV FEEDER 7 SHT 3 OF 4 | | | | | | | |
| CABLE BLOCK DIAGRAM | | | | | | | |
| 0.07/17311 | | | | | | | |
| 2 | | | | | | | |

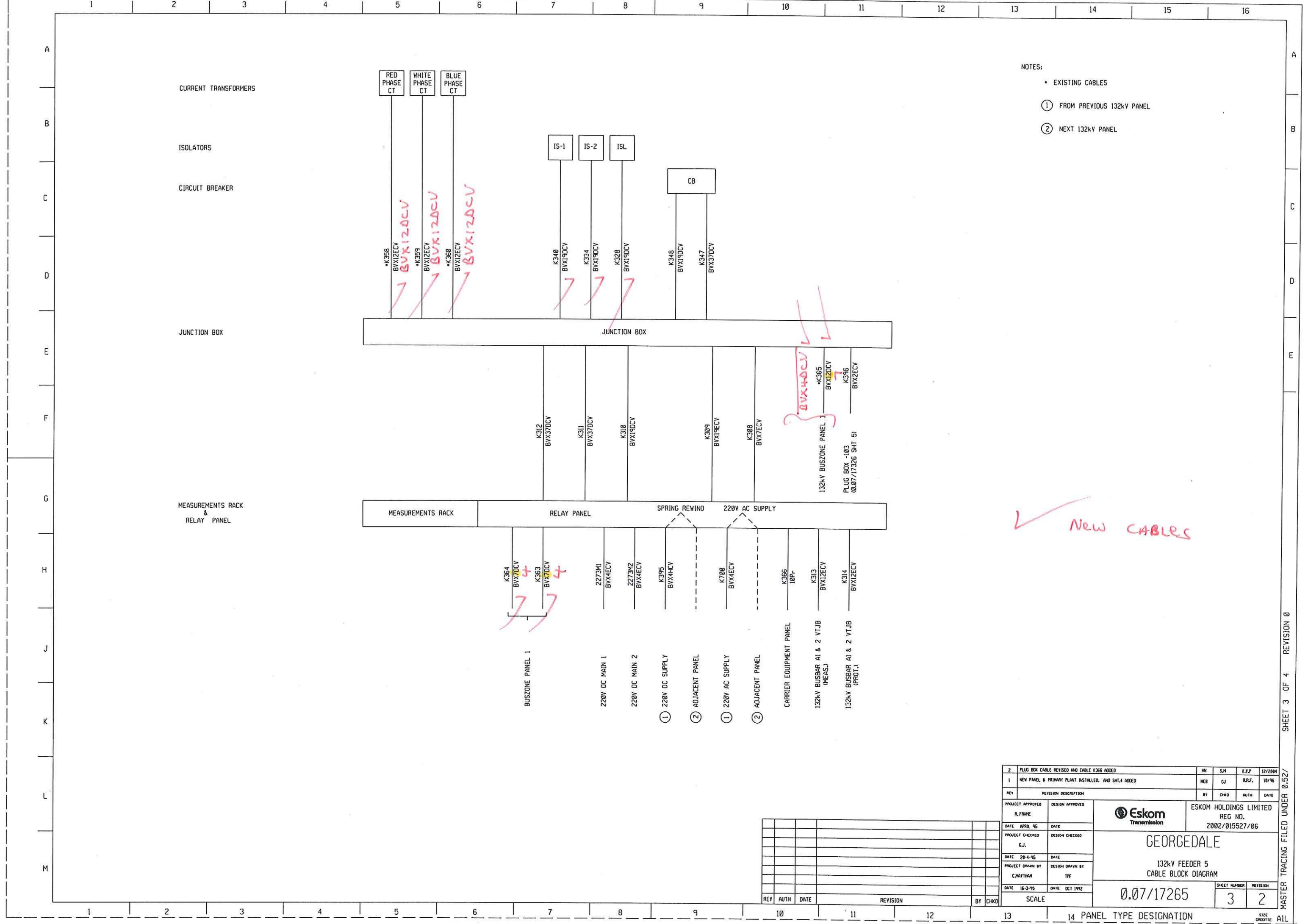


APPROVED R.H. FRAME

11/4/95


14 PANEL TYPE DESIGNATION

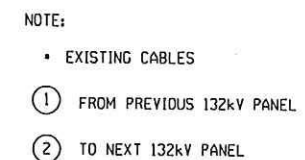
SIZE CROUPE AIL



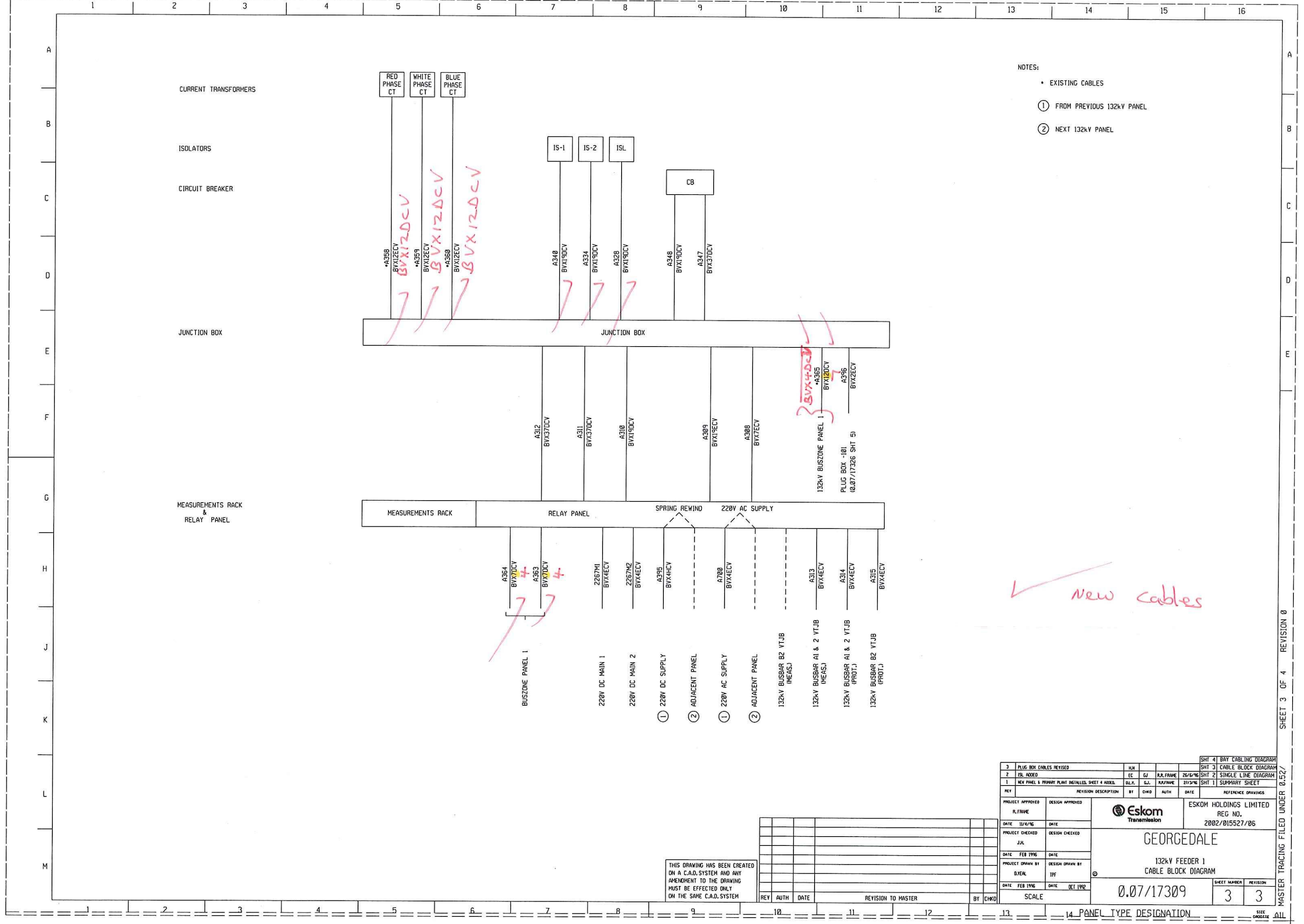
- NOTES:
- EXISTING CABLES
 - ① FROM PREVIOUS 132kV PANEL
 - ② NEXT 132kV PANEL

✓ New Cables

| | | | | | |
