

INTERMEDIATE STRUCTURE FOUNDATION
FOR ROCK AND SOFT ROCK (MIN 500KPA)

37kN & 23kN TIP LOADS	POLE LENGTH (m)	PLANTING DEPTH D (M)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	20MPa CONCRETE m ³
	20	2.6	0.70	1.461	0.0839	0.295
	21	2.7	0.75	1.592	0.1099	0.323
	22	2.8	0.80	1.783	0.1088	0.379
	23	2.9	0.85	1.995	0.173	0.456
	24	3.0	0.90	2.230	0.262	0.538

NOTE: VOLUMES ARE APPROXIMATE ONLY
"B" DIMS ARE MINIMUM TO FIT POLE INTO EXCAVATION

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.01.10	
1	STEEL POLE CHANGED TO STEEL/CONCRETE POLE	N.M.	B.HILL	B.HILL	05.08.08	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



DISTRIBUTION TECHNOLOGY

SUB-TRANSMISSION LINES

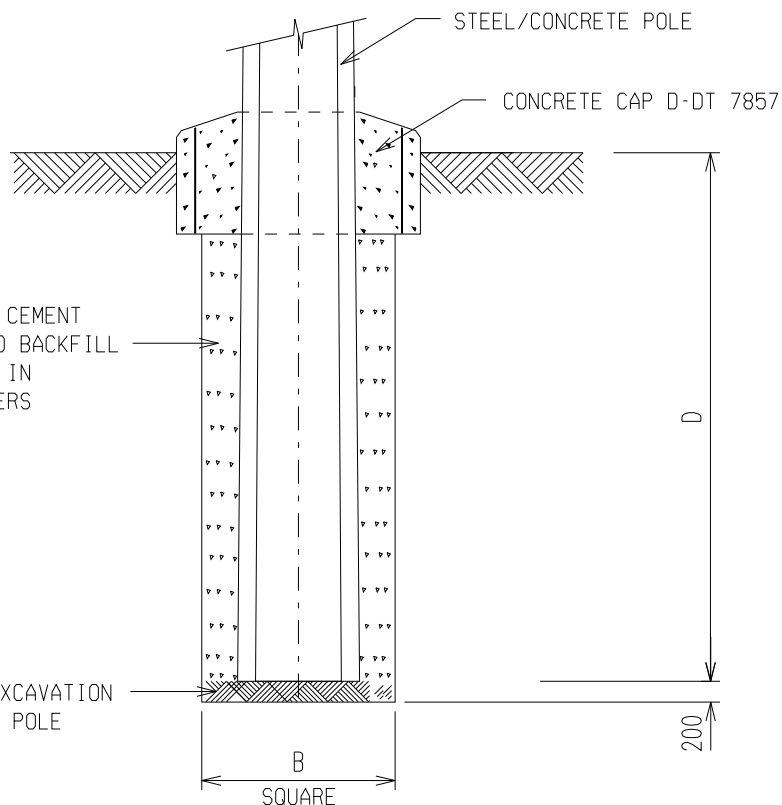
INTERMEDIATE FREESTANDING MONOPOLES

FOUNDATION DETAILS - ROCK

AUTH:	A BEKKER
DATE:	NOV 2005
CHKD:	S LE ROUX
DATE:	NOV 2005
DRAWN:	B MOICHELA
DATE:	OCT 2005

D DT 7850

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INTERMEDIATE STRUCTURE FOUNDATION
FOR NORMAL SOILS TYPE 1 (300KPA)

37kN & 23kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	20MPa CONCRETE m ³
	20	2.6	1.10	3.48	2.155	0.242
	21	2.7	1.10	3.601	2.199	0.242
	22	2.8	1.10	3.722	2.185	0.242
	23	2.9	1.10	3.843	2.235	0.242
	24	3.0	1.10	3.964	2.292	0.242

NOTE: VOLUMES ARE APPROXIMATE ONLY

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.01.10	
1	STEEL POLE CHANGED TO STEEL/CONCRETE POLE	N.M.	B.HILL	B.HILL	05.08.08	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



