

NOTES:--

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 175MM FOR M-16 BOLTS UND.
3. ALL PERMANENT HOLES ARE 175MM FOR M-16 BOLTS UND.
4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHIP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
6. PERMANENT HOLES SHOWN THUS. 
7. ERECTION HOLES SHOWN THUS. 
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. TRANSITION PART SHALL BE SENT IN 4 PARTS
10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PART AT SUITABLE
11. FOR BALANCED HANDLING
12. REF. DESIGN DGR. NO. PATRAU-1 HOPPER TRANSITION-4TH FIELD

THIS DRAWING SHALL BE READ ALONG WITH

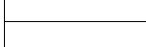
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0-79-845-01617

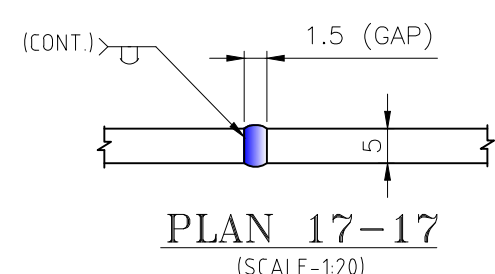
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0-79-845-01619

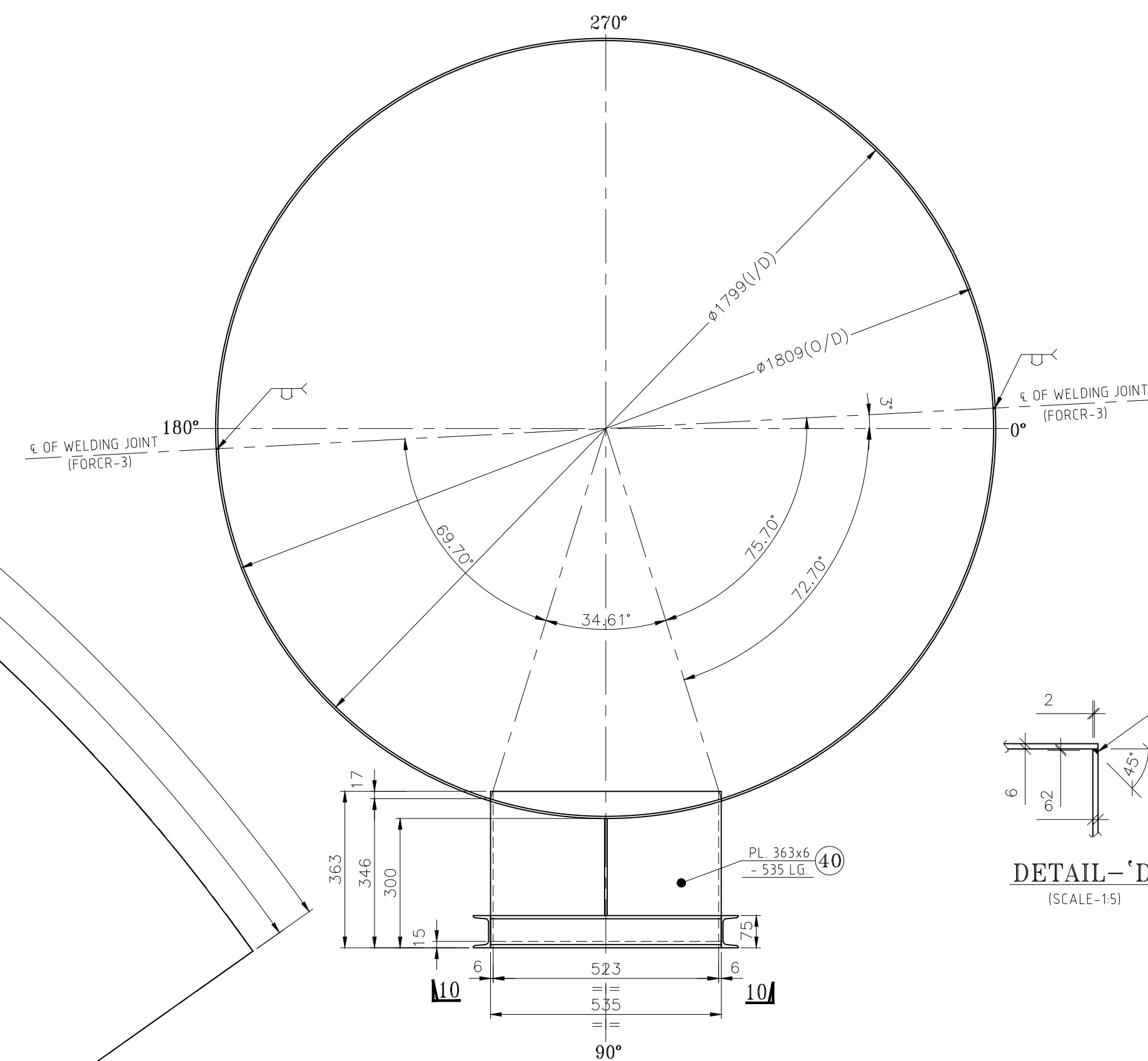
REV 01	DATE 27.02.
ZONE	REVIS

INQUIRY: In the information of ANY ELECTRICAL SYSTEM, must not be determined by the content of this drawing.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT														
			BHARAT HEAVY ELECTRICALS LTD. UNIT: BOILER AUXILIARIES PLANT. PROJECT NO: 632-1008												
	DEPT ADD:		GRADE OF UNL:		 SCALE		WEIGHT (KG)		DRN CND APP		NAME SIGN		DATE NO. OF VAR		
	CODE 862		HPR A00-500						REF. TO ASSY/DLD DRG.				REV NO.		
	TITLE HOPPER CONICAL PORTION													REV	
	CARD CODE						DRAWING NO.							REV	
							0 70 845 01616								

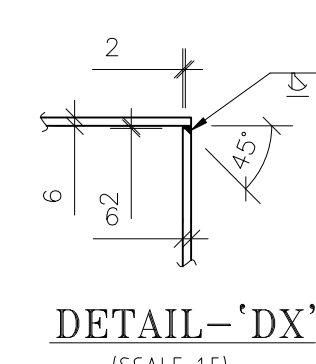
All dimensions are in millimetres



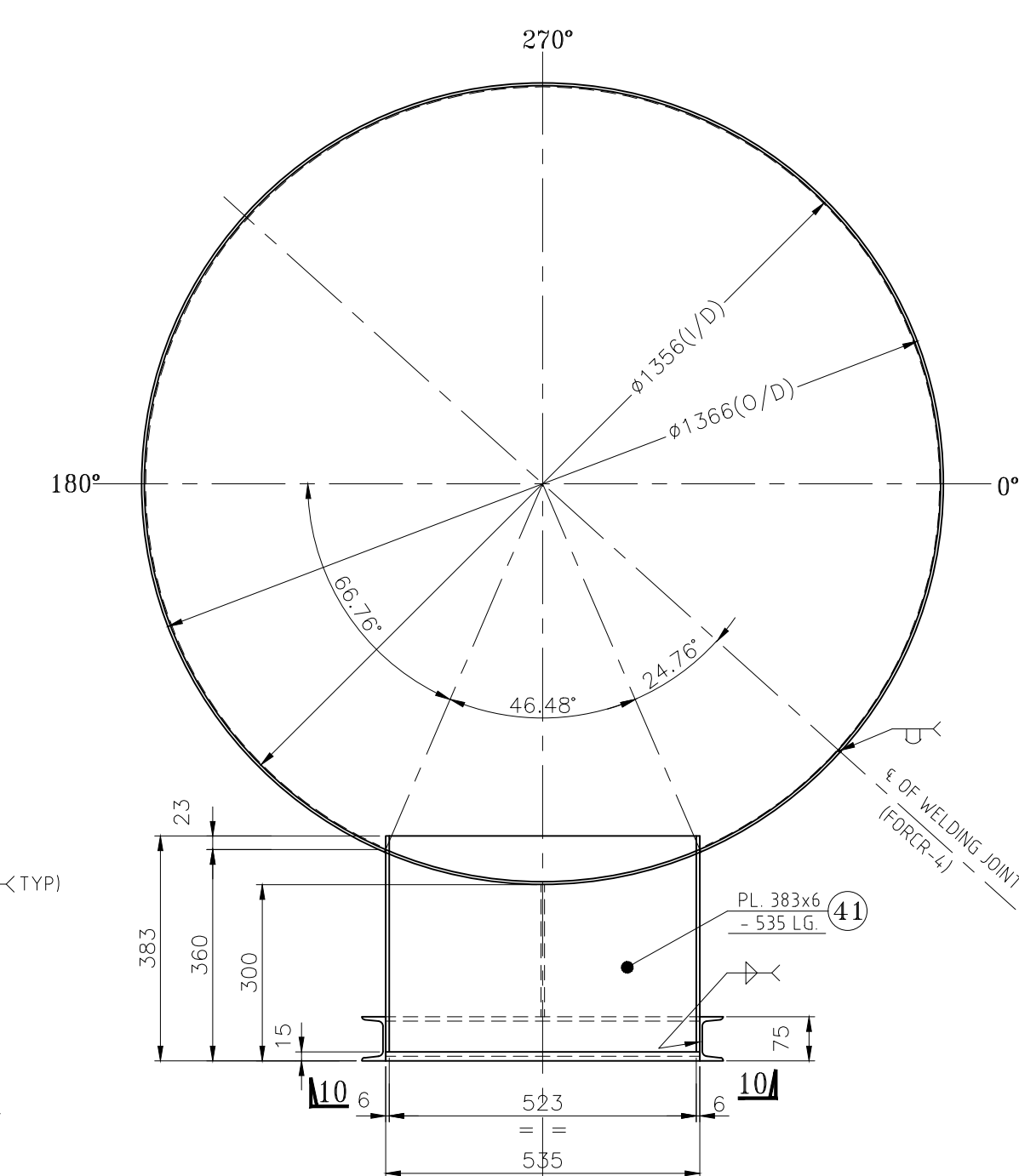
PLAN 17-17
(SCALE 1:20)



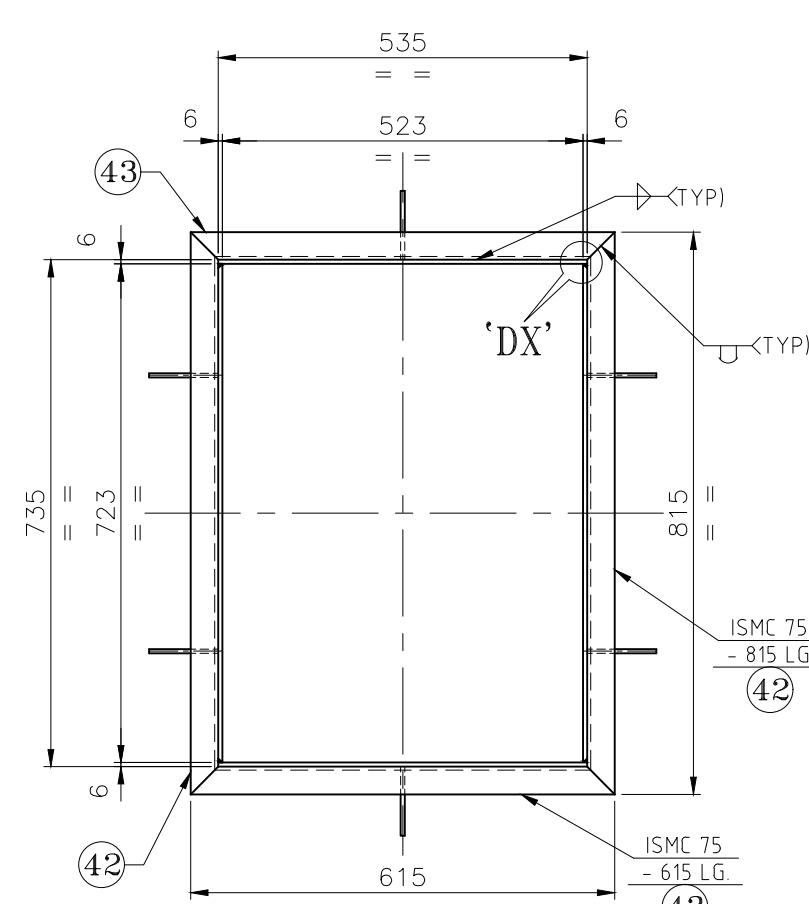
PLAN 9-9
(SCALE-1/32)



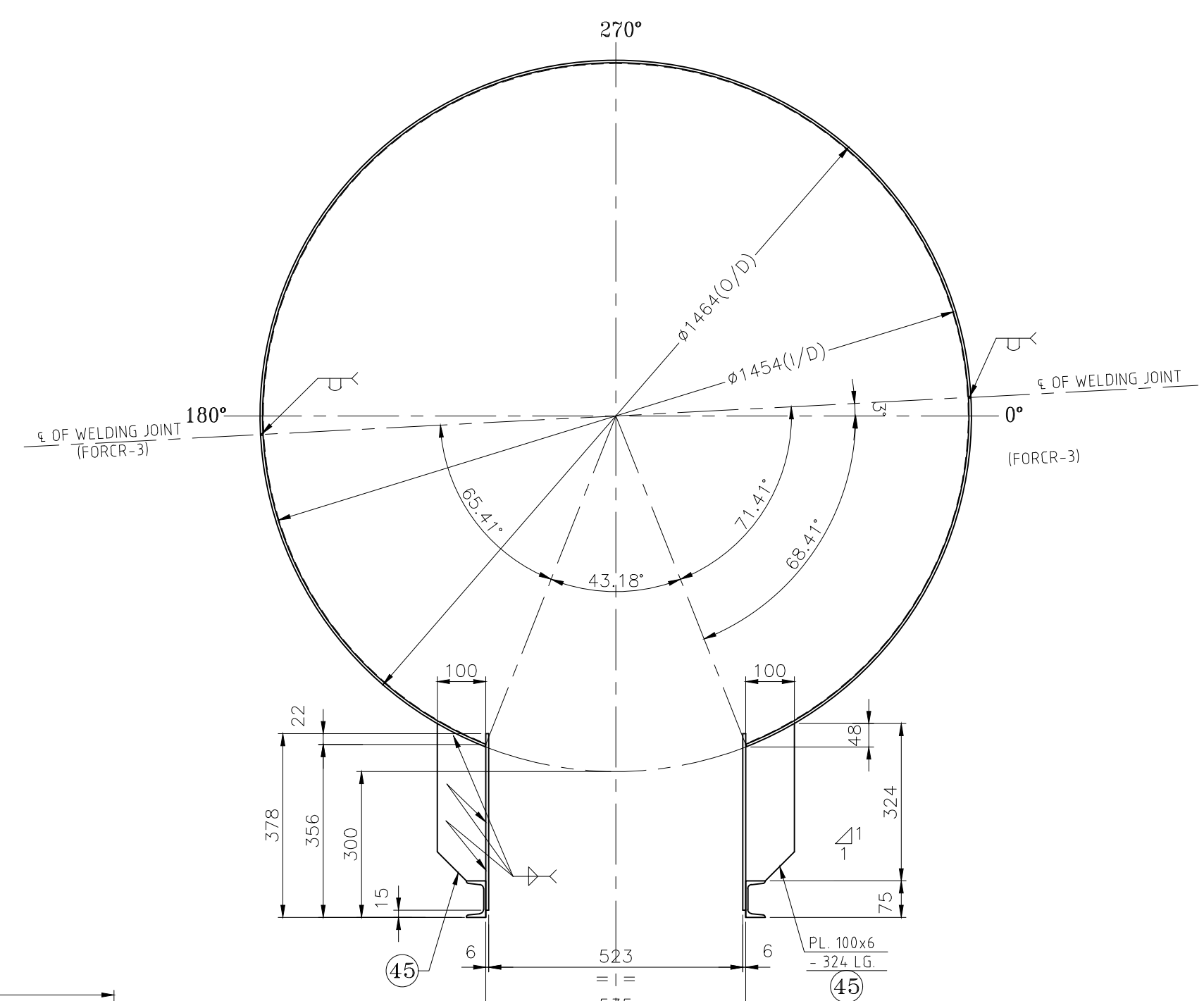
DETAIL-'DX'



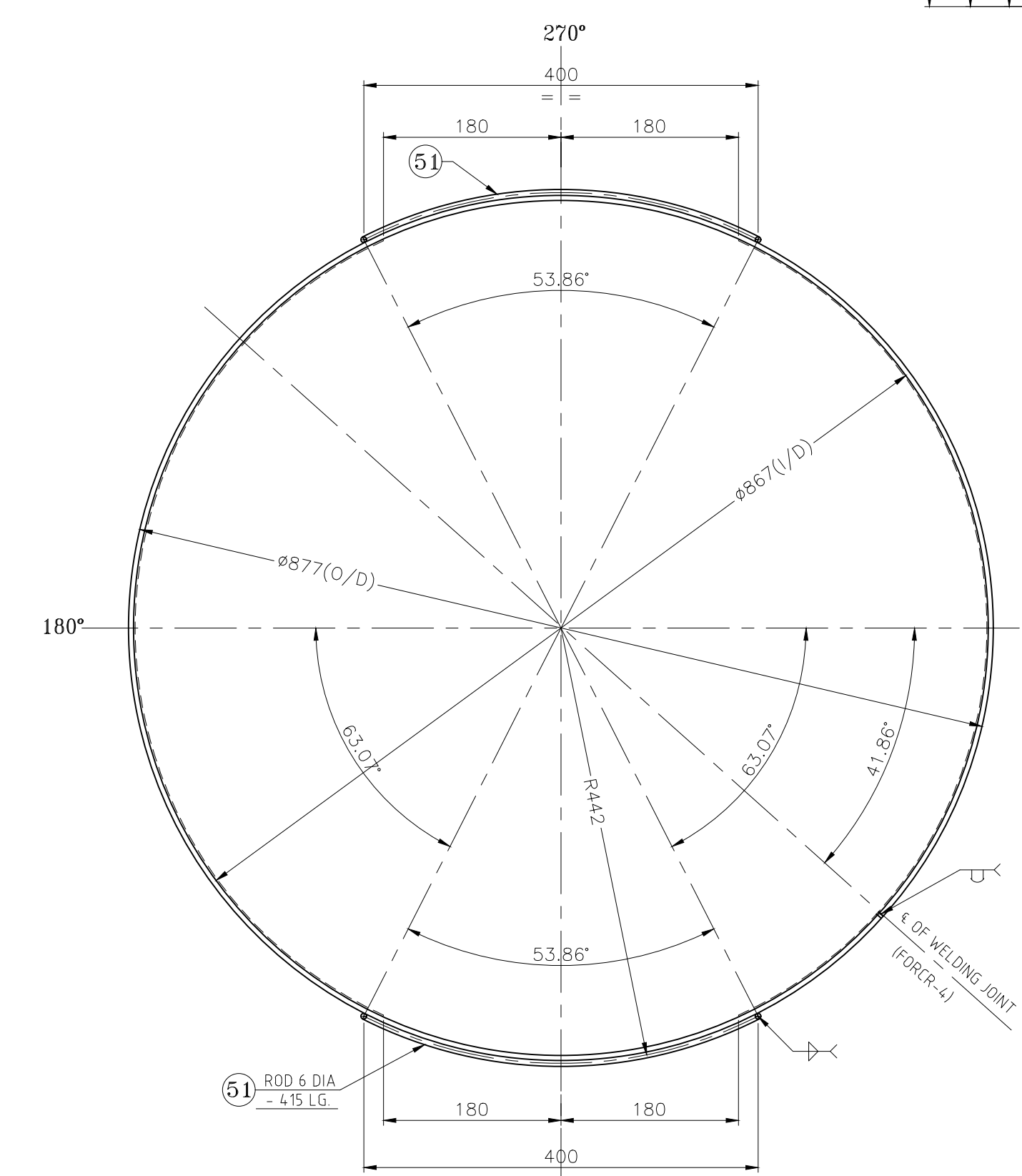
PLAN 13-13
(SCALE-1/10)



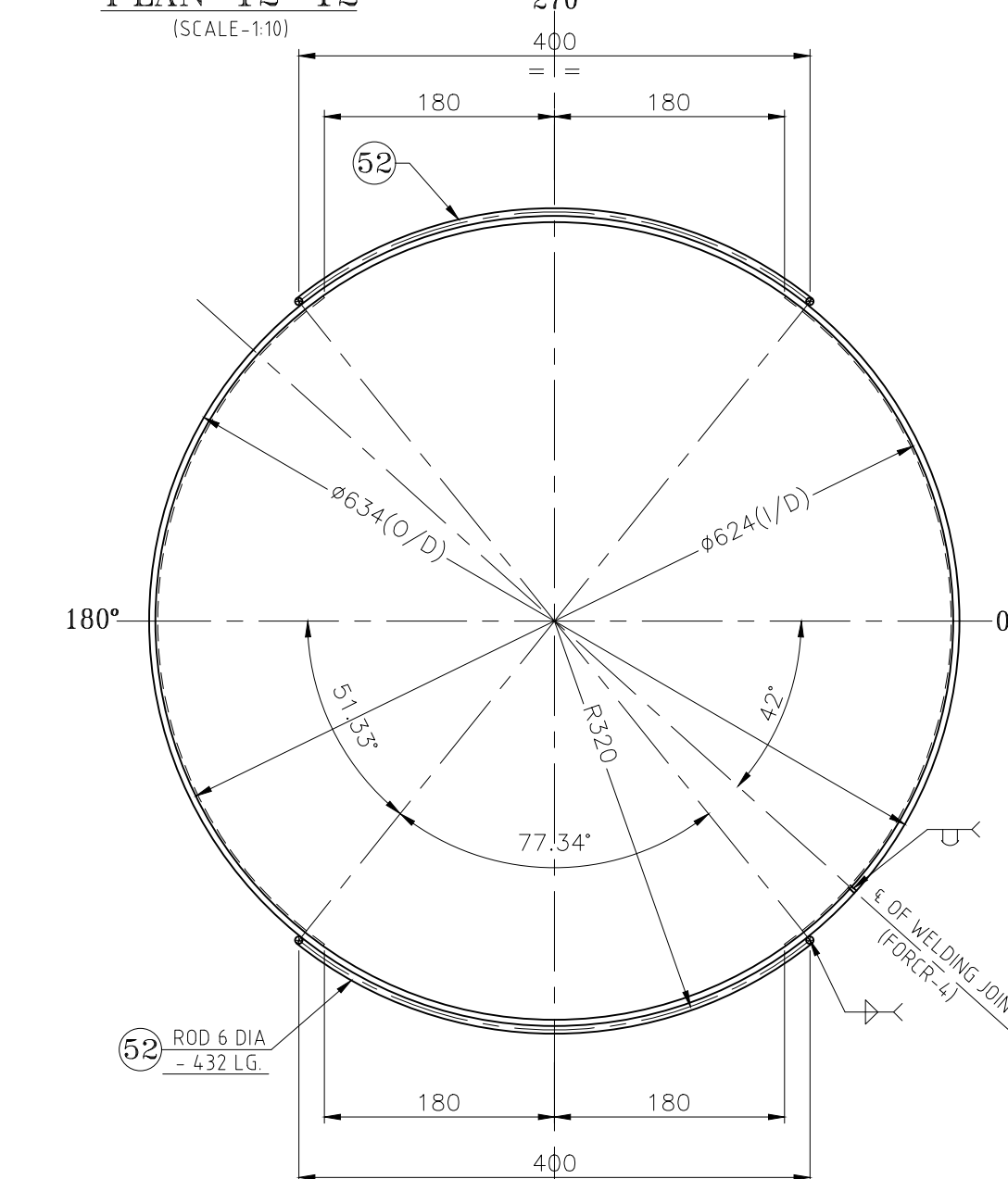
SECTION 10-10
(SCALE 1:10)



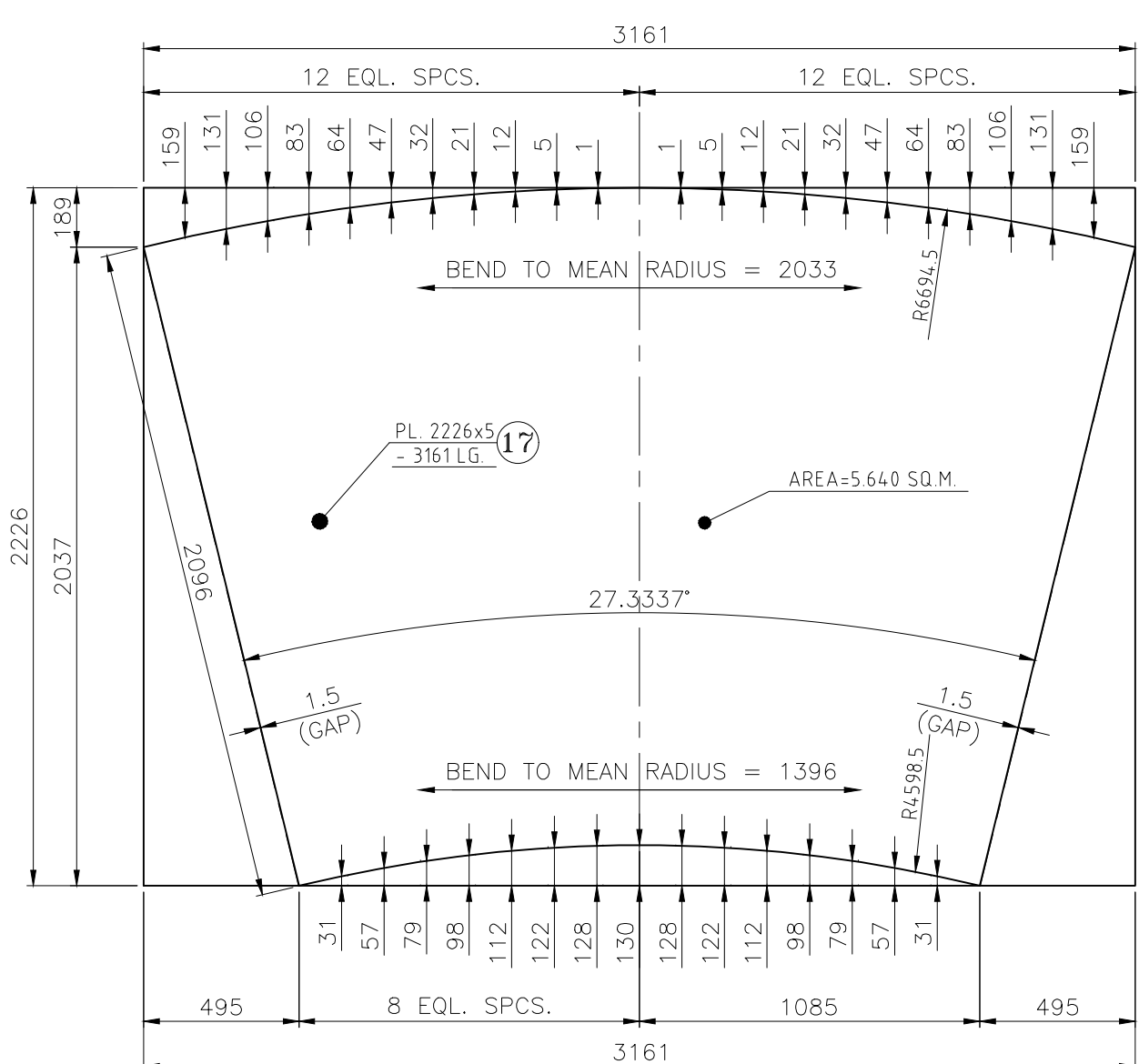
90°
PLAN 12-12
(SCALE 1/10)



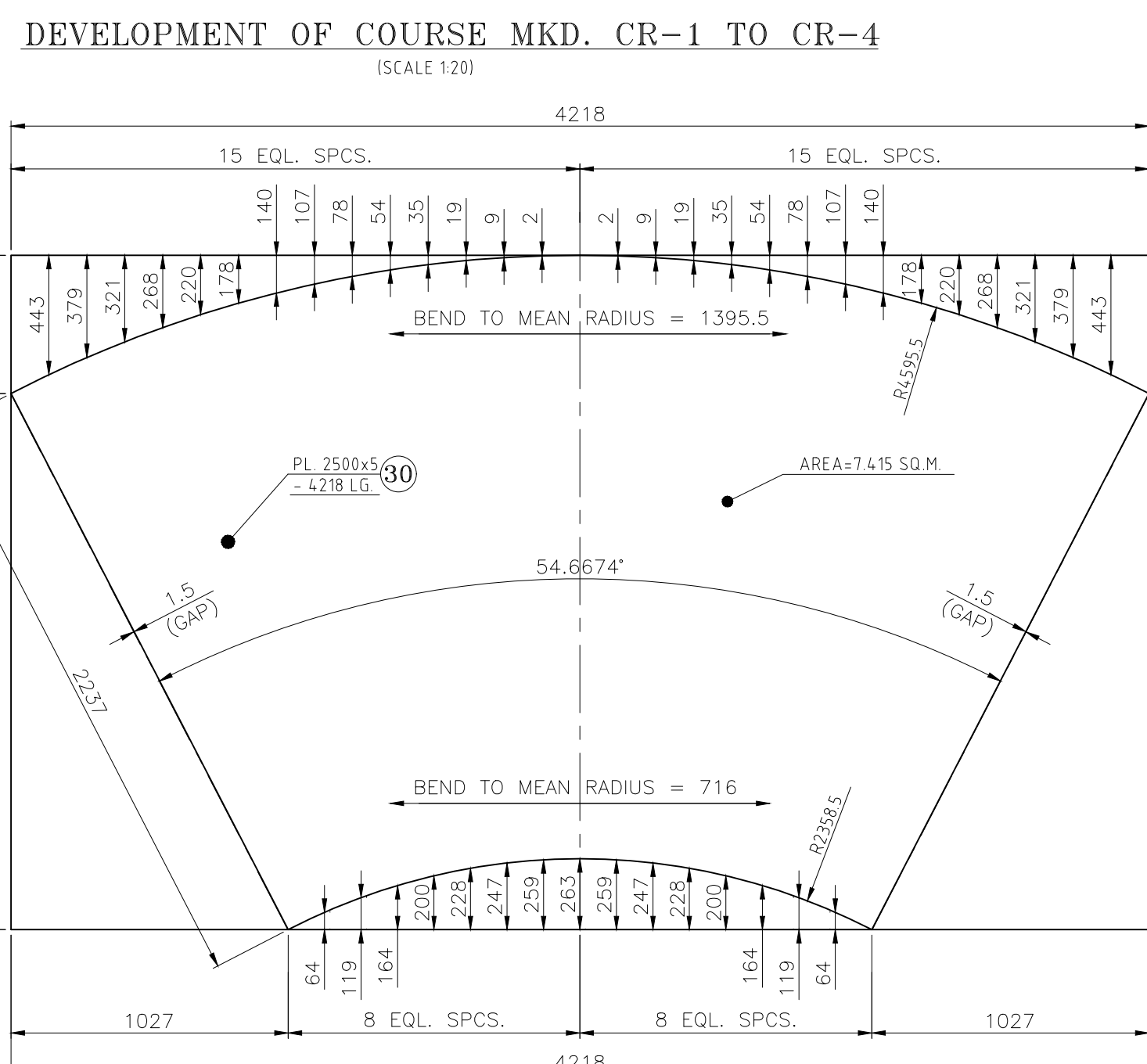
PLAN 14-14
(SCALE 1/8")



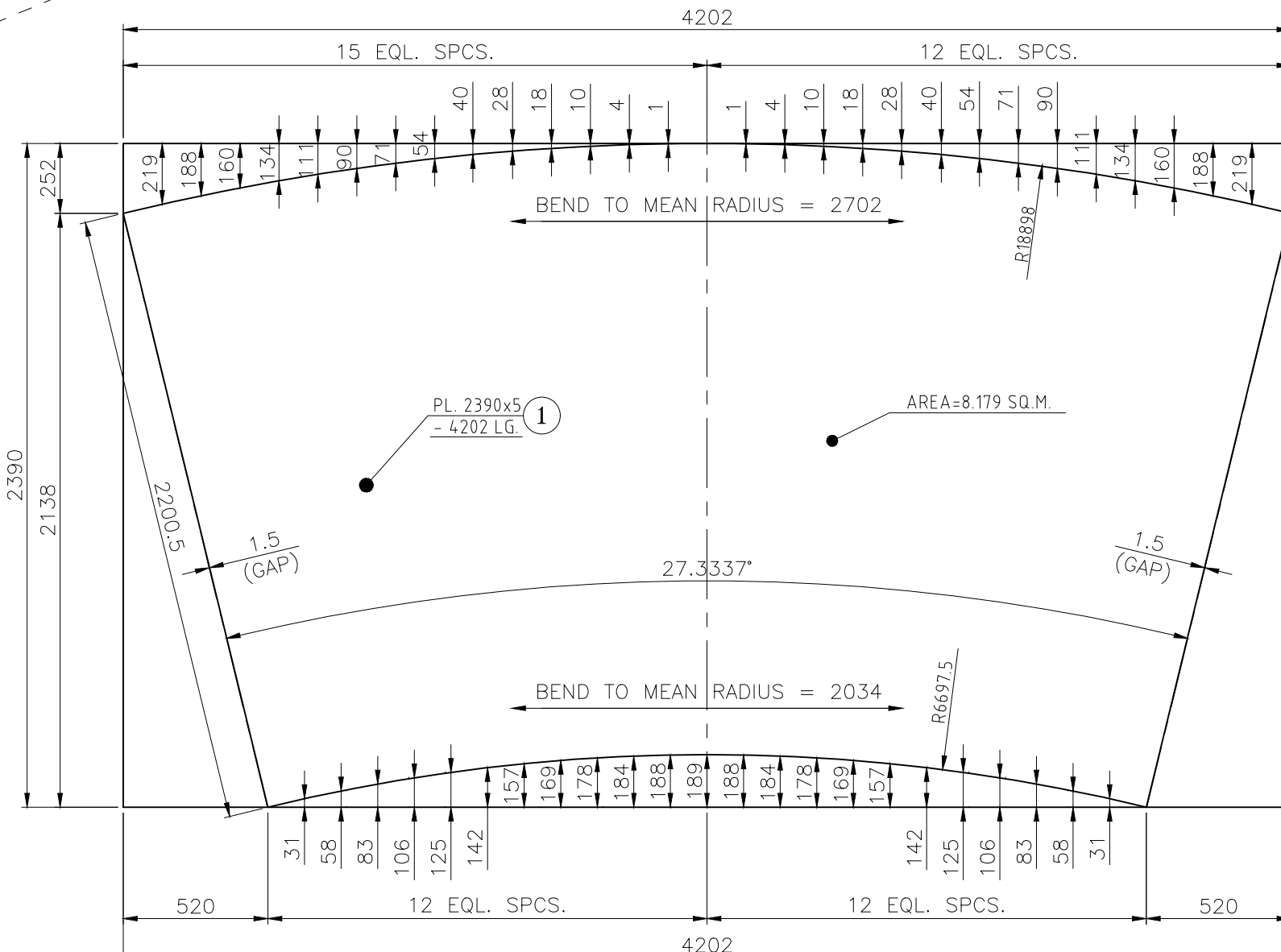
PLAN 15-15
(SCALE-15)



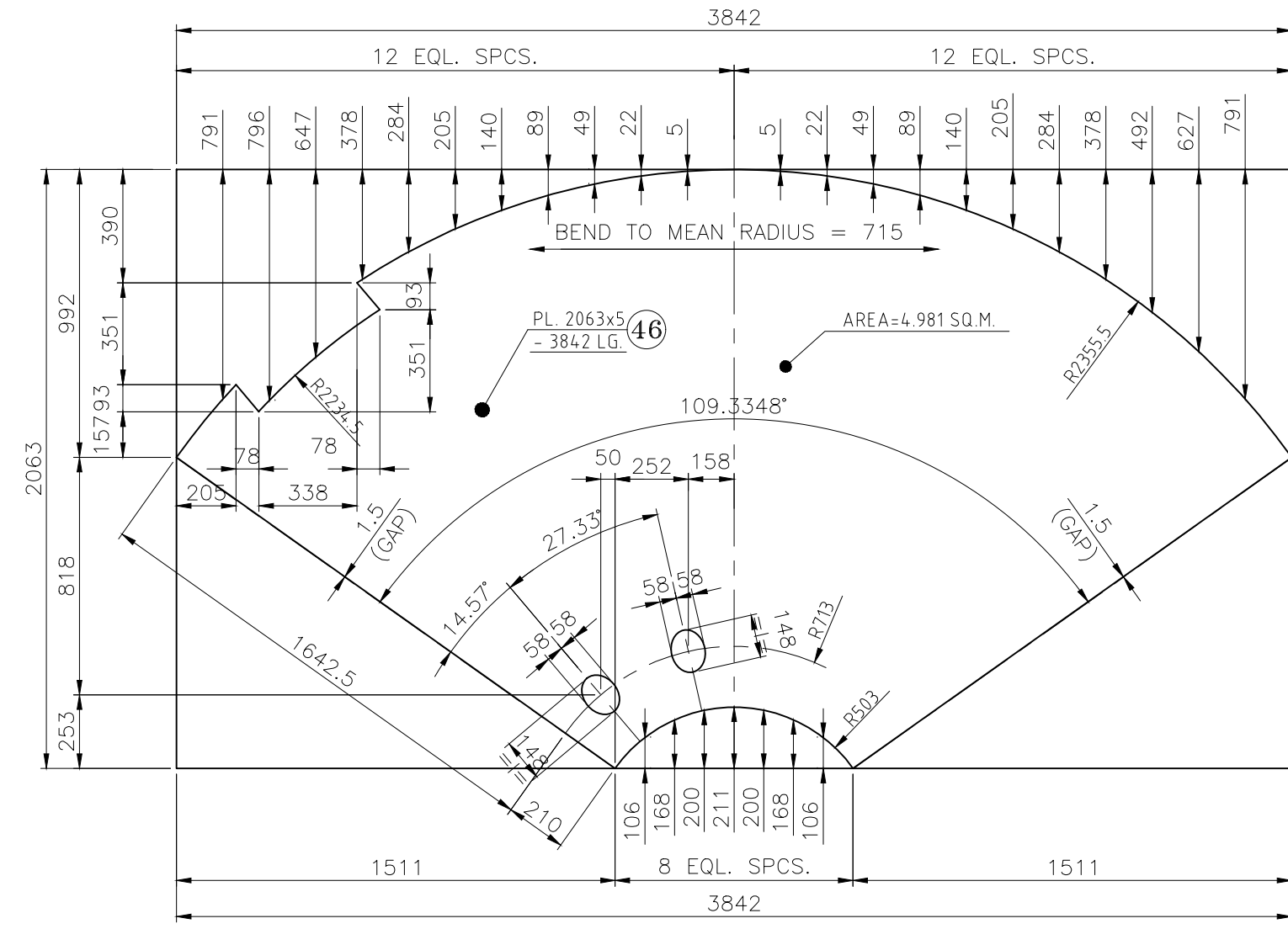
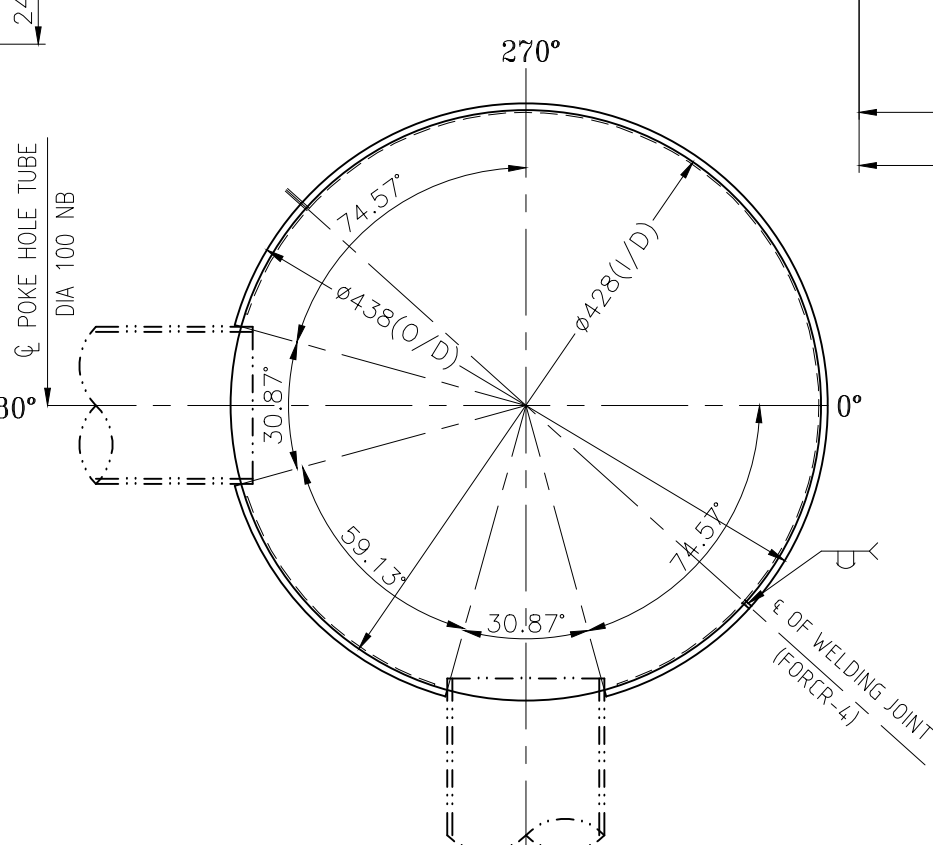
DETAIL OF ITEM NO. 17



