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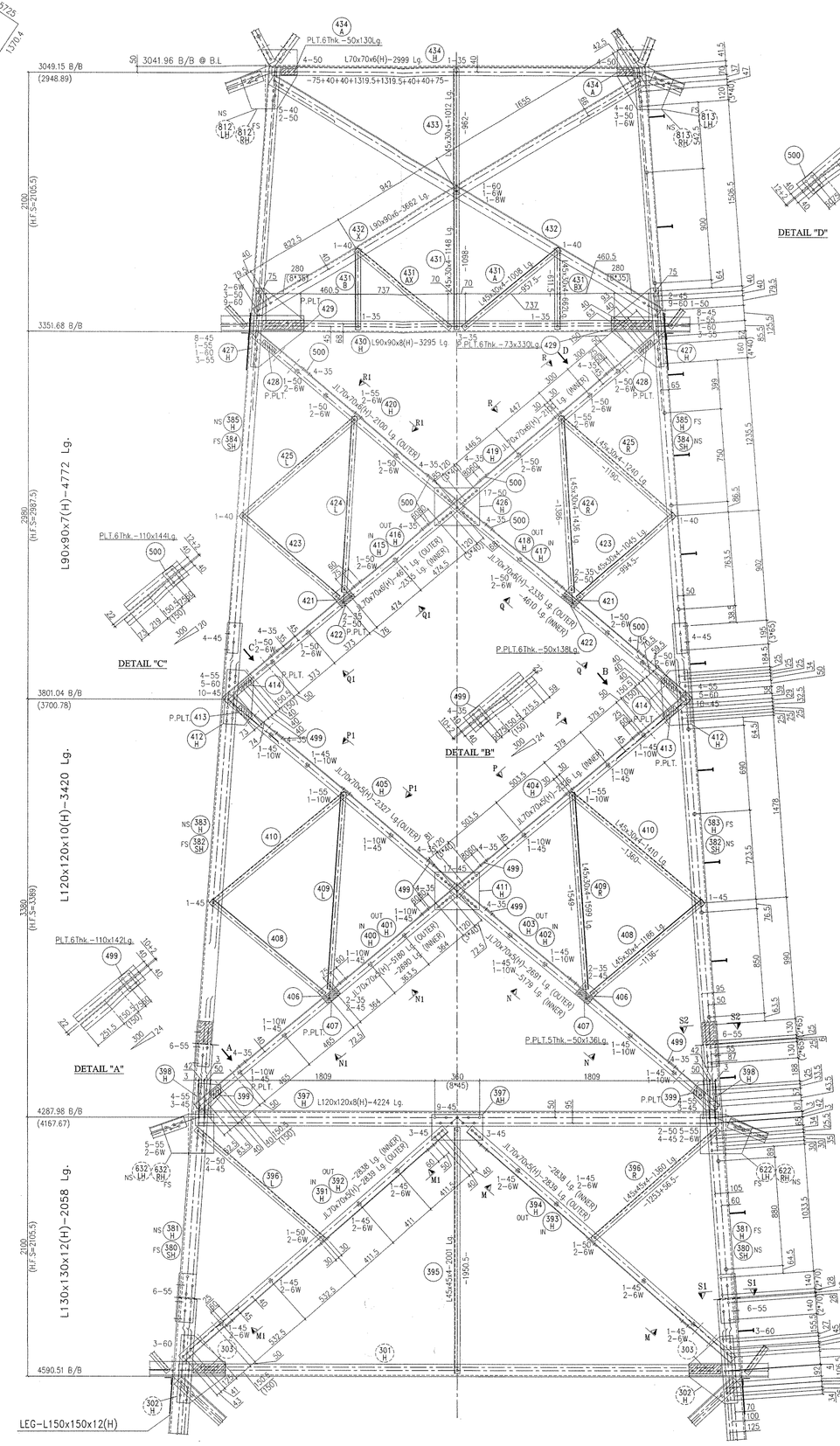