DISTRIBUTION TECHNOLOGY
SUB-TRANSMISSION LINES
INTERMEDIATE FREESTANDING MONOPOLES
FOUNDATION DETAILS - 300KPA

AUTH:	A BEKKER
DATE:	NOV 2005
CHKD:	S LE ROUX
DATE:	NOV 2005
DRAWN:	B MOICHELA
DATE:	OCT 2005

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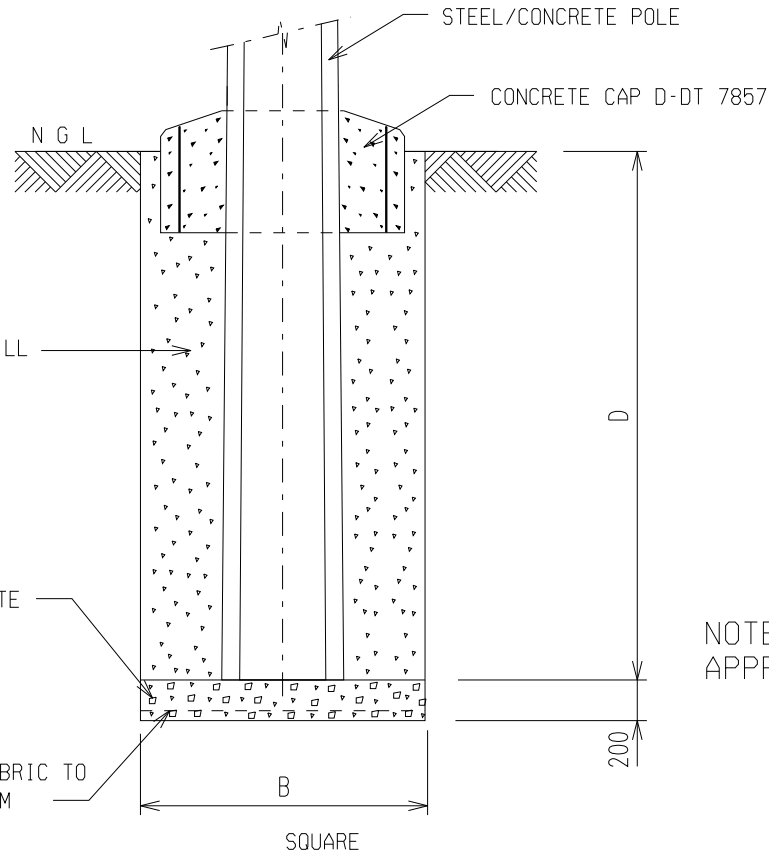
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8:1 SOIL - CEMENT
STABILISED BACKFILL
COMPACTED IN
200MM LAYERS

10MPa CONCRETE

REF. 245 STEEL FABRIC TO
SABS 1024 WITH 50MM
COVER ON BOTTOM



INTERMEDIATE STRUCTURE FOUNDATION
FOR INTERMEDIATE SOILS TYPE 2 (150KPa)

23kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	10MPa CONCRETE m ³
	20	2.6	1.40	5.488	4.014	0.392
	21	2.7	1.40	5.684	4.133	0.392
	22	2.8	1.30	5.07	3.437	0.338
	23	2.9	1.30	5.239	3.535	0.338
	24	3.0	1.30	5.408	3.64	0.338
37kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	10MPa CONCRETE m ³
	20	2.6	2.20	13.552	11.502	0.968
	21	2.7	2.20	14.036	11.909	0.968
	22	2.8	2.10	13.23	11.053	0.882
	23	2.9	2.10	13.671	11.423	0.882
	24	3.0	2.00	12.8	10.570	0.8

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.01.10	
1	STEEL POLE CHANGED TO STEEL/CONCRETE POLE	N.M.	B.HILL	B.HILL	05.08.08	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: A BEKKER