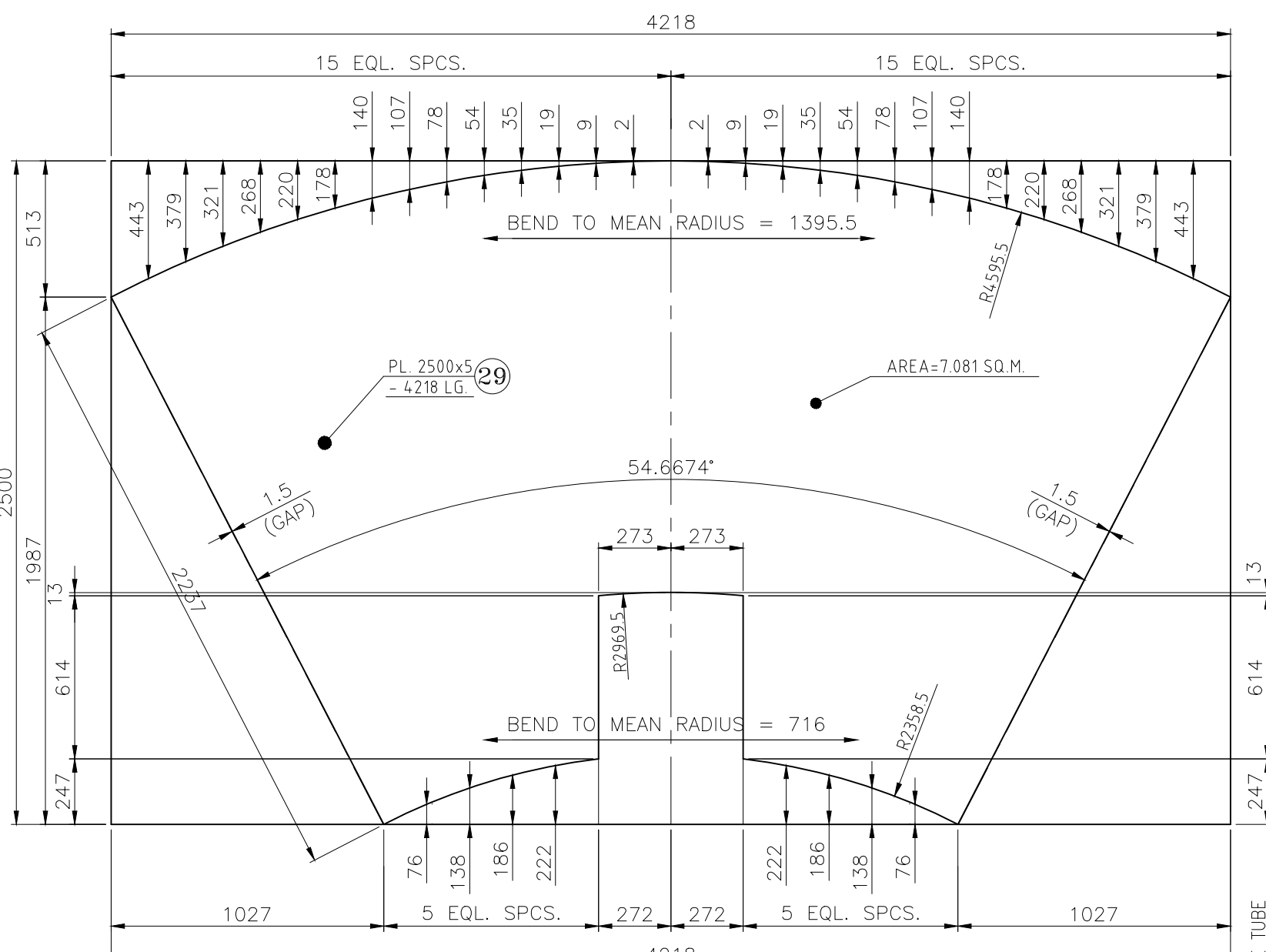
DETAIL OF ITEM NO. 30



DETAIL OF ITEM NO	
(REQD. & NOS.)	
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8	1
9	1
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11	1
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97	1
98	1
99	1
100	1

BEND TO MEAN RADIUS = 152
DETAIL OF ITEM NO. 100

PLAN 16-16
(SCALE-15)



4218	
DETAIL OF ITEM NO.	
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100	...

NOTES:—

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 1750 FOR M-6 BOLTS UNDO.
3. ALL PERMANENT HOLES ARE 1750 FOR M-16 BOLTS UNDO.
4. ALL MEMBERS AND GUSSET PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEING DONE.
5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNDO.
6. PERMANENT HOLES SHOWN THIN+.....
7. ERECTION HOLES SHOWN THIN+.....
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. TRANSITION PART SHALL BE SENT IN 4 PARTS
10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PART FOR SUITABLE FOR BALANCED HANDLING
11. REF. DESIGN DGR NO PATRU+HOPPER TRANSITION 4-1,4
12. THIS DGR IS TO READ IN CONJ. WITH DGR NO. 000RSH 12.3 OF 40

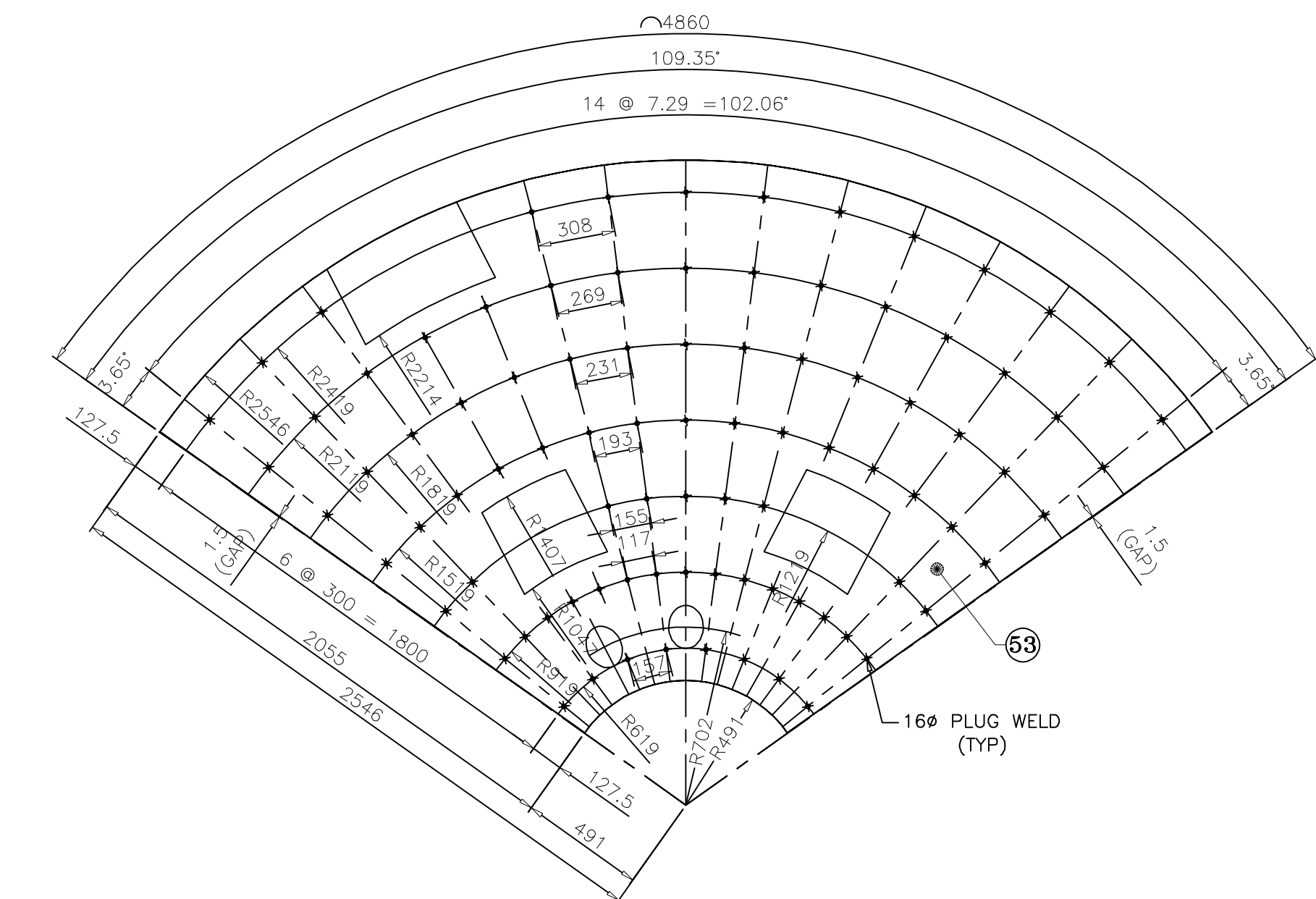
THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01616
0-79-845-01617
0-79-845-01618
0-79-845-01619

THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT IS TO BE USED ONLY FOR THE INTENT OF THE PURCHASE ORDER. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BHARAT HEAVY ELECTRICALS LTD.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT										
	<										

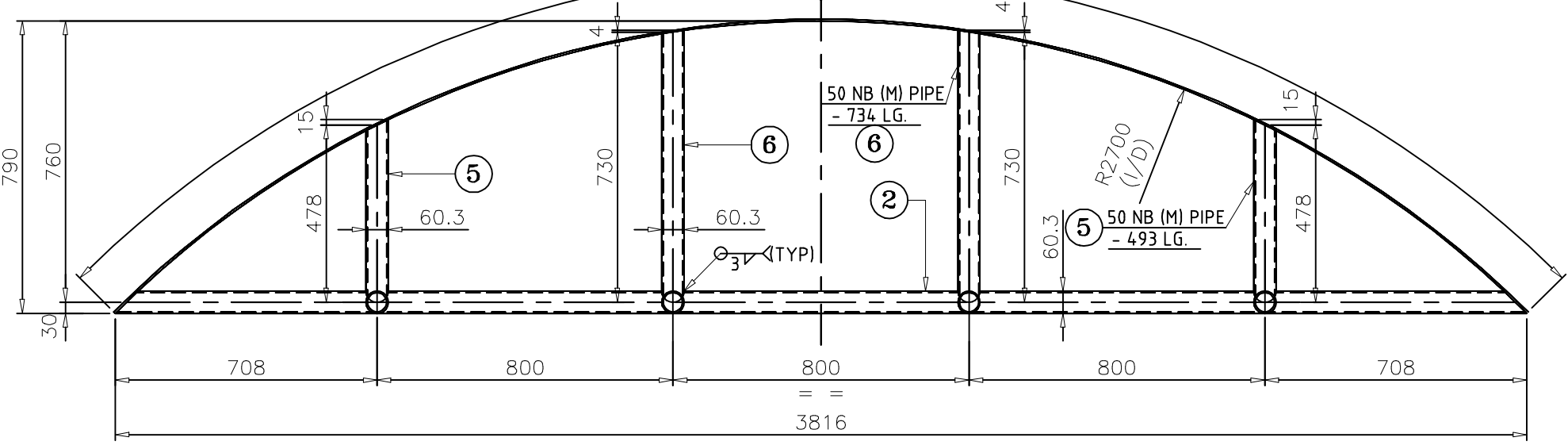
- NOTES:-**
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.50 FOR M-16 BOLTS UNID.
 3. ALL PERMANENT HOLES ARE 17.50 FOR M-16 BOLTS UNID.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNID.
 6. PERMANENT HOLES SHOWN THUS.
 7. ERECTION HOLES SHOWN THUS.
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 11. REF. DESIGN DRG. NO. PATRATRU-HOPPER TRANSITION-4TH FIELD
 12. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. /D02CSH. 1,2,3,4 OF 4)

NO.	DESCRIPTION	QTY	UNIT	MT
53	SH 1.8X281X1433	74.347		
52	ROD 6 DA	0.086		
51	ROD 8 DA	0.086		
50	ROD 6 DA	0.086		
49	PL 50687808	12.870		
48	50 NB(M) PIPE	0.850		
47	50 NB(M) PIPE	1.700		
46	PL 502063X3842	185.500		
45	PL 60100324	1.525		
44	PL 60100328	1.450		
43	PL 60100328	1.390		
42	PL 60100328	1.320		
41	PL 60100328	1.150		
40	PL 60100328	1.150		
39	PL 60100328	1.060		
38	PL 60100328	1.130		
37	PL 60100328	1.285		
36	PL 5010328	1.335		
35	PL 5010328	1.355		
34	PL 5010328	1.360		
33	PL 5010328	1.360		
32	PL 5010328	1.360		
31	PL 5010328	1.360		
30	PL 5010328	1.360		
29	PL 5010328	1.360		
28	PL 5010328	1.360		
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26	PL 5010328	1.360		
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7	PL 5010328	1.360		
6	PL 5010328	1.360		
5	PL 5010328	1.360		
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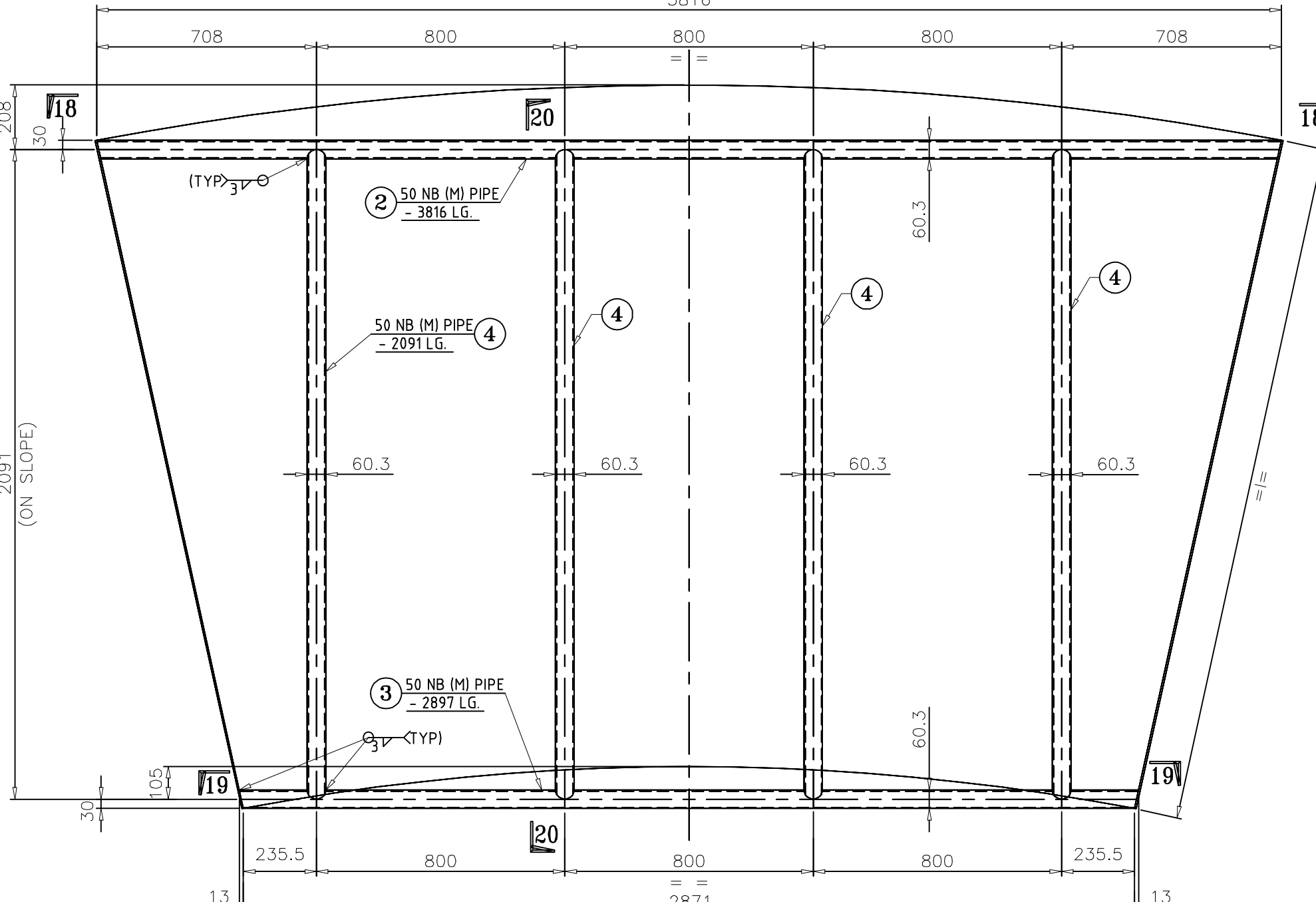
THIS DRAWING SHALL BE READ ALONG WITH
 0-79-845-01616
 0-79-845-01617
 0-79-845-01618
 0-79-845-01619



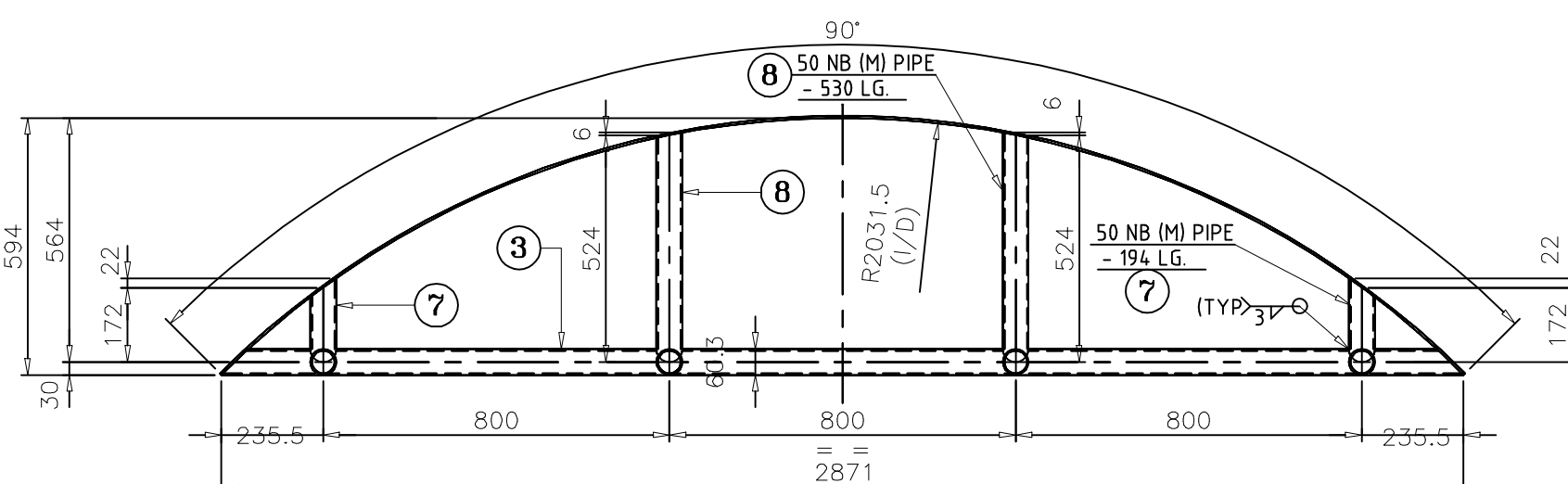
DEVELOPMENT OF LINER PLATE MKD. LP-1
(SCALE 1:20)



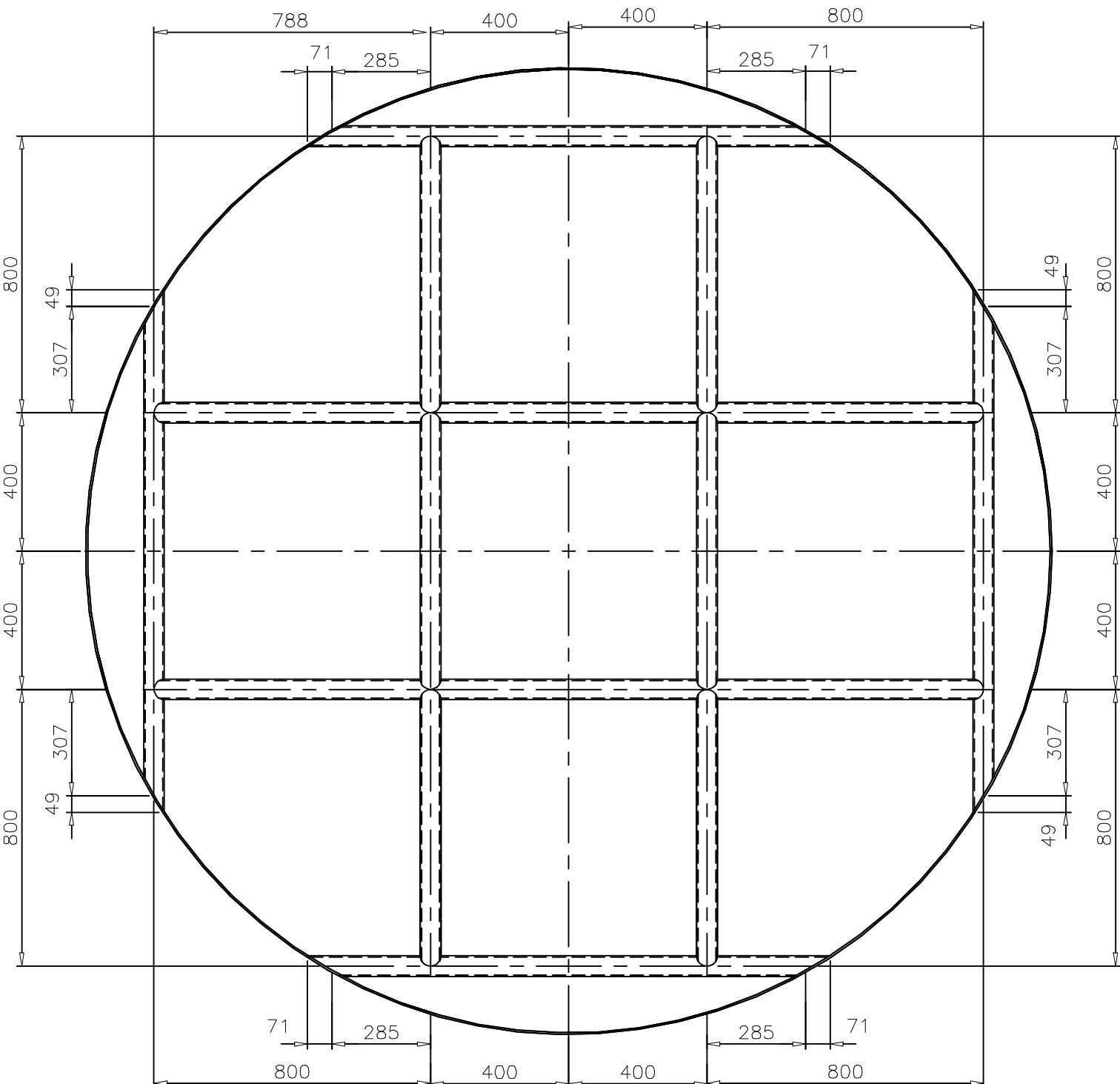
PLAN 18-18
(SCALE 1:20)



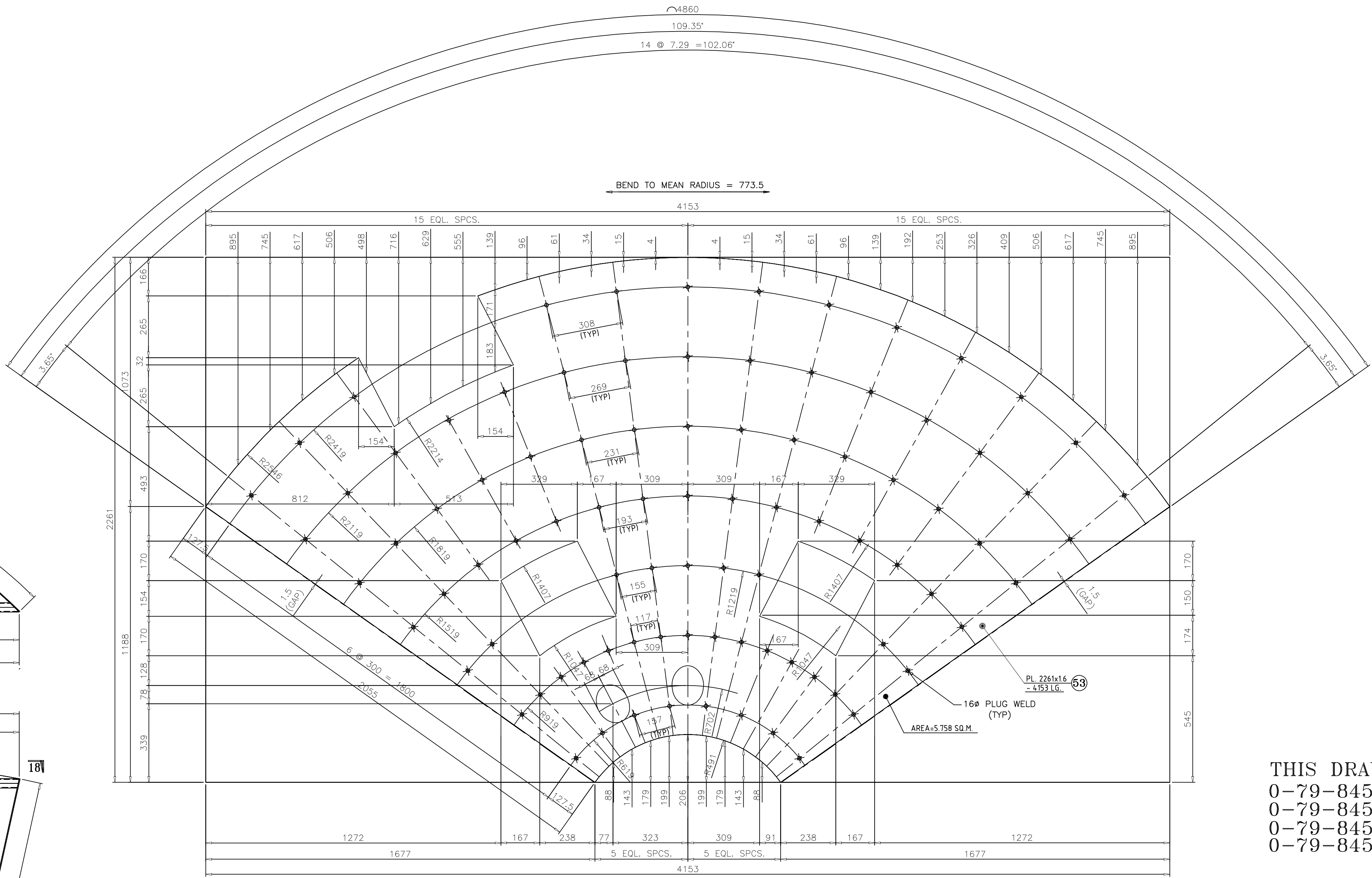
TRANSPORT STIFFENER ARRANGEMENT FOR COURSE MKD. CR-1
(REQD. 4 NOS.)



PLAN 19-19
(SCALE 1:20)



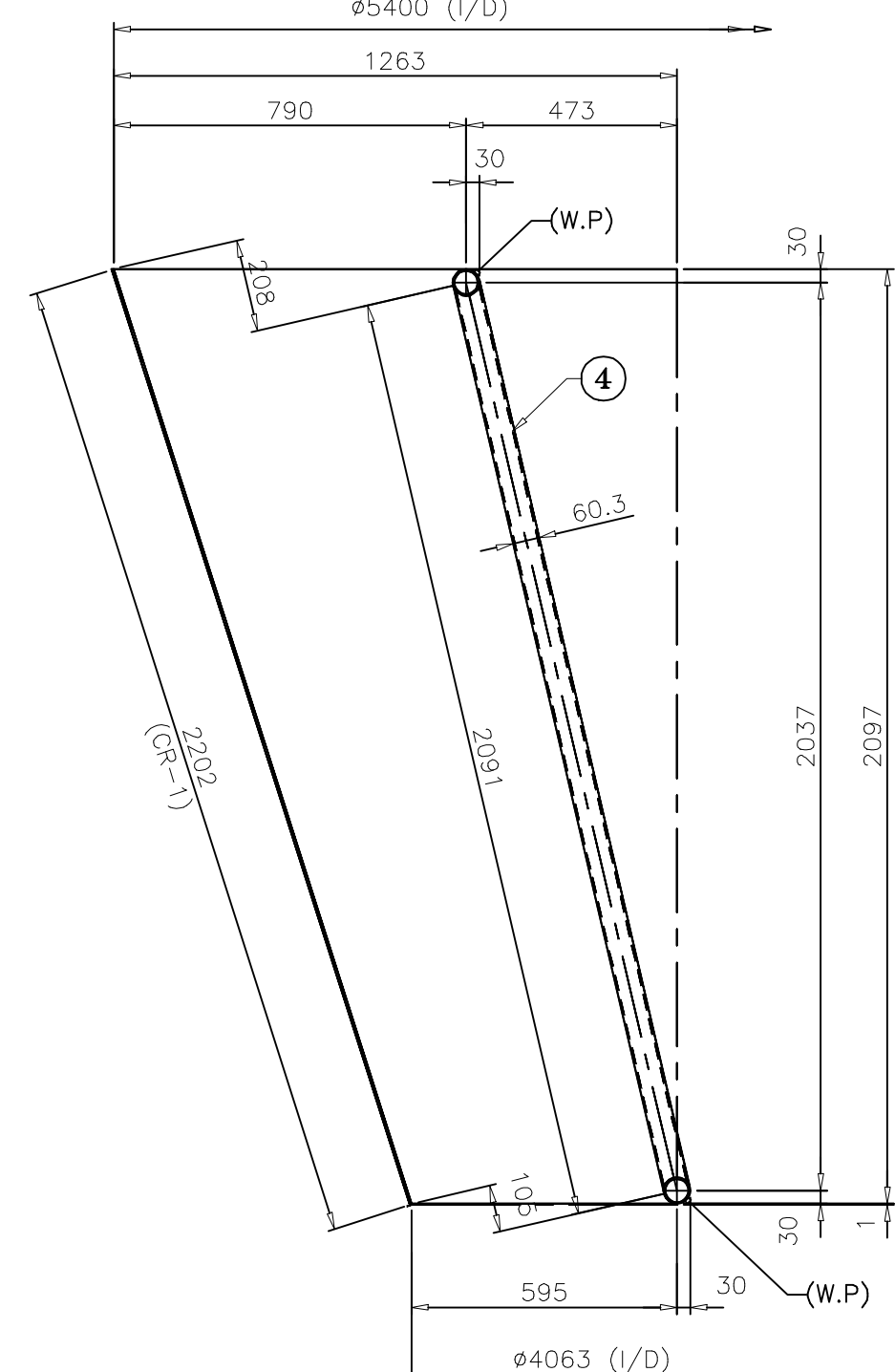
PLAN 24-24
(SCALE 1:20)



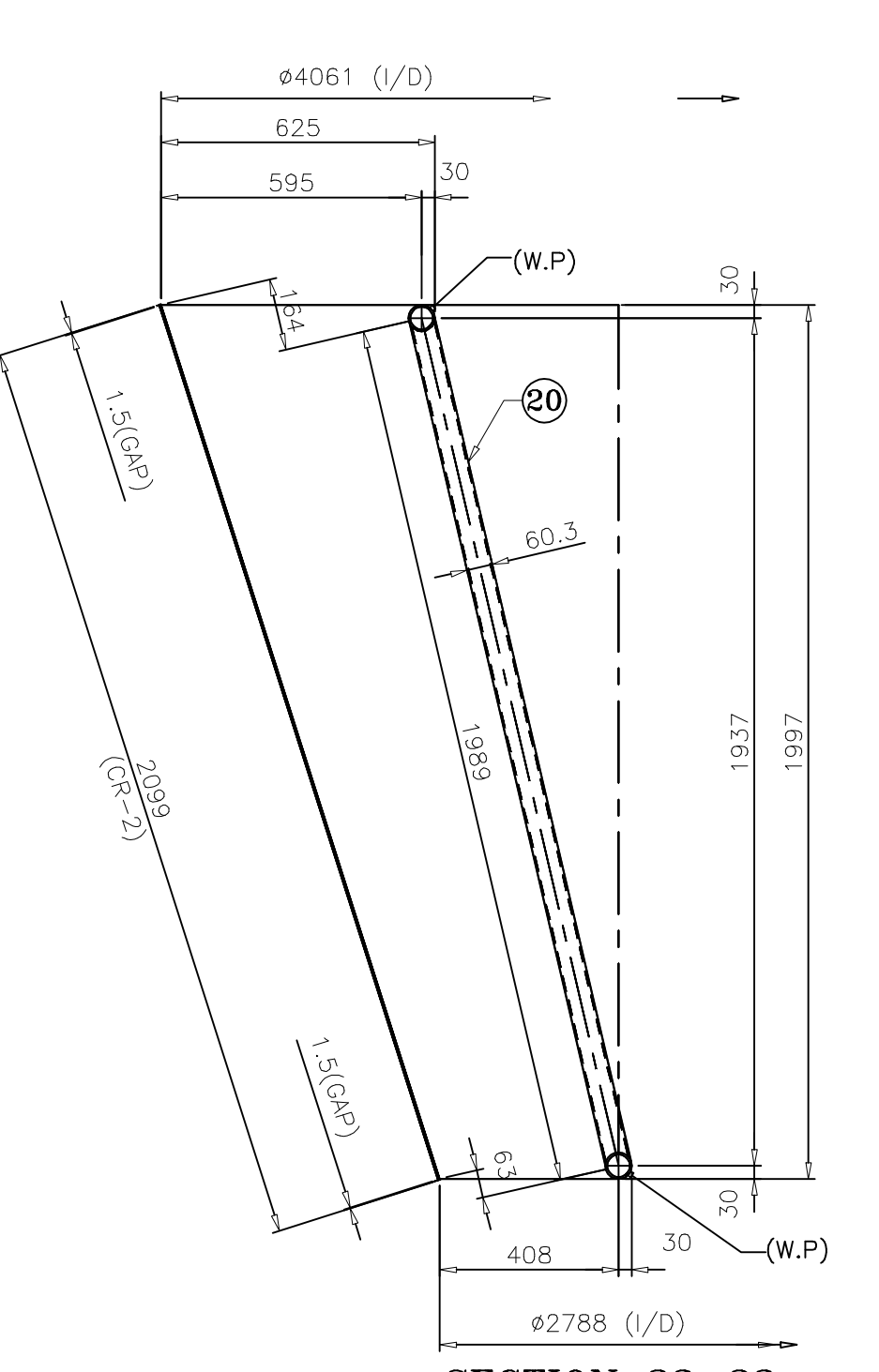
BEND TO MEAN RADIUS = 149

(SS LINERS SHOULD BE PLUG WELDED WITH BOTTOM HOPPER WALL AT SHOP)

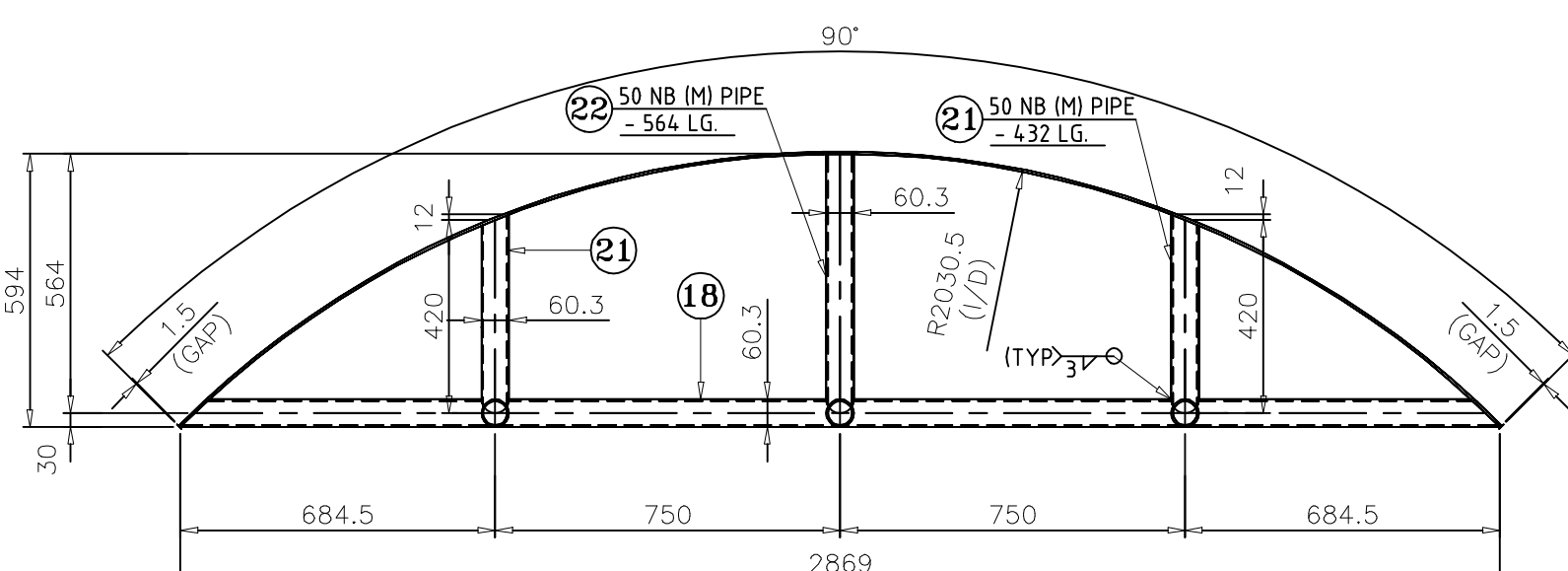
DETAIL OF ITEM NO. 53
(REQD. 1 NO.)
(SCALE 1:20)



