



| 765V BAY SCHEDULE ELECTRICAL 0.18/1673                        |          |  |
|---|----------|--|
| BAY DESCRIPTION   | SHEET No |  |
| TRANSFORMER 21 - FEEDER 1 REACTOR BAY (FUTURE)                | 1        |  |
| TRANSFORMER 22 - FEEDER 1 BREAKER BAY                         | 2        |  |
| FEEDER 1 LINE COUPLING BAY                                    | 3        |  |
| FEEDER 5 REACTOR BAY (FUTURE) - FEEDER 2 REACTOR BAY (FUTURE) | 4        |  |
| FEEDER 5 (FUTURE) & FEEDER 2 BREAKER BAY                      | 5        |  |
| FEEDER 2 & FEEDER 5 BAY (FUTURE)                              | 6        |  |
| BUSBAR REACTOR 1 BAY  | 7        |  |
| BUSBAR REACTOR 1 BREAKER BAY                                  | 8        |  |
| FEEDER 3 REACTOR & FEEDER 6 REACTOR BAY                       | 9        |  |
| FEEDER 3 & FEEDER 6 BREAKER BAY                               | 10       |  |
| FEEDER 3 - FEEDER 6 BAY                                       | 11       |  |

| 765V BAY SCHEDULE CIVIL 0.18/1673                             |          |  |
|---|----------|--|
| BAY DESCRIPTION   | SHEET No |  |
| TRANSFORMER 21 - FEEDER 1 REACTOR BAY (FUTURE)                | 1        |  |
| TRANSFORMER 22 - FEEDER 1 BREAKER BAY                         | 2        |  |
| FEEDER 1 LINE COUPLING BAY                                    | 3        |  |
| FEEDER 5 REACTOR BAY (FUTURE) - FEEDER 2 REACTOR BAY (FUTURE) | 4        |  |
| FEEDER 5 (FUTURE) & FEEDER 2 BREAKER BAY                      | 5        |  |
| FEEDER 2 & FEEDER 5 BAY (FUTURE)                              | 6        |  |
| BUSBAR REACTOR 1 BAY  | 7        |  |
| BUSBAR REACTOR 1 BREAKER BAY                                  | 8        |  |
| FEEDER 3 REACTOR & FEEDER 6 REACTOR BAY                       | 9        |  |
| FEEDER 3 & FEEDER 6 BREAKER BAY                               | 10       |  |
| FEEDER 3 - FEEDER 6 BAY                                       | 11       |  |

| 765V BAY SCHEDULE ELECTRICAL 0.18/1677 |             |  |
|--|-------------|--|
| BAY DESCRIPTION                        | SHEET No    |  |
| FEEDER 1                               | 3           |  |
| FEEDER 2                               | 4           |  |
| FEEDER 3                               | 5           |  |
| FEEDER 4                               | 6,8,6,0     |  |
| FEEDER 5                               | 8,8,8,0     |  |
| FEEDER 6                               | 9,8,8,0,3,0 |  |
| FEEDER 7                               | 10          |  |
| TRFR. 1 & TRFR. 2 TERTIARY             | 11 & 12     |  |
| TRFR. 2 & TRFR. 3 TERTIARY             | 13 & 14     |  |
| TRFR. 3 & TRFR. 3 TERTIARY             | 15 & 16     |  |
| BUS REACTOR 1                          | 17          |  |
| BUS REACTOR 2 & CAP BANK 2             | 18          |  |
| BUS REACTOR 3 & CAP BANK 3             | 19          |  |
| TRANSFER B/C 'A'                       | 20          |  |
| TRANSFER B/C 'B'                       | 21          |  |
| No 1 BUS SECTION 1                     | 22          |  |
| No 1 BUS SECTION 2                     | 23          |  |
| No 2 BUS SECTION 1                     | 24          |  |
| No 2 BUS SECTION 2                     | 25          |  |
| STATIC COMPENSATOR 1                   | 26          |  |
| STATIC COMPENSATOR 2                   | 27          |  |
| BUSBAR 1 BUS 1 CVT's                   | 28          |  |
| BUSBAR 2 BUS 2 CVT's                   | 29          |  |
| BUSBAR 3 BUS 3 CVT's                   | 30          |  |
| BUSBAR 1 BUS 1 CVT's                   | 31          |  |
| BUSBAR 2 BUS 2 CVT's                   | 32          |  |
| BUSBAR 3 BUS 3 CVT's                   | 33          |  |
| FEEDER 1                               | 34          |  |
| FEEDER 2                               | 35          |  |
| FEEDER 3                               | 36,37       |  |
| FEEDER 4                               | 38          |  |
| FEEDER 5                               | 39,40       |  |
| FEEDER 6                               | 41          |  |
| FEEDER 7                               | 42          |  |
| TRANSFORMER 1                          | 43          |  |
| TRANSFORMER 2                          | 44          |  |
| TRANSFORMER 3                          | 45          |  |
| BUS COUPLER 'A'                        | 46          |  |
| BUS COUPLER 'B'                        | 47          |  |
| No 2 BUS SECTION 1                     | 48          |  |
| No 1 BUS SECTION 1                     | 49          |  |
| BUSBAR 2 BUS 1 CVT's                   | 50          |  |
| BUSBAR 2 BUS 2 CVT's                   | 51          |  |
| BUSBAR 1 CVT's                         | 52          |  |
| FEEDER 2                               | 53          |  |
| FEEDER 3                               | 54          |  |
| FEEDER 4                               | 55          |  |
| TRANSFORMER 1                          | 56          |  |
| SPARE                                  | 58          |  |
| FEEDER 3                               | 59          |  |
| BUS COUPLER                            | 60          |  |
| BUSBAR 1 & 2 CVT's                     | 61          |  |