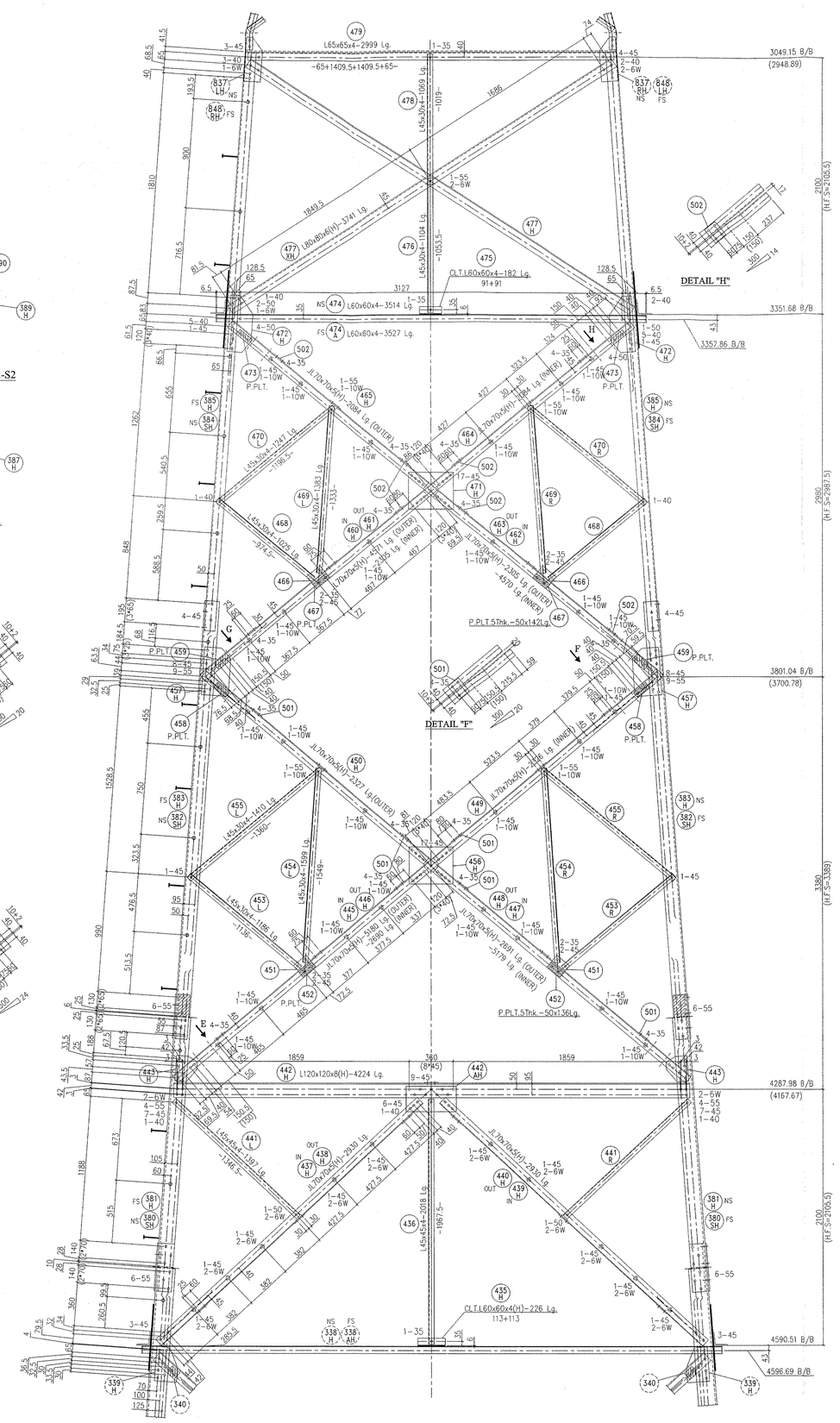

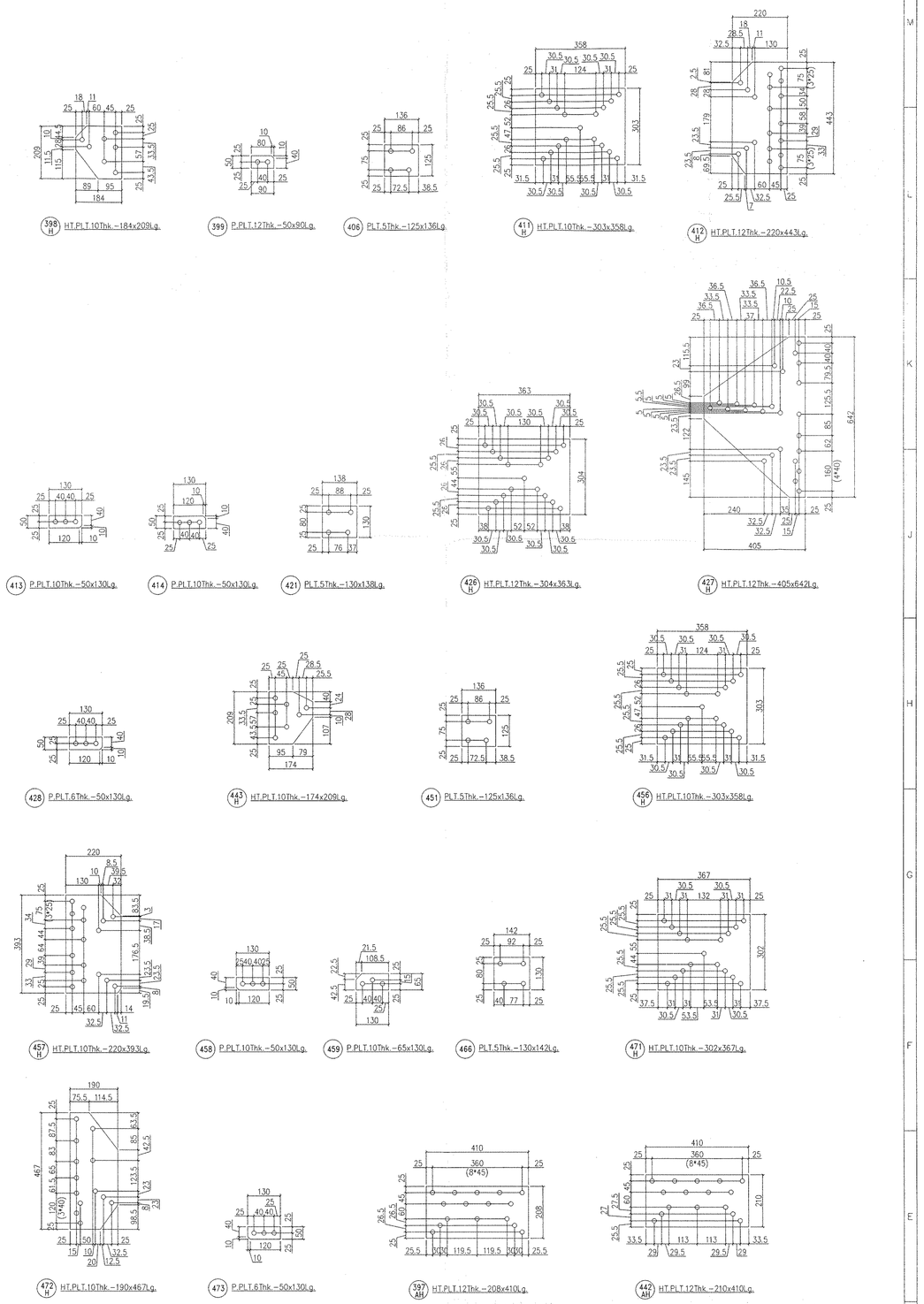

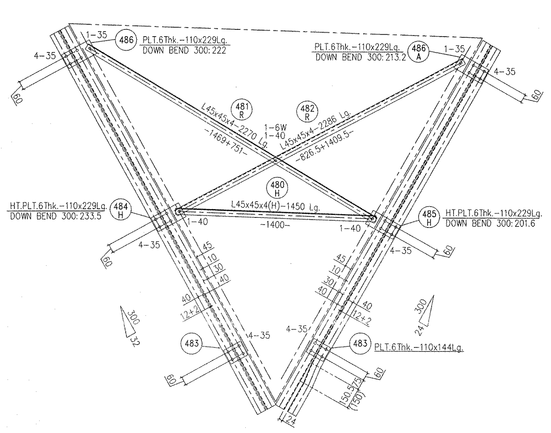

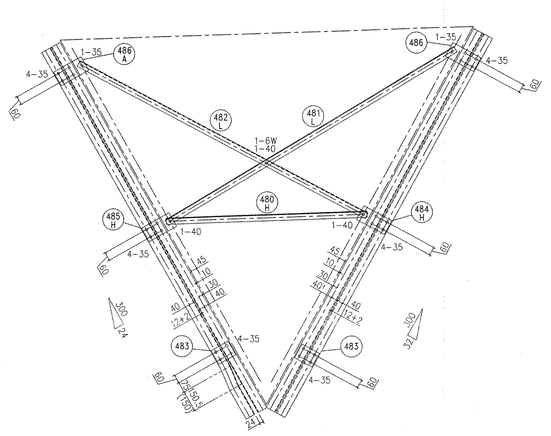

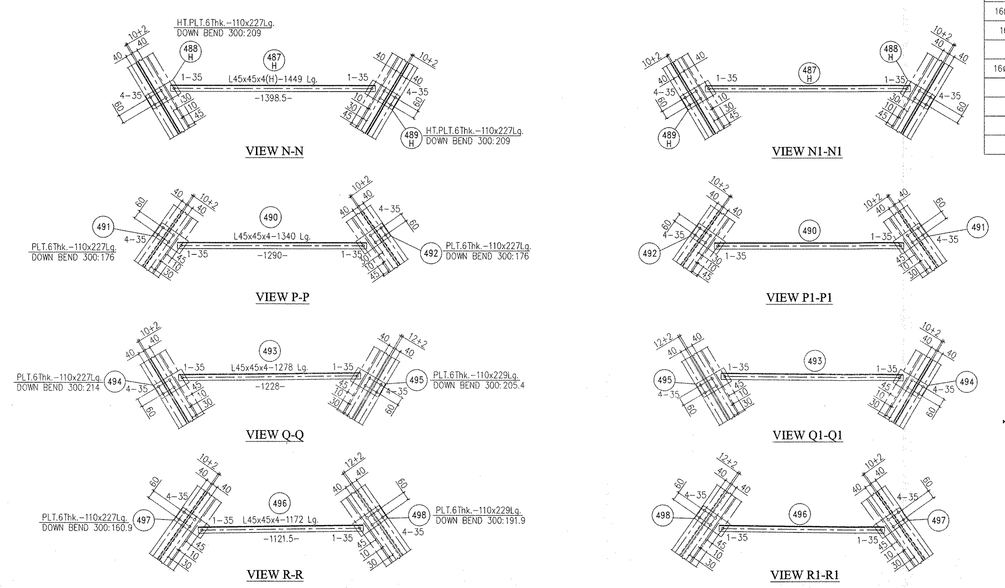