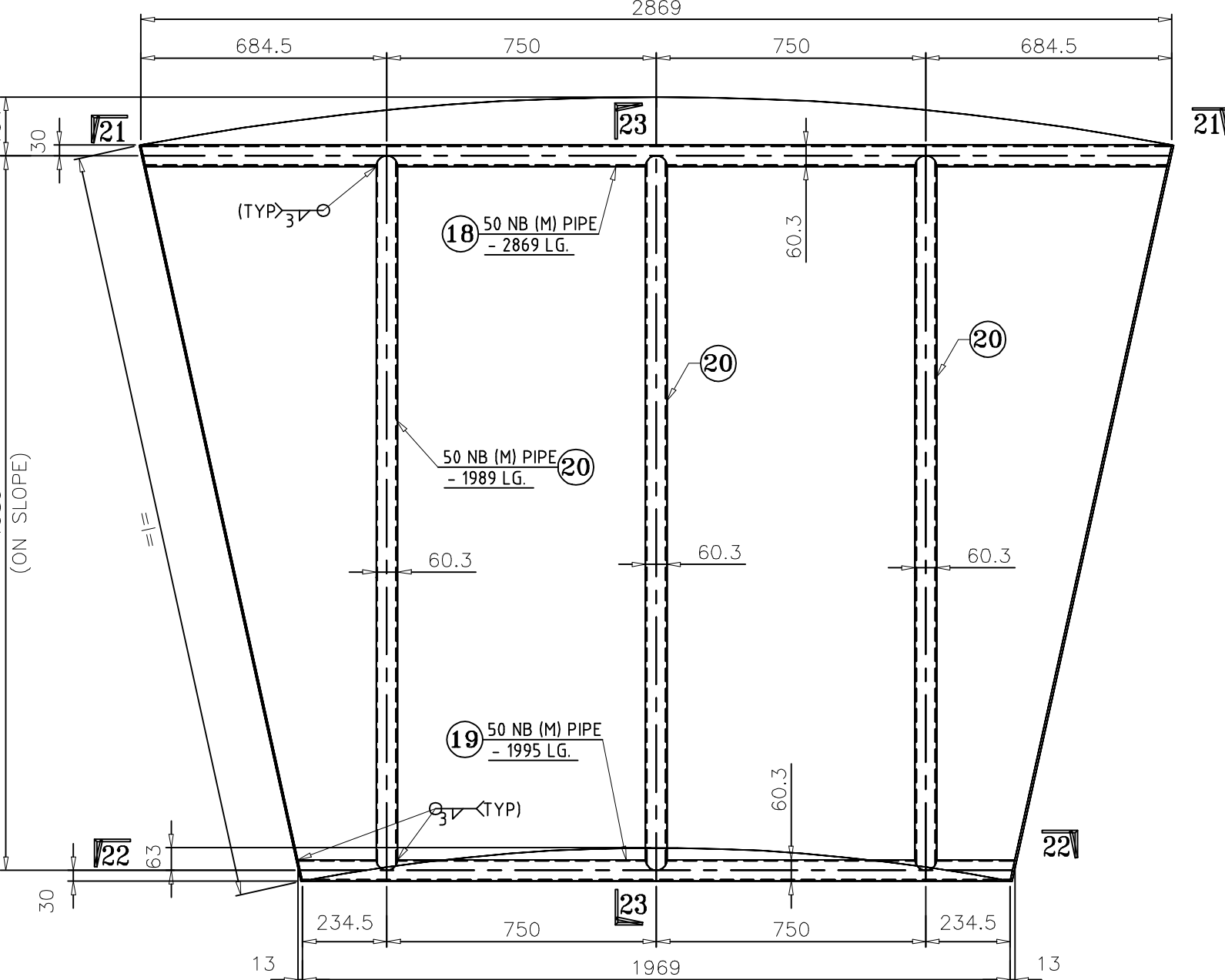
SECTION 20-20
(SCALE 1:20)



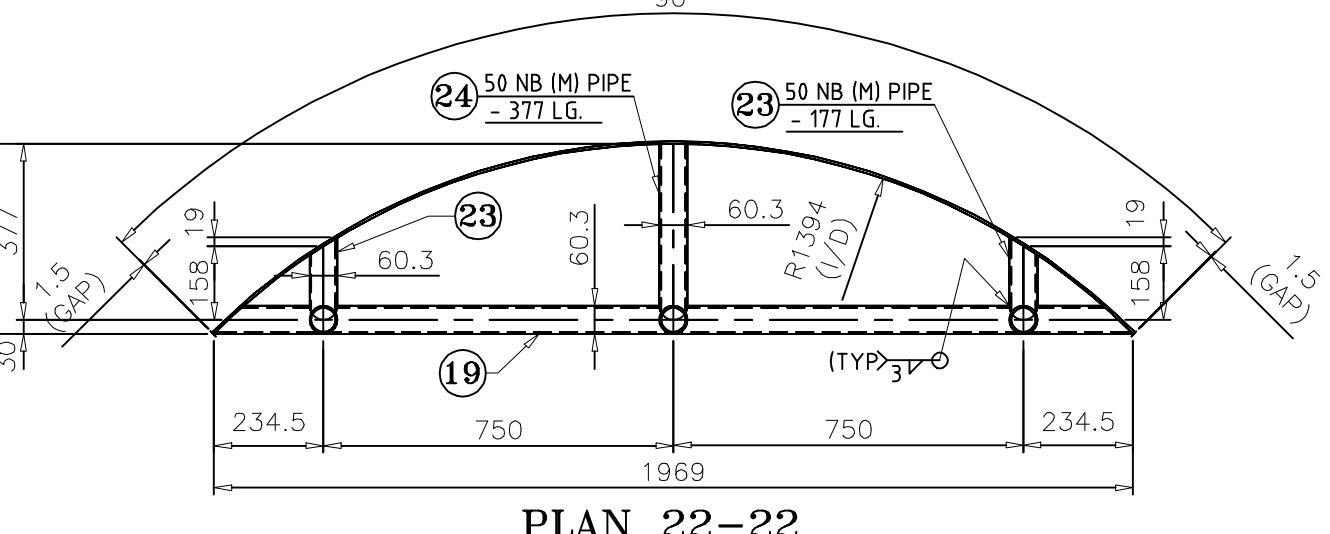
SECTION 22-23
(SCALE 1:20)



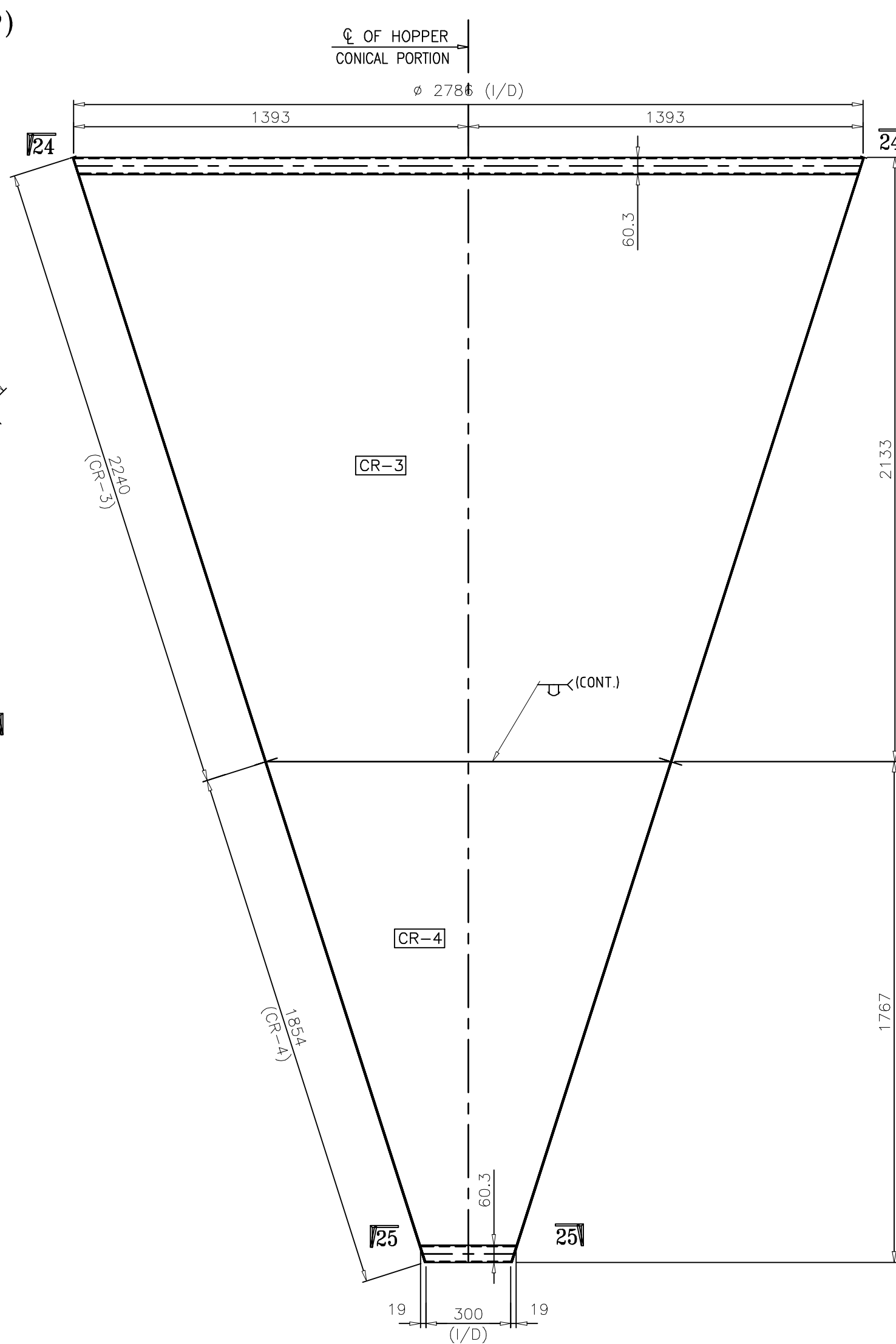
PLAN 21-21
(SCALE 1:20)



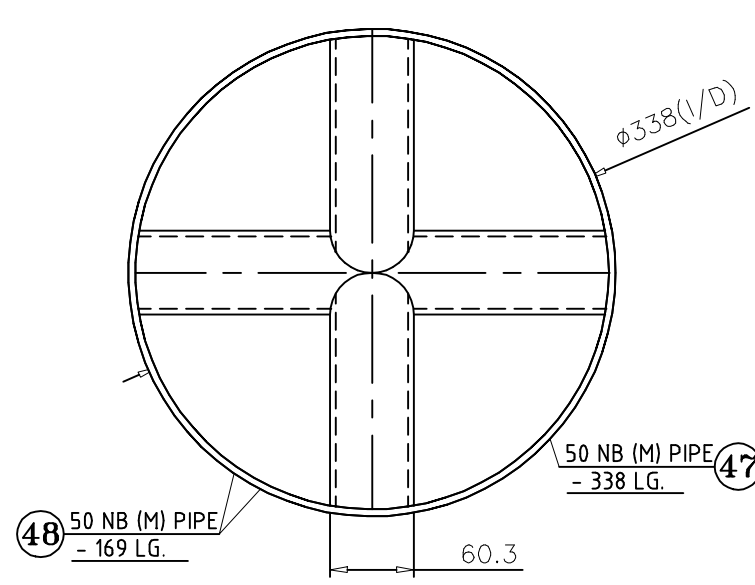
TRANSPORT STIFFENER ARRANGEMENT FOR COURSE MKD. CR-2
(REQD. 4 NOS.)



PLAN 22-22
(SCALE 1:20)



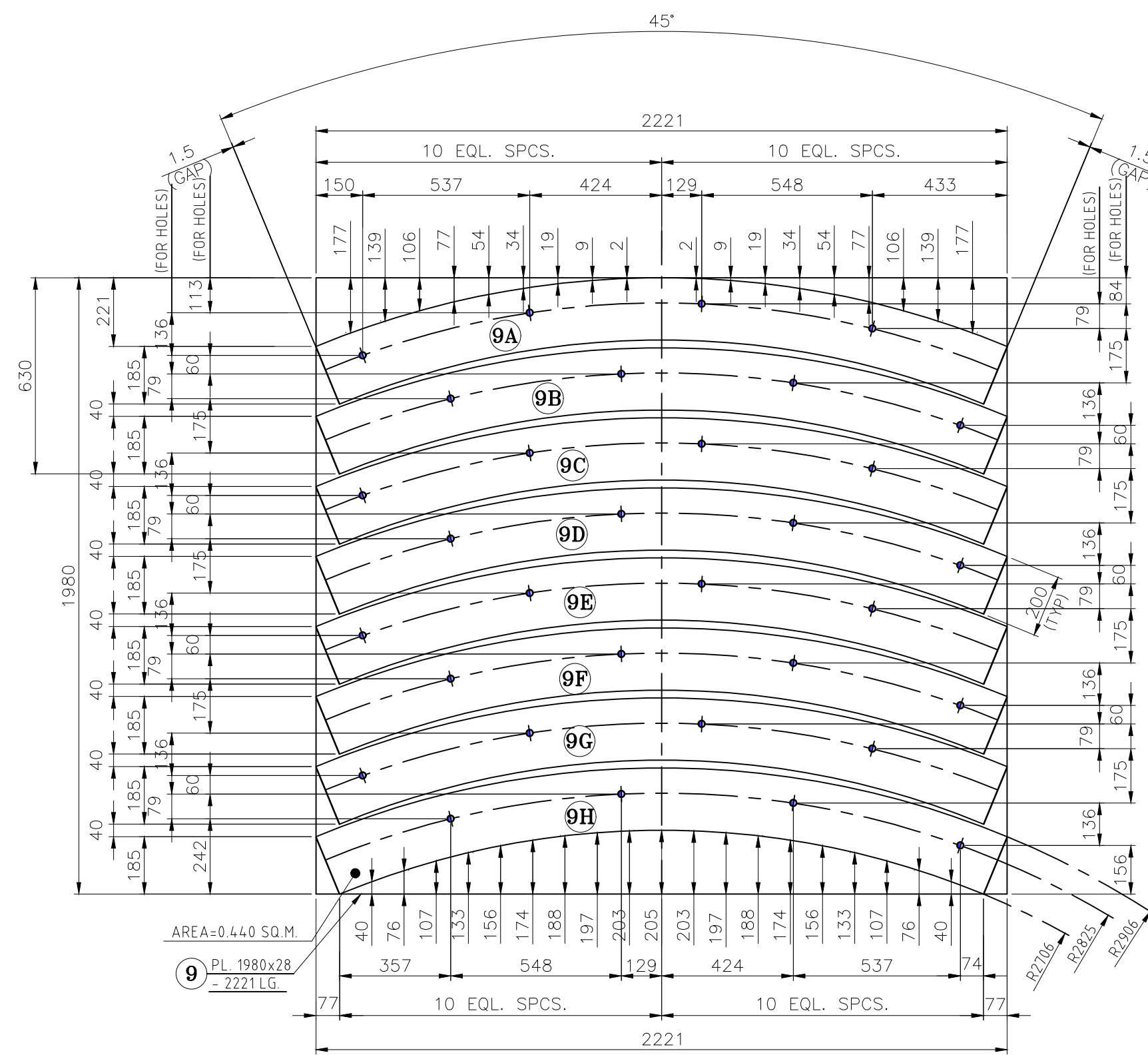
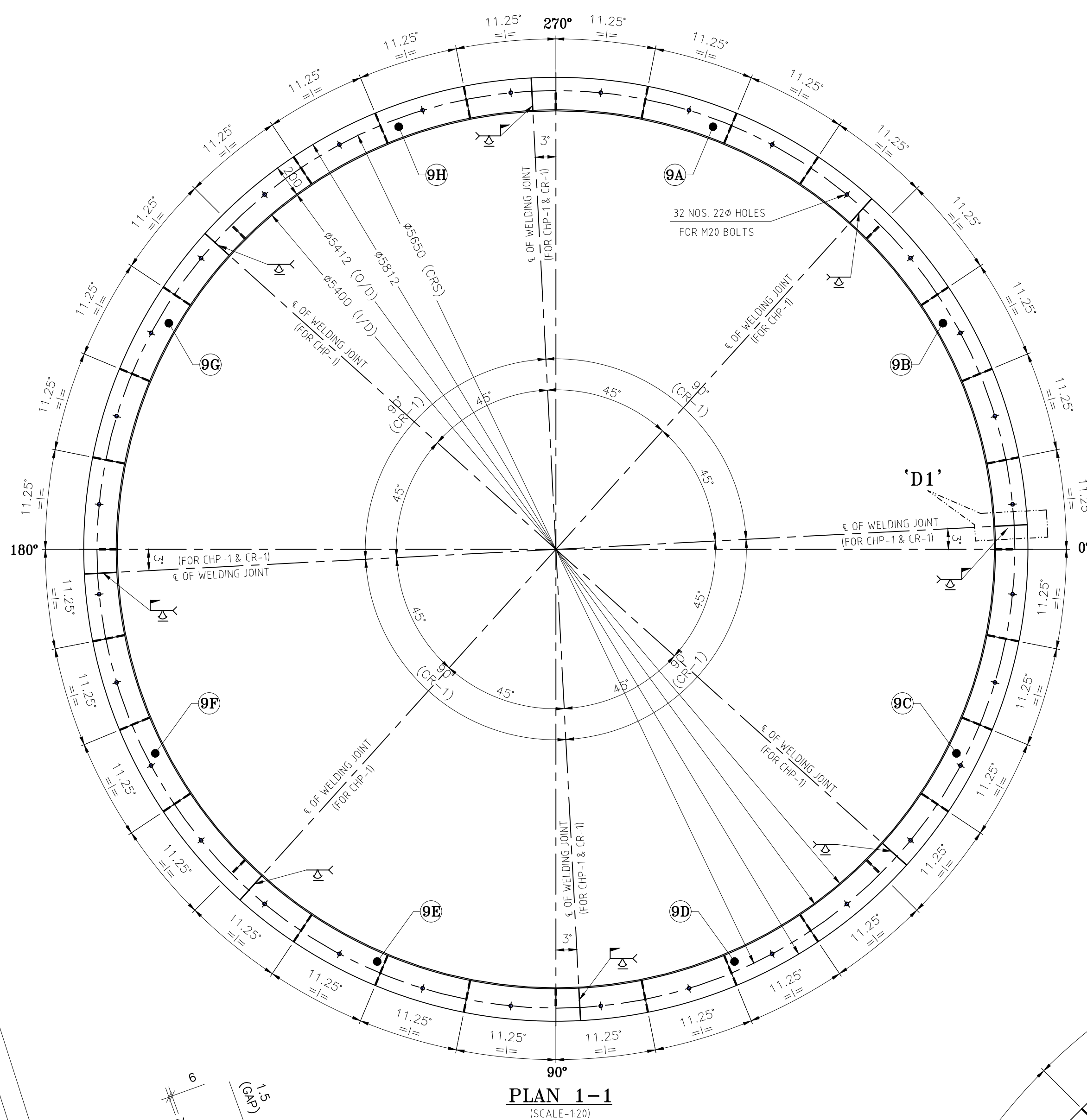
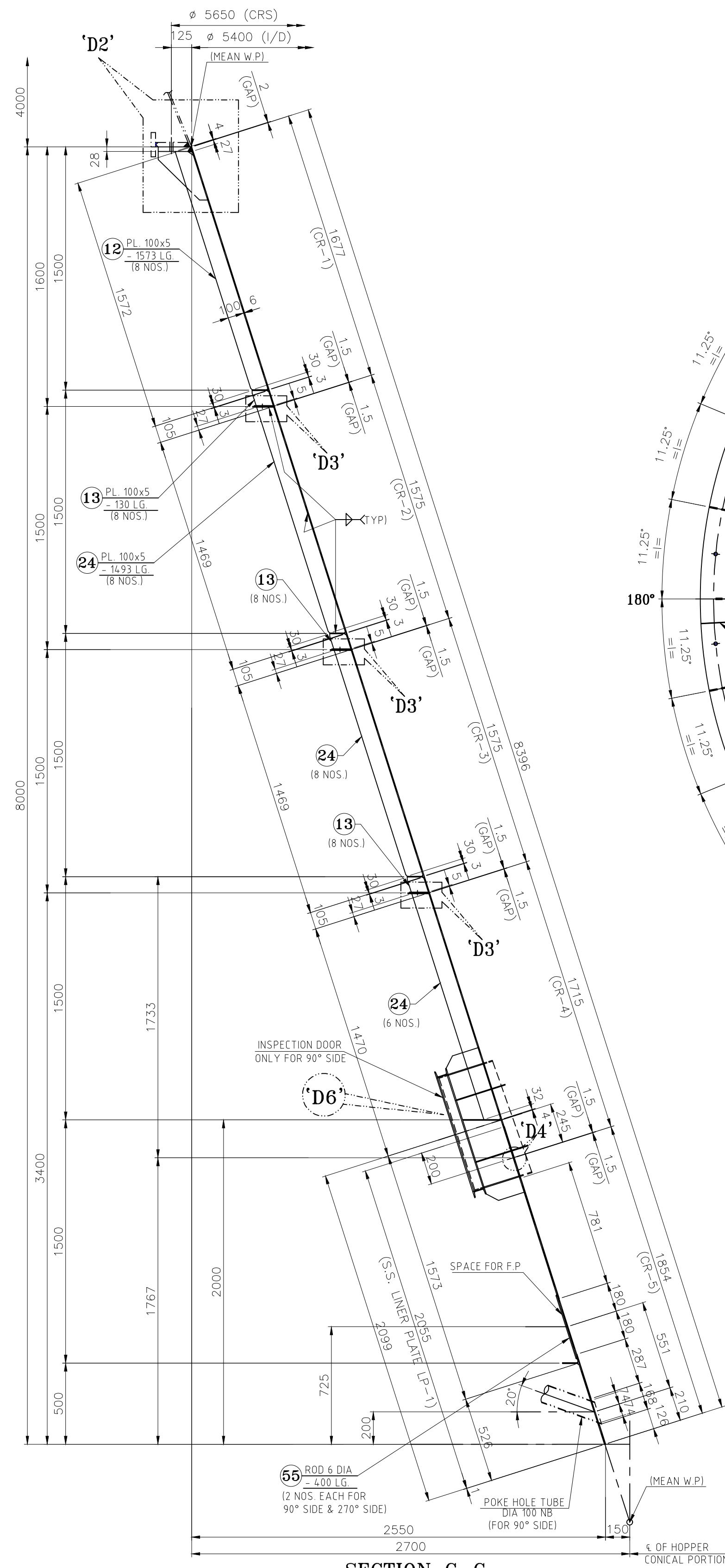
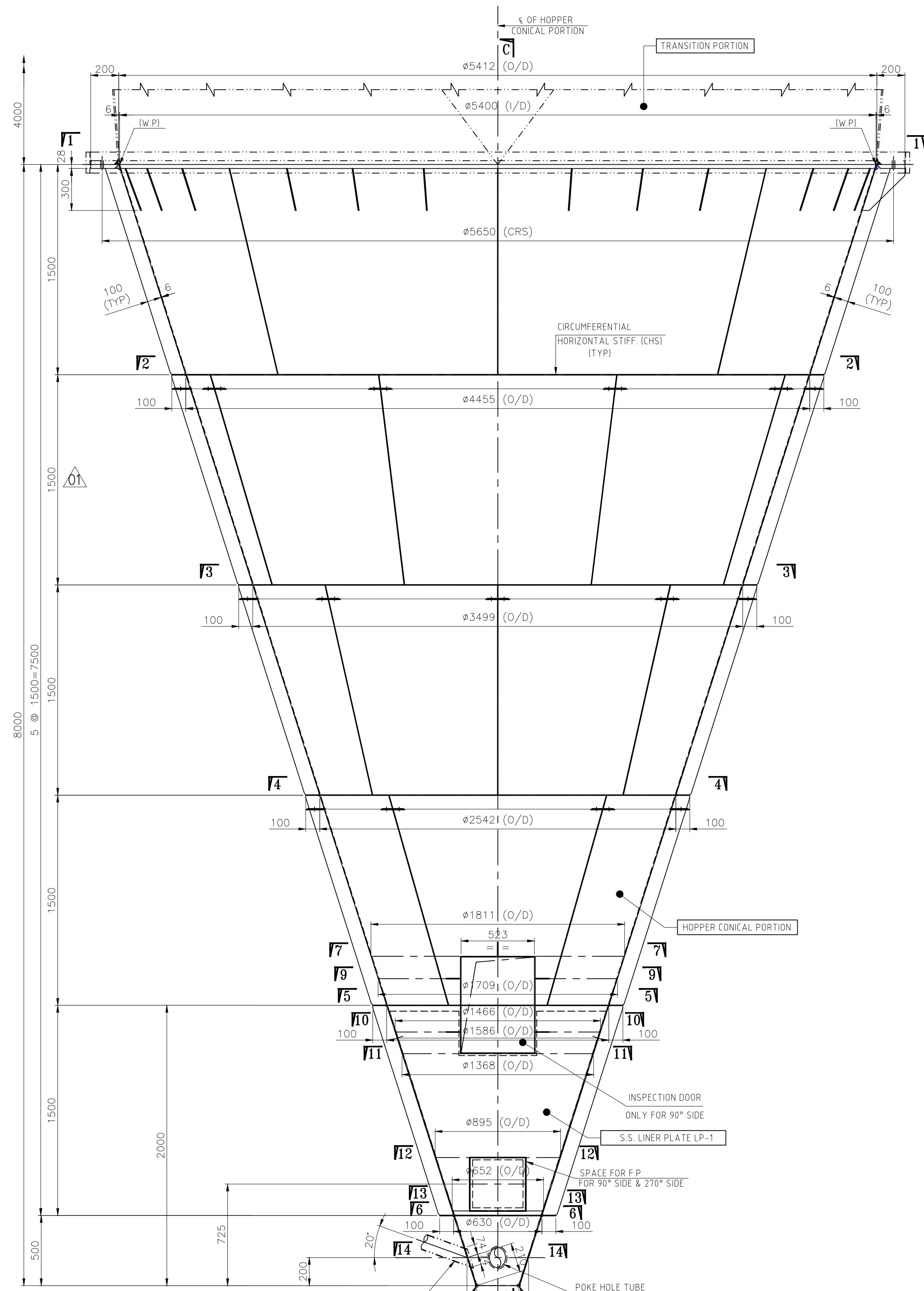
TRANSPORT STIFFENER ARRANGEMENT FOR COURSE MKD. CR-3 & CR-4
(REQD. 1 NO.)



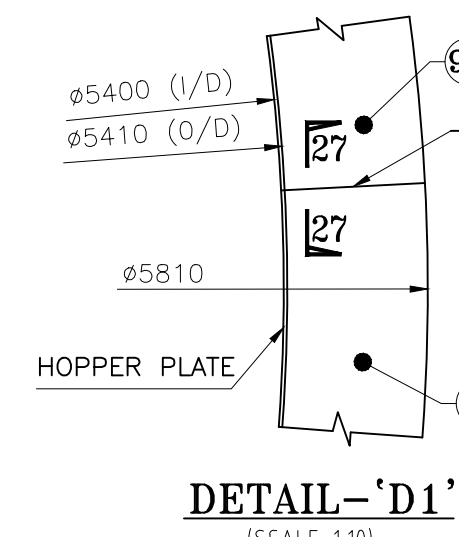
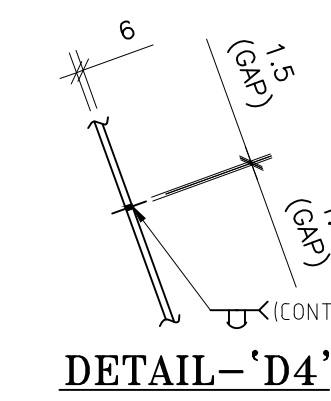
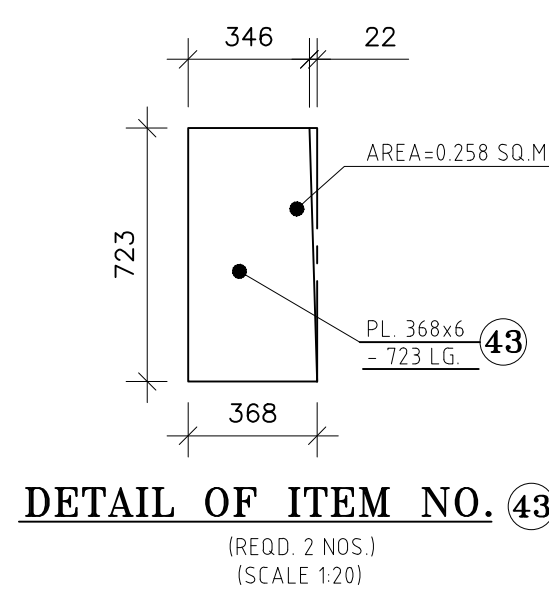
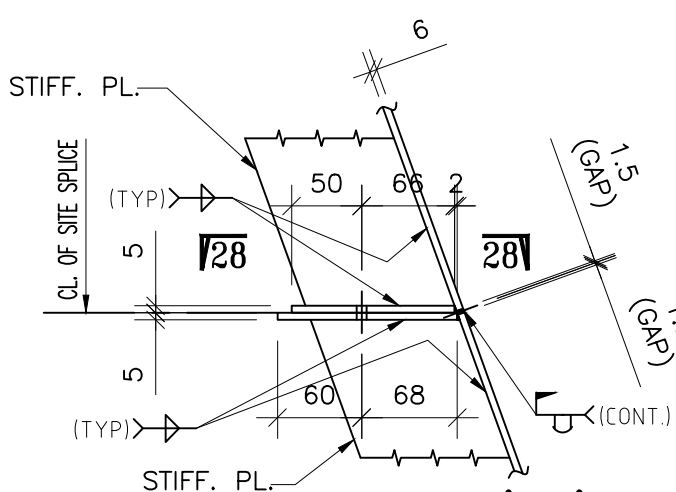
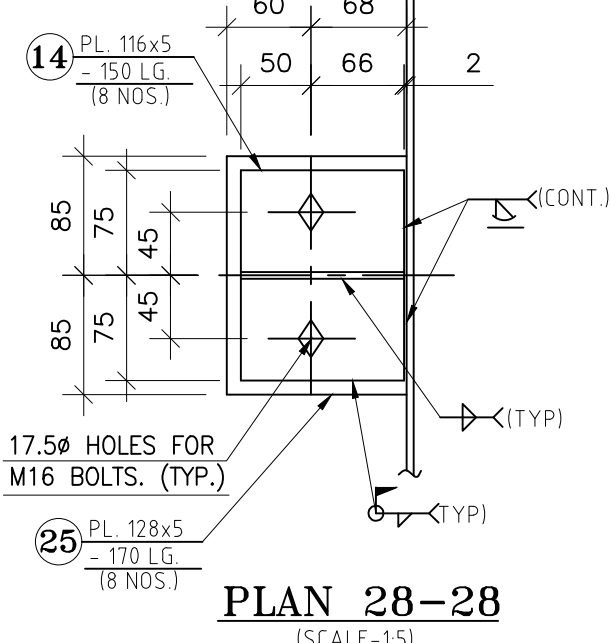
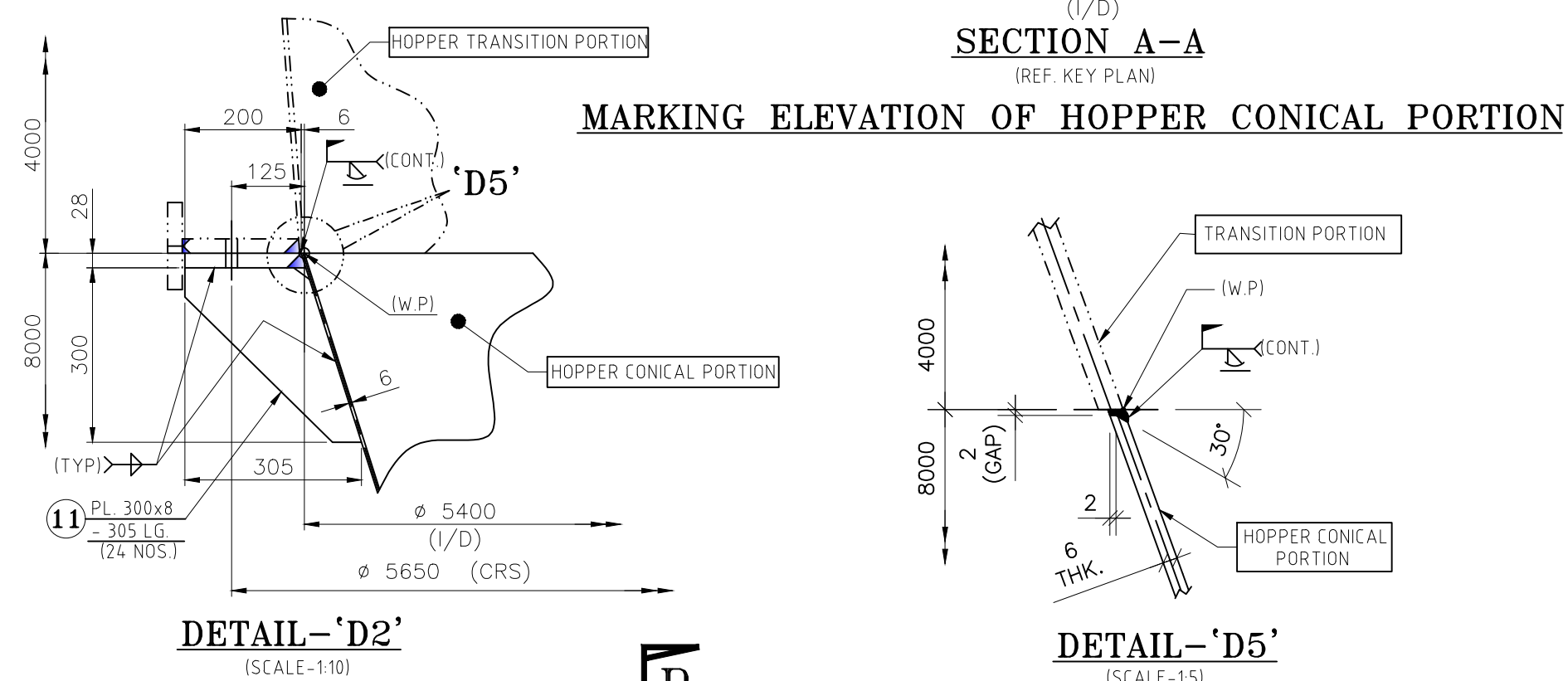
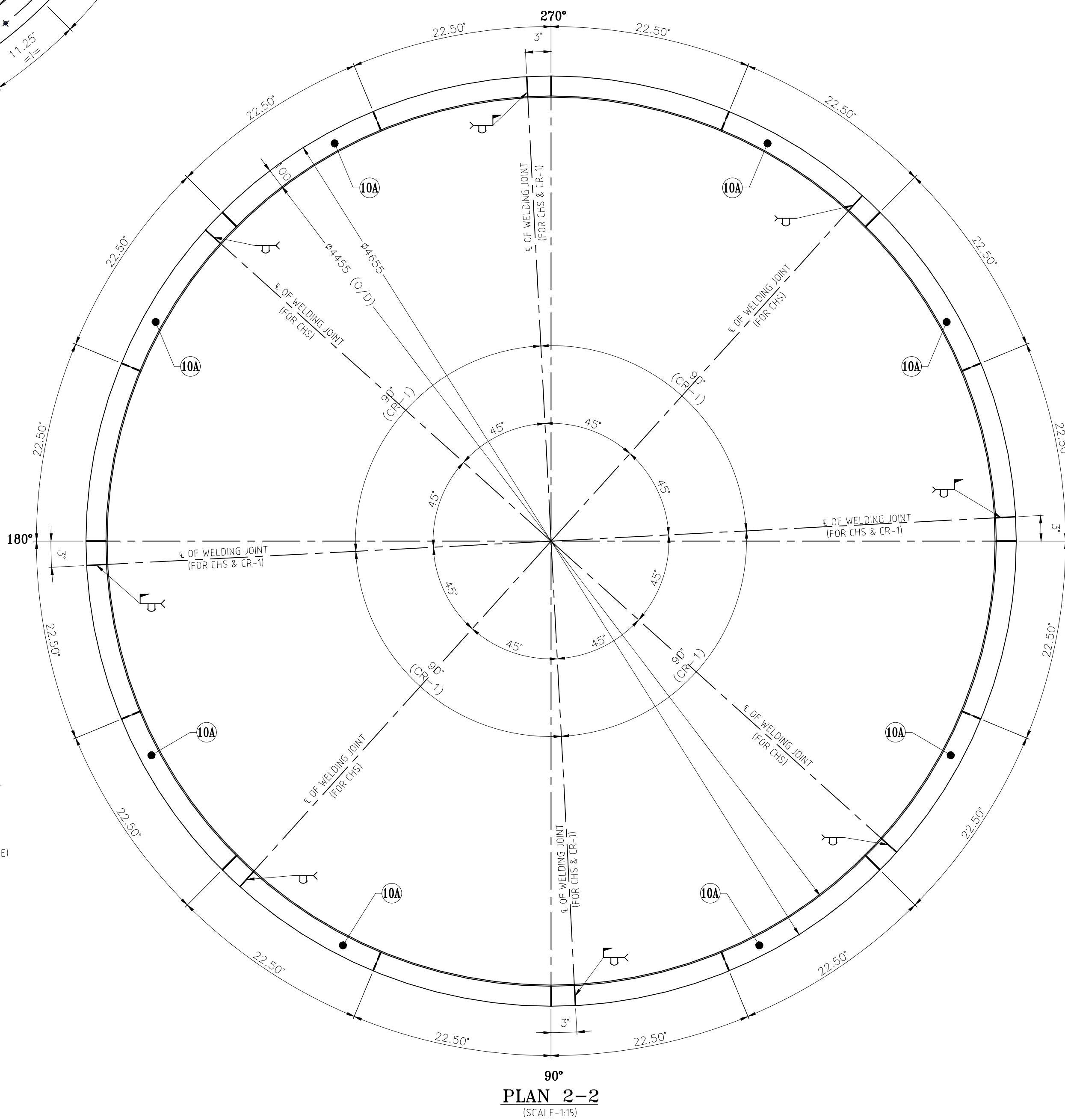
PLAN 25-25
(SCALE 1:20)

