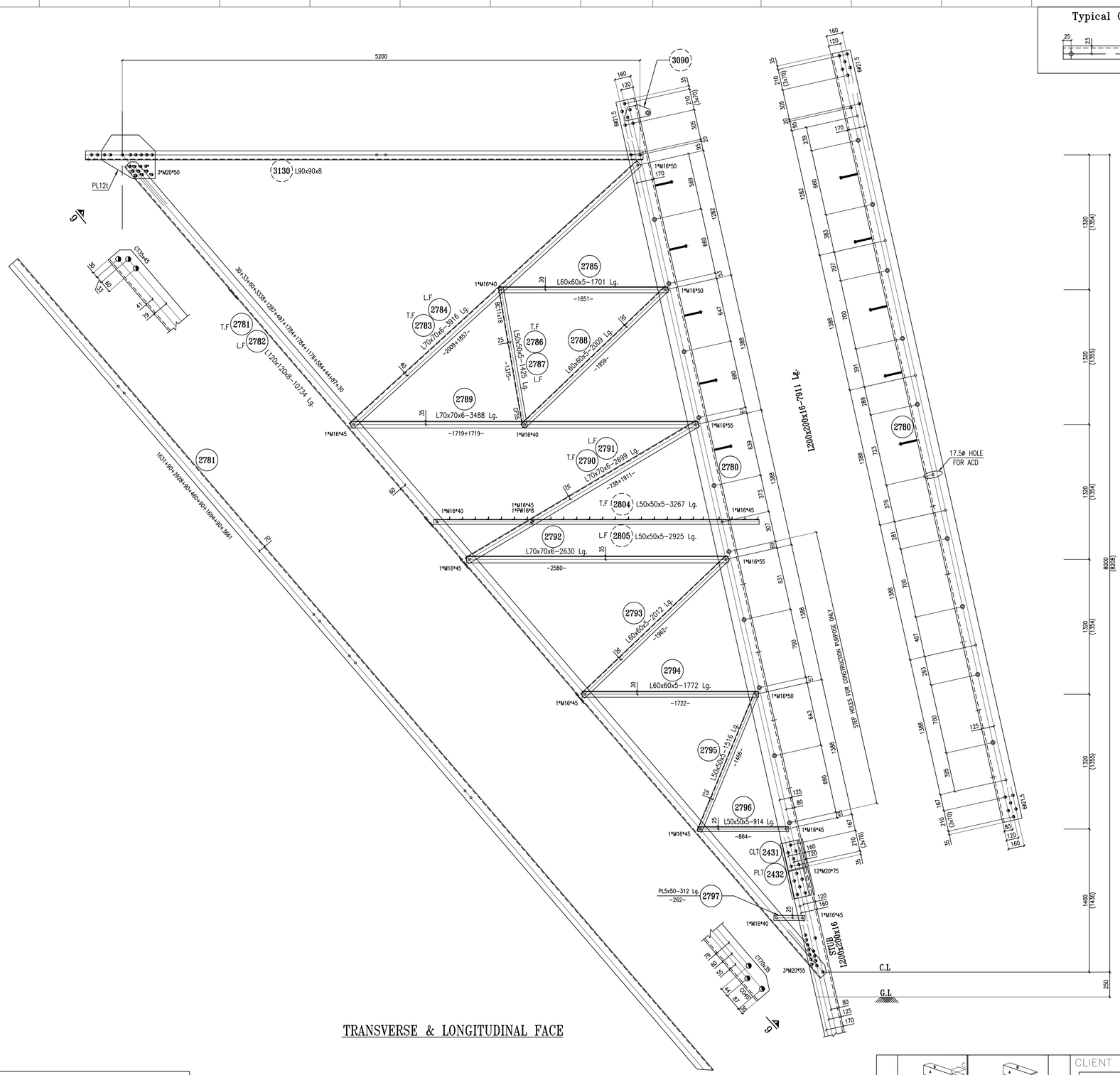


Typical Gauge for L45x45x3

TOWER SLOPE

Tan B	=	0.229508196
2 Tan B	=	0.459016393
Face	=	1.025999031
Dev	=	1.051355327

In Face Slopes

Tan B	=	0.22369241
Sec B	=	1.024713762

ACCEPTED NOTE:
Eskom LINE ENGINEERING SERVICES
REGISTERED PROFESSIONAL ENGINEERING PERSONNEL
ACCEPTED BY: R. Moodley
ECSA REG. NO.: 20150065
DATE: Aug 02.2016
SIGNATURE:
ACCEPTANCE BY ESKOM DOES NOT RELIEVE THE CONTRACTOR/SUPPLIER OF RESPONSIBILITY FOR THE ADEQUACY OF DESIGN, DIMENSIONS AND DETAILS