| CONDUCTOR SIZE                                   |                             |
|--|-----------------------------|
| 765V STRINGER                                    | 6 x 800 mm <sup>2</sup>     |
| 765V BUSBAR                                      | 6 x 800 mm <sup>2</sup>     |
| 400V BUSBARS EXT FOR TRF. 21                     | 2000mm <sup>2</sup> AL TUBE |
| 400V BUSBARS                                     | 3 x 800 mm <sup>2</sup>     |
| 275V NEW BUSBARS                                 | 2 x 800 mm <sup>2</sup>     |
| 275V EXIST. BUSBARS NOW FOR 54kV INTERNAL BYPASS | 2 x 400 mm <sup>2</sup>     |

| TENSION PER CONDUCTOR   |       |
|---|-------|
| 765V STRINGERS  | 4,0kN |
| 765V EARTHWIRE  | 3,5kN |
| 400V BUSBARS, 12 & TRANSFER EXT (3 X BULLI)                                   | 6,0kN |
| 400V STRINGERS EXT (3 X BULLI) 121  | 5,4kN |
| 400V STRINGERS EXT (3 X BULLI) 121  | 5,4kN |
| 400V STRINGERS  | 4,0kN |
| 275V NEW BUSBARS  | 6,0kN |
| 275V NEW STRINGERS  | 6,0kN |
| 275V EXISTING STRINGERS   | 6,0kN |
| 275V EXISTING BUSBARS   | 6,0kN |
| 275V STRINGERS BETWEEN NEW & EXISTING 275V YARDS (TRF. 2 & 5 AND TRFR. 2 & 3) | 3,0kN |
| NEW 275V STRINGERS IN EXISTING 275V YARD (TRF. 2 & 5 AND TRFR. 2 & 3)         | 3,0kN |
| EARTHWIRE ALL YARDS   | 2,0kN |

- OLM 16 INDICATES 48m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 36m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 11m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 18m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 24m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 10m HIGH OPERATIONAL FLOODLIGHTING MAST
- INDICATES 48m HIGH EARTHWIRE MAST

| NO | REVISION DESCRIPTION   | BY          | CHKD      | DATE       |
|----|--|-------------|-----------|------------|
| 1  | 765V INTERCONNECTOR BUSBARS & BREAKER BAYS REMOVED.  | L.H. WILL   | ALMCO     | 04/02/2009 |
| 2  | EARTHWIRE COLUMN POSITIONS FINALIZED. SOME DATE UPDATES.   | D.F. P.C.B. | ALMCO     | 21/07/2009 |
| 3  | BUSBAR 1 & 2 BUS SECTION 1 REMOVED. FEEDER 5 REACTOR & BUSBAR ISOLATOR RE-POSITIONED, NOW DEDICATED BUSBAR REACTOR. ADDITIONAL BREAKER BAY ADDED, HOLD LIFTED. | C.B. P.C.B. | ALMCO     | 25/02/2009 |
| 4  | 765V YARD & STRINGS ADDED, NOW BUSBAR 1 & 2 EXTENDED BY 2 BAYS TO SOUTH AND TRF. 21 BAY COUPLER.   | C.B. & D.F. | ALMCO     | 29/04/2009 |
| 5  | 765V TERMINAL TOWER & 400V UNDERPASS COLUMN POSITIONS FINALIZED.   | L.H. WILL   | A.J.S.C.  | 29/06/2007 |
| 6  | 400V FEEDER 7 REACTOR ADDED.   | S.K.Z.      | L.H. WILL | 22/06/2006 |
| 7  | NEW TITLE BLOCK ADDED, ALL PREVIOUS REVISIONS INCLUDED, 400V CAP BANK 2 & 3 ADDED.   | L.H. WILL   | A.J.S.C.  | 21/06/2006 |

| NO | REVISION DESCRIPTION      | BY        | CHKD     | DATE       |
|----|---------------------------|-----------|----------|------------|
| 1  | SECURITY FENCE LAYOUT     | L.H. WILL | ALMCO    | 04/02/2009 |
| 2  | STEEL WORK MARKING PLAN   | L.H. WILL | ALMCO    | 21/07/2009 |
| 3  | FINAL TRENCH LAYOUT       | L.H. WILL | ALMCO    | 25/02/2009 |
| 4  | TERMINAL ROAD & DRAINAGE  | L.H. WILL | ALMCO    | 29/04/2009 |
| 5  | KEY PLAN                  | L.H. WILL | ALMCO    | 29/06/2007 |
| 6  | 400V/275V YARD FOR LAYOUT | L.H. WILL | A.J.S.C. | 29/06/2007 |
| 7  | 400V/275V YARD FOR LAYOUT | L.H. WILL | A.J.S.C. | 29/06/2007 |
| 8  | STATION ELECTRIC DIAGRAM  | L.H. WILL | A.J.S.C. | 21/06/2006 |

APPROVED BY: L.E. RYAN DATE: 15/07/1993

DESIGNED BY: P.C.B. DATE: 15/07/1993

DRAWN BY: E.C. DATE: JUNE 1993

SCALE: 1:1500

ESKOM HOLDINGS LIMITED REG. NO. 2002/015521/06

**PERSEUS** KEY PLAN

0.18/16773

SHEET NUMBER: 11