REV.	DATE	ALTERED	YOGES
01	09.04.19	CHECKED	B.V. REDDY

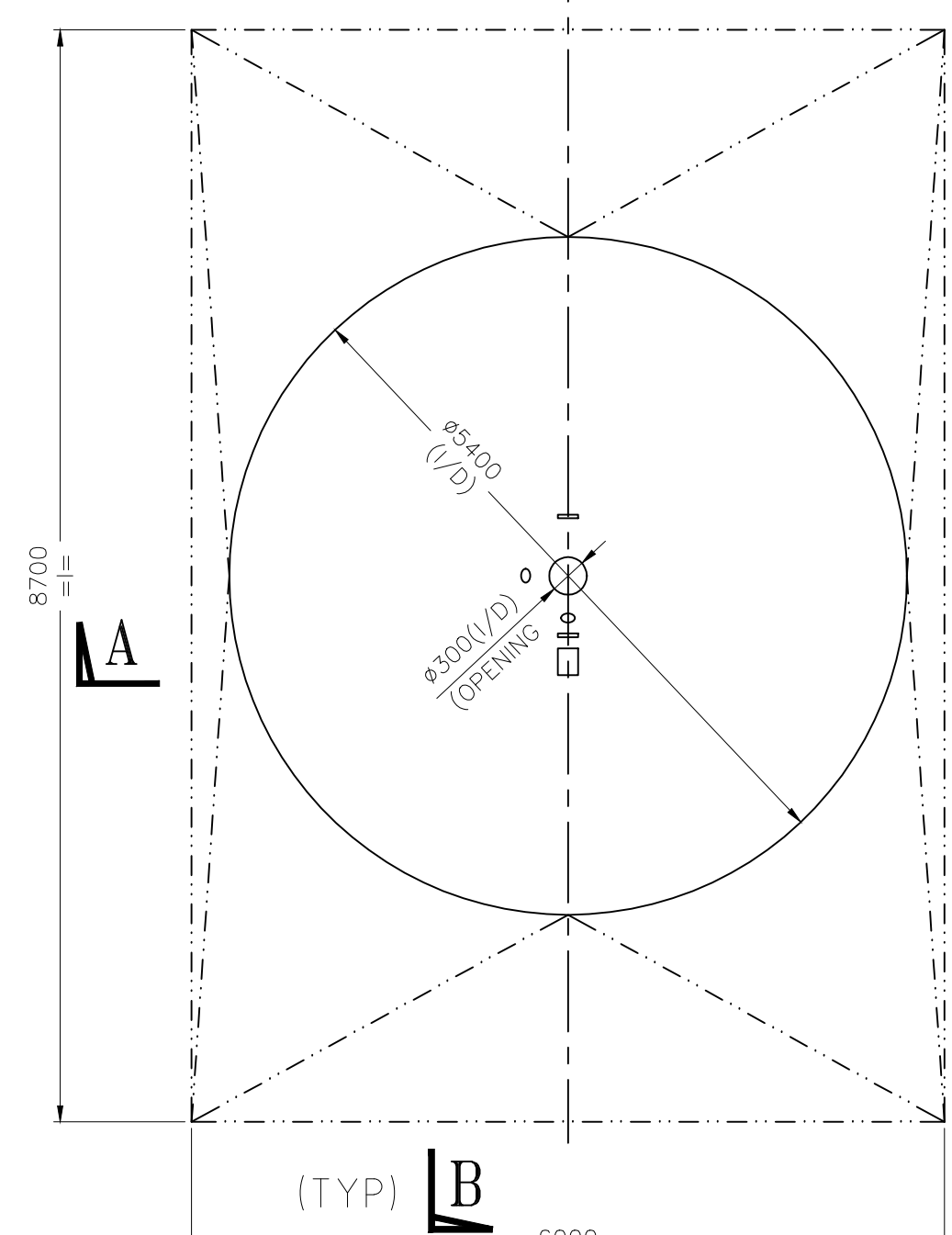
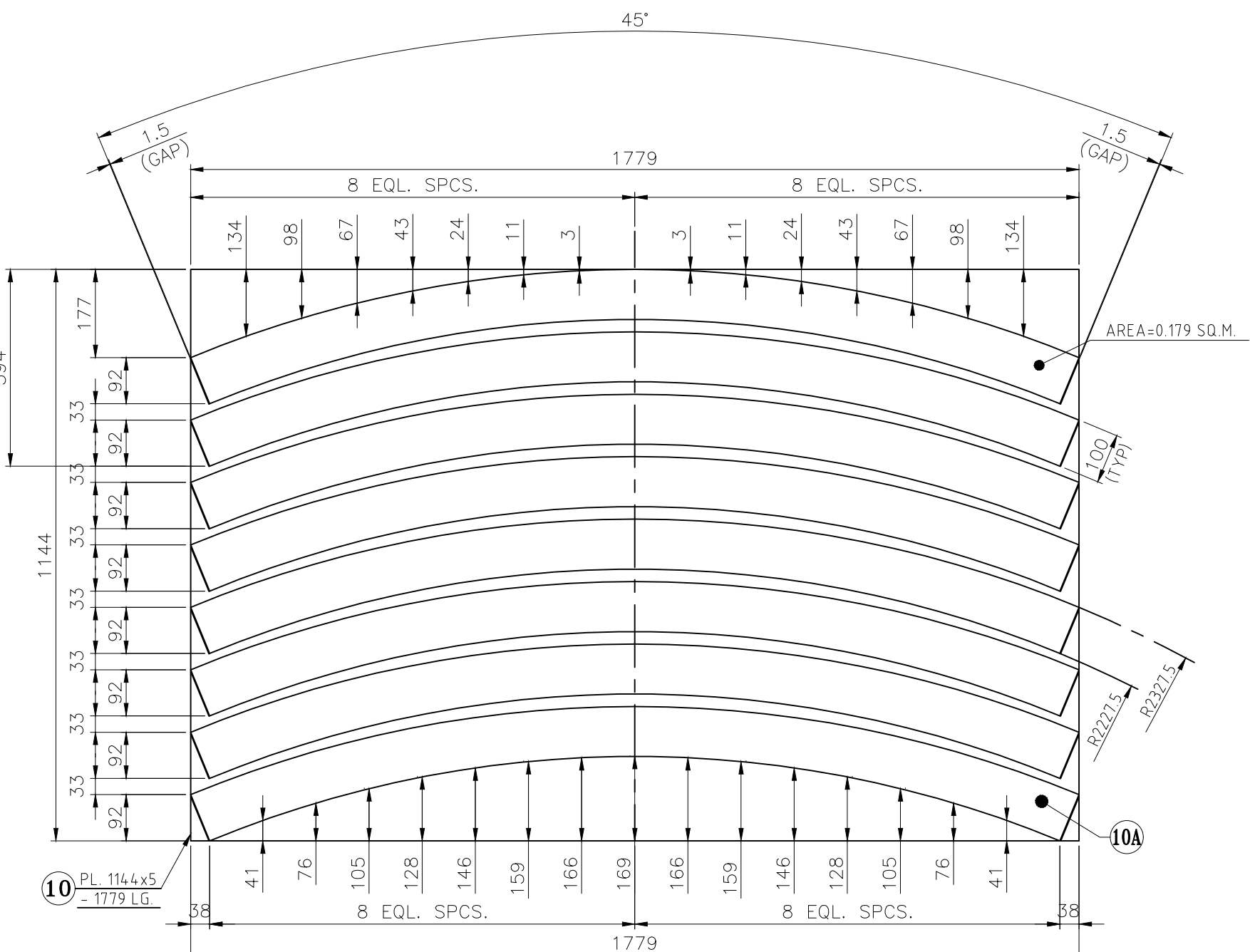
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME		SIGN		DATE		NO. OF	
BHARAT HEAVY ELECTRICALS LTD.		B.V. REDDY				09.04.19		1	
UNIT: BOILER, AUXILIARIES PLANT		C. GANESH							
RANIPET - 632 406.		SCALE		WEIGHT (KG)		REF. TO ASSY/OLD DRG.		REV. NO.	
DEPT. ACQ. GRADE OF UNITS/DWG. CODE 802		SCALE		WEIGHT (KG)		REF. TO ASSY/OLD DRG.		REV. NO.	
TITLE		CARD CODE		DRAWING NO.		REV.		REV.	
HOPPER CONICAL PORTION		U 01		0-79-845-01619		01			
DEVELOPMENT OF COURSE MKD. CR-1 TO CR-4 & LP-1									

CUTTING DETAIL OF ITEM NO. 9A TO 9H
PLATE ITEM NO. 9 (REQD. 1 NO.)

(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS TO BE WELDED WITH EACH HOPPER SEGMENT)

SECTION 27-27
(SAME DETAILS SHALL BE FOLLOWED FOR WELDING AT SITE)

DETAIL - D6' (SCALE-1:20)

MARKING PLAN OF HOPPER
CONICAL PORTION (1TH FIELD)CUTTING DETAIL OF ITEM NO. 10
PLATE ITEM NO. 10 (REQD. 1 NO.)

(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS TO BE WELDED WITH EACH HOPPER SEGMENT)

NOTES:-

1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
3. ALL PERMANENT HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK. UND.
6. PERMANENT HOLES SHOWN THUS. . . .
7. ERECTION HOLES SHOWN THUS. . . .
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD

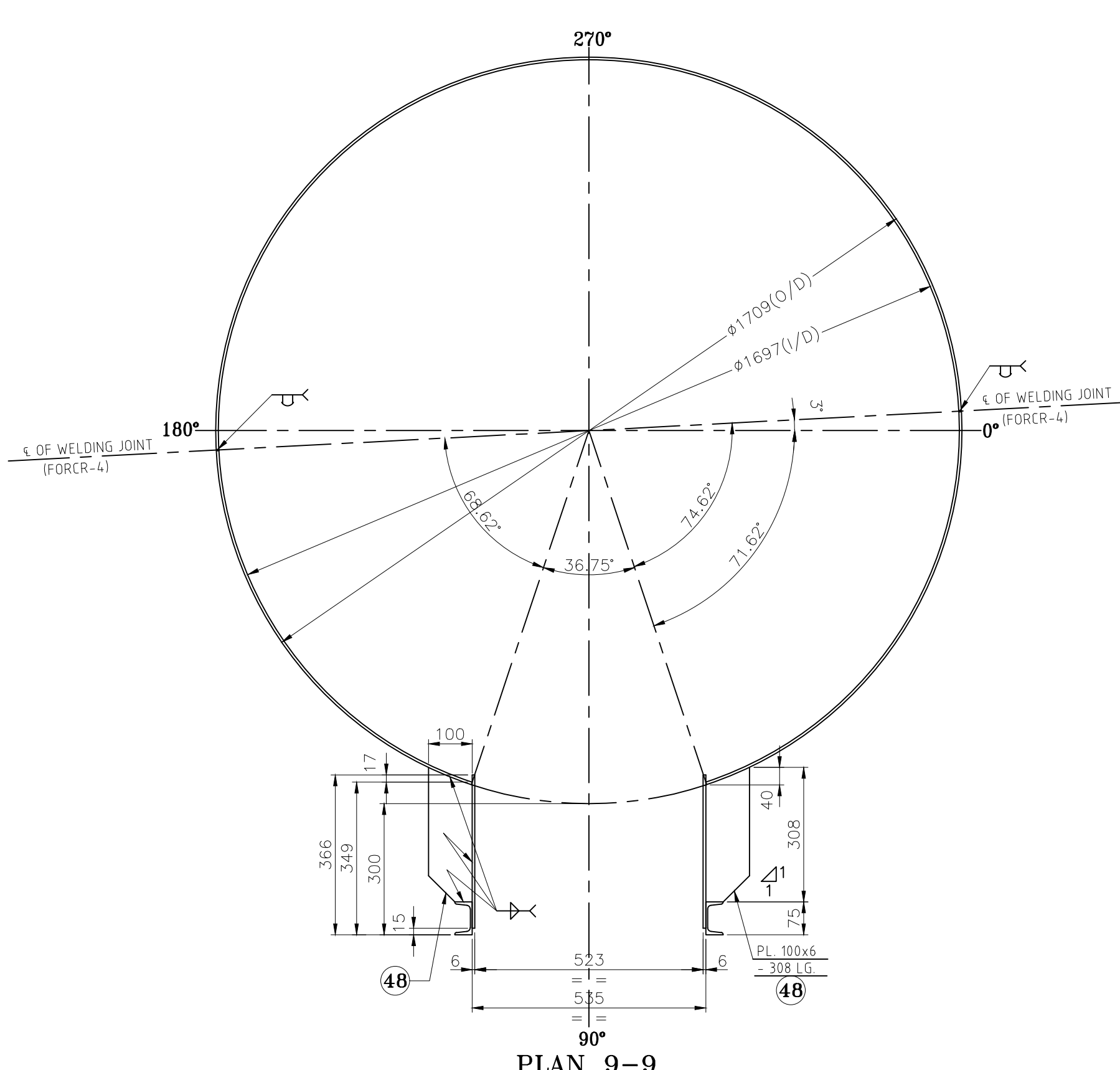
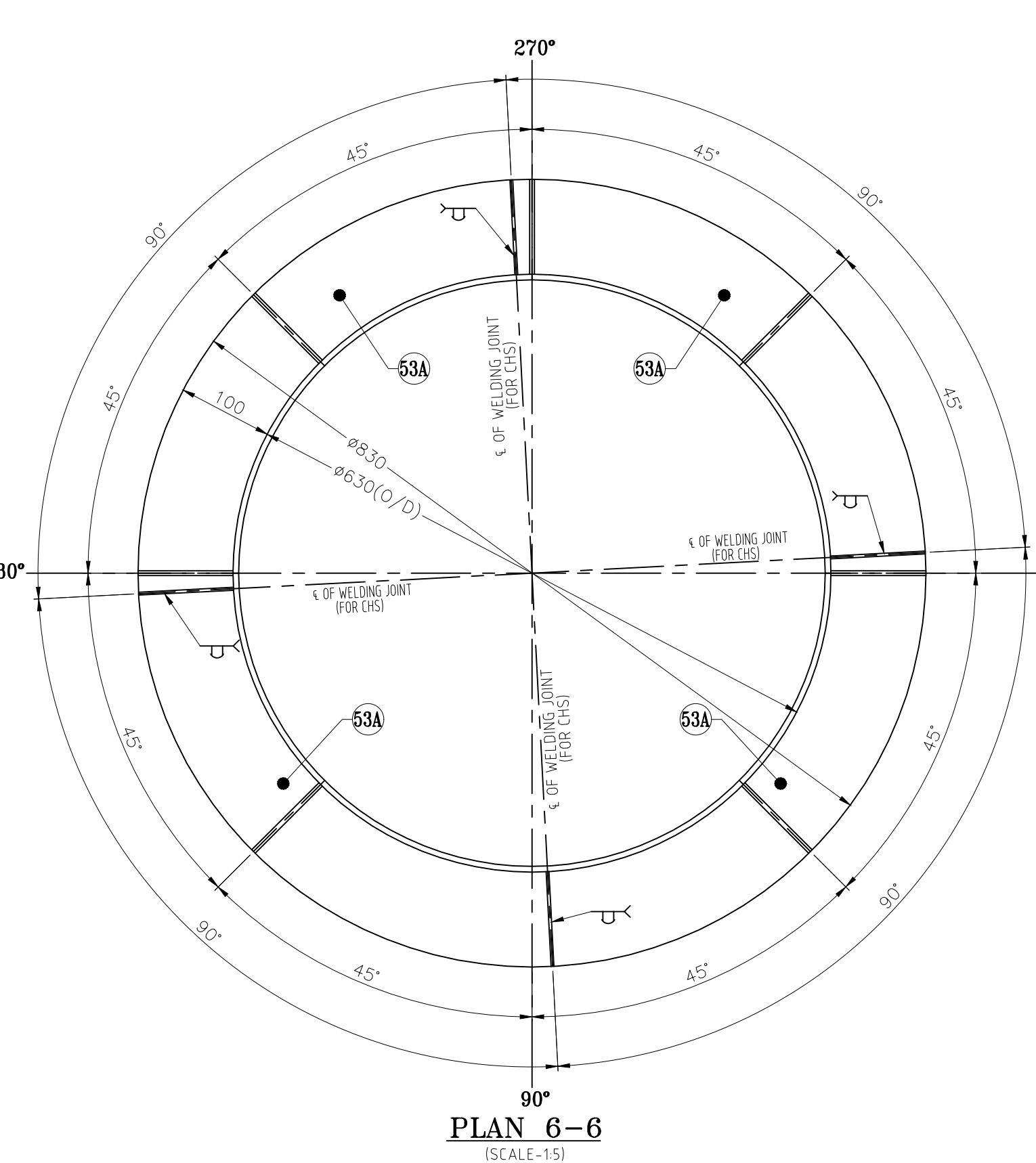
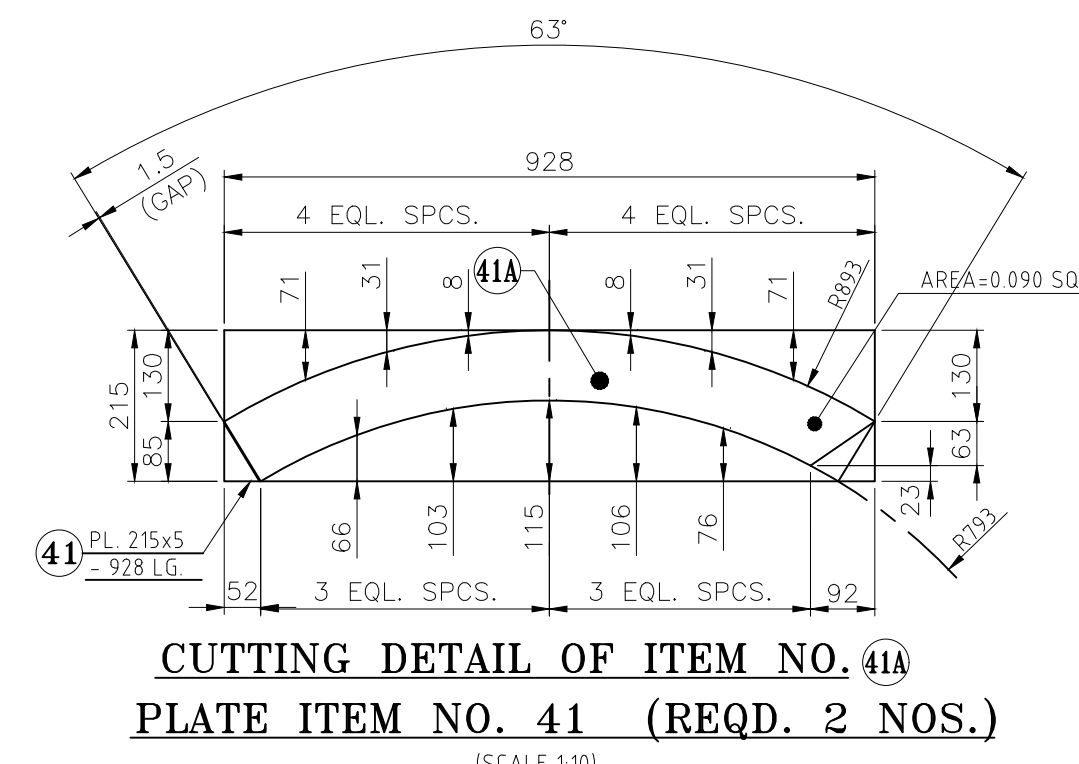
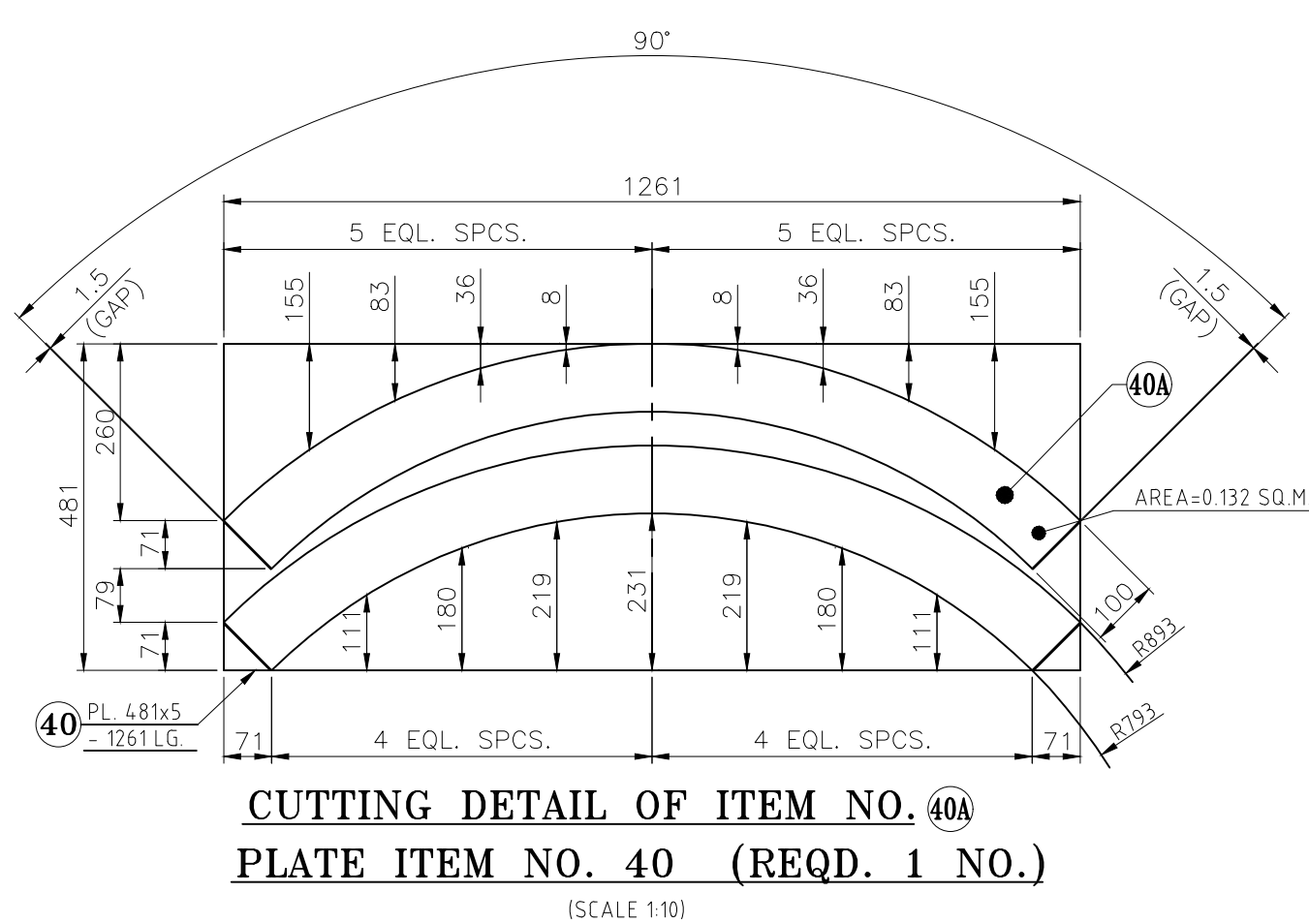
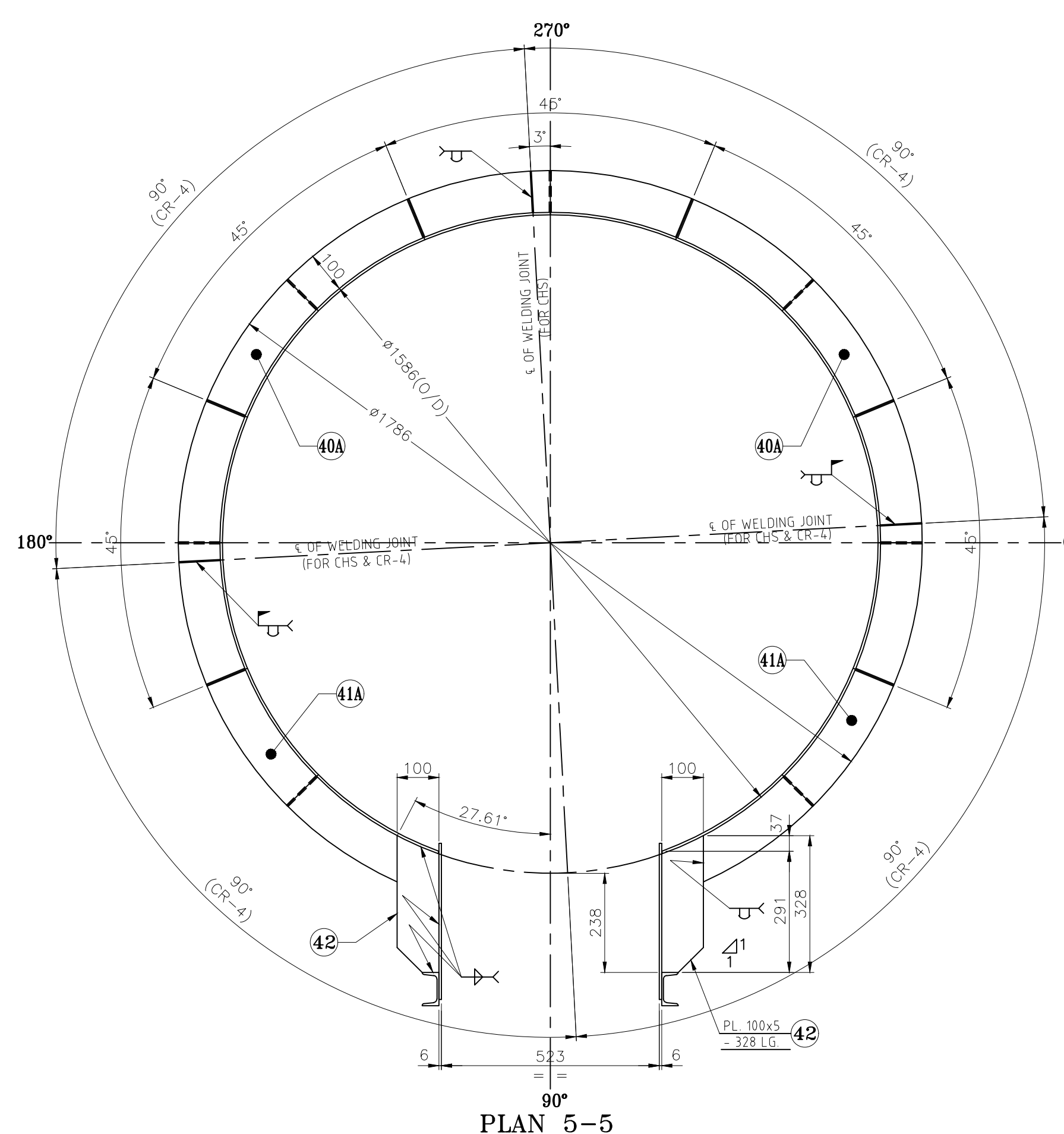
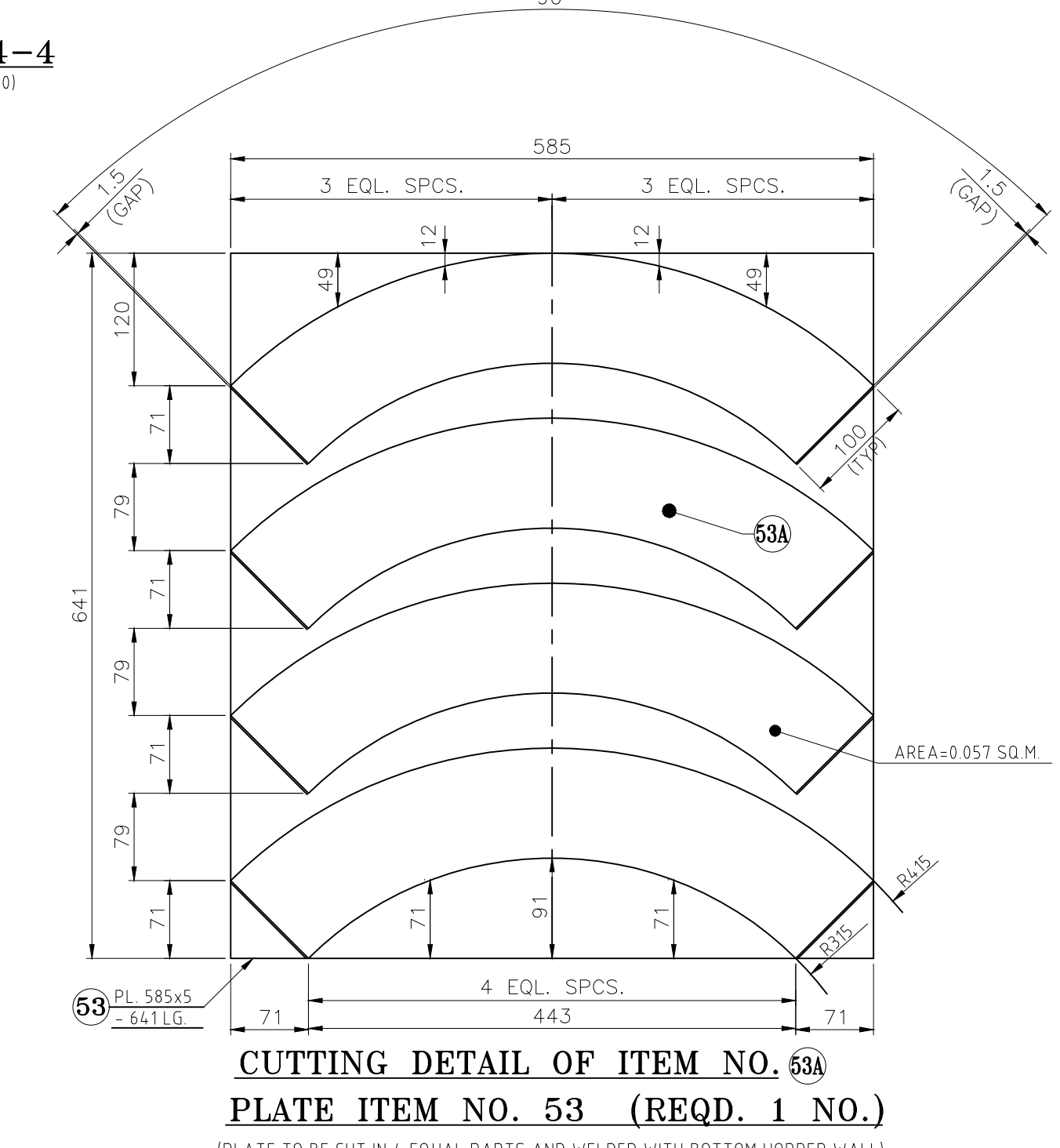
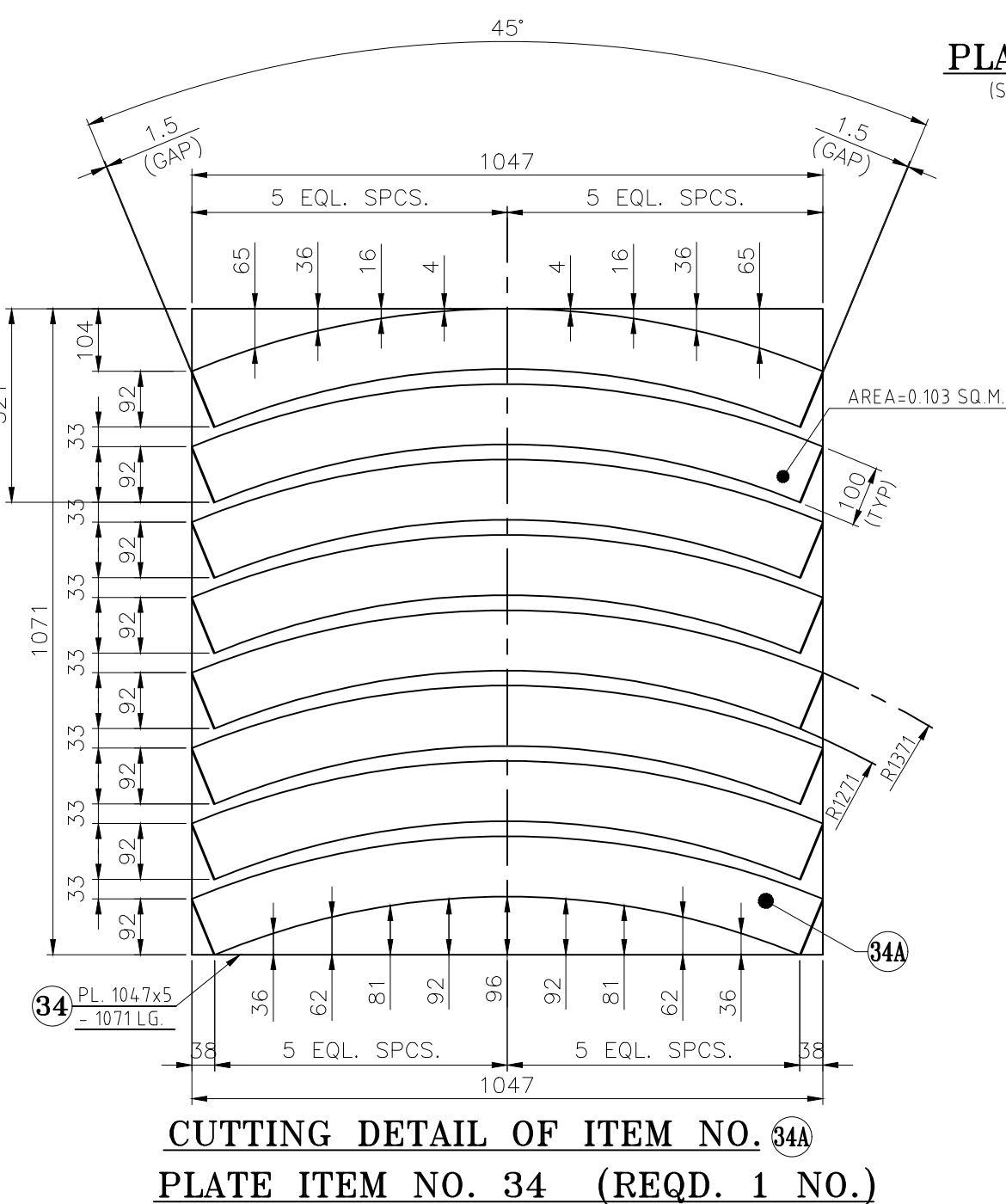
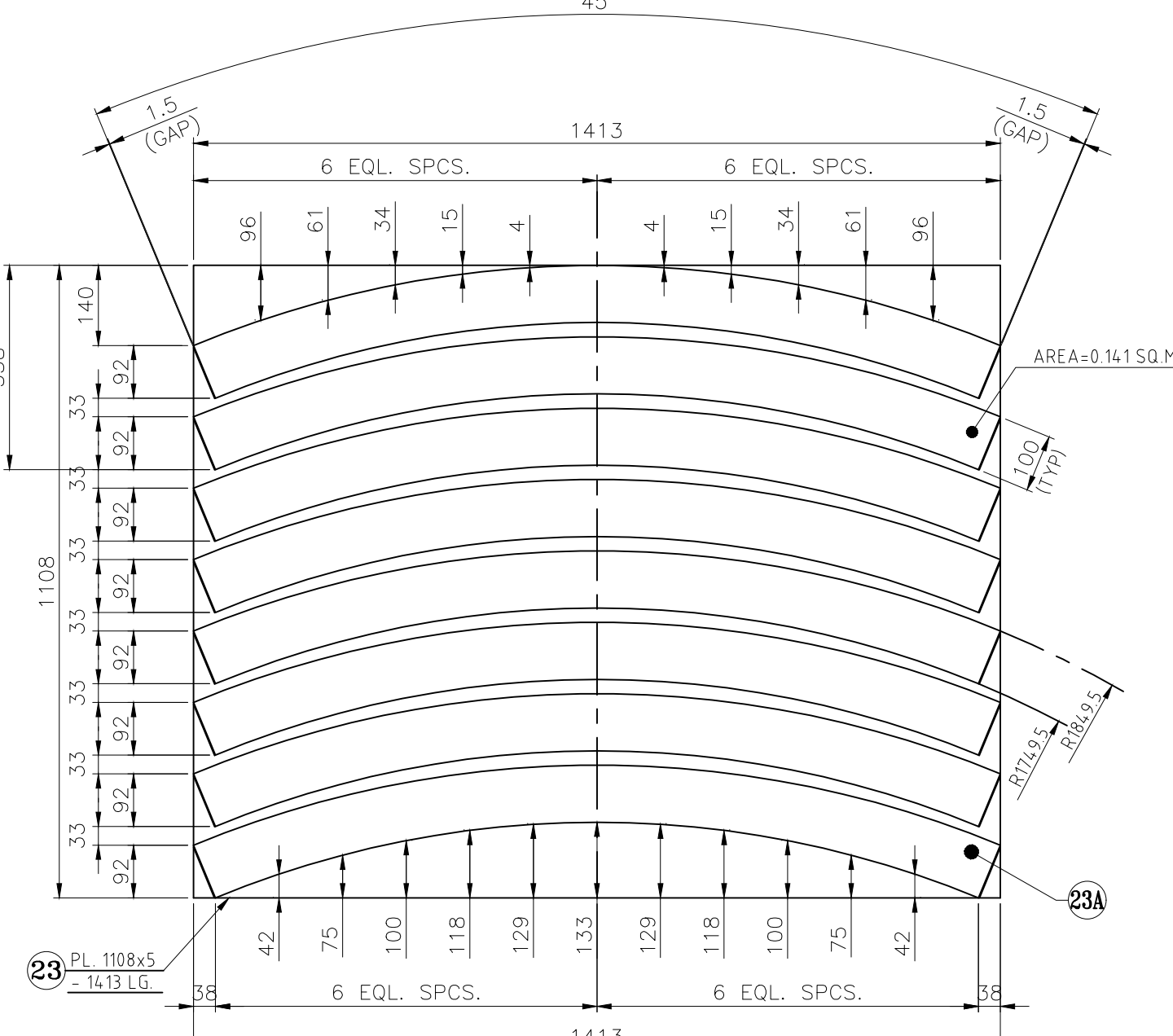
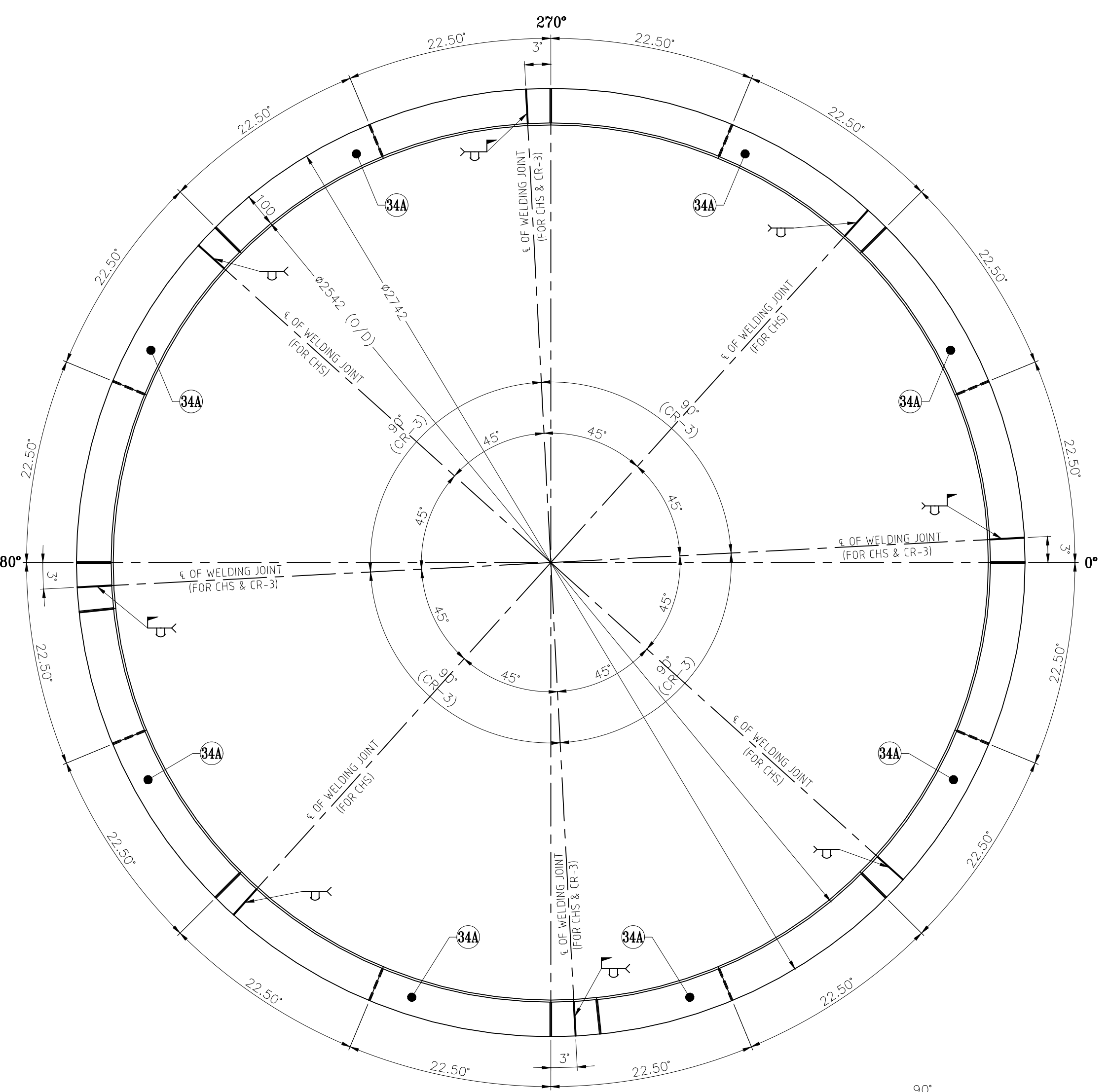
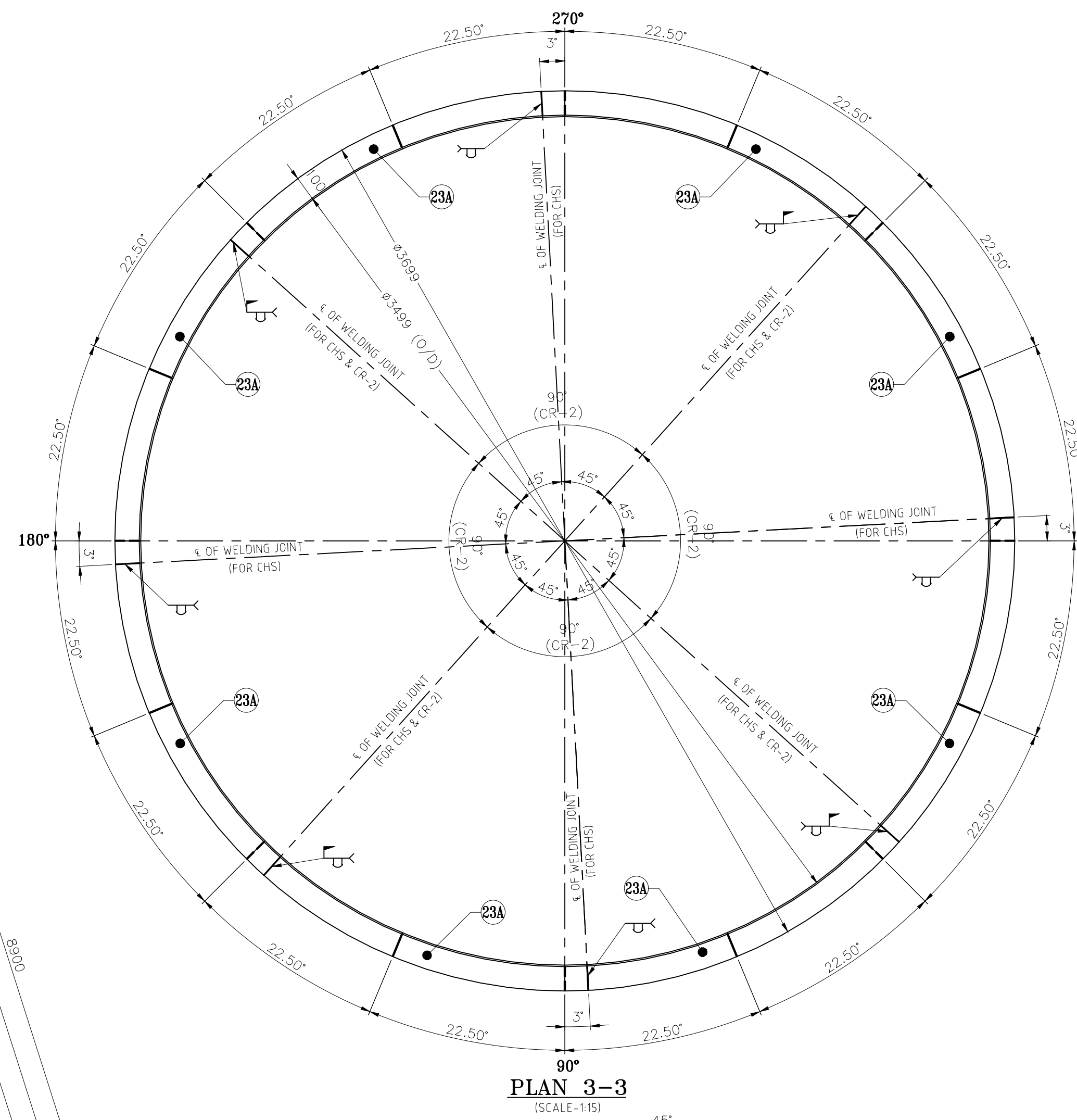
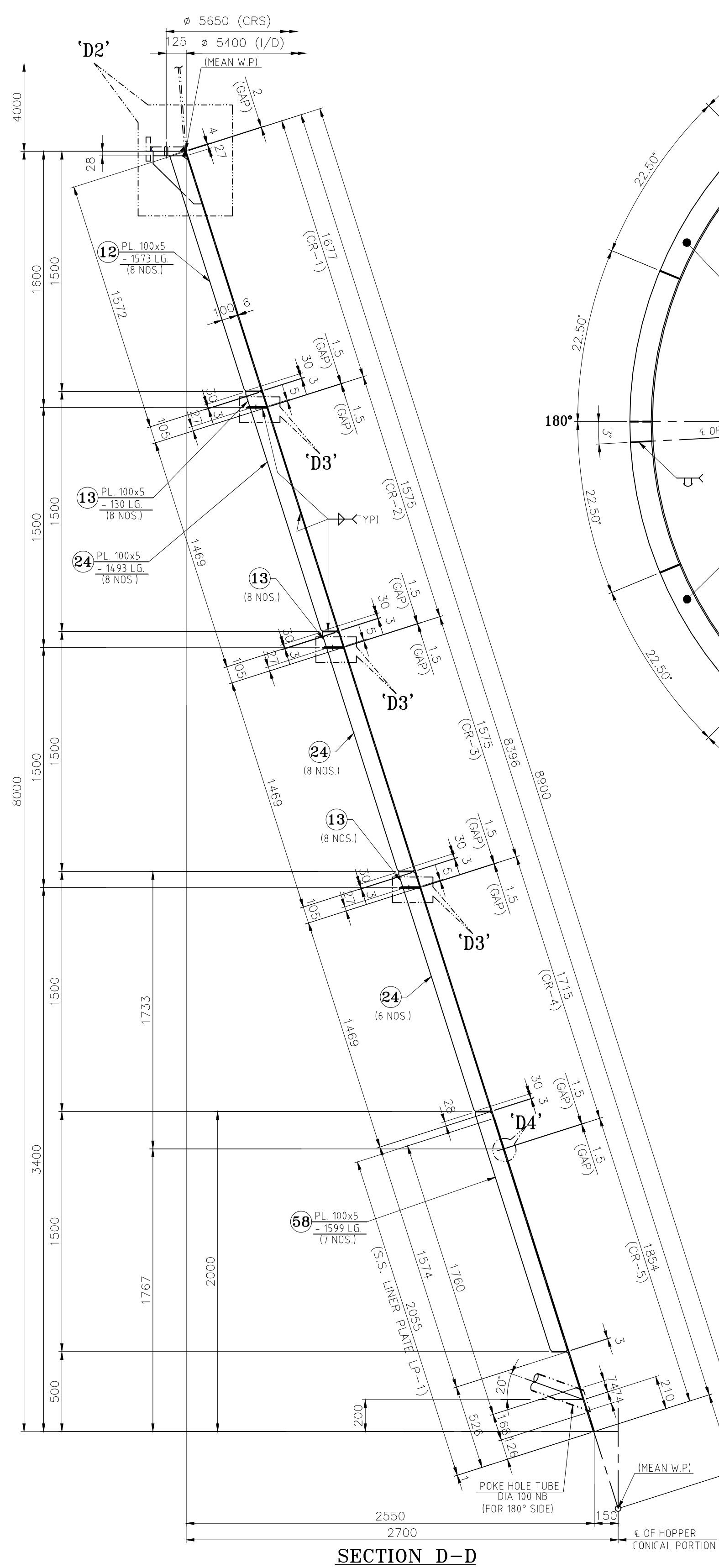
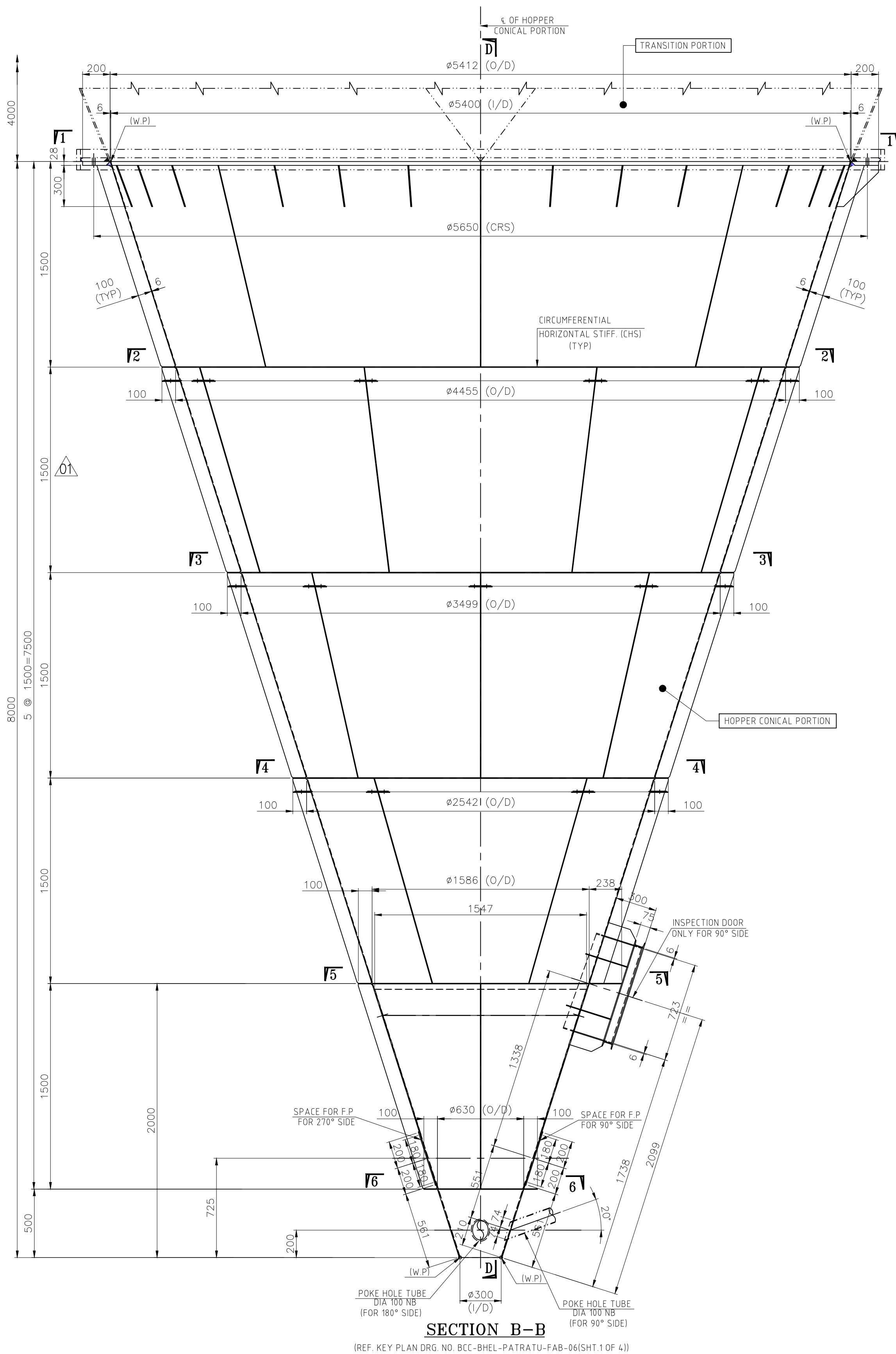
THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01620
0-79-845-01621
0-79-845-01622
0-79-845-01623