M E M B E R S

ITEM	No OFF	SECTION	GRADE	LENGTH	UNIT MASS	TOTAL MASS
2431	1	L200x200x16	S355JR	570	27.65	27.65
2432	2	PL12x150	S355JR	570	8.05	16.10
2780	1	L200x200x16	S355JR	7911	383.68	383.68
2781	1	L120x120x8	S355JR	10734	157.79	157.79
2782	1	L120x120x8	S355JR	10734	157.79	157.79
2783	1	L70x70x6	S355JR	3916	24.98	24.98
2784	1	L70x70x6	S355JR	3916	24.98	24.98
2785	2	L60x60x5	S355JR	1701	7.77	15.54
2786	1	L50x50x5	S355JR	1425	5.37	5.37
2787	1	L50x50x5	S355JR	1425	5.37	5.37
2788	2	L60x60x5	S355JR	2009	9.18	18.36
2789	2	L70x70x6	S355JR	3488	22.25	44.50
2790	1	L70x70x6	S355JR	2699	17.22	17.22
2791	1	L70x70x6	S355JR	2699	17.22	17.22
2792	2	L70x70x6	S355JR	2630	16.78	33.56
2793	2	L60x60x5	S355JR	2012	9.19	18.38
2794	2	L60x60x5	S355JR	1772	8.10	16.20
2795	2	L50x50x5	S355JR	1516	5.72	11.44
2796	2	L50x50x5	S355JR	914	3.45	6.90
2797	2	PL5x50	S355JR	312	0.61	1.22

FASTENERS

BOLTS ø	BOLTS LG	BOLTS No OFF
16	40	6
16	45	12
16	50	6
16	55	4
20	50	6
20	55	6
20	75	24

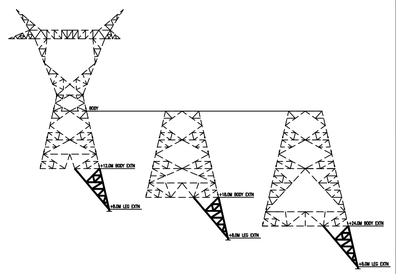
WASHERS ø	WASHERS THK	WASHERS No OFF
16	3	28
20	3	36

NUTS ø	NUTS No OFF
16	28
20	36

STEP BOLTS ø	STEP BOLTS LG	STEP BOLTS No OFF
16	180	11/4
20		

NUTS FOR STEP BOLTS ø	NUTS FOR STEP BOLTS No OFF
16	22/4

PACKINGS ø	PACKINGS THK	PACKINGS No OFF



FOR THE DETAILS OF MARK Nos. 2431 & 2432,
PLEASE REFER DRG. No. 0.69/518C/68/SH. No. 01 OF 01

FOR THE DETAILS VIEW 9–9
PLEASE REFER DRG. No. 0.69/518C/78/SH. No. 02 OF 02

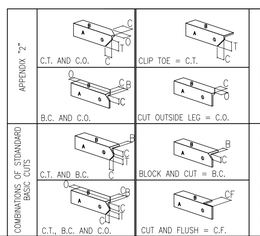
MASS OF MEMBERS		1004.25 KG
MASS OF FASTENERS		16.97 KG
ZINC	3.5%	1039.40 KG
TOTAL MASS		1056.37 KG

MARK NO. 2431,2432,2780 TO 2797

GENERAL NOTES :–

1. ALL DIMENSIONS ARE IN mm.
2. ALL STEEL CONFORMING TO EN 10025 GRADE S355JR.
3. ALL BOLTS/NUTS ARE CONFORMING TO ISO:898 GRADE 6.8/6. PACKERS & WASHERS ARE GRADE S 275JR.
4. ALL TOWER MATERIALS TO BE HOT DIP GALVANISED AS PER ISO 1461
5. ⊕ INDICATES HOLES OF 17.5 mm DIA FOR 16 mm DIA BOLTS.
   ⊕ INDICATES HOLES OF 17.5 mm DIA FOR 16 mm DIA STEP BOLTS.
   ⊕ INDICATES HOLES OF 21.5 mm DIA FOR 20 mm DIA BOLTS.
   ⊕ THIS INDICATES MEMBERS BEING USED AS STEP BOLTS
6. ITEM MARKS TO BE PREFIXED WITH 518C.
7. BOLT THREAD : 1.5xDIA.
8. WASHERS : DIN 126 – 3mm THICK ROUND FLAT WASHER.
9. STUB : SAME AS STANDARD TOWER.
10. STEP BOLTS TO BE INSTALLED ON TWO DIAGONALLY OPPOSITE LEGS AS PER DRAWING.

COMBINATION OF LEG EXTN. & BODY EXTN.	C/C AT TOP OF LEG EXTN.	C/C AT BOTTOM OF LEG EXTN.
+8.0M LEG EXTN. WHEN CONNECTING WITH +12M BODY EXTN.	12446.20	16118.33
+8.0M LEG EXTN. WHEN CONNECTING WITH +18M BODY EXTN.	15200.30	18872.43
+8.0M LEG EXTN. WHEN CONNECTING WITH +24M BODY EXTN.	17954.39	21626.52



CLIENT: Eskom

TRANS-AFRICA PROJECTS

REV	DRAWN BY:	CHKD:	DATE:	REVISION DESCRIPTION:
0	TIE	TIE	24.09.2014	FIRST ISSUE

DETAILING AGENCY: JYOTI STRUCTURES LIMITED.MUMBAI, INDIA.

AUTH	: G.S.LOUW	DATE	: 18.07.2014
CHKD	: G.S.LOUW	DATE	: 18.07.2014
DRAWN	: TIE	DATE	: 24.09.2014

PROJECTION — SCALE : 1 : 20

TITLE: 400kV TOWER TYPE 518C +8.0M LEG EXTENSION (FOR +12M,+18M & +24M BODY EXTNS)

0.69/518C/78 — SHEET 1 OF 2 — REV 0

SIZE: A1