DATE: NOV 2005

CHKD: S LE ROUX

DATE: NOV 2005

DRAWN: B MOICHELA

DATE: OCT 2005

DISTRIBUTION TECHNOLOGY SUB-TRANSMISSION LINES INTERMEDIATE FREESTANDING MONOPOLES FOUNDATION DETAILS - 150 KPa

D DT 7850

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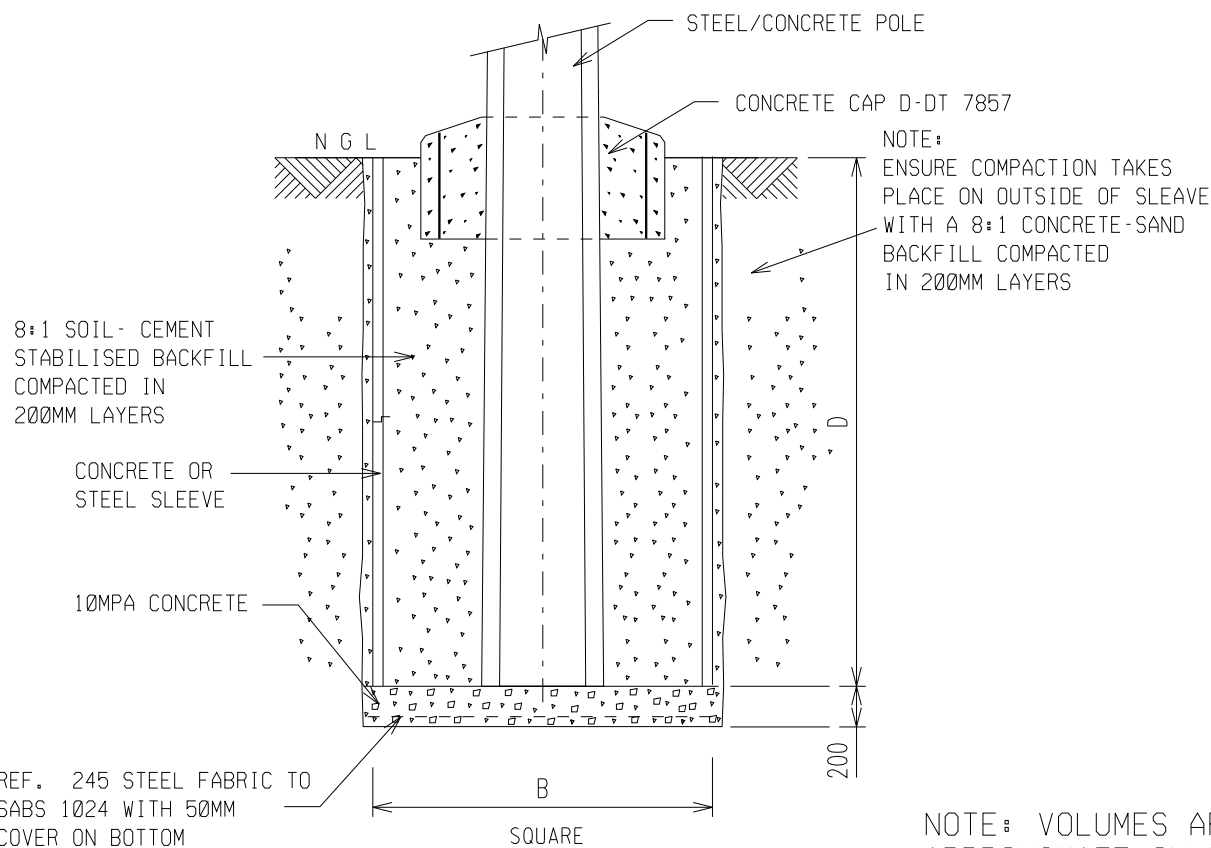
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INTERMEDIATE STRUCTURE FOUNDATION
FOR SANDY, LOOSE COHESIONLESS SOILS
TYPE 3 (100KPA)

23kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	10MPa CONCRETE m ³
	20	2.6	2.00	11.2	9.318	0.8
	21	2.7	2.00	11.6	9.641	0.8
	22	2.8	2.00	12.0	9.905	0.8
	23	2.9	1.90	11.19	9.103	0.722
	24	3.0	1.90	11.55	9.4	0.722
37kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	10MPa CONCRETE m ³
	20	2.6	3.30	30.492	27.233	2.178
	21	2.7	3.20	29.696	26.489	2.048
	22	2.8	3.10	28.83	25.613	1.922
	23	2.9	3.10	29.79	26.503	1.922
	24	3.0	3.00	28.8	25.570	1.8

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.01.10	
1	STEEL POLE CHANGED TO STEEL/CONCRETE POLE AND NOTE ADDED	N.M.	B.HILL	B.HILL	05.08.08	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: A BEKKER