REV	DATE	ALTERED BY	REDDY	SCALE	WEIGHT (KG)	REF. TO ASSY/OLD DRG.	REV
01	27.02.20	CHECKED	MK NAHAK				
02		REVISD	AS MARKED				

DEPT	ADD	GRADE OF	UNTD/DN	SCALE	WEIGHT (KG)	REF. TO ASSY/OLD DRG.	REV
CODE	862	PR	AD-500				
TITLE	HOPPER CONICAL PORTION						
DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5&LP-1							

TYPE OF PRODUCT	OR NAME OF	CUSTOMER/PROJECT	NAME	SIGN	DATE	NO. OF
BHARAT HEAVY ELECTRICALS LTD.			YODGSR		02.05.19	VAR
UNIT: BOILER AUXILIARIES PLANT,			B.V. REDDY		02.05.19	
RANIPET - 632 406.			C. GANESH		02.05.19	

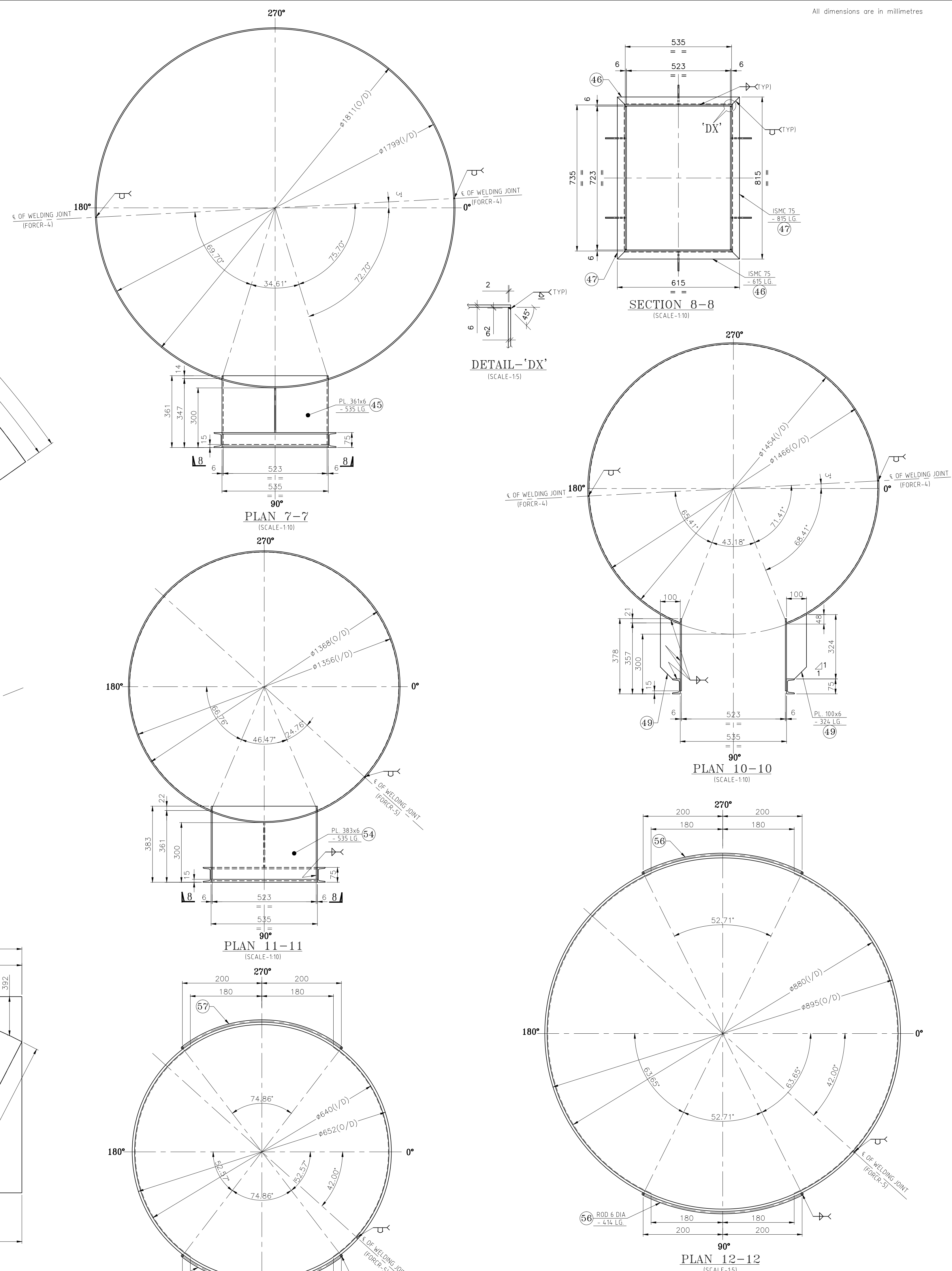
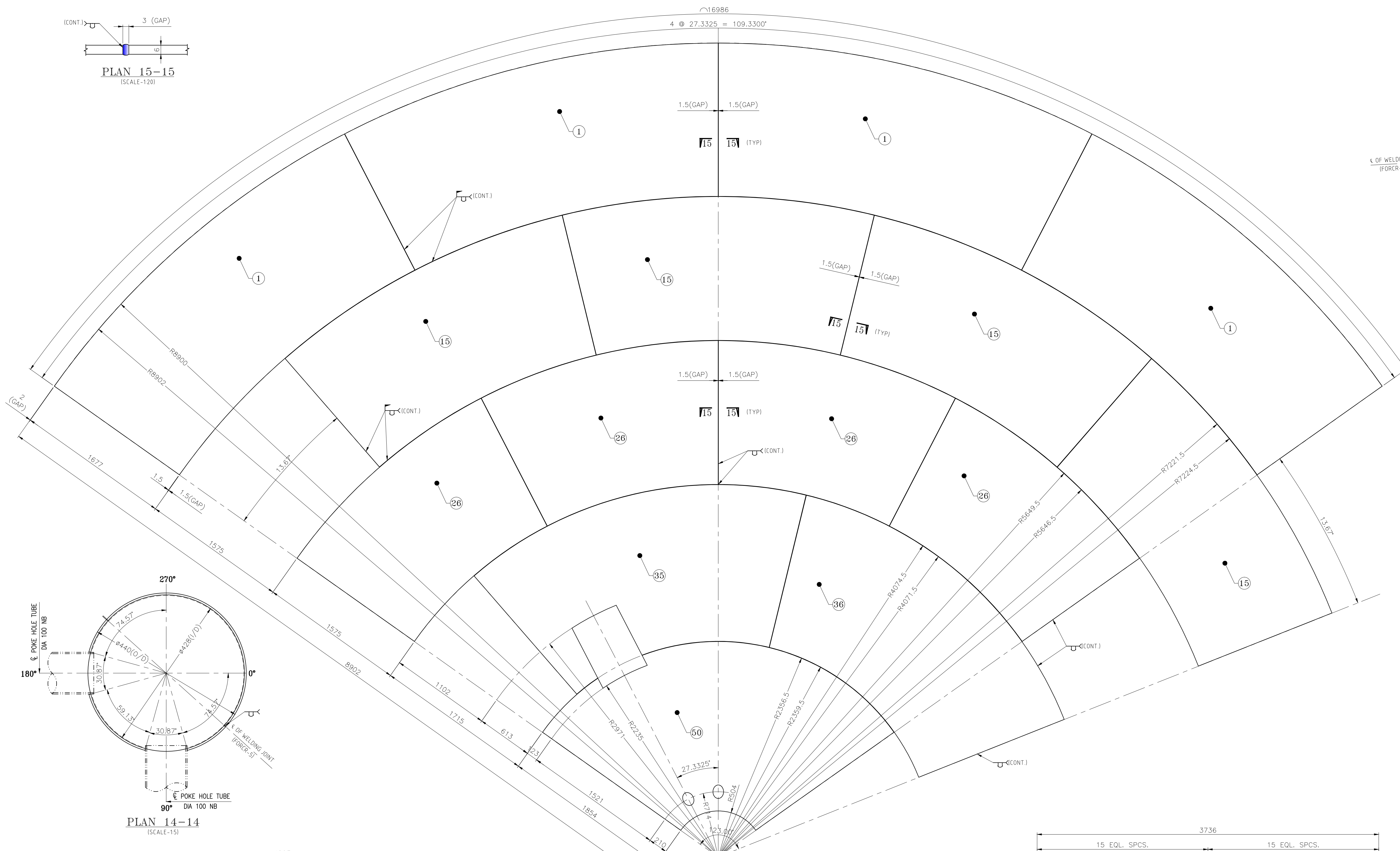
CARD	CODE	DRAWING NO.	REV
U 01		0-79-845-01620	01



THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01620
0-79-845-01621
0-79-845-01622
0-79-845-01623

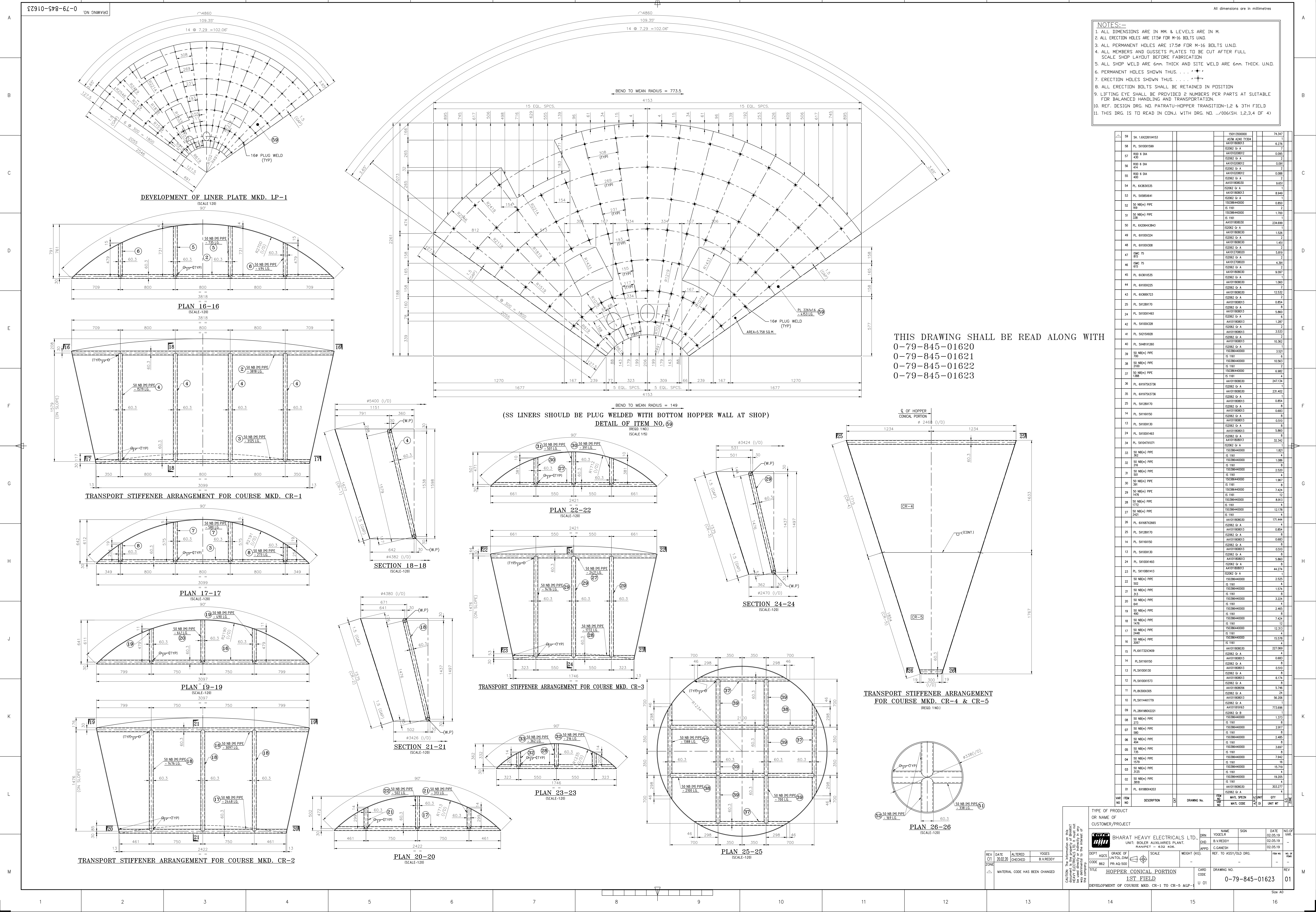
- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.5# FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 17.5# FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
 6. PERMANENT HOLES SHOWN THUS.
 7. ERECTION HOLES SHOWN THUS.
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		SHARAT HEAVY ELECTRICALS LTD.		UNIT: BOLLER AUXILIARIES PLANT, RANIPET - 632 406.	
DEPT	ADCS	GRADE OF UNITS/DWG	SCALE	WEIGHT (KG)	
CODE	862	PRI AD 300			
TITLE	HOPPER CONICAL PORTION 1ST FIELD				
REV	DATE	ALTERED BY	REDDY	DATE	27.02.20
01	27.02.20	CHECKED	MK NAHAK	DATE	02.05.19
02		REVISED AS MARKED		DATE	02.05.19
DRAWING NO.		0-79-845-01621		REV	
U 01				01	



- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 175 ϕ FOR M-16 BOLTS UNO.
 3. ALL PERMANENT HOLES ARE 175 ϕ FOR M-16 BOLTS UNO.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK UNO.
 6. PERMANENT HOLES SHOWN THUS.
 7. ERECTION HOLES SHOWN THUS.
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD
 11. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. .../006(SH. 1,2,3,4 OF 4)

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME YOGESH K.		SIGN		DATE 02.05.19		NO. OF VAR.	
BPHARAT HEAVY ELECTRICALS LTD.		BPHARAT HEAVY ELECTRICALS LTD.		BPHARAT HEAVY ELECTRICALS LTD.		BPHARAT HEAVY ELECTRICALS LTD.		BPHARAT HEAVY ELECTRICALS LTD.	
UNIT: BOLLER AUXILIARIES PLANT.		BOLLER AUXILIARIES PLANT.		BOLLER AUXILIARIES PLANT.		BOLLER AUXILIARIES PLANT.		BOLLER AUXILIARIES PLANT.	
BOLLER - 6.35 400.		BOLLER - 6.35 400.		BOLLER - 6.35 400.		BOLLER - 6.35 400.		BOLLER - 6.35 400.	
DEPT: ACES		GRADE: UNL DIM		SCALE		WEIGHT (KG)		REF. TO ASSY/OLD DRG.	
CODE: 862		PR: AG-500		TITLE		CARD CODE		DRAWING NO.	
HOPPER CONICAL PORTION		1ST FIELD		0-79-845-01622		REV		NO. OF	
DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5&LP-1		U 01		00		00		00	



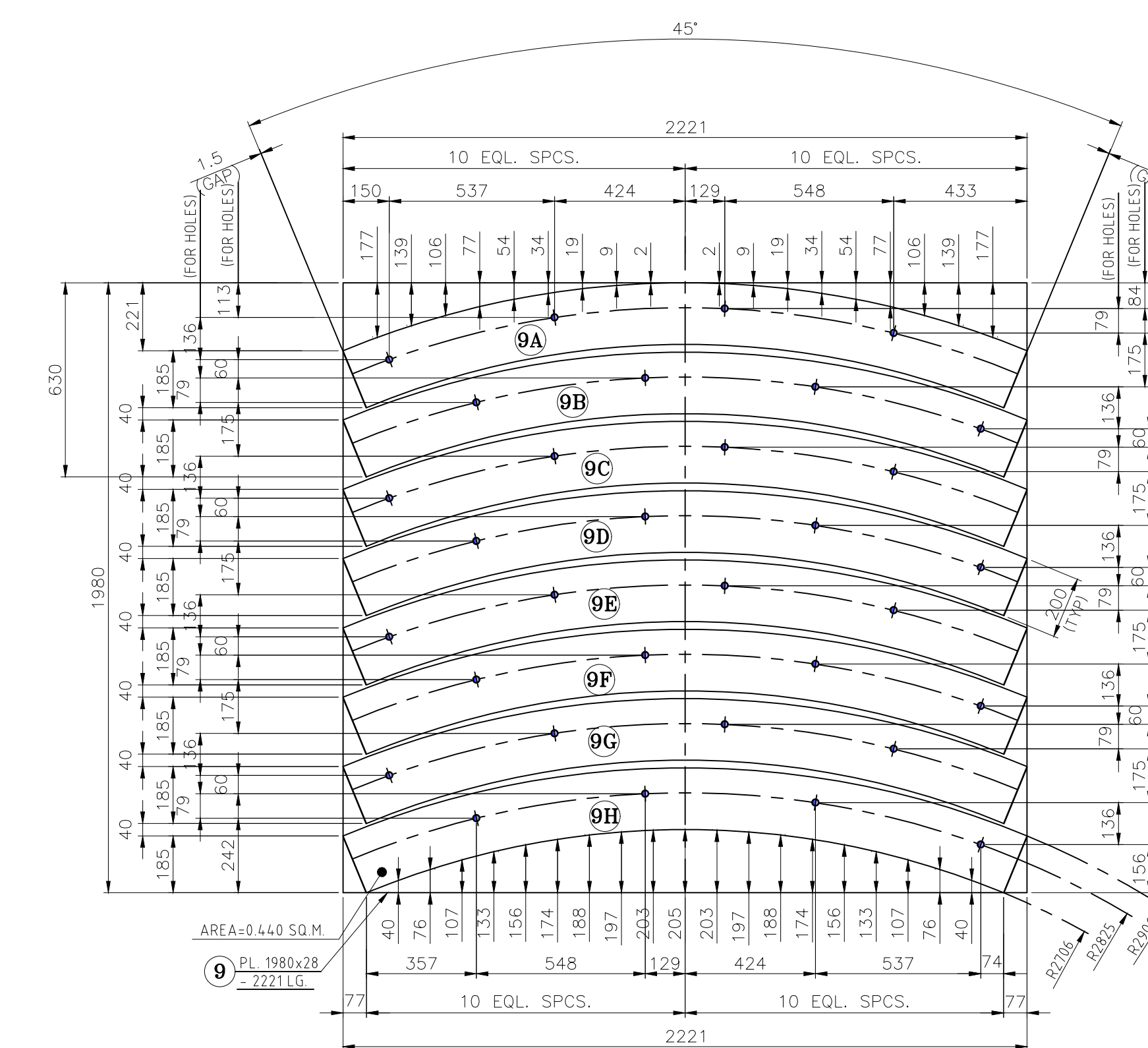
NOTES:-

1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
3. ALL PERMANENT HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
4. ALL MEMBERS AND CUSSETS PLATES TO BE CUT AFTER FULL SCALE SHIP LAYOUT BEFORE FABRICATION.
5. ALL SHIP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
6. PERMANENT HOLES SHOWN THUS.
7. ERECTION HOLES SHOWN THUS.
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD
11. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. /006(SH. 1,2,3,4 OF 4)

59	SH. 1-8322814153	1501350000	ASTM A240 T304	74.347
58	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
57	Ø6 Ø DIA	IS2062 Gr. A	AA101808030	0.095
56	Ø6 Ø DIA	IS2062 Gr. A	AA101808030	0.095
55	Ø6 Ø DIA	IS2062 Gr. A	AA101808030	0.095
54	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
53	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
52	50 NB(M) PIPE	IS 1161	15038644000	0.850
51	50 NB(M) PIPE	IS 1161	15038644000	1.700
50	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
49	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
48	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
47	Ø6 Ø DIA	IS2062 Gr. A	AA101808030	0.095
46	Ø6 Ø DIA	IS2062 Gr. A	AA101808030	0.095
45	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
44	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
43	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
42	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
41	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
40	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
39	50 NB(M) PIPE	IS 1161	15038644000	0.850
38	50 NB(M) PIPE	IS 1161	15038644000	1.700
37	50 NB(M) PIPE	IS 1161	15038644000	1.700
36	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
35	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
34	PL. S101001599	IS2062 Gr. A	AA101808030	6.276
33	50 NB(M) PIPE	IS 1161	15038644000	0.850
32	50 NB(M) PIPE	IS 1161	15038644000	1.700
31	50 NB(M) PIPE	IS 1161	15038644000	1.700
30	50 NB(M) PIPE	IS 1161	15038644000	1.700
29	50 NB(M) PIPE	IS 1161	15038644000	1.700
28	50 NB(M) PIPE	IS 1161	15038644000	1.700
27	50 NB(M) PIPE	IS 1161	15038644000	1.700
26	50 NB(M) PIPE	IS 1161	15038644000	1.700
25	50 NB(M) PIPE	IS 1161	15038644000	1.700
24	50 NB(M) PIPE	IS 1161	15038644000	1.700
23	50 NB(M) PIPE	IS 1161	15038644000	1.700
22	50 NB(M) PIPE	IS 1161	15038644000	1.700
21	50 NB(M) PIPE	IS 1161	15038644000	1.700
20	50 NB(M) PIPE	IS 1161	15038644000	1.700
19	50 NB(M) PIPE	IS 1161	15038644000	1.700
18	50 NB(M) PIPE	IS 1161	15038644000	1.700
17	50 NB(M) PIPE	IS 1161	15038644000	1.700
16	50 NB(M) PIPE	IS 1161	15038644000	1.700
15	50 NB(M) PIPE	IS 1161	15038644000	1.700
14	50 NB(M) PIPE	IS 1161	15038644000	1.700
13	50 NB(M) PIPE	IS 1161	15038644000	1.700
12	50 NB(M) PIPE	IS 1161	15038644000	1.700
11	50 NB(M) PIPE	IS 1161	15038644000	1.700
10	50 NB(M) PIPE	IS 1161	15038644000	1.700
9	50 NB(M) PIPE	IS 1161	15038644000	1.700
8	50 NB(M) PIPE	IS 1161	15038644000	1.700
7	50 NB(M) PIPE	IS 1161	15038644000	1.700
6	50 NB(M) PIPE	IS 1161	15038644000	1.700
5	50 NB(M) PIPE	IS 1161	15038644000	1.700
4	50 NB(M) PIPE	IS 1161	15038644000	1.700
3	50 NB(M) PIPE	IS 1161	15038644000	1.700
2	50 NB(M) PIPE	IS 1161	15038644000	1.700
1	50 NB(M) PIPE	IS 1161	15038644000	1.700

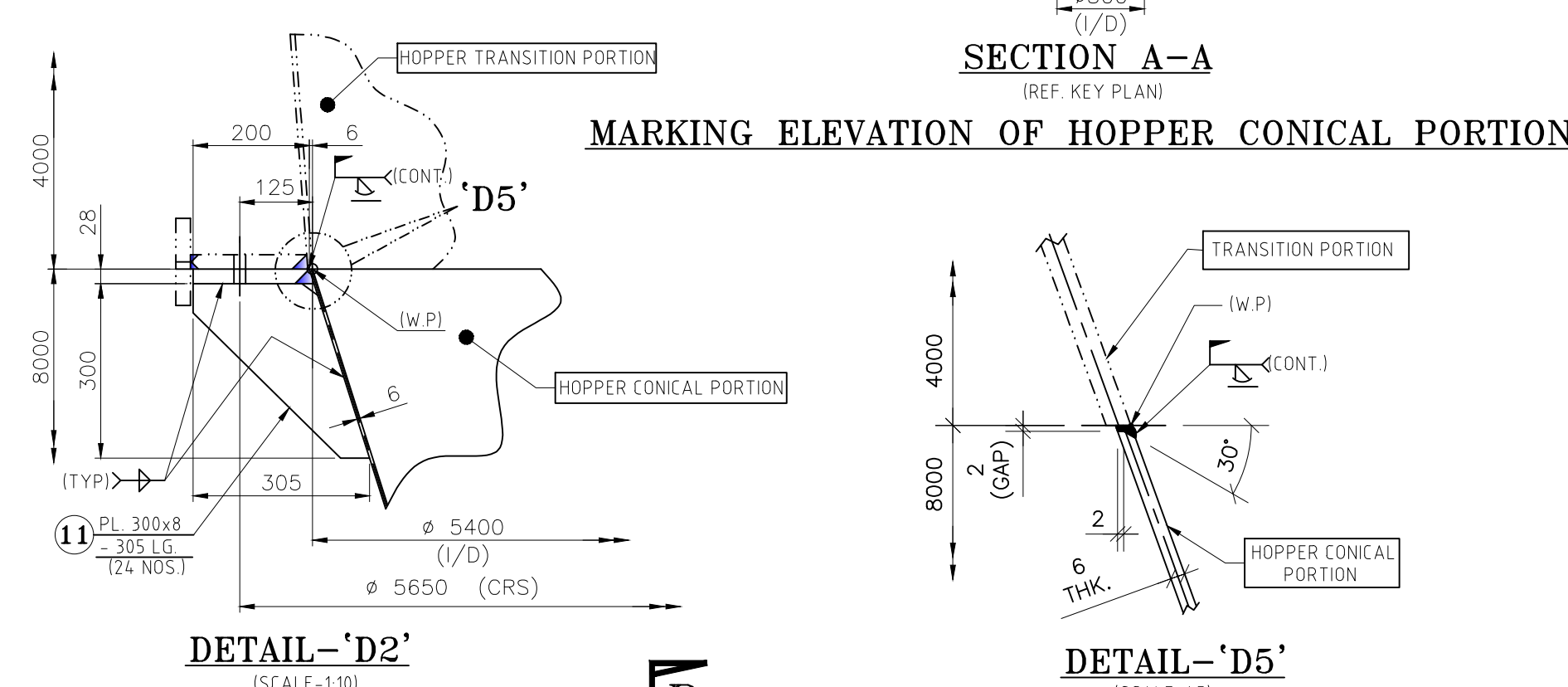
THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01620
0-79-845-01621
0-79-845-01622
0-79-845-01623

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME		SIGN		DATE		NO. OF	
BHARAT HEAVY ELECTRICALS LTD.		B.V. REDDY		B.V. REDDY		02.05.19		VAR.	
UNIT: BOKER AUXILIARIES PLANT.		APPROV.		C.M. MESH		02.05.19			
DEPT. ADDS.		GRADE OF		SCALE		WEIGHT (KG.)		REF. TO ASSY/OLD DRG.	
CODE 862		PR. AD-500		1:1		-		-	
TITLE		HOPPER CONICAL PORTION		CARD CODE		DRAWING NO.		REV	
1ST FIELD		U 01		0-79-845-01623		01			
DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5 ALP-									

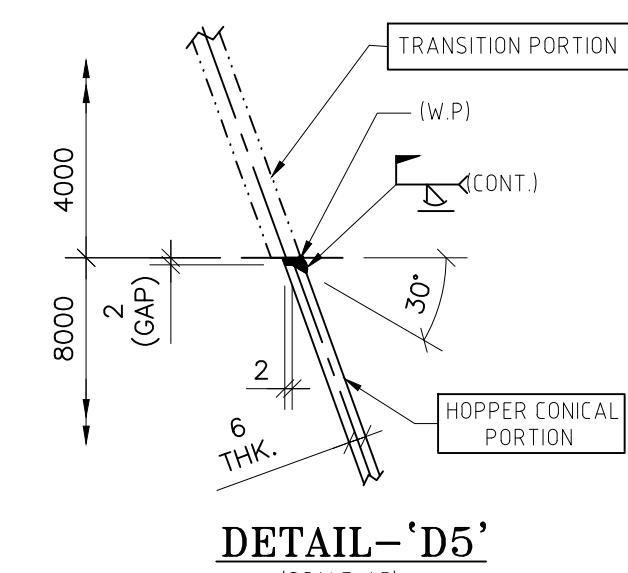


CUTTING DETAIL OF ITEM NO. 9A TO 9C
PLATE ITEM NO. 9 (REQD. 1 NO.)

