

AMENDMENTS

A

ORIGINAL ISSUE

Job No.

B

DESIGN

DR'N

CH'D

DATE

N/A

K.T.

JB/RL

31.10.14

TMDM

S.F.Williams

NMM

D.Mate

STEEL POLES TABLE ADDED.

C

DESIGN

DR'N

CH'D

DATE

M.B.

M.B.

M.A/R.D

11-03-25

EDM

K.SHANAHAN

DATE

11-03-25

ROADBASE MATERIAL ADDED. PLAIN FOUNDATION. REMOVED

D

DESIGN

DR'N

CH'D

DATE

N/A

TV

MA/MB

15.12.25

A.E.M.

S.P.

ROAD BASE FOOTING ADDED

NOTES

1.

THESE FOUNDATIONS ARE MINIMUM DIAMETER AND DEPTH FOR MEDIUM BEARING SOILS.

2.

TIMBER POLE DIMENSIONS ARE MINIMUM FOR 85MPa TIMBER POLES.

3.

CONCRETE/STEEL POLES ARE SHOWN AS LENGTH (m)/ULTIMATE STRENGTH (kN) TIMBER POLES ARE SHOWN AS LENGTH/P1 RATING AS PER DISC ON POLE.

4.

FOUNDATION DEPTHS SHALL BE VERIFIED USING SOFTWARE LPILE OR EQUIVALENT.

5.

FOUNDATION DIMENSIONS SHALL BE VERIFIED AGAINST THE GEOTECHNICAL INVESTIGATION REPORT.

6.

STEEL LINER/CONCRETE PIPE IS PROJECT SPECIFIC.

7.

REFER DWG (TBA) FOR THE POLE BASE BISCUIT.

FOUNDATION INSTALLATION NOTES

PLAIN FOUNDATIONS

1.

MIX EXCAVATED MATERIAL WITH DRY CEMENT (RATIO 5:1 - VOLUMES OF EXCAVATED MATERIAL TO 1 VOLUME OF DRY CEMENT)

2.

COMPACT IN LAYERS (200mm) AND SLOPE AWAY FROM POLE TO NATURAL SURFACE LEVEL

CONCRETE FOUNDATIONS

1.

INSTALL 25MPa READYMIX CONCRETE TO WITHIN 450mm OF SURFACE FOR TIMBER POLES AND 200mm OF SURFACE FOR CONCRETE POLES.

2.

COMPACT IN LAYERS WITH EXCAVATED MATERIAL FOR BALANCE OF FOUNDATION (450mm) FOR TIMBER POLES AND 200mm FOR CONCRETE POLES)

3.

SUBSTITUTE PREMIXED OR CONCRETE MIXED ON SITE (RATIO 4 GRAVEL, 2 SAND AND 1 CEMENT) FOR INACCESSIBLE/REMOTE SITES.

4.

SUBSTITUTE QUICK SET CONCRETE FOR POLE REPLACEMENT WITH LIMITED CURING TIME.

ROADBASE AND CEMENT FOUNDATIONS

1.

MIX ROADBASE WITH DRY CEMENT (5:1 - 5 VOLUMES OF ROADBASE AND 1 VOLUME OF CEMENT)

2.

COMPACT IN LAYERS (200MM) AND SLOPED AWAY FROM THE POLE TO NATURAL SURFACE.

3.

THIS FOUNDATION IS SUITABLE FOR NORMAL TO GOOD SOIL. ROADBASE SHALL BE PROCURED FROM AN APPROVED VENDOR WITH LESS CLAY CONTENT AND MORE OF SAND CONTENT. USE TWO CEMENT BAGS FOR THE BOTTOM OF THE FOUNDATION TO FORM A BASE. ADD WATER, COMPACT WELL AND HYDRAULIC RAM. USE ROAD BASE BACKFILL IN LAYERS FOLLOWING TWO BAGS OF CEMENT, COMPACT WELL AND HYDRAULIC RAM. BACK FILL THE TOP 300MM WITH ROAD BASE OR NATIVE SOIL MATERIAL AND COMPACT WITH HYDRAULIC RAM.

CONCRETE POLES					
POLE CODE (m/kN)	TIP DIA (mm) (NOM)	BUTT DIA (mm) (NOM)	MASS (kg) (NOM)	HOLE DIA (mm) DH	MIN DEPTH UNSTAYED (m) D
8/60	405	525	2370	900	3.0
17/ 32	315	570	3770	900	3.1
17/40	360	615	4375	900	3.5
17/60	450	705	5445	900	4.3
18.5/32	315	593	4230	900	3.2
18.5/40	360	638	4910	900	3.6
18.5/60	450	728	6195	1000	4.2
20/32	315	615	4730	900	3.4
20/40	360	660	5450	900	3.8
20/60	450	750	6870	1000	4.4
21.4/32	315	636	5270	900	3.5
21.4/40	360	681	5920	900	3.9
21.4/60	450	771	7540	1000	4.6
23/32	315	660	5790	900	3.6
23/40	360	705	6630	900	4.1
23/60	450	795	8320	1000	4.7
24/32	315	675	6150	900	3.7
24/40	360	720	7030	900	4.2
24/60	450	810	8810	1000	4.8

STEEL POLES					
POLE CODE (m/kN)	TIP DIA (mm) (NOM)	BUTT DIA (mm) (NOM)	MASS (kg) (NOM)	HOLE DIA (mm) DH	MIN DEPTH UNSTAYED (m) D
18.5/32	250	621	1,110	900	3.2
18.5/40	255	708	1,230	900	3.6
18.5/60	310	774	1,660	1000	4.2
20.0/32	250	625	1,240	900	3.4
20.0/40	255	746	1,370	1000	3.6
20.0/60	310	813	1,850	1000	4.4
21.4/32	250	680	1,360	900	3.5
21.4/40	255	781	1,510	1000	3.7
21.4/60	310	849	2,020	1200	4.2
23.0/32	250	702	1,590	900	3.6
23.0/40	255	810	1,770	1000	3.9
23.0/60	310	877	2,370	1200	4.3

TIMBER POLES					
POLE CODE (m/kN)	TIP DIA (mm) (MIN)	BUTT DIA (mm) (MIN)	MASS (kg) (MIN)	HOLE DIA (mm) DH	MIN DEPTH UNSTAYED (m) D
17/4	190	338	357	750	2.3
17/8	264	411	430	750	2.3
17/12	316	463	482	750	2.3
18.5/4	190	352	372	750	2.35
18.5/8	264	426	447	750	2.35
18.5/12	318	480	500	750	2.35
20/4	190	365	387	750	2.5
20/8	266	441	463	750	2.5
20/12	321	496	517	750	2.5
21.5/4	190	379	402	750	2.65
21.5/8	267	456	479	750	2.65
21.5/12	322	511	534	750	2.65
23/4	190	389	414	750	2.8
23/8	266	467	492	750	2.8
23/12	322	523	538	750	2.8

CONCRETE FOUNDATION (C)
(TIMBER POLE)

ROAD BASE AND CEMENT FOUNDATION (RB)
(CONCRETE/STEEL OR TIMBER POLE)

ORIGINAL SCALE

APPROVED W. Leong

DRAWN IJH

DATE 07/02/12

CH'D RL

OVERHEAD TRANSMISSION POLE FOUNDATION DETAILS

DO NOT SCALE DIMENSIONS IN MILLIMETRES

AUTHORISED D. Asvestas / G. Schafer

MGR TRANSMISSION PROJECT DEVELOPMENT

17.02.12

A2P

367719

Rev. D

SHEET No 1 OF 1 SHEETS