|------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|---------|
| 2 | PLUG BOX CABLE REVISED AND CABLE K365 ADDED | HN | SM | K.T.P | 12/2004 |
| 1 | NEW PANEL & PRIMARY PLANT INSTALLED. AND SHIT.4 ADDED | HEB | GJ | RUF. | 18/96 |
| REV | REVISION DESCRIPTION | BY | CHKD | AUTH | DATE |
| PROJECT APPROVED | DESIGN APPROVED | <div>Eskom Transmission</div> <div>ESKOM HOLDINGS LIMITED REG NO. 2002/015527/06</div> <div>GEORGEDALE</div> <div>132kV FEEDER 5 CABLE BLOCK DIAGRAM</div> <div>0.07/17265</div> <div>SHEET NUMBER 3</div> <div>REVISION 2</div> | | | |
| DATE | DATE | | | | |
| PROJECT CHECKED | DESIGN CHECKED | | | | |
| DATE | DATE | | | | |
| PROJECT DRAWN BY | DESIGN DRAWN BY | | | | |
| DATE | DATE | | | | |
| 15-3-95 | 01-10-92 | | | | |
| REV | AUTH | DATE | REVISION | BY | CHKD |
| SCALE | | | | | |



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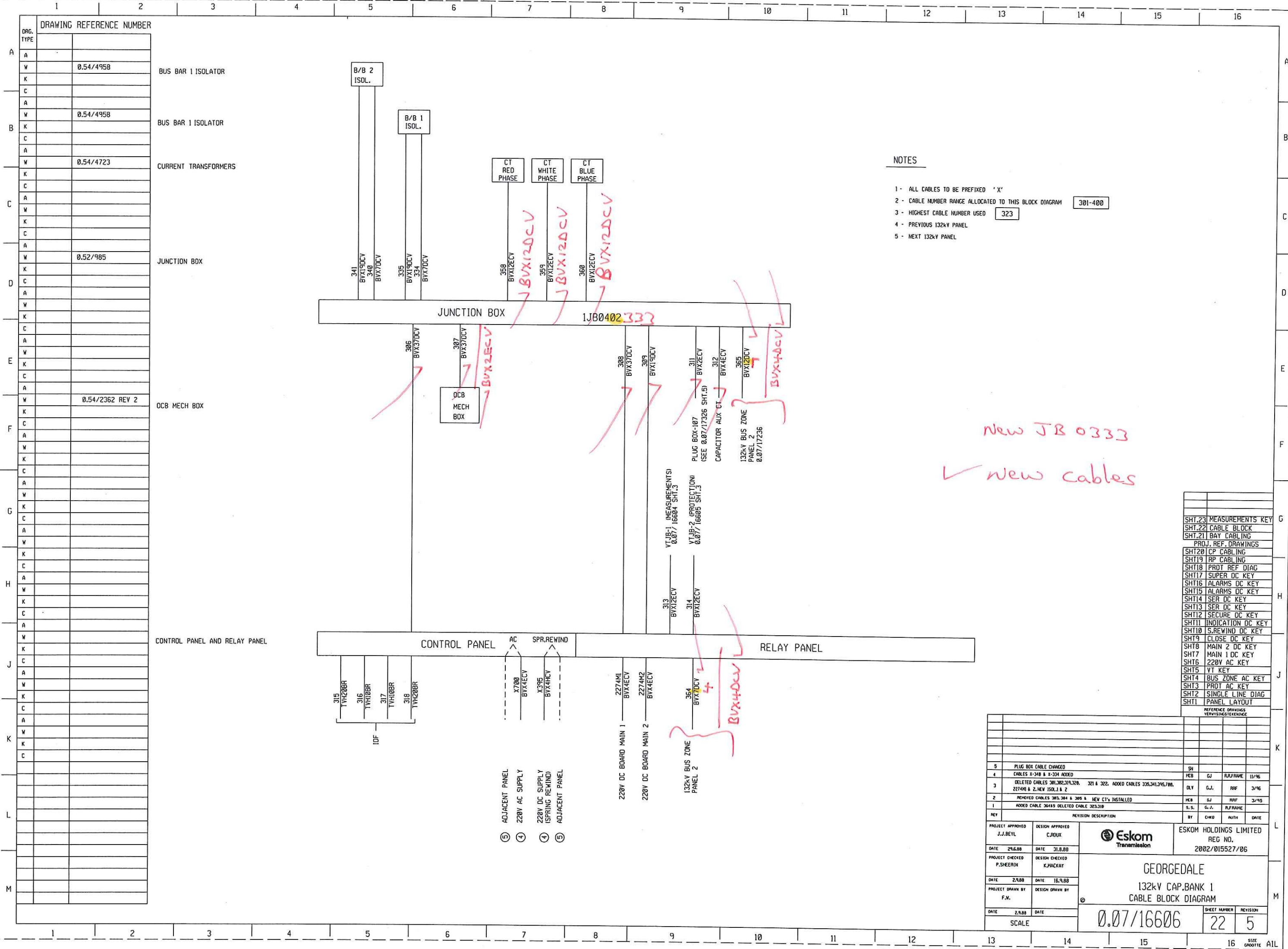