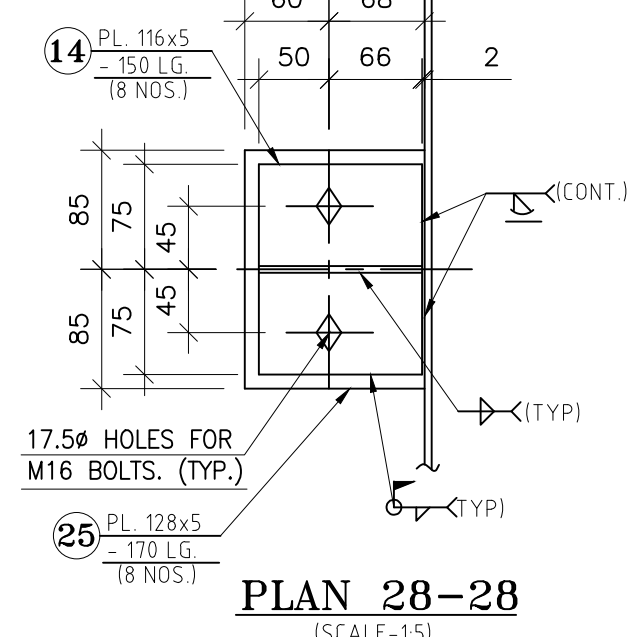
(SCALE 1:15)
(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS TO BE
WELDED WITH EACH HOPPER SEGMENT)



SECTION A-A

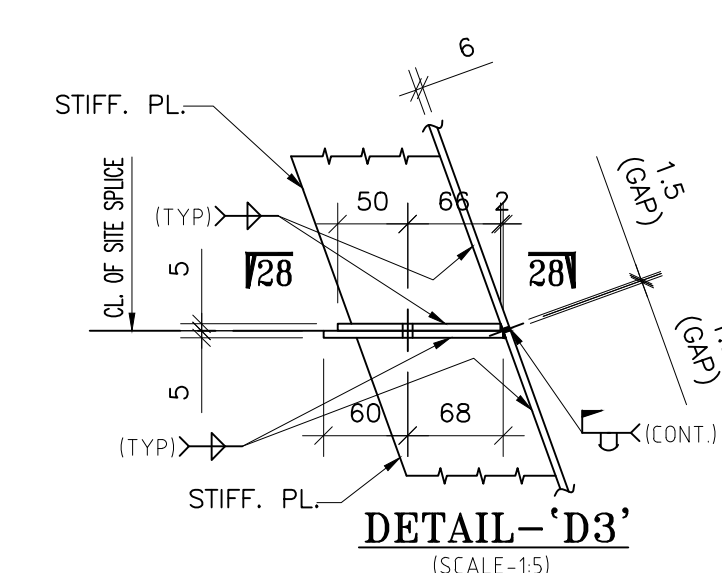
MARKING ELEVATION OF HOPPER CONICAL PORTION

DETAIL-'D5'



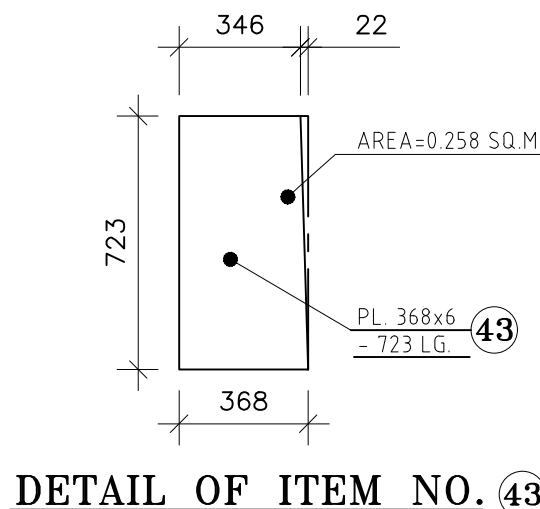
PLAN 28-28
[SCALE=1:5]

(FOR MATCHING OF TIER AT SITE)



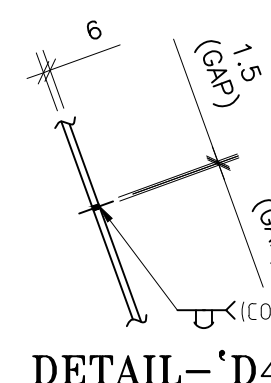
DETAIL-'D3'

TABLE-1:51

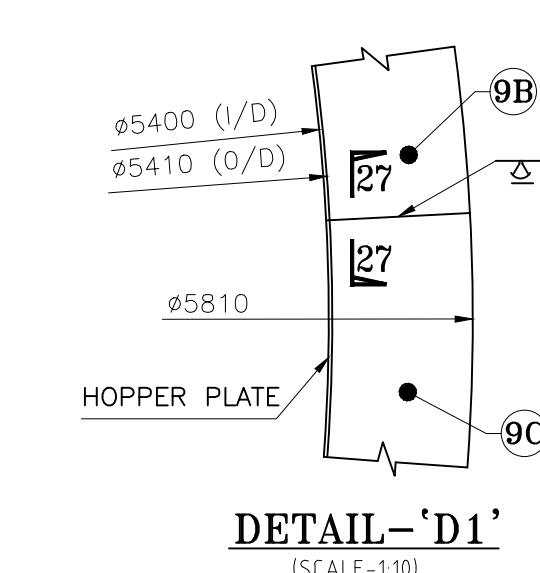


DETAIL OF ITEM NO 43

(REQD. 2 NOS.)
(SCALE 1/20)

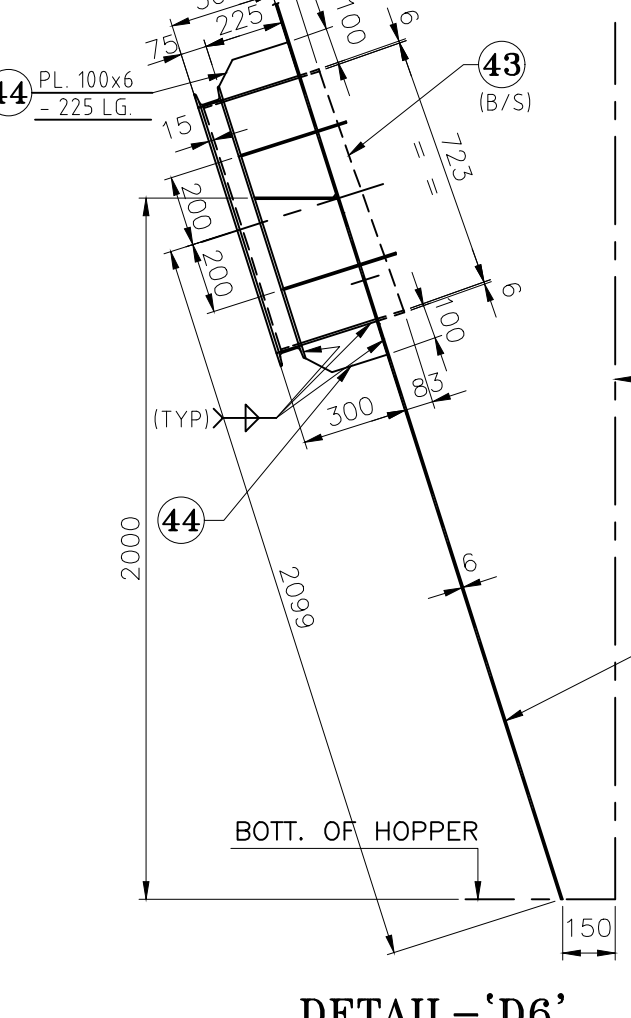


DETAIL-'D4

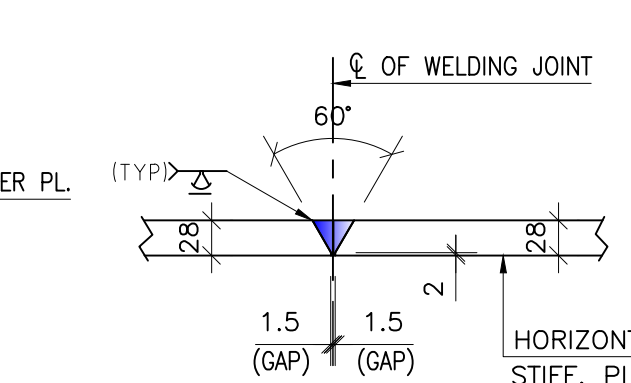


DETAIL-‘D1’

(SCALE-100)

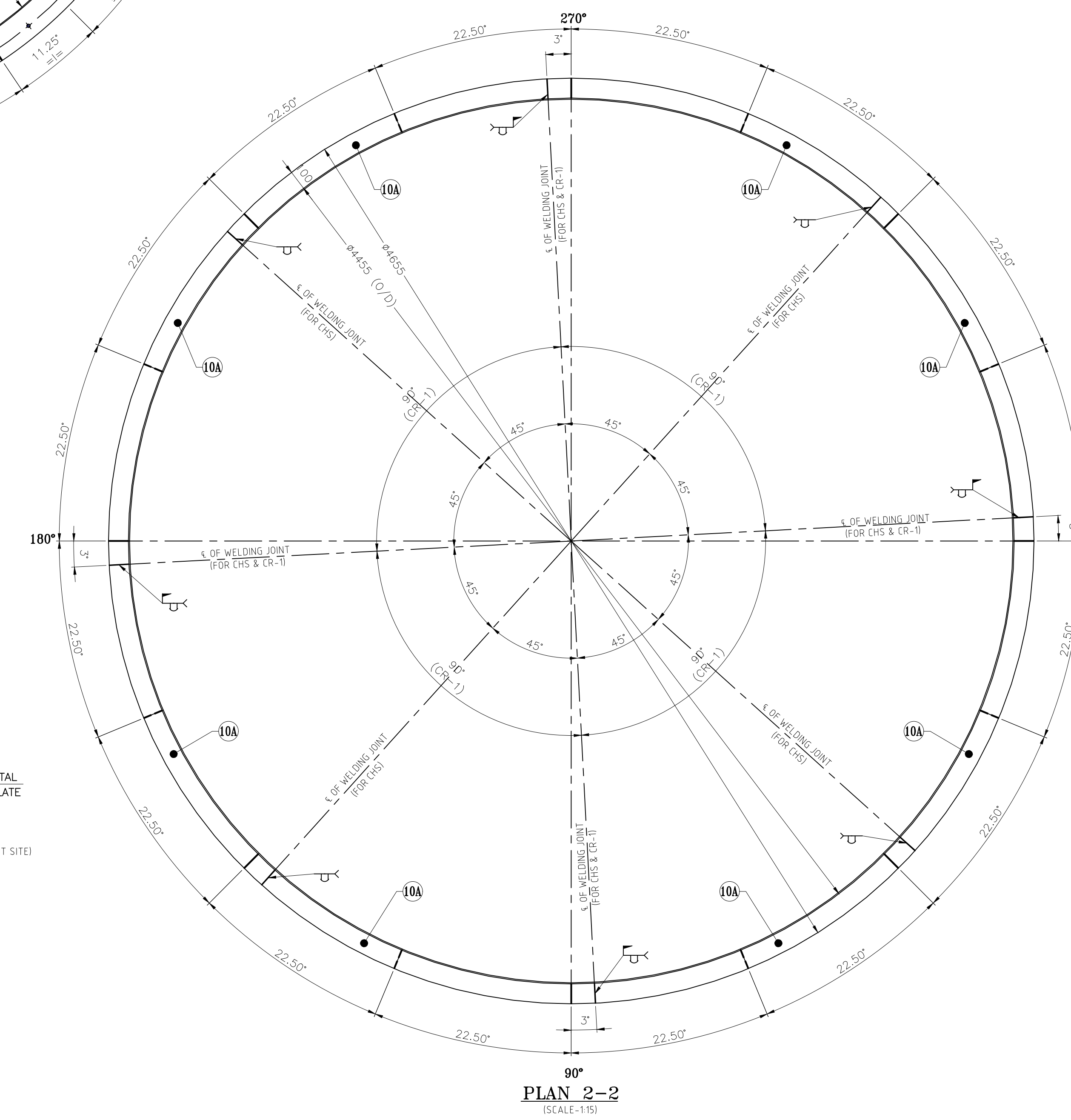


DETAIL-'D6'

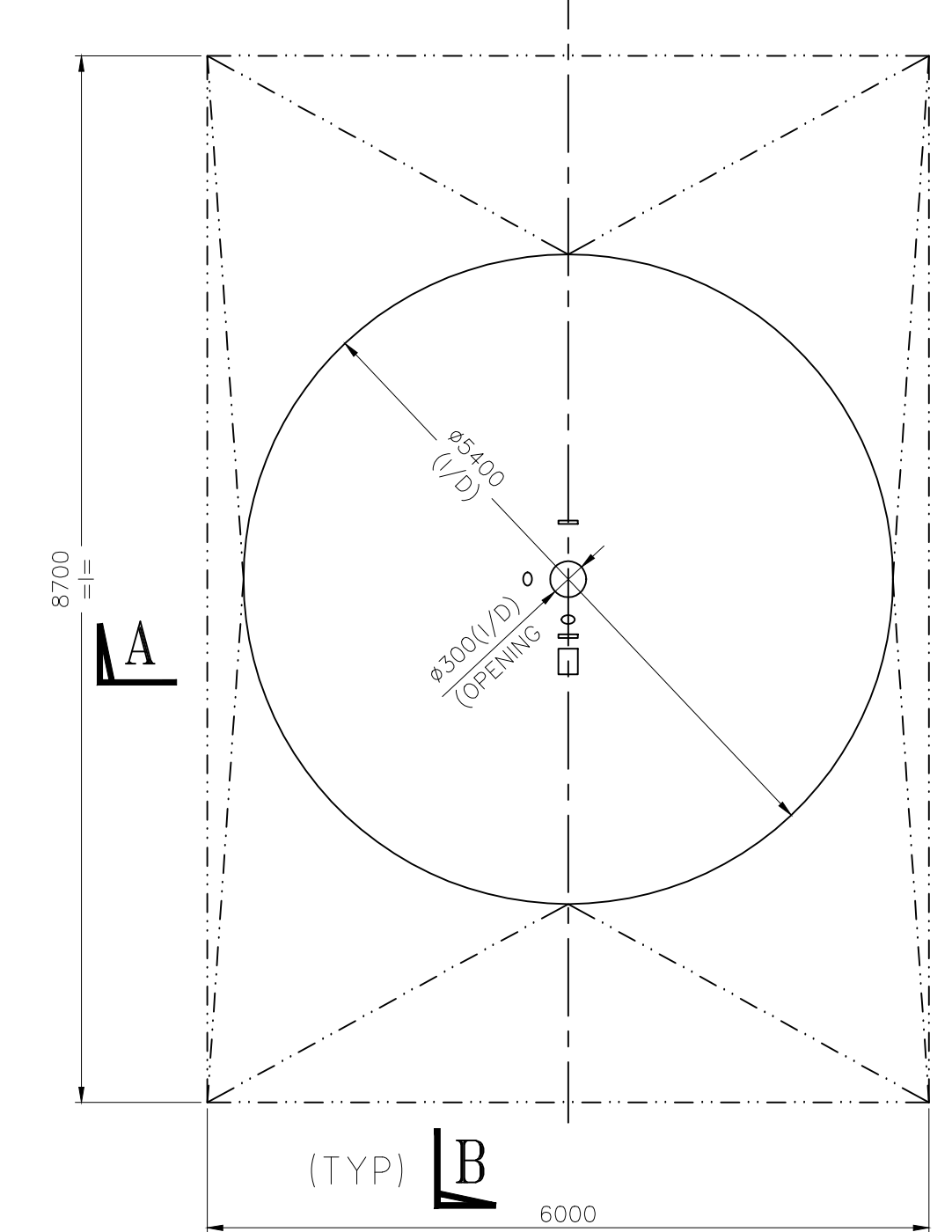


SECTION 27-27

ISAME DETAILS SHALL BE FOLLOWED FOR WELDING AT SIT

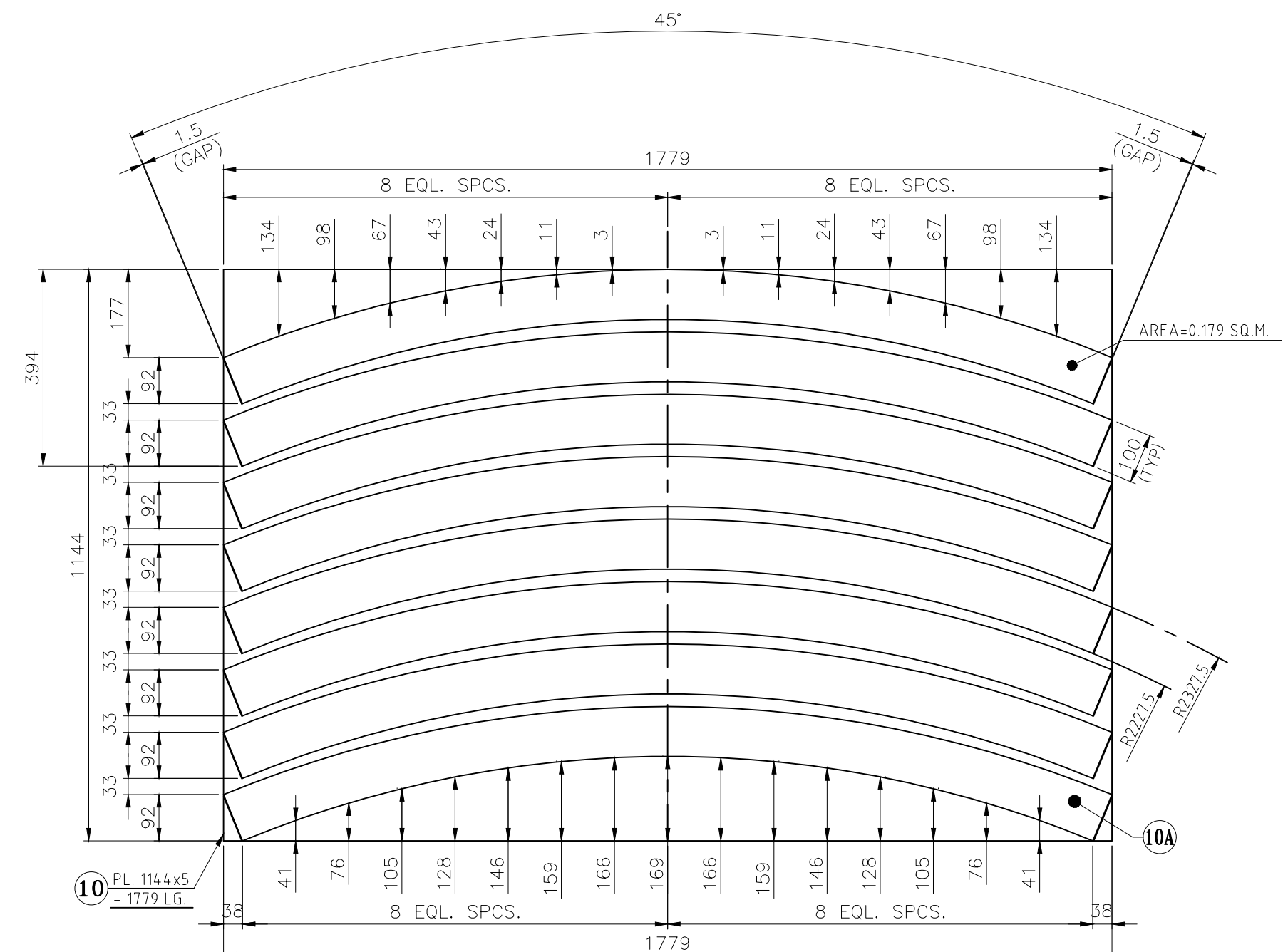


PLAN 2-2
[SCALE-1:15]



-|-

MARKING PLAN OF HOPPER
CONICAL PORTION (1TH FIELD)



CUTTING DETAIL OF ITEM NO. 10A
PLATE ITEM NO. 10 (REQD. 1 NO.

