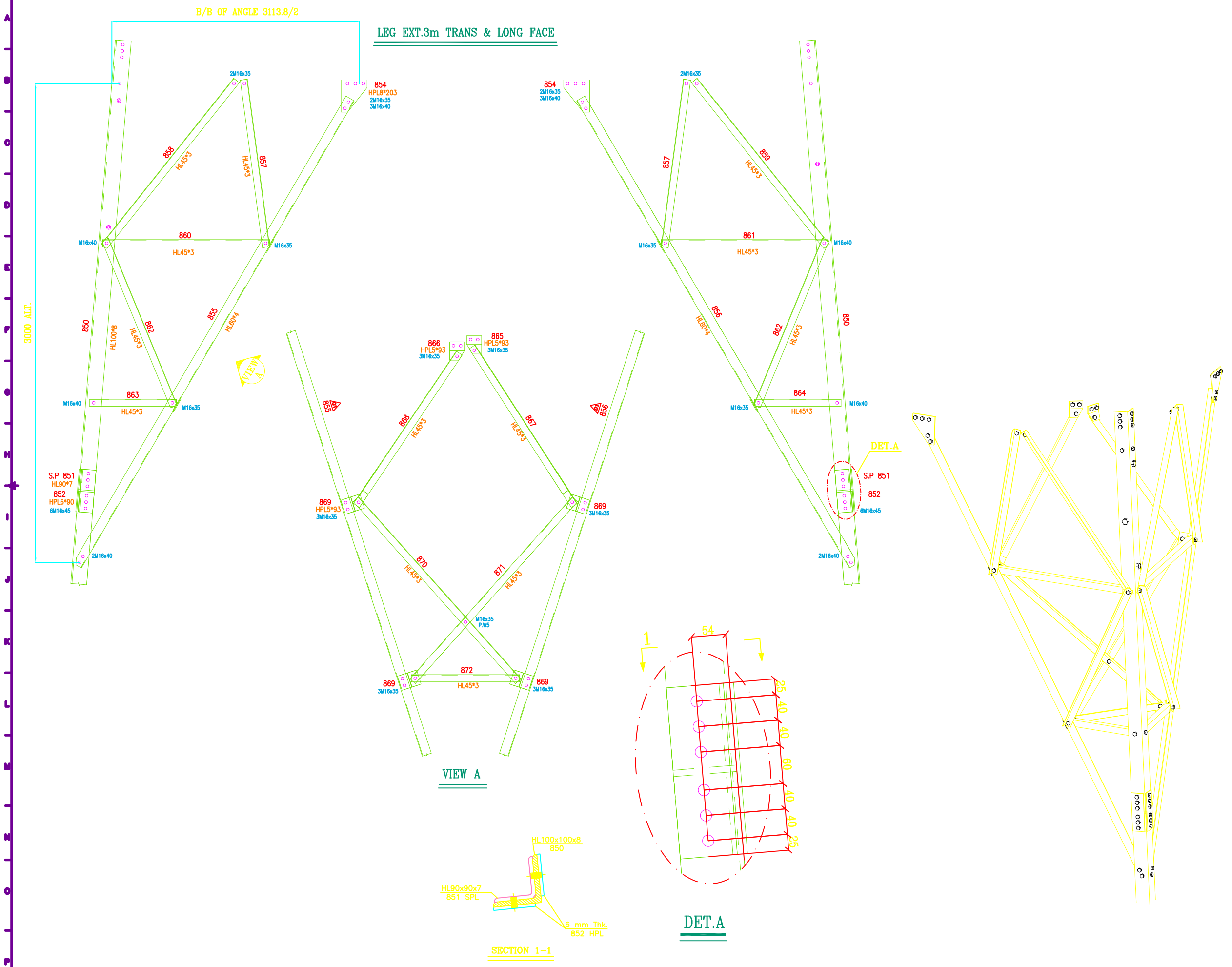


NOTES:

1- ALL DIMENSION ARE IN MILLIMETERS.
2- DO NOT SCALE THE DRAWING
3- DIAMETERS OF HOLE ARE AS FOLLOWS:
ø21.5 mm FOR M20, ø17.5 mm FOR M16
ø13.5 mm FOR M12 BOLTS.
4- EACH BOLT ASSEMBLY INCLUDES ONE BOLT ONE NUT AND ONE SPRING WASHER.
5- EACH STEP BOLT ASSEMBLY INCLUDES ONE STEP BOLT TWO NUTS AND TWO SPRING WASHER.
6- GRADE OF BOLTS IS 5.8
7- THE STEEL MEMBER INDENTIFIED BY "H" ARE ST:52 OTHER MEMBERS ARE ST:37

SYMBOLS AND ABBREVIATIONS

DESCRIPTION	SYMBOLE
CENTER LINE	C.L.
PLATE	PL
ANGLE	L
SPLICE	SP
HIGH TENSILE	HL
BEND LINE	B.L.
NEAR SIDE	N.S.
FAR SIDE	F.S.
Ø14 mm HOLE	●
Ø17.5 mm HOLE	○
Ø21.5mm HOLE	◔
HOLE FOR STEP BOLT	◎

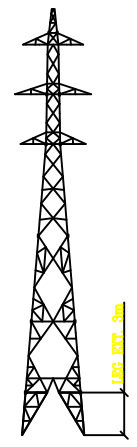
SPECIFICATION FOR MATERIALS

NO.	ITEM	REFERENCE: Specific Requirements	REFERENCE: Technical Delivery Conditions
1	ANGLE	DIN 10056-2	DIN EN 10025-2 MILD STEEL:GRADE S235JR HIGH TENSILE:GRADE S355JO
2	GUSSET PLATE	DIN 10048	DIN EN 10025-2 MILD STEEL:GRADE S235JR HIGH TENSILE:GRADE S355JO
3	FILLER PLATE	DIN 10048	DIN EN 10025-2 MILD STEEL:GRADE S235JR
4	BOLT	DIN 7990	ISO 898-part1,Grade 5.8
5	NUT	DIN 4032	ISO 898-part2,Grade 5
6	SPRING WASHER	DIN 127	DIN 267-part 26
7	PLAIN WASHER	DIN EN ISO 4759-3	DIN EN 10025-2,Grade S235JR
8	GALVANIZ	ANGLES & PLATES	ASTM A123
		BOLTS & NUTS & WASHERS	ASTM A153

Note: 1-Application of an equal and approved material is allowed only after the written permission of consultant

LIST OF BOLT & NUTS & WASHERS INCLUDING 3% EXTRA

LENGTH	QTY.	LENGTH	QTY.
M16x35mm	32	STEP BOLT	03
M16x40mm	15	5mm PACK W.	02
M16x45mm	13	STD.SP.WASHER	66



REV.	DESCRIPTION	BY	CHKD.	APPR.	DATE
1	REMARKS BASED ON LAST MODIFICATIONS	BY	M.G	M.GH	07/08/15

PROJECT: 63 KV D.C TRANSMISSION LINE

CLIENT: YAZD REGIONAL ELECTRIC CO.

CONSULTANT: MONENCO IRAN CO.

CONTRACTOR: YASAN CO.

TOWER TYPE: SUSPENSION YSM03

SECTION OF TOWER: LEG EXT. 3m

DESIGN: YASAN ENG.

DRAWN: M.GHASEMI

CHECKED: A.R.ATIFE

APPROVED: M.R.GHORBANI

DATE: 1397/08/20

DRAWING NO: [illegible]

YASAN