- NOTES:
- EXISTING CABLES
 - ① FROM PREVIOUS 132kV PANEL
 - ② NEXT 132kV PANEL

✓ new cables

THIS DRAWING HAS BEEN CREATED ON A C.A.D. SYSTEM AND ANY AMENDMENT TO THE DRAWING MUST BE EFFECTED ONLY ON THE SAME C.A.D. SYSTEM

| | | | | | | | |
|------------------|---------------------------------------------------|---------------------------|--------------------|----------|---------|------------------------|---------------------|
| 3 | PLUG BOX CABLES REVISED | EC | GW | RR FRAME | 26/6/96 | SHT 4 | BAY CABLING DIAGRAM |
| 2 | ISL ADDED | EC | GW | RR FRAME | 26/6/96 | SHT 3 | CABLE BLOCK DIAGRAM |
| 1 | NEW PANEL & PRIMARY PLANT INSTALLED SHEET 4 ADDED | DLT | GW | RR FRAME | 27/3/96 | SHT 2 | SINGLE LINE DIAGRAM |
| REV | REVISION DESCRIPTION | BY | CHKD | AUTH | DATE | SHT 1 | SUMMARY SHEET |
| PROJECT APPROVED | DESIGN APPROVED | ESKOM HOLDINGS LIMITED | | | | REG NO. 2002/015527/06 | |
| DATE 11/4/96 | DATE | GEORGEDALE | | | | 132kV FEEDER 1 | |
| PROJECT CHECKED | DESIGN CHECKED | CABLE BLOCK DIAGRAM | | | | 0.07/17309 | |
| DATE FEB 1996 | DATE | 3 | | | | 3 | |
| PROJECT DRAWN BY | DESIGN DRAWN BY | 14 PANEL TYPE DESIGNATION | | | | SIZE | |
| DATE FEB 1996 | DATE OCT 1992 | BY CHKD | | | | CABLE | |
| REV | AUTH | DATE | REVISION TO MASTER | | | | ALL |



NOTES

- 1 - ALL CABLES TO BE PREFIXED 'X'
- 2 - CABLE NUMBER RANGE ALLOCATED TO THIS BLOCK DIAGRAM 301-400
- 3 - HIGHEST CABLE NUMBER USED 323
- 4 - PREVIOUS 132kV PANEL
- 5 - NEXT 132kV PANEL