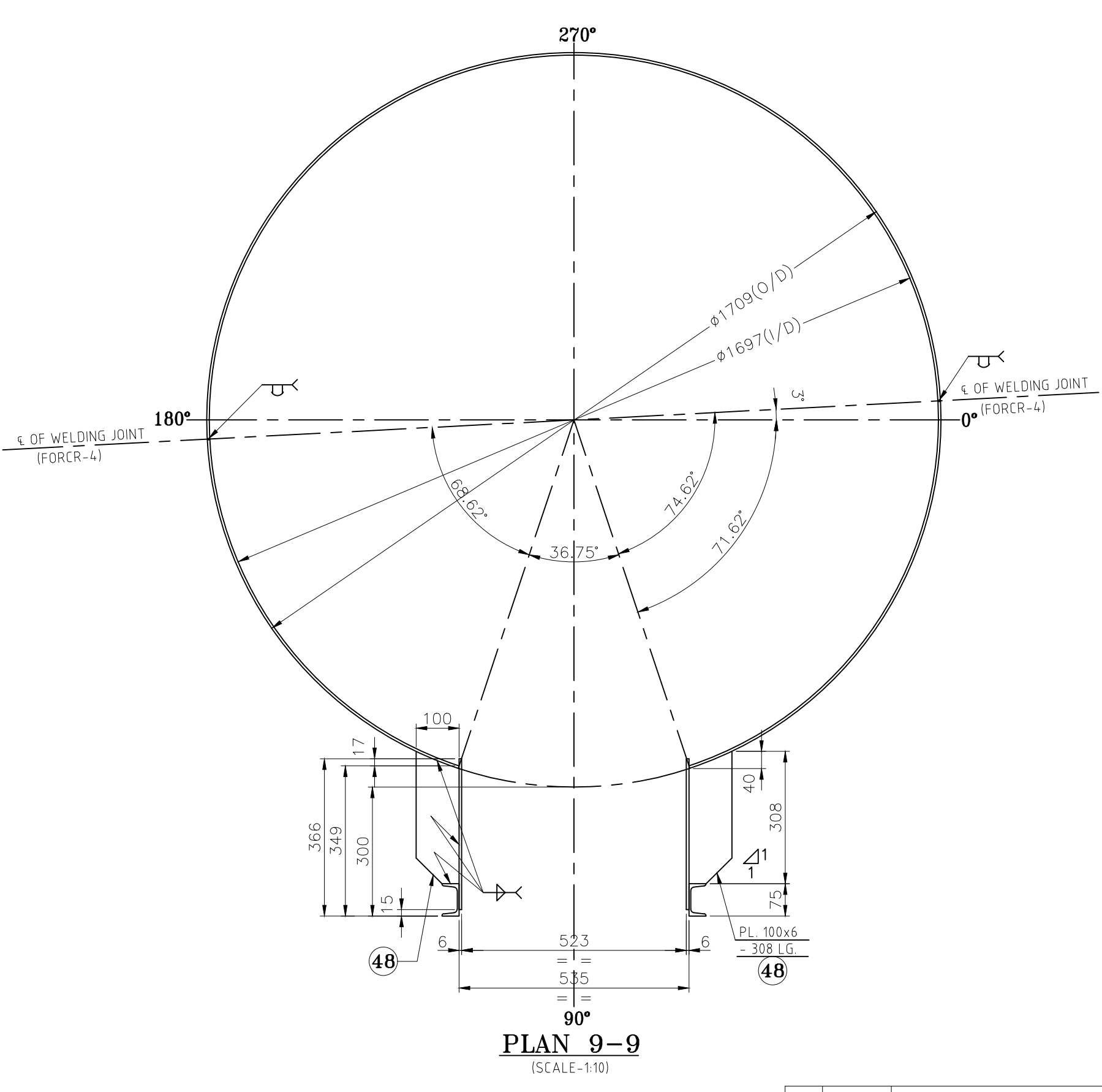
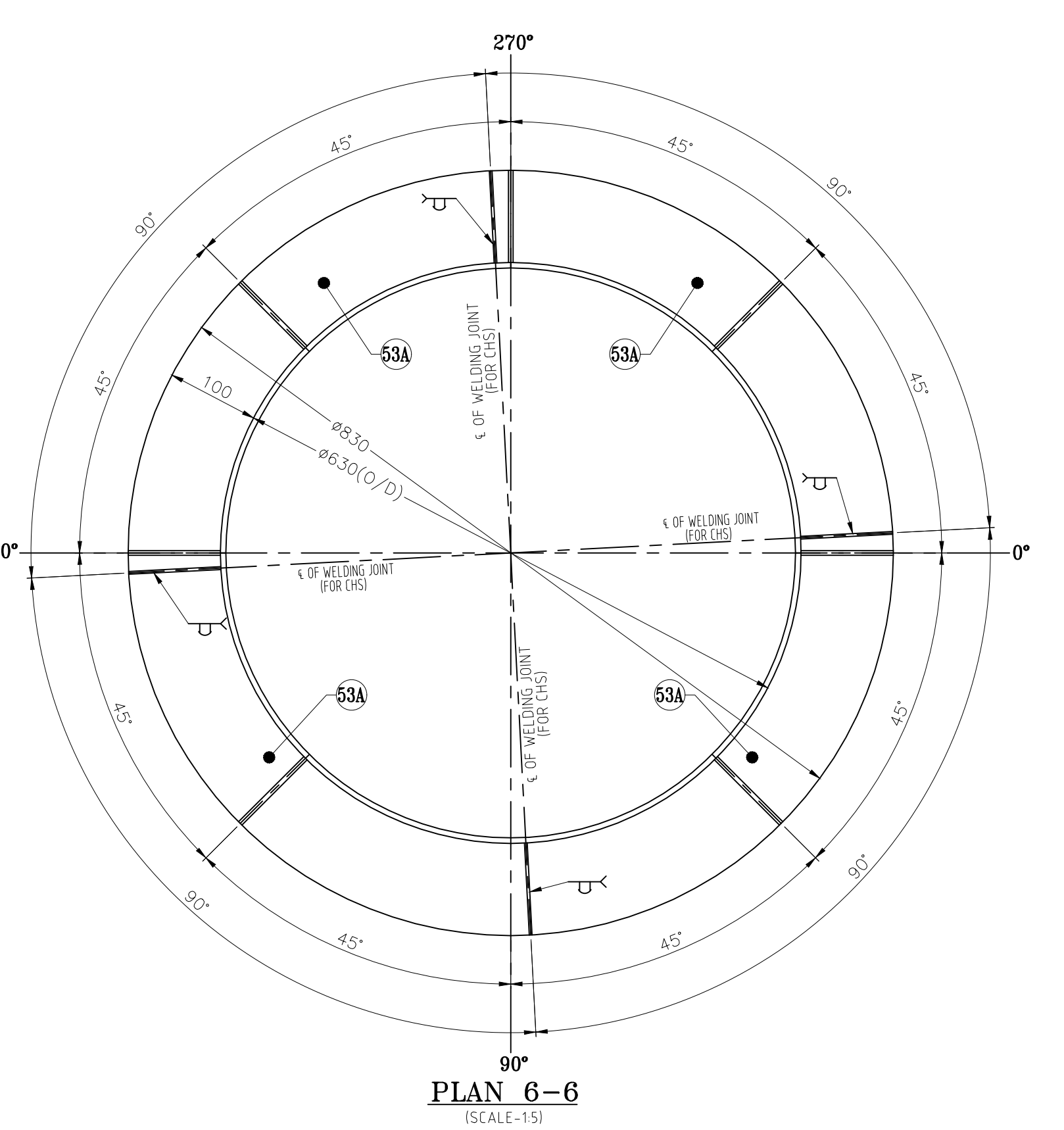
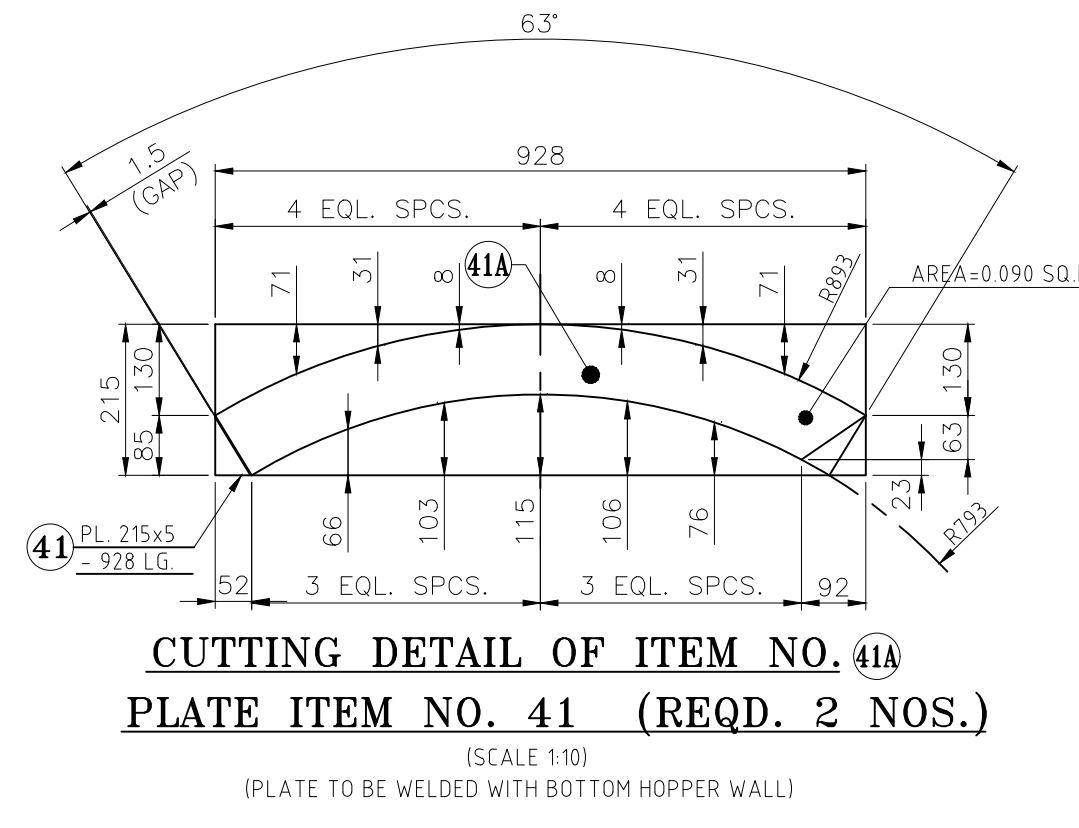
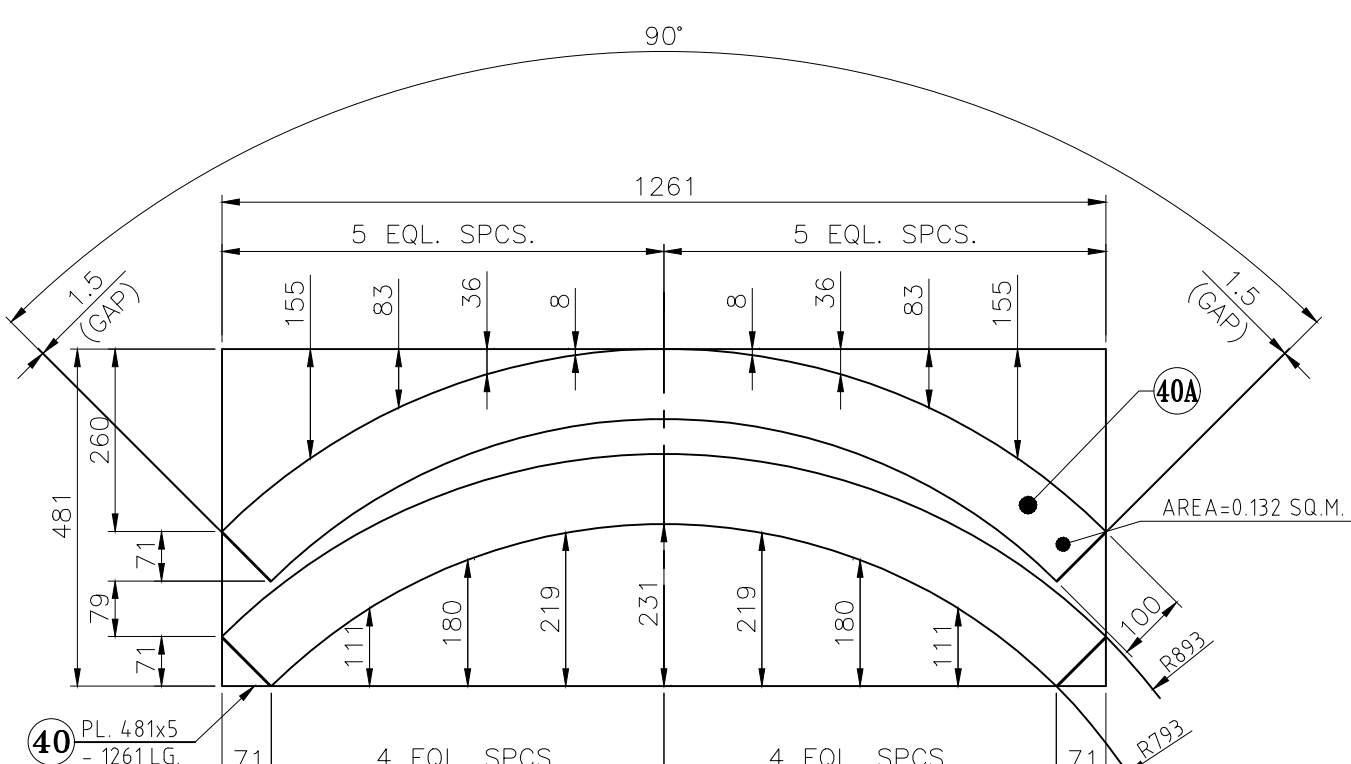
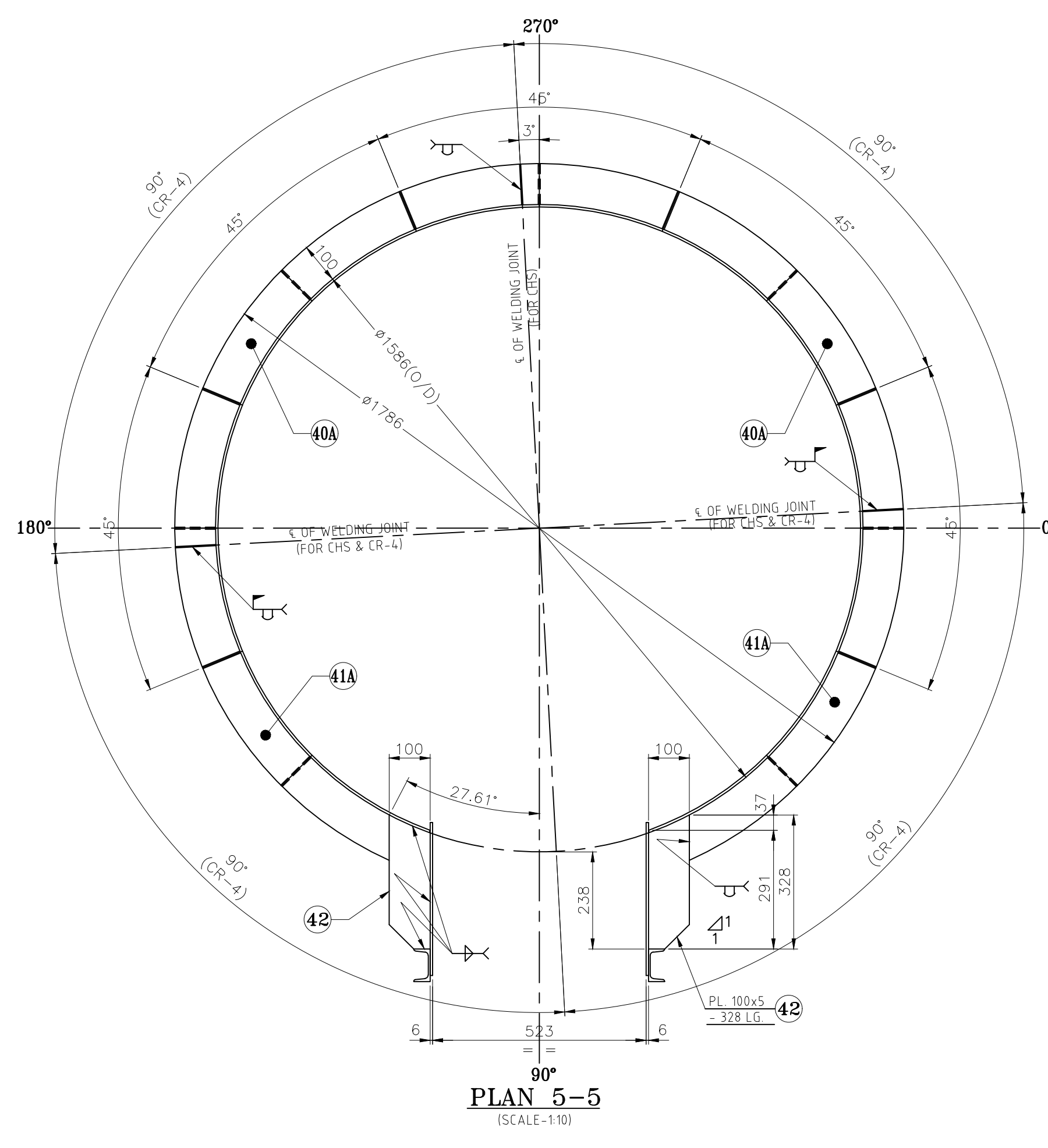
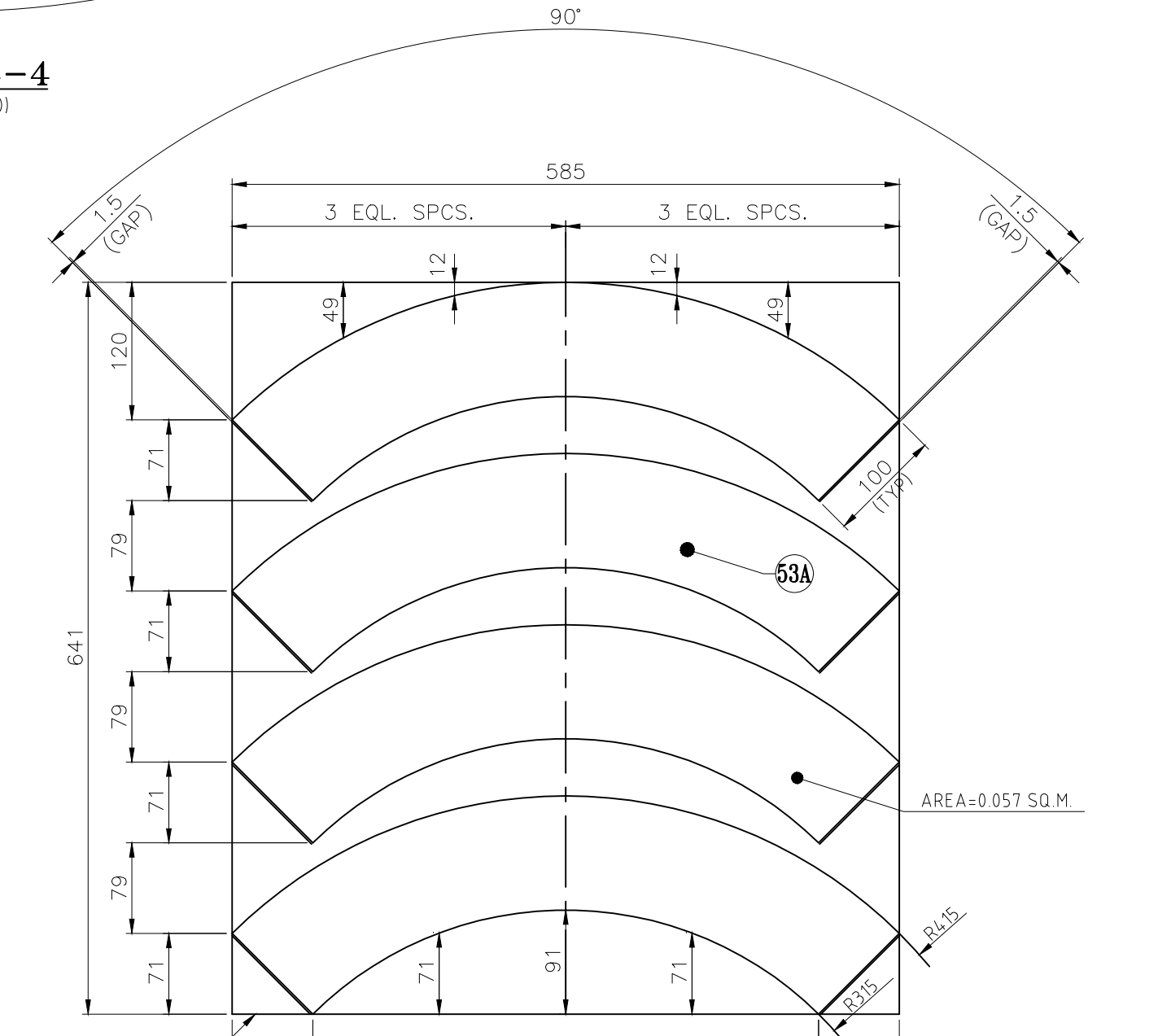
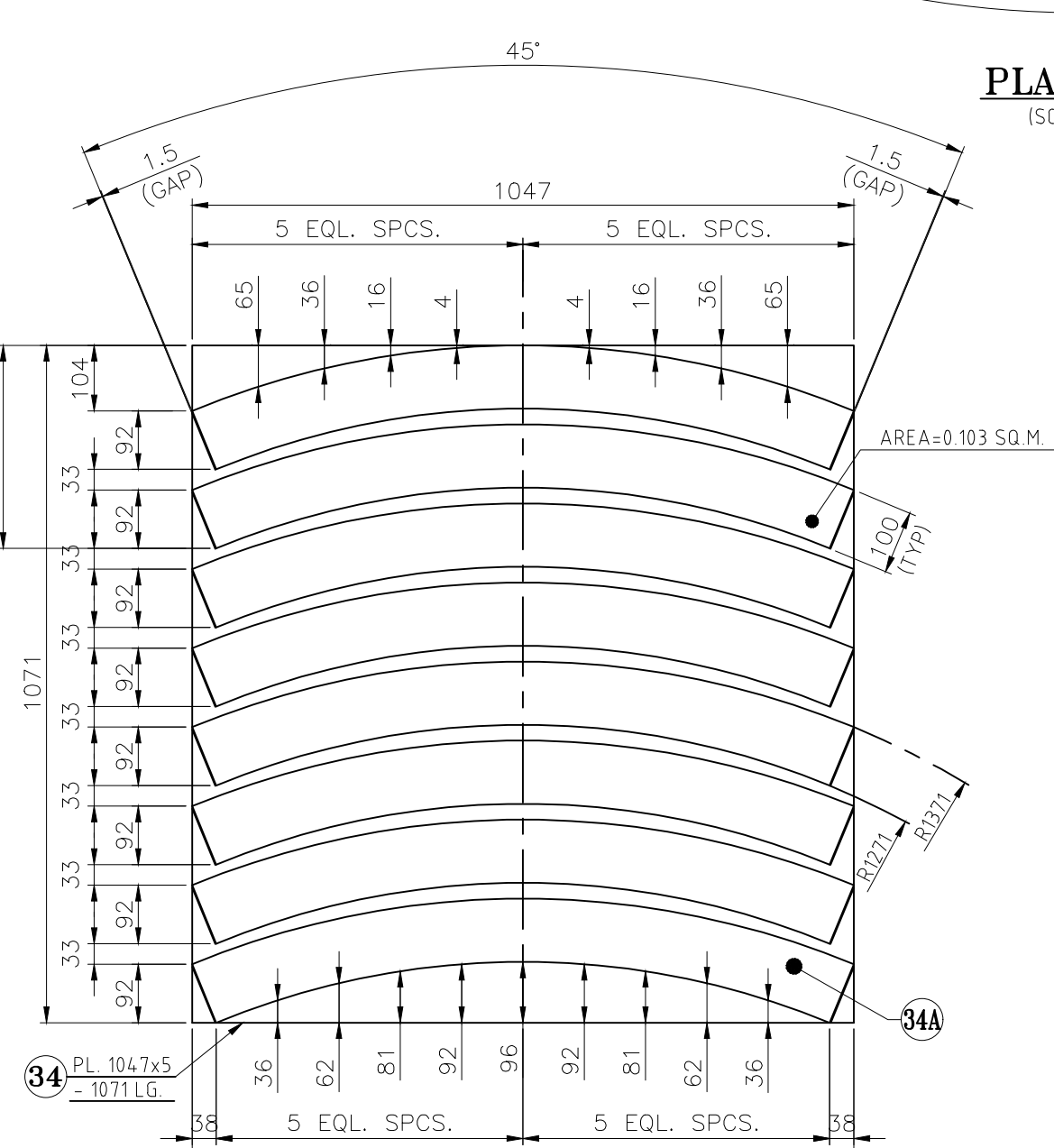
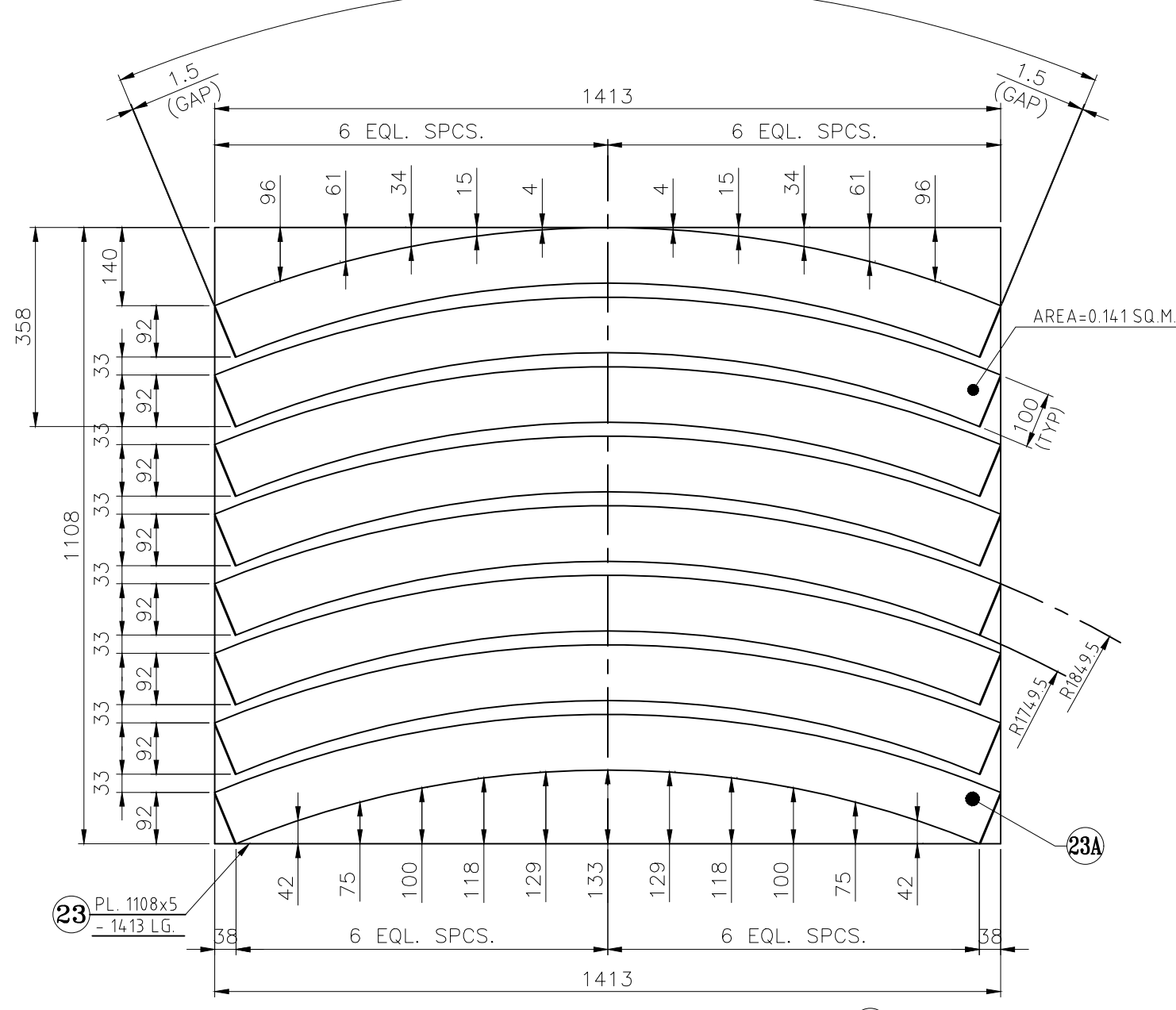
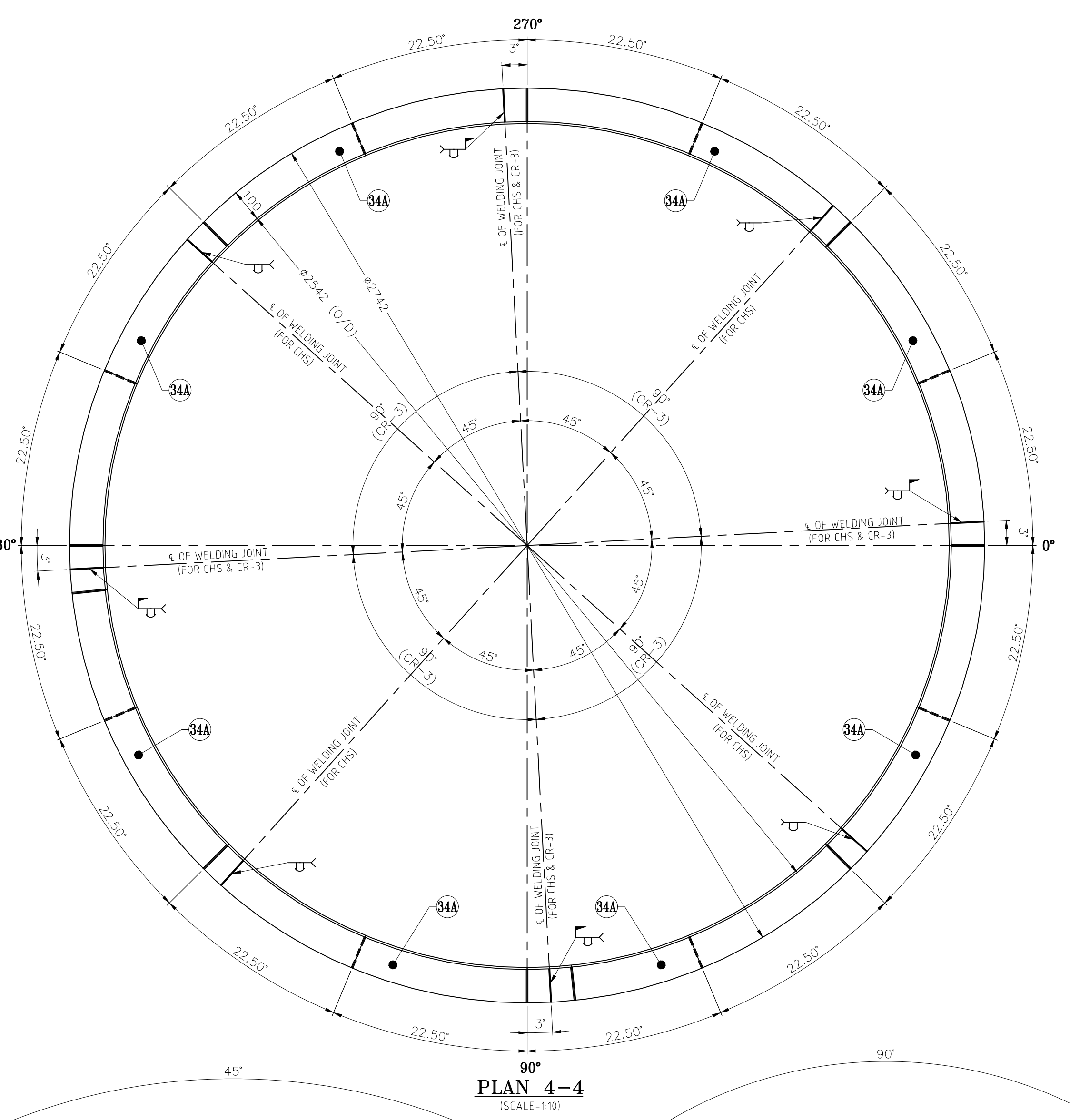
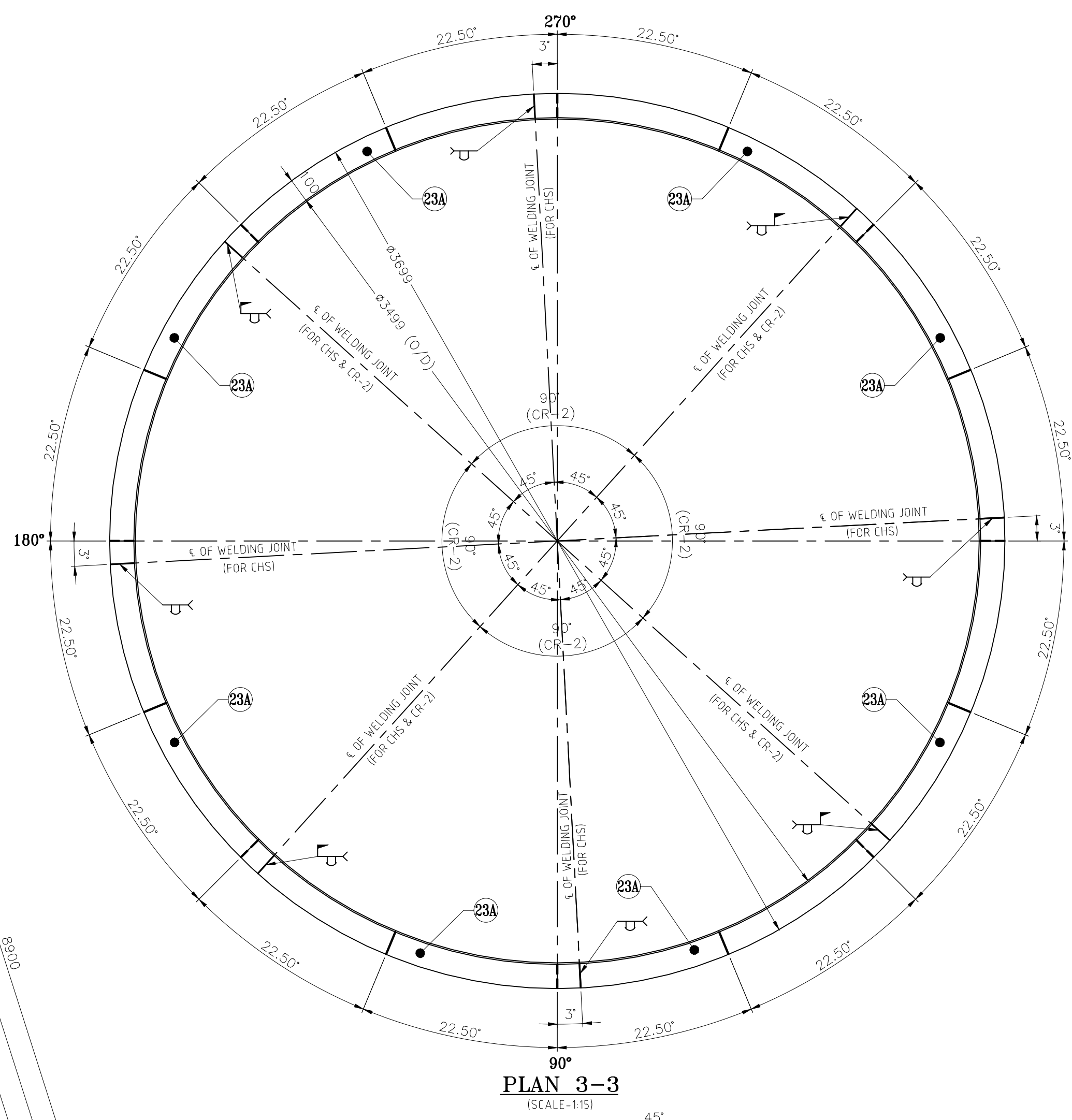
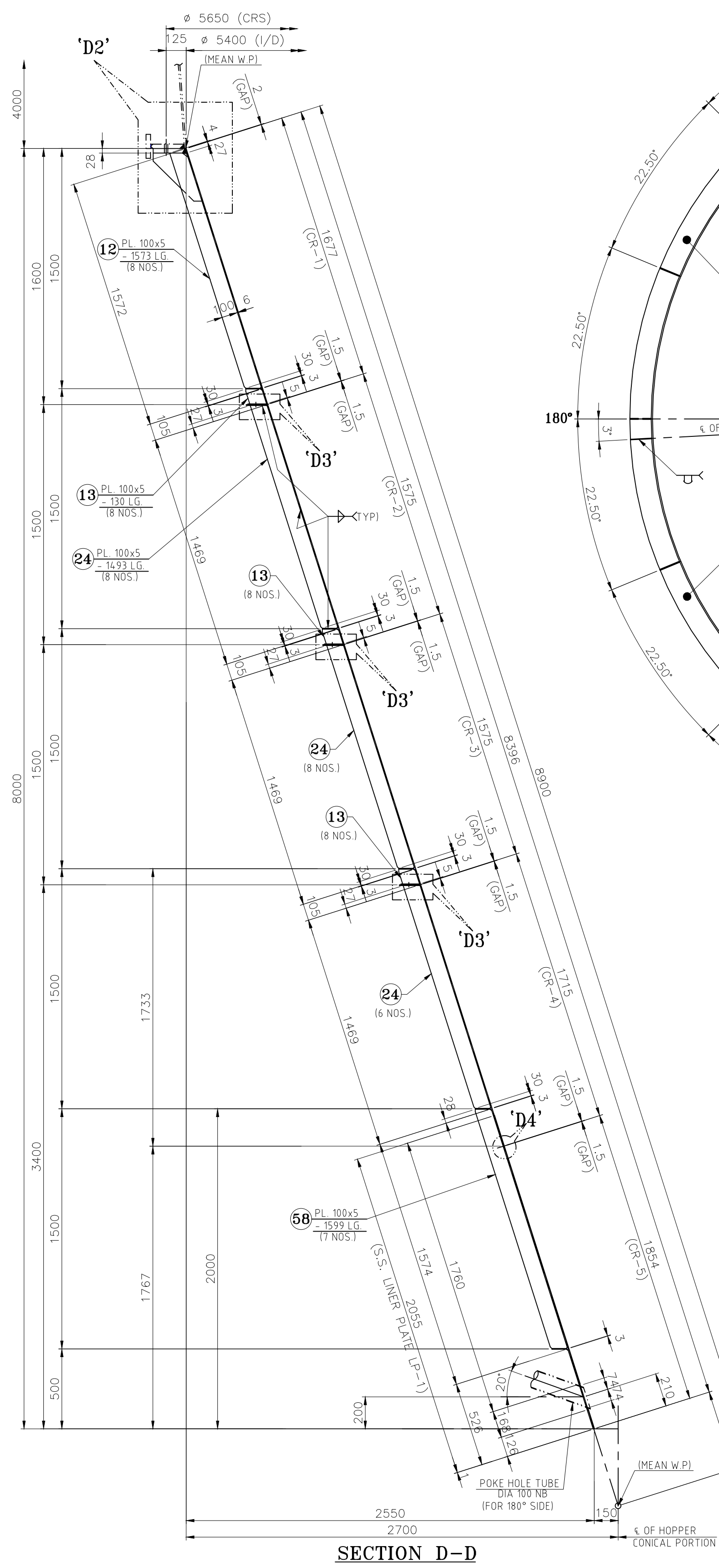
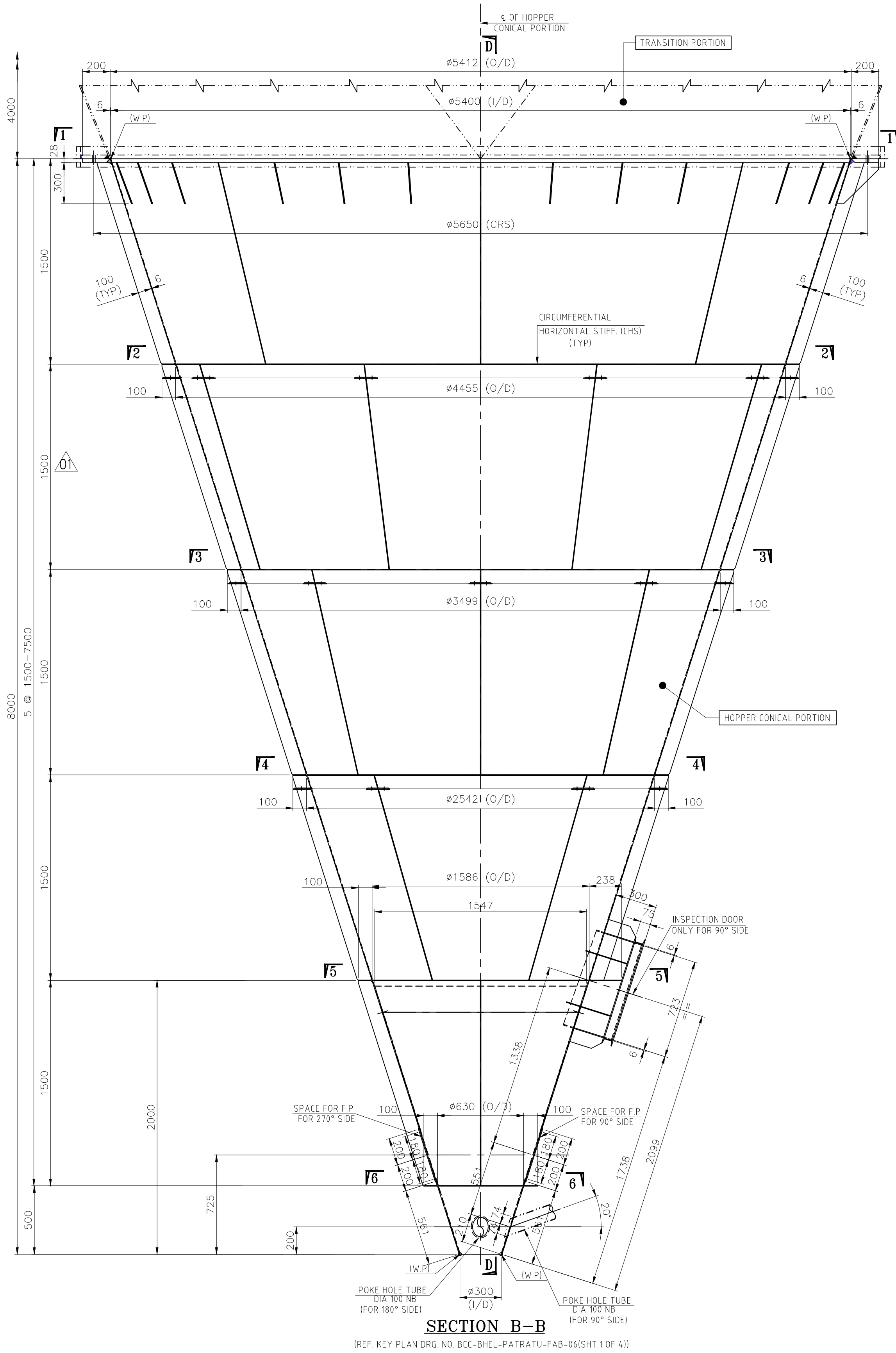
(SCALE 1:10)
(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS TO BE
WELDED WITH EACH HOPPER SEGMENT)

NOTES:—

- NOTES:
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 175Ø FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 175Ø FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK. UND.
 6. PERMANENT HOLES SHOWN THUS. . . . 
 7. ERECTION HOLES SHOWN THUS. . . . 
 8. ALL ERECTION BOLTS SHALL BE KEPT IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD

THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01624
0-79-845-01625
0-79-845-01626
0-79-845-01627

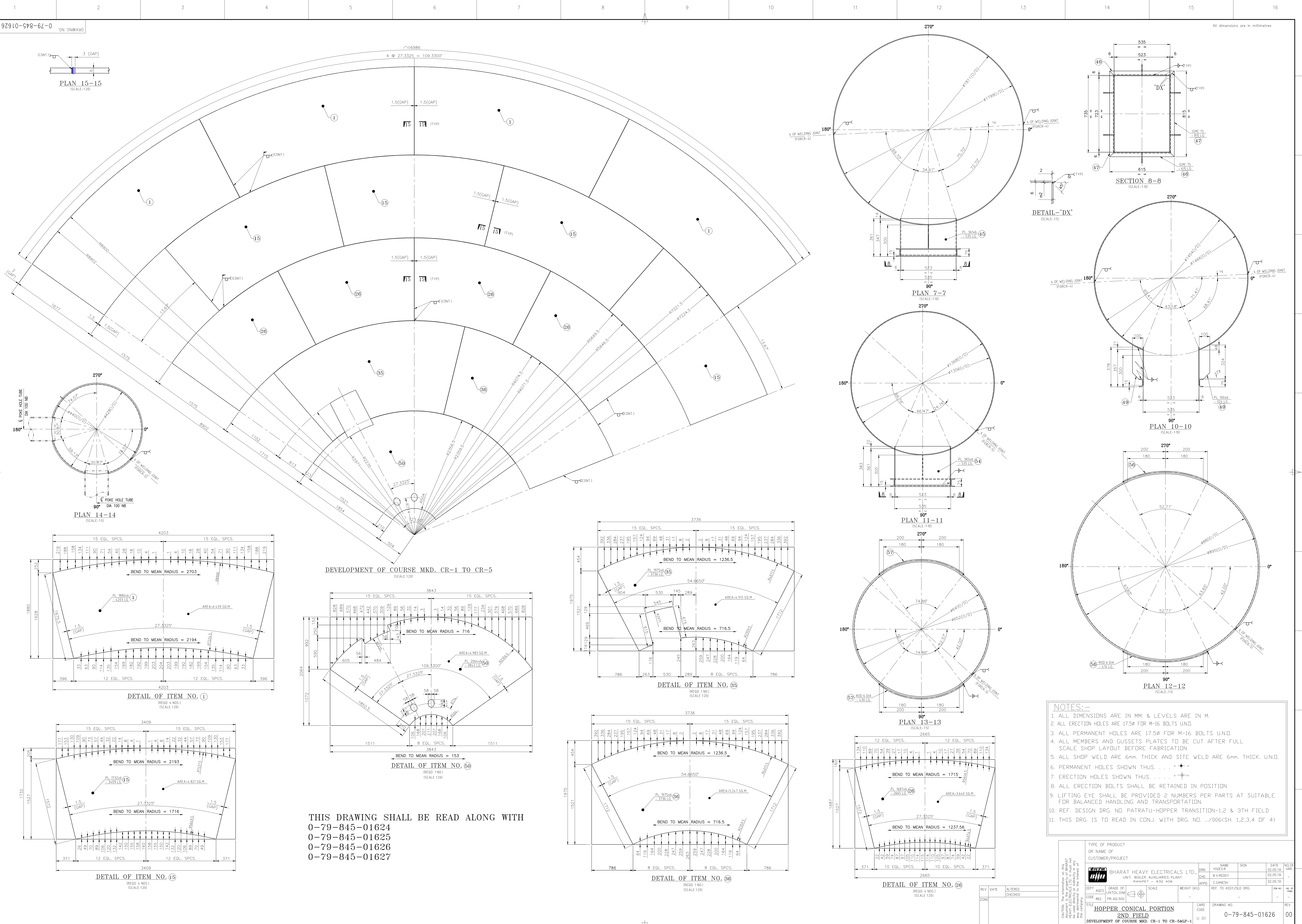
REV 01	DATE 01/27/02	ALTRD BY RV REDDY	CAUTION: The information on this drawing is the property of the company. It is not to be used directly or indirectly by any other company without the written permission of the company.	DEPT ADPT	GRADE OF INTOL.DIM.		SCALE	WEIGHT (KGS)	REF. TO ASSY/OLD DRG.	DRG NO.	VS. NO.
ZONE	REVISED AS MARKED	CHECKED MK NAHAK		CODE 862	PR: AQ 500						
TITLE HOPPER CONICAL PORTION 2ND FIELD DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5&LP-1 U 01 CARD CODE DRAWING NO. 0-79-845-01624 01											

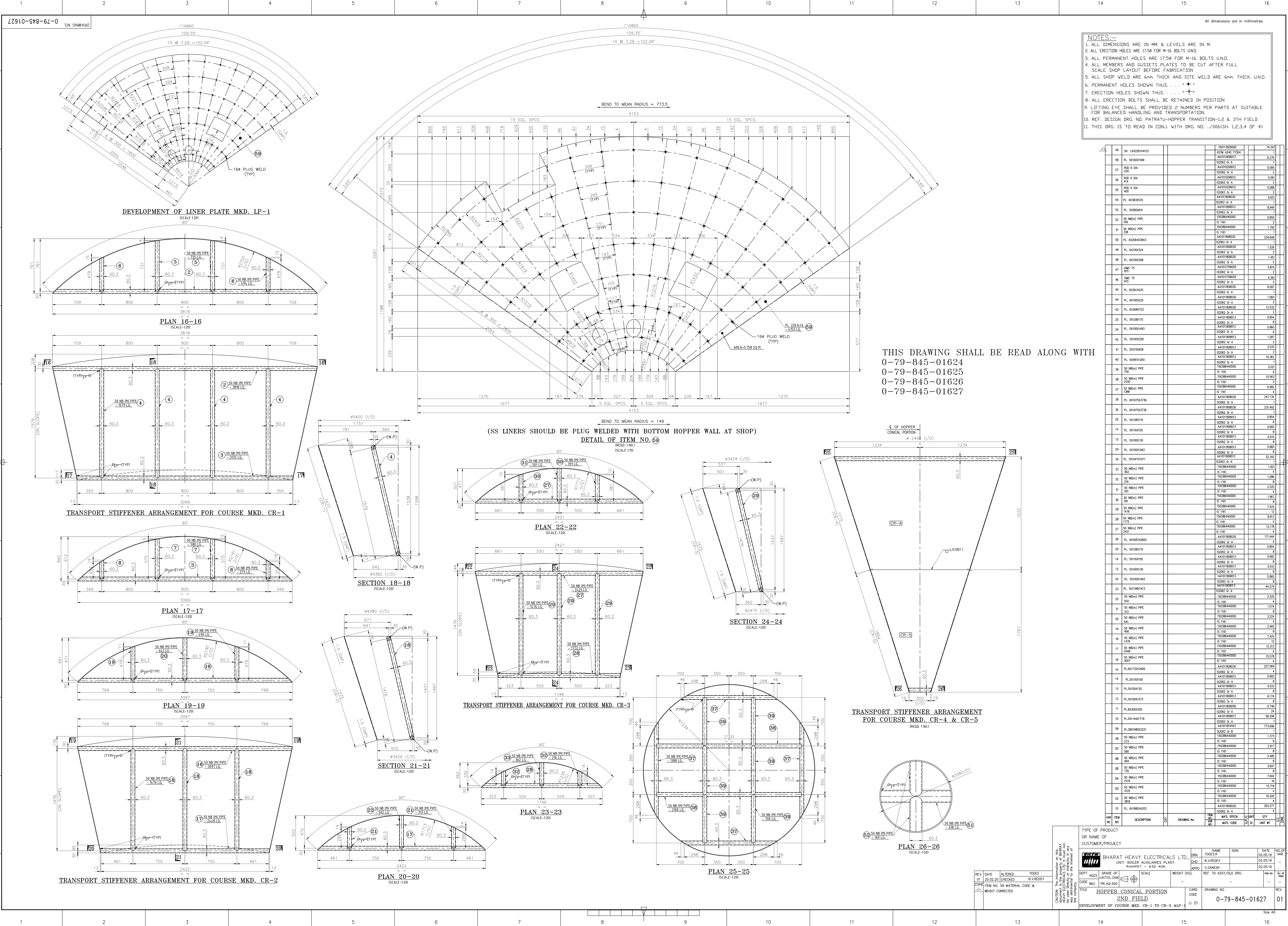


THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01624
0-79-845-01625
0-79-845-01626
0-79-845-01627

- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.5# FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 17.5# FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
 6. PERMANENT HOLES SHOWN THUS:
 7. ERECTION HOLES SHOWN THUS:
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD
 11. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. .../006(CSH. 1,2,3,4 OF 4)

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		SHARAT HEAVY ELECTRICALS LTD.		UNIT: BOLLER AUXILIARIES PLANT, RANIPET - 632 406.	
DEPT	ADCS	GRADE OF UNITS/DWG	SCALE	WEIGHT (KG)	
CODE	862	PRI AD 300			
TITLE		HOPPER CONICAL PORTION		2ND FIELD	
REF. TO ASSY/OLD DRG.		REF. TO ASSY/OLD DRG.		REF. TO ASSY/OLD DRG.	
DRAWING NO.		0-79-845-01625		REV	
U 01				01	