DATE: NOV 2005

CHKD: S LE ROUX

DATE: NOV 2005

DRAWN: B MOICHELA

DATE: OCT 2005

DISTRIBUTION TECHNOLOGY
SUB-TRANSMISSION LINES
INTERMEDIATE FREESTANDING MONOPOLES
FOUNDATION DETAILS - 100KPA

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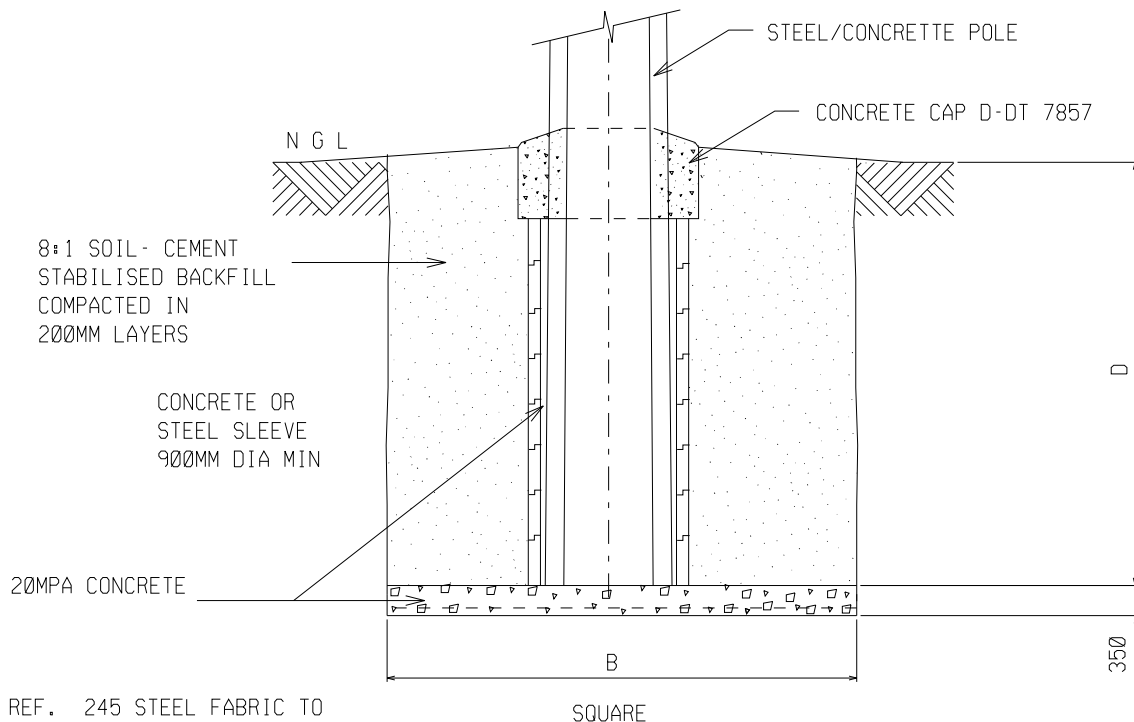
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REF. 245 STEEL FABRIC TO
SABS 1024 WITH 50MM
COVER ON BOTTOM

NOTE: VOLUMES ARE
APPROXIMATE ONLY

INTERMEDIATE STRUCTURE FOUNDATION
FOR SUBMERGED, LOSE COHESIONLESS SOILS
TYPE 4 (50KPA)

23kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	20MPa CONCRETE m ³
	20	2.6	4.10	49.421	42.624	5.714
	21	2.7	4.00	48.640	42.041	5.440
	22	2.8	3.90	47.759	41.293	5.171
	23	2.9	3.80	46.786	40.510	4.909
	24	3.0	3.70	45.725	39.640	4.655
37kN POLE LOAD	POLE LENGTH (m)	PLANTING DEPTH D (m)	B (m)	EXCAVATION VOLUME m ³	BACKFILL SOIL/CEMENT m ³	20MPa CONCRETE m ³
	20	2.6	6.60	128.066	112.173	14.811
	21	2.7	6.40	124.518	108.204	13.926
	22	2.8	6.30	124.626	109.837	13.495
	23	2.9	6.10	120.560	106.543	12.651
	24	3.0	6.00	120.24	106.570	12.24

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.01.10	
1	STEEL POLE CHANGED TO STEEL/CONCRETE POLE	N.M.	B.HILL	B.HILL	05.08.08	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH:

DATE: / /

CHKD: D VAN TONDER

DATE: 25/10/2002

DRAWN: N VAN TONDER
S NAIDOO

DATE: 22/10/2002

DISTRIBUTION TECHNOLOGY
RETICULATION/SUB-TRANSMISSION LINES
INTERMEDIATE FREESTANDING MONOPOLES
FOUNDATION DETAILS - 50 KPA

D DT 7850

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