New JB 0333
New cables

| | |
|---------------------|-------------------|
| SHT.23 | MEASUREMENTS KEY |
| SHT.22 | CABLE BLOCK |
| SHT.21 | BAY CABLING |
| PROJ. REF. DRAWINGS | |
| SHT20 | CP CABLING |
| SHT19 | RP CABLING |
| SHT18 | PROT REF DIAG |
| SHT17 | SUPER DC KEY |
| SHT16 | ALARMS DC KEY |
| SHT15 | ALARMS DC KEY |
| SHT14 | SER DC KEY |
| SHT13 | SER DC KEY |
| SHT12 | SECURE DC KEY |
| SHT11 | INDICATION DC KEY |
| SHT10 | S.REWIND DC KEY |
| SHT9 | CLOSE DC KEY |
| SHT8 | MAIN 2 DC KEY |
| SHT7 | MAIN 1 DC KEY |
| SHT6 | 220V AC KEY |
| SHT5 | VT KEY |
| SHT4 | BUS ZONE AC KEY |
| SHT3 | PROT AC KEY |
| SHT2 | SINGLE LINE DIAG |
| SHT1 | PANEL LAYOUT |

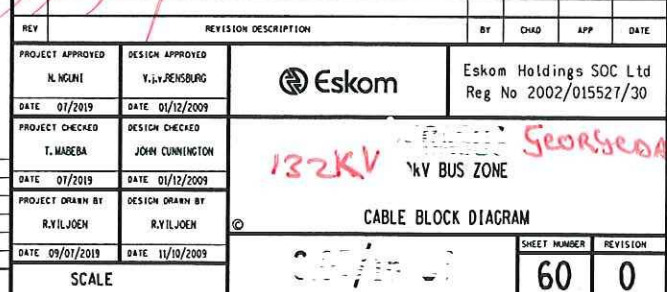
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|------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|------------------|
| REVISIONS | | | |
| 5 | PLUG BOX CABLE CHANGED | SN | |
| 4 | CABLES X-348 & X-334 ADDED | HEB | GJ R/FRAME 11/95 |
| 3 | DELETED CABLES 301,302,319,320, 321 & 322. ADDED CABLES 325,341,345,700, 2274M1 & 2, NEW ISOL.1 & 2 | DLV | G.J. RRF 3/95 |
| 2 | REMOVED CABLES 303,304 & 305 & NEW CT'S INSTALLED | HEB | GJ RRF 3/95 |
| 1 | ADDED CABLE 30485 DELETED CABLE 323,310 | S.S. | G.J. R/FRAME |
| REVISION DESCRIPTION | | | |
| BY | CHKD | AUTH | DATE |
| PROJECT APPROVED J.J.BEYL | | DESIGN APPROVED C.DRUX | |
| DATE 29.6.88 | | DATE 31.8.88 | |
| PROJECT CHECKED P.SHEERIN | | DESIGN CHECKED K.MACKAY | |
| DATE 2.9.88 | | DATE 15.9.88 | |
| PROJECT DRAWN BY F.M. | | DESIGN DRAWN BY | |
| DATE 2.9.88 | | DATE | |
| SCALE | | SHEET NUMBER 22 | |
| | | REVISION 5 | |