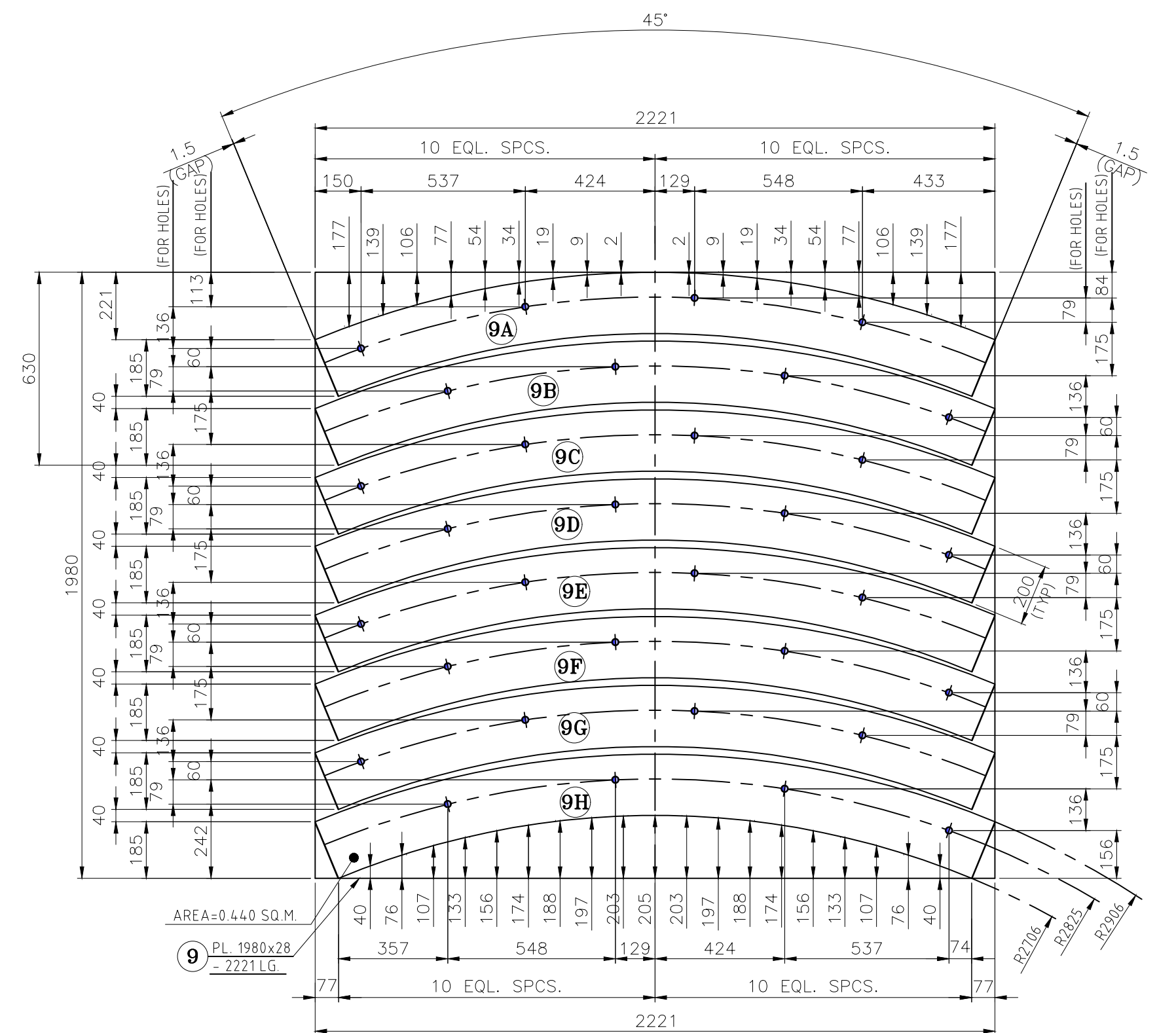
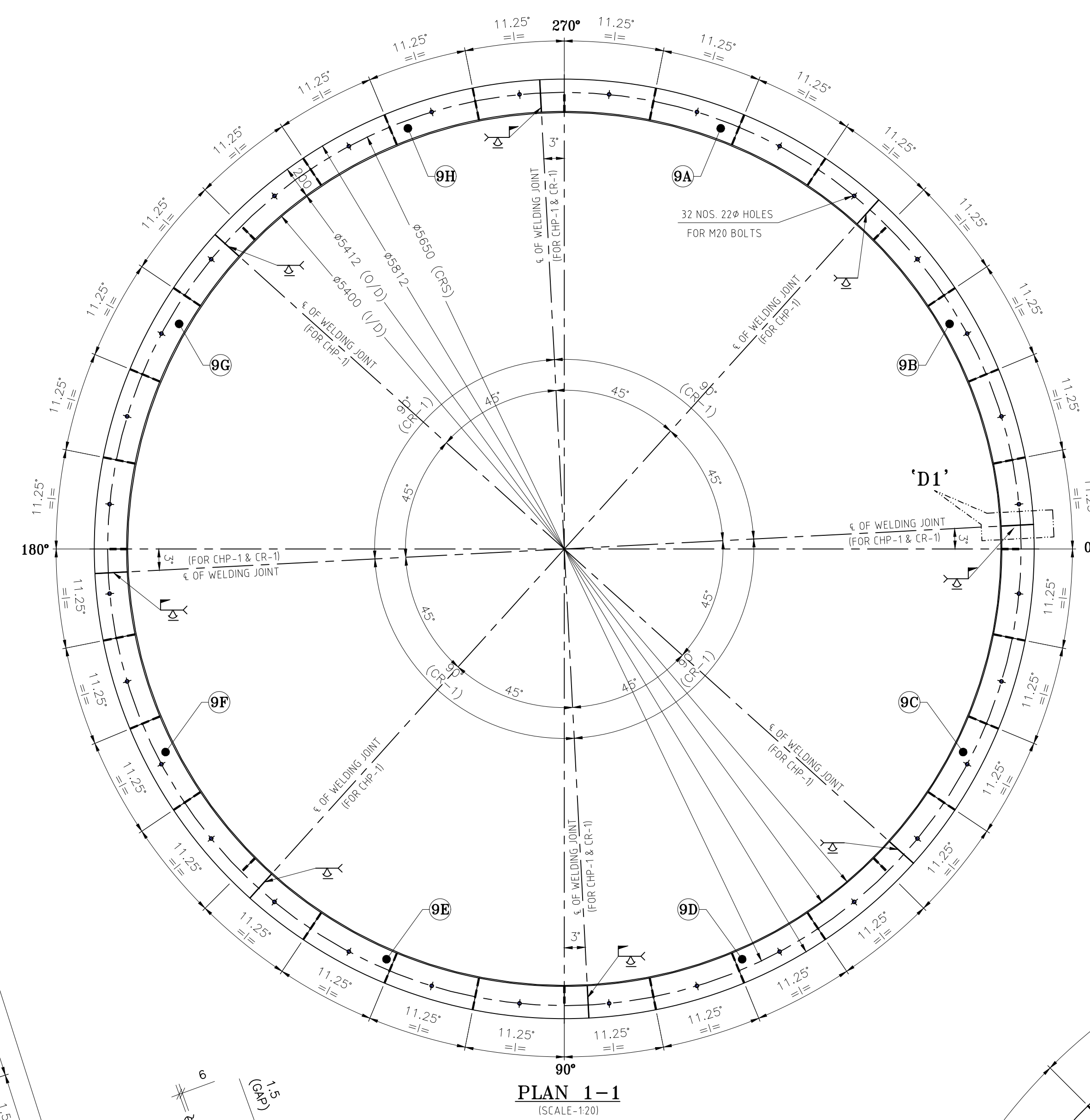
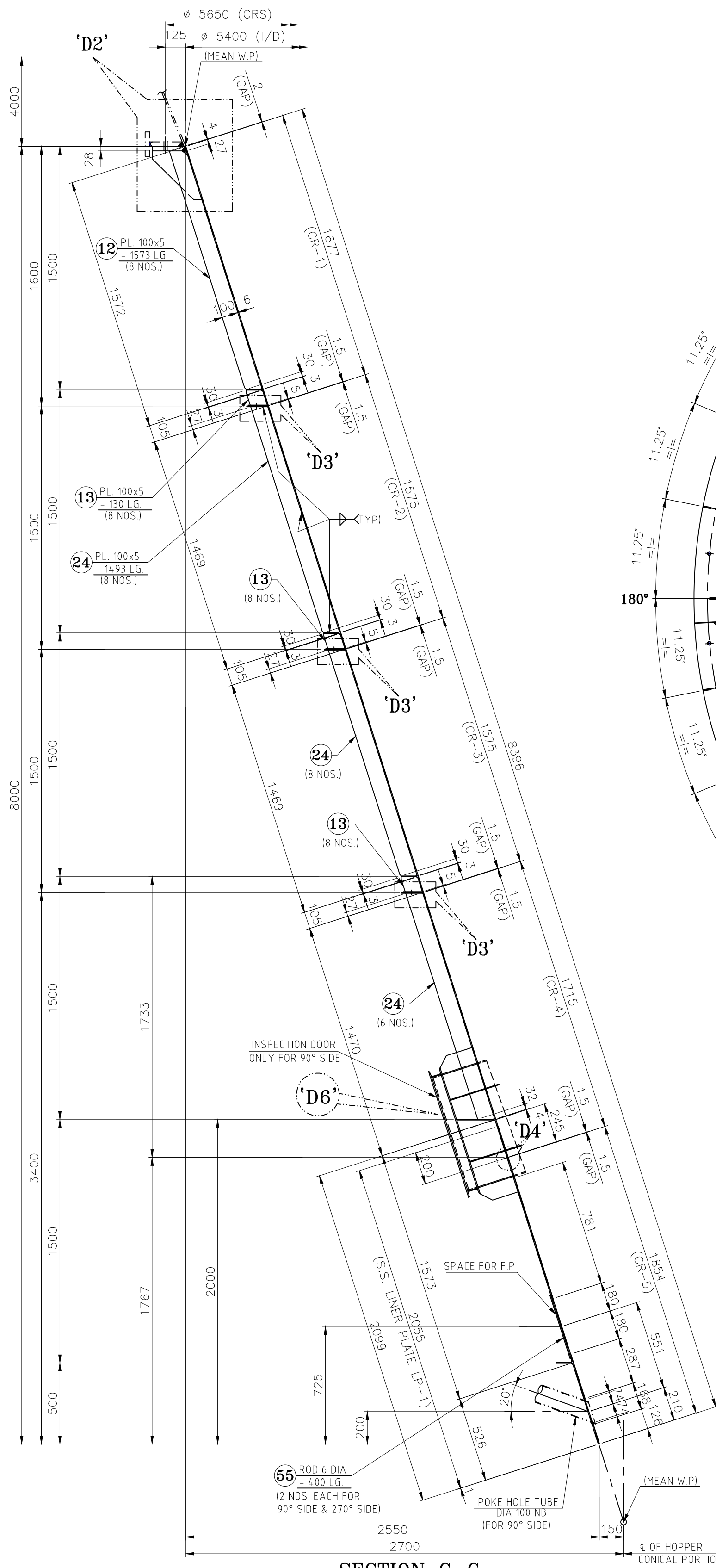


- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 17.5Ø FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
 6. PERMANENT HOLES SHOWN THUS:
 7. ERECTION HOLES SHOWN THUS:
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD
 11. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. 006(SH.1,2,3,4 OF 4)

THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01624
0-79-845-01625
0-79-845-01626
0-79-845-01627

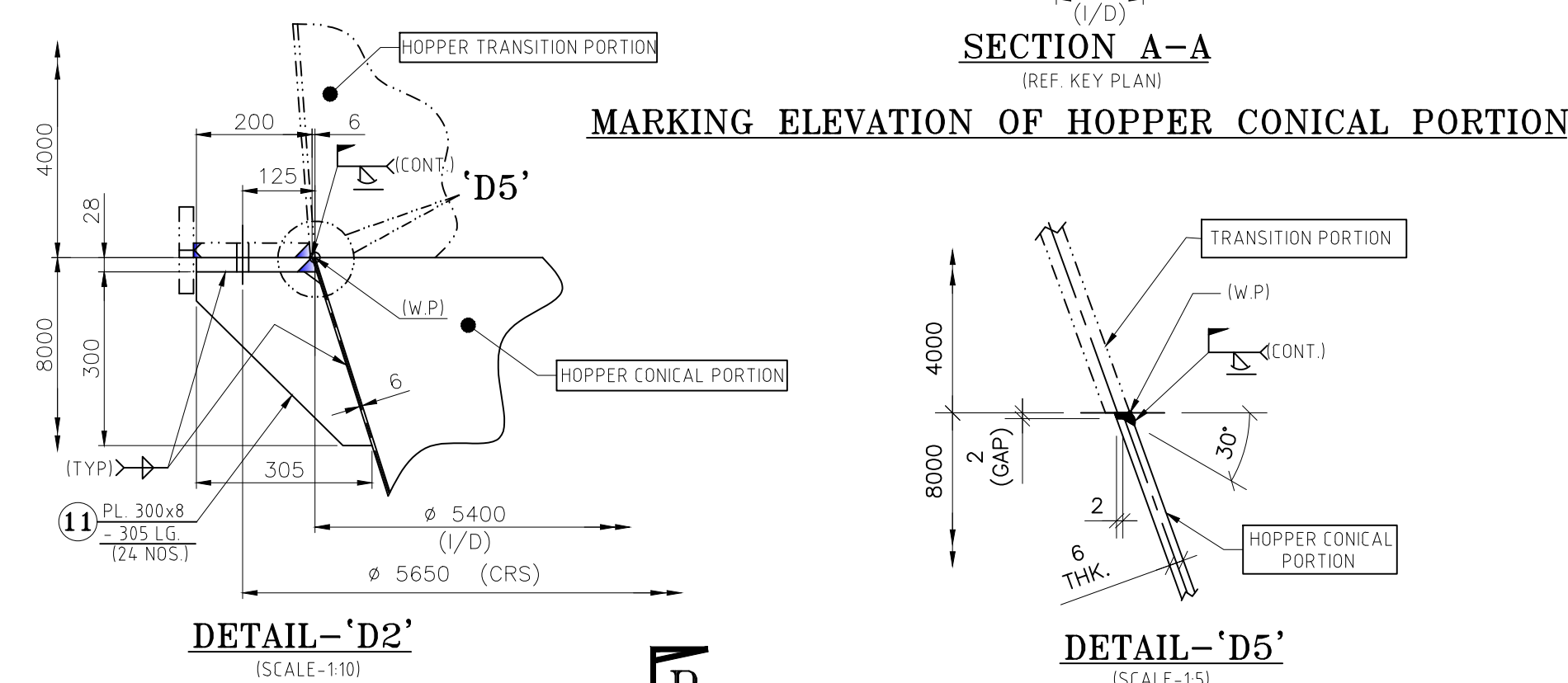
59	SH. 1.6X2281X1453	150115000000	ASW A240 T304	74.347	1
58	PL. 5X1001X599	AA1011808013	IS2062 Gr A	6.276	1
57	R0D 6 DIA 430	AA1010208012	IS2062 Gr A	0.095	2
56	R0D 6 DIA 414	AA1010208012	IS2062 Gr A	0.081	2
55	R0D 6 DIA 400	AA1010208012	IS2062 Gr A	0.088	2
54	PL. 6X38X335	AA1011808030	IS2062 Gr A	9.805	1
53	PL. 5X38X3641	AA1011808013	IS2062 Gr A	8.949	1
52	50 NB(M) PIPE 169	IS 1161	150386440000	0.850	2
51	50 NB(M) PIPE 169	IS 1161	150386440000	1.700	1
50	PL. 6X206X343	AA1011808030	IS2062 Gr A	234.699	1
49	PL. 6X100X324	AA1011808013	IS2062 Gr A	1.526	2
48	PL. 6X100X308	AA1011808013	IS2062 Gr A	1.450	2
47	ISMC 75 815	AA1012708020	IS2062 Gr A	5.819	2
46	ISMC 75 815	AA1012708020	IS2062 Gr A	4.391	2
45	PL. 6X301X335	AA1011808030	IS2062 Gr A	9.097	1
44	PL. 6X100X225	AA1011808030	IS2062 Gr A	1.060	2
43	PL. 6X38X723	AA1011808013	IS2062 Gr A	12.532	2
42	PL. 5X128X770	AA1011808013	IS2062 Gr A	0.854	8
41	PL. 5X1001X493	AA1011808013	IS2062 Gr A	5.860	1
40	PL. 5X1001X308	AA1011808013	IS2062 Gr A	1.287	1
39	50 NB(M) PIPE 200	IS 1161	150386440000	3.521	6
38	50 NB(M) PIPE 200	IS 1161	150386440000	10.563	2
37	50 NB(M) PIPE 198	IS 1161	150386440000	6.882	1
36	PL. 6X1975X376	AA1011808030	IS2062 Gr A	247.134	1
35	PL. 6X1975X376	AA1011808030	IS2062 Gr A	231.402	1
34	PL. 5X1001X493	AA1011808013	IS2062 Gr A	0.854	8
33	PL. 5X1001X308	AA1011808013	IS2062 Gr A	0.863	8
32	50 NB(M) PIPE 200	IS 1161	150386440000	0.510	4
31	50 NB(M) PIPE 200	IS 1161	150386440000	5.860	1
30	50 NB(M) PIPE 200	IS 1161	150386440000	32.342	8
29	50 NB(M) PIPE 200	IS 1161	150386440000	1.821	1
28	50 NB(M) PIPE 200	IS 1161	150386440000	1.086	4
27	50 NB(M) PIPE 200	IS 1161	150386440000	2.520	8
26	50 NB(M) PIPE 200	IS 1161	150386440000	1.967	8
25	50 NB(M) PIPE 200	IS 1161	150386440000	7.424	12
24	50 NB(M) PIPE 200	IS 1161	150386440000	8.813	8
23	50 NB(M) PIPE 200	IS 1161	150386440000	12.178	4
22	50 NB(M) PIPE 200	IS 1161	150386440000	171.444	1
21	50 NB(M) PIPE 200	IS 1161	150386440000	0.854	8
20	50 NB(M) PIPE 200	IS 1161	150386440000	0.663	8
19	50 NB(M) PIPE 200	IS 1161	150386440000	0.510	4
18	50 NB(M) PIPE 200	IS 1161	150386440000	5.860	1
17	50 NB(M) PIPE 200	IS 1161	150386440000	2.405	8
16	50 NB(M) PIPE 200	IS 1161	150386440000	7.243	12
15	50 NB(M) PIPE 200	IS 1161	150386440000	15.578	4
14	50 NB(M) PIPE 200	IS 1161	150386440000	227.699	1
13	50 NB(M) PIPE 200	IS 1161	150386440000	0.663	8
12	50 NB(M) PIPE 200	IS 1161	150386440000	6.174	8
11	50 NB(M) PIPE 200	IS 1161	150386440000	5.166	8
10	50 NB(M) PIPE 200	IS 1161	150386440000	56.206	24
09	50 NB(M) PIPE 200	IS 1161	150386440000	733.696	1
08	50 NB(M) PIPE 200	IS 1161	150386440000	1.372	8
07	50 NB(M) PIPE 200	IS 1161	150386440000	2.817	8
06	50 NB(M) PIPE 200	IS 1161	150386440000	2.405	8
05	50 NB(M) PIPE 200	IS 1161	150386440000	3.697	8
04	50 NB(M) PIPE 200	IS 1161	150386440000	7.942	16
03	50 NB(M) PIPE 200	IS 1161	150386440000	15.719	4
02	50 NB(M) PIPE 200	IS 1161	150386440000	19.205	8
01	50 NB(M) PIPE 200	IS 1161	150386440000	303.277	4

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		BREN CHD		YOGES		DATE		NO. OF	
GHARAT HEAVY ELECTRICALS LTD.,		BREN CHD		YOGES		02.05.19		VAR	
UNIT: BOILER AUXILIARIES PLANT,		BREN CHD		YOGES		02.05.19		VAR	
RANIPET - 632 406.		BREN CHD		YOGES		02.05.19		VAR	
DEPT ACOS		GRADE OF		SCALE		WEIGHT (KG)		REF. TO ASSY/OLD DRG.	
CODE 862		PR: AG-500		PR: AG-500		PR: AG-500		PR: AG-500	
TITLE		DRAWING NO.		CARD CODE		REV		REV	
HOPPER CONICAL PORTION		0-79-845-01627		U 01		01		01	
DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5 ALP									



CUTTING DETAIL OF ITEM NO. 9A TO 9H
PLATE ITEM NO. 9 (REQD. 1 NO.)

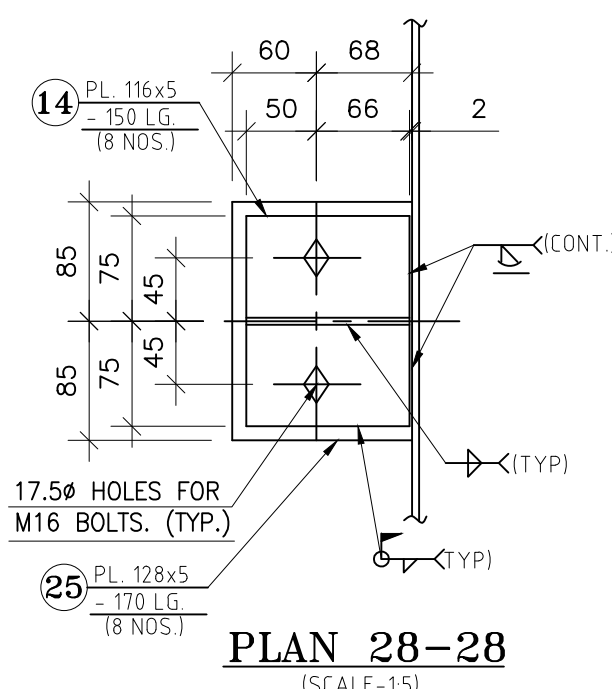
(SCALE 1:15)
(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS
WELDED WITH EACH HOPPER SEGMENT)



(1/1)

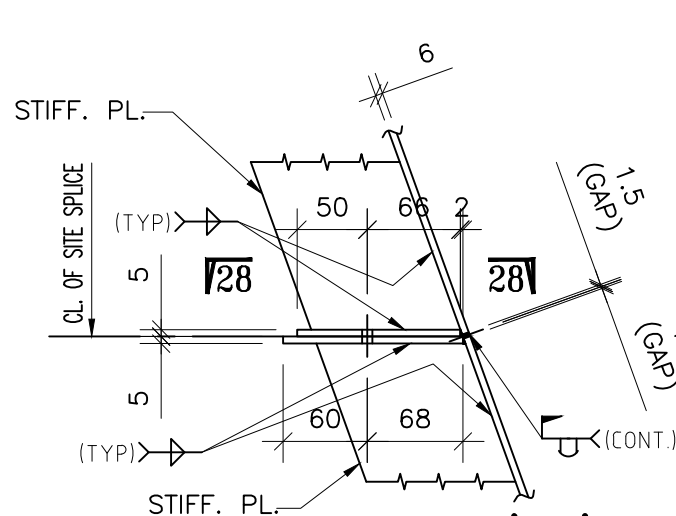
SECTION A-A

MARKING ELEVATION OF HOPPER CONICAL PORTION

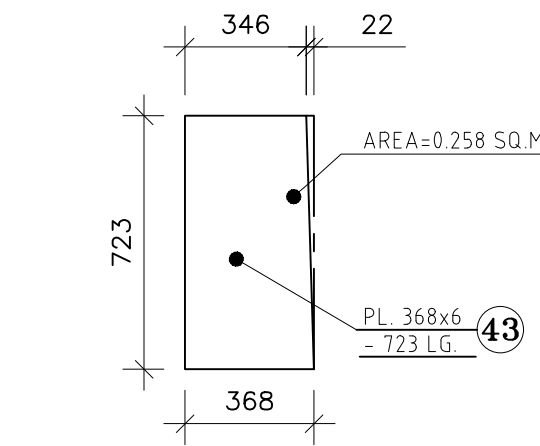


PLAN 28-28
[SCALE: 1/4"]

(FOR MATCHING OF TIER AT SITE)

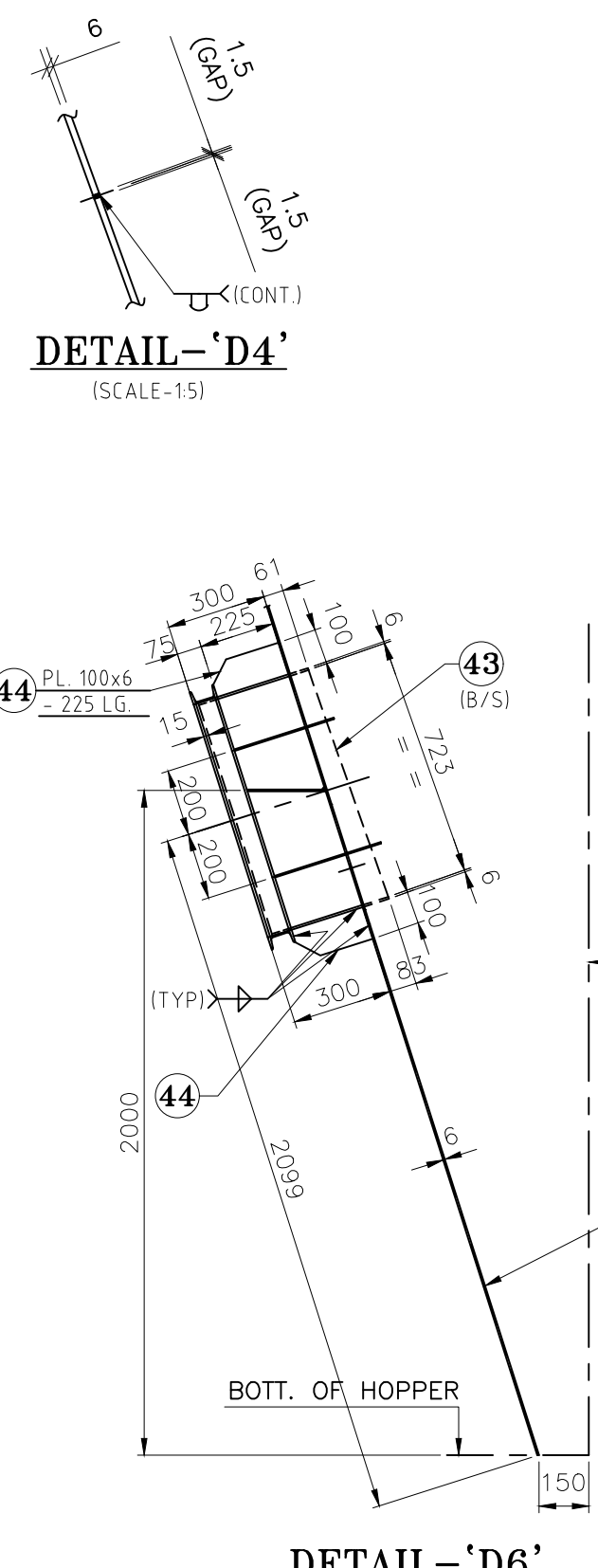


DETAIL-'D3'
(SCALE-1:5)



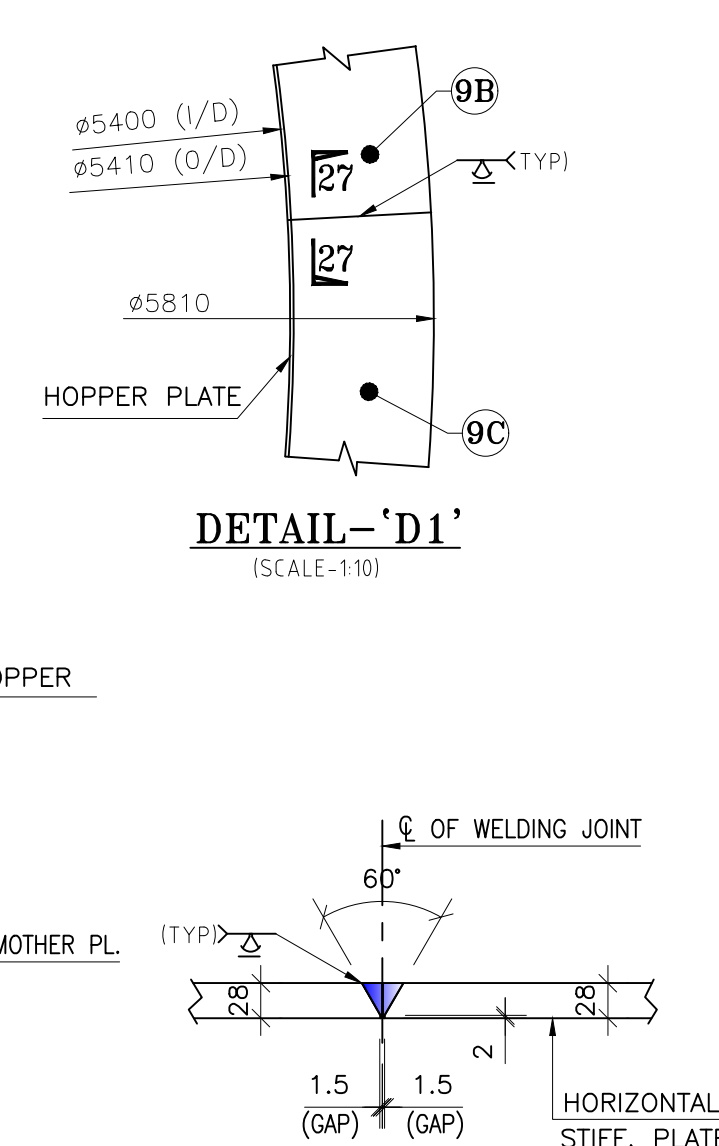
DETAIL OF ITEM NO. 43

(REQD. 2 NOS.)
(SCALE 1:20)



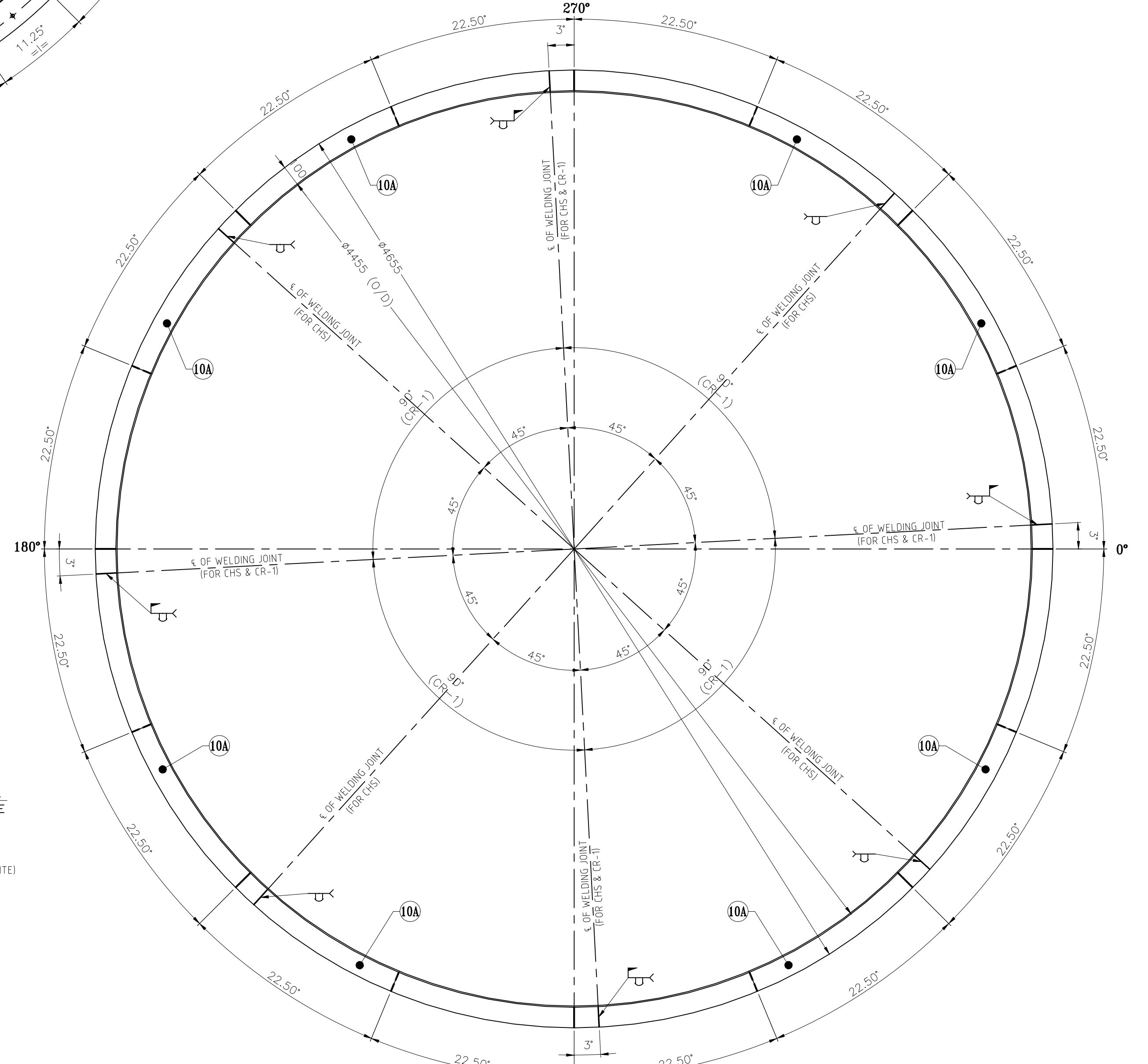
DETAIL='D6'

DETAIL DO
(SCALE-1:20)



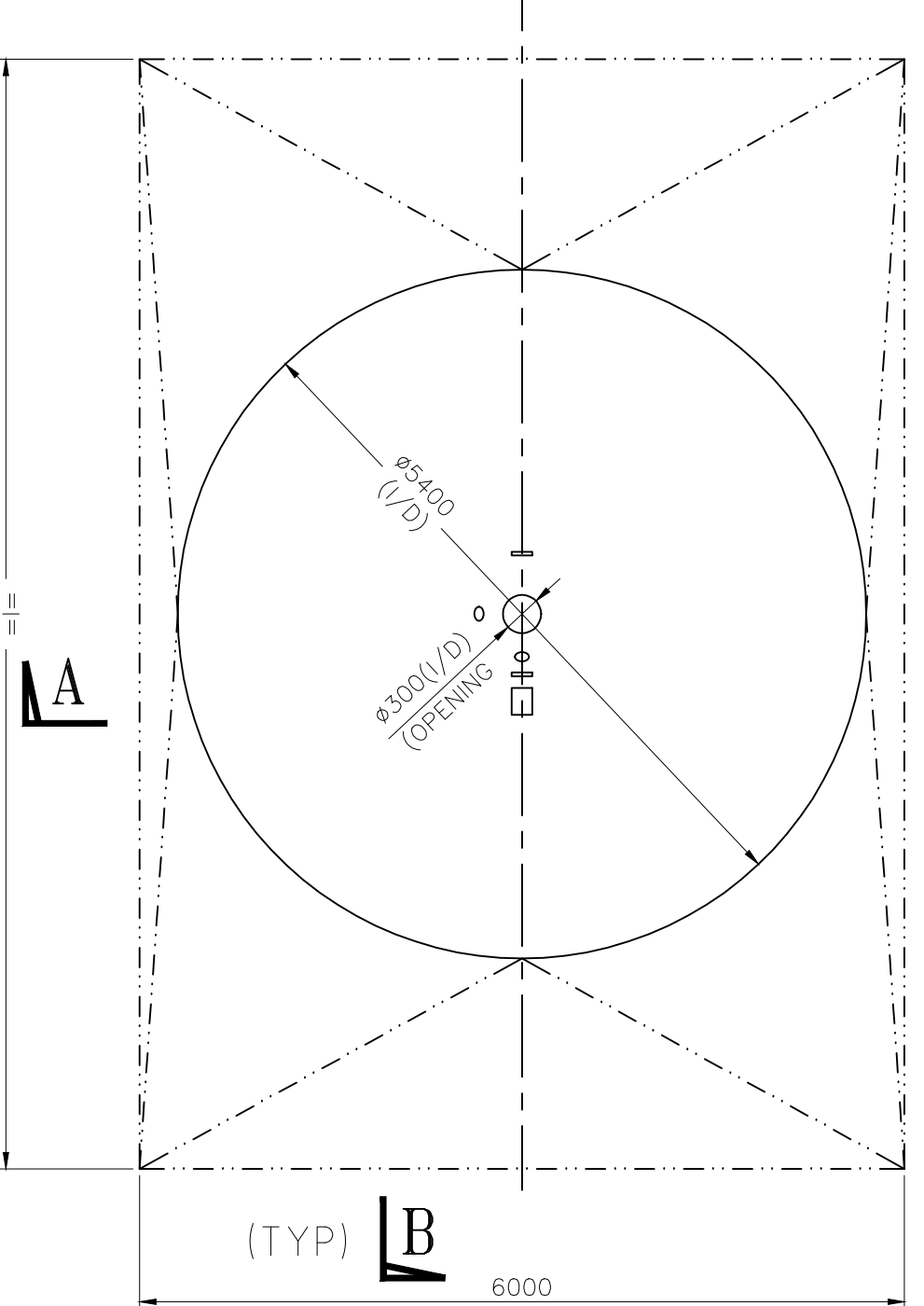
SECTION 27-27

SECTION 27-27
(SCALE=15)



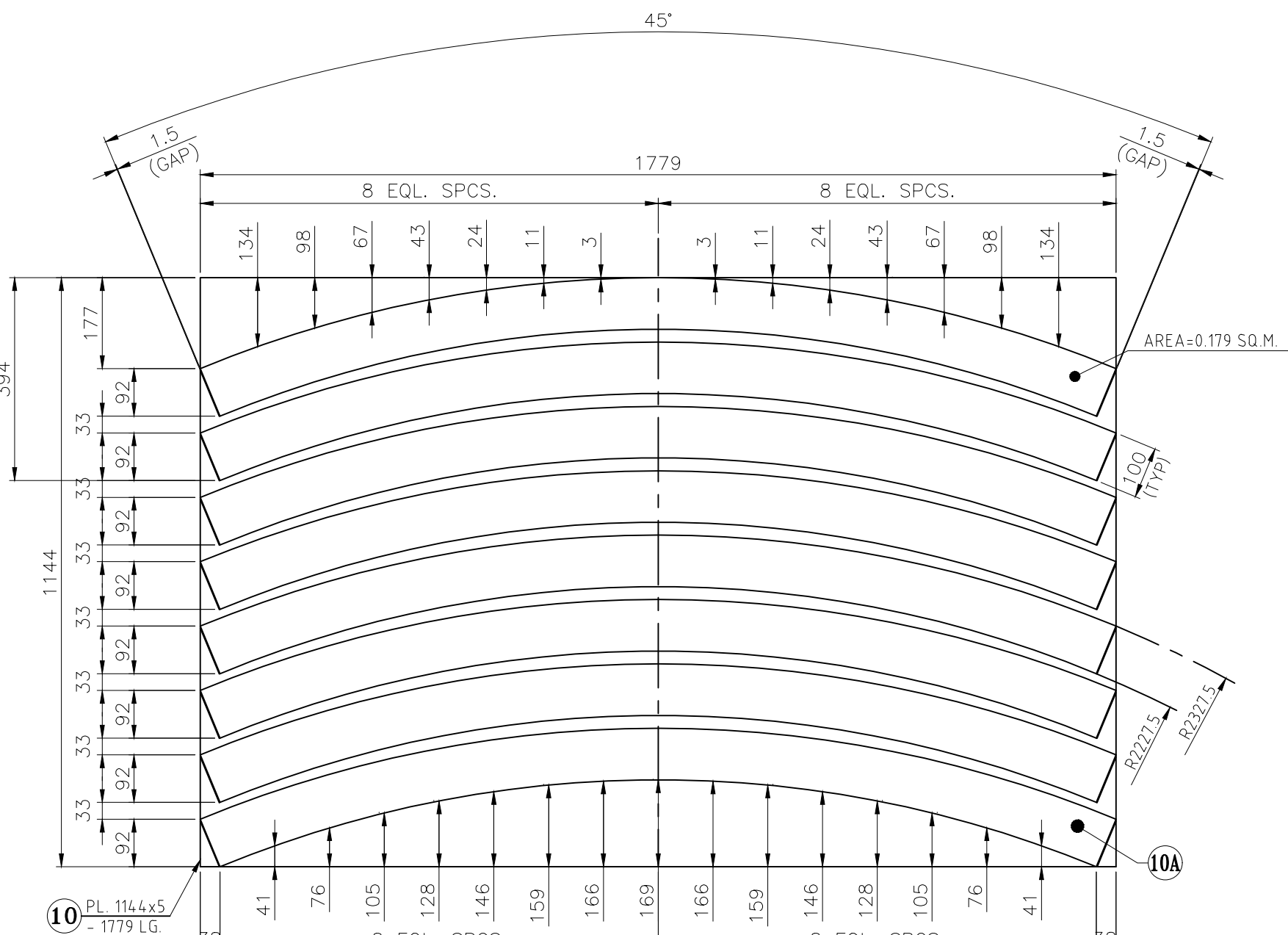
90°
PLAN 2 2

LAN 2-
(SCALE-115)



=|=

MARKING PLAN OF HOPPER
CONICAL PORTION (1TH FIELD)



CUTTING DETAIL OF ITEM NO. 10A

PLATE ITEM NO. 10 (REQD. 1 NO.