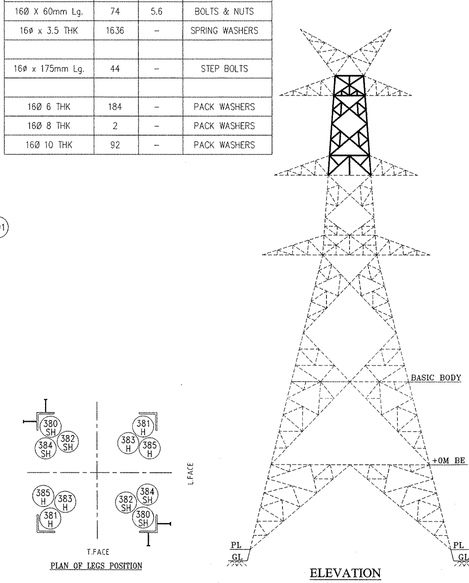

REQUIREMENT OF BOLTS, NUTS & WASHERS			
SIZE	QTY.	GRADE	REMARKS
16Ø X 35mm Lg.	570	5.6	BOLTS & NUTS
16Ø X 40mm Lg.	84	5.6	BOLTS & NUTS
16Ø X 45mm Lg.	536	5.6	BOLTS & NUTS
16Ø X 50mm Lg.	138	5.6	BOLTS & NUTS
16Ø X 55mm Lg.	234	5.6	BOLTS & NUTS
16Ø X 60mm Lg.	74	5.6	BOLTS & NUTS
16ø x 3.5 THK	1636	–	SPRING WASHERS
16ø x 175mm Lg.	44	–	STEP BOLTS
16Ø 6 THK	184	–	PACK WASHERS
16Ø 8 THK	2	–	PACK WASHERS
16Ø 10 THK	92	–	PACK WASHERS

NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.
2. BOLT SYMBOLS 16ø = 17.5ø HOLES
   16ø = 17.5ø HOLES FOR STEP BOLTS
   24ø = 26ø HOLES
3. ALL ERECTION MARKS ARE TO BE PREFIXED WITH "778406"
4. STRUCTURAL STEEL SHALL BE AS PER IS 2062-2011
   (i) MILD STEEL - GRADE E250 QUALITY A - UNLESS OTHERWISE SPECIFIED.
   (ii) "H" STANDS FOR HIGH TENSILE STEEL - GRADE E350 QUALITY A
5. BOLTS & NUTS SHALL CONFORM TO IS : 12427-2001 (R-2007) FOR DIMENSIONS AND IS : 1367 (PART 3)-2002 FOR MECHANICAL PROPERTIES
6. GALVANISING SHALL CONFORM TO IS:2629-1985 (R-2006) & IS:4759-1996 (R-2006)
7. SPRING WASHER SHALL BE CONFORM TO IS 3063-1994 (R-2004)
8. STEP BOLTS SHALL BE PROVIDED ON THE DIAGONALLY OPPOSITE LEGS.
9. ALL PARTS/ MEMBERS OF TESTED TOWER SHOULD BE PUNCHED WITH PART NUMBER PREFIXED WITH "T" IN ADDITION TO THE STANDARD MARK NUMBERS

PART NO. 380 TO 502

PART NO. 444 NOT USED

SUCCESSFULLY TESTED AT L&T-TLTRS-KANCHIPURAM ON 22nd OF AUGUST 2019

APPROVED
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

DATE	REV.NO.	DESCRIPTION	DESIGNED	CHECKED	DRAWN	CHECKED	APPROVED
26.08.19	1	SUBMISSION AFTER SUCCESSFUL TESTING	ERS	RJR	MBR	PU/BSR	CSR
20.04.19	0	FIRST SUBMISSION FOR APPROVAL BEFORE PROTO	ERS	RJR	MR	SVR/BSR	CSR
			STRUCTURAL		DETAILING		

REVISIONS

CLIENT : BIHAR STATE POWER TRANSMISSION CO.LTD., PATNA

SUPPLIER / CONTRACTOR : L&T Construction
Power Transmission & Distribution

PROJECT : PACKAGE - NIT 77 UNDER STATE PLAN [80:20], CONSTRUCTION OF :
(I) LILO OF BARH-PATNA 400 KV D/C (QUAD) TL AT BAKHTIYARPUR (LINE LENGTH 10RKM),
(II) 220 KV D/C BAKHTIYARPUR - SHEIKHPURA TL (ACSR ZEBRA) (LINE LENGTH - 51 RKM)
(III) 220 KV D/C BAKHTIYARPUR -HATHIDAH TL (ACSR ZEBRA) (LINE LENGTH -52 RKM) AND
(IV) 220 KV D/C BAKHTIYARPUR – FATHUA TL (ACSR ZEBRA) (LINE LENGTH - 28 RKM)

JOB No.: O18089-T-TL	NAME	DATE
DSGN	ERS	26.03.19
DRWN	MR	02.04.19
CHKD	SVR/BSR	02.04.19
APPD	CSR	02.04.19

TITLE : G.A OF CAGE PART-2 FOR TOWER TYPE –"4DB (0°-15°DEV)" 400KV D/C QUAD ACSR MOOSE (WZ-4)

SCALE 1 : 25

SHEET NO. 3 OF 7

DRG. No. 0 1 8 0 8 9 - T - T L - 8 D - G A - 0 2 0 4

SIZE A0 REV. 1

RELEASED FOR ☐ PRELIMINARY ☐ TENDER ☐ INFORMATION ☑ APPROVAL ☐ CONSTRUCTION