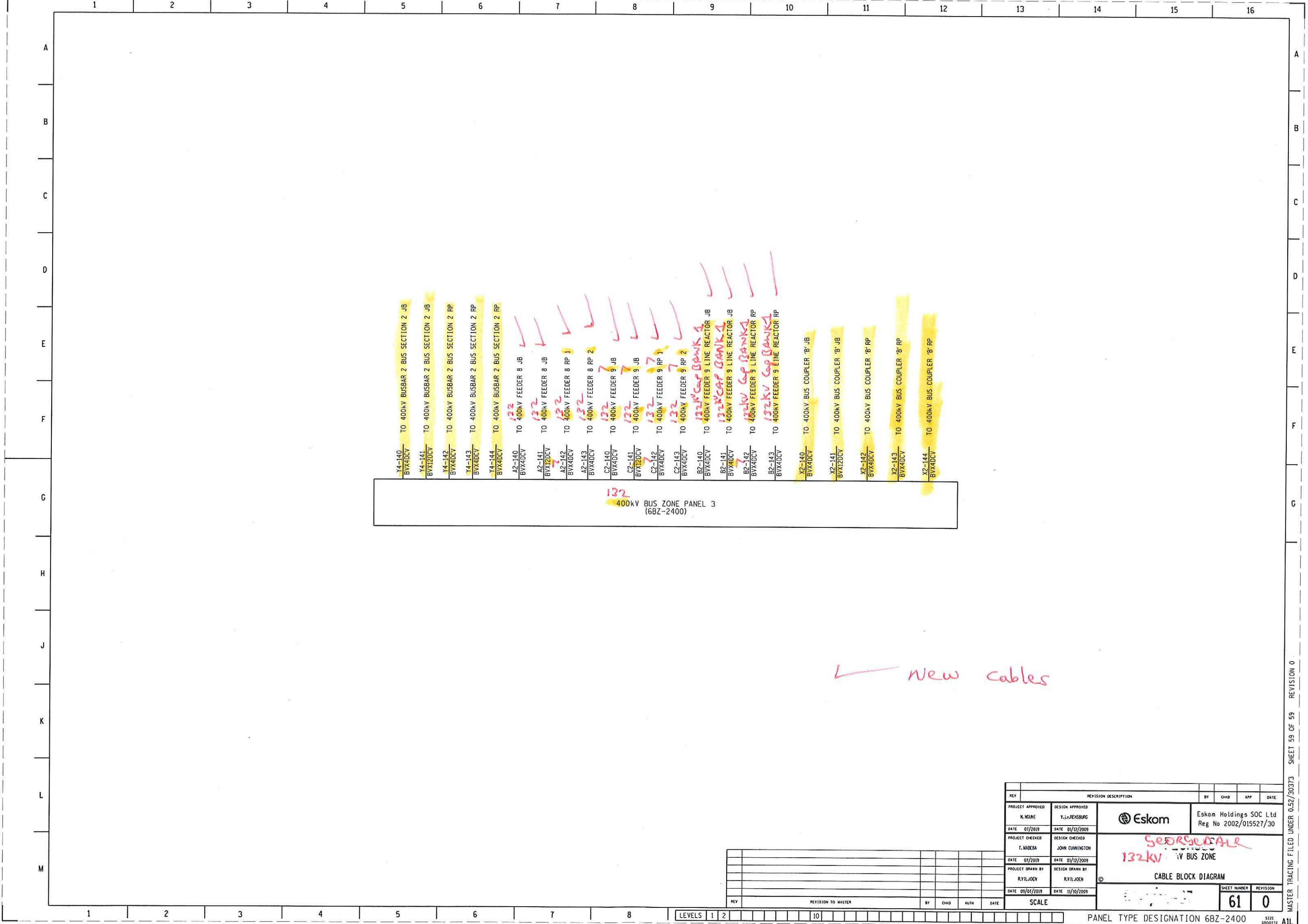
ESKOM
Transmission

ESKOM HOLDINGS LIMITED
REG NO.
2002/015527/06

GEORGE DALE
132kV CAP.BANK 1
CABLE BLOCK DIAGRAM

0.07/16606





| | | | | | |
|-----|--------------------|----|------|------|------|
| REV | REVISION TO MASTER | BY | CHKD | AUTH | DATE |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | | |
|---------------------------------------------------|--|------------------------------------------------------|--|---------------------|-------------------------------------------------|
| PROJECT APPROVED N. MOUHI DATE 07/2019 | | DESIGN APPROVED Y. L. PENSBERG DATE 01/12/2009 | | | Eskom Holdings SOC Ltd Reg No 2002/015527/30 |
| PROJECT CHECKED T. MAREBA DATE 01/2019 | | DESIGN CHECKED JOHN CUNNINGTON DATE 01/12/2009 | | | |
| PROJECT DRAWN BY R. YILJOEN DATE 09/07/2019 | | DESIGN DRAWN BY R. YILJOEN DATE 11/10/2009 | | CABLE BLOCK DIAGRAM | |
| SCALE | | | | SHEET NUMBER 61 | REVISION 0 |

PANEL TYPE DESIGNATION 6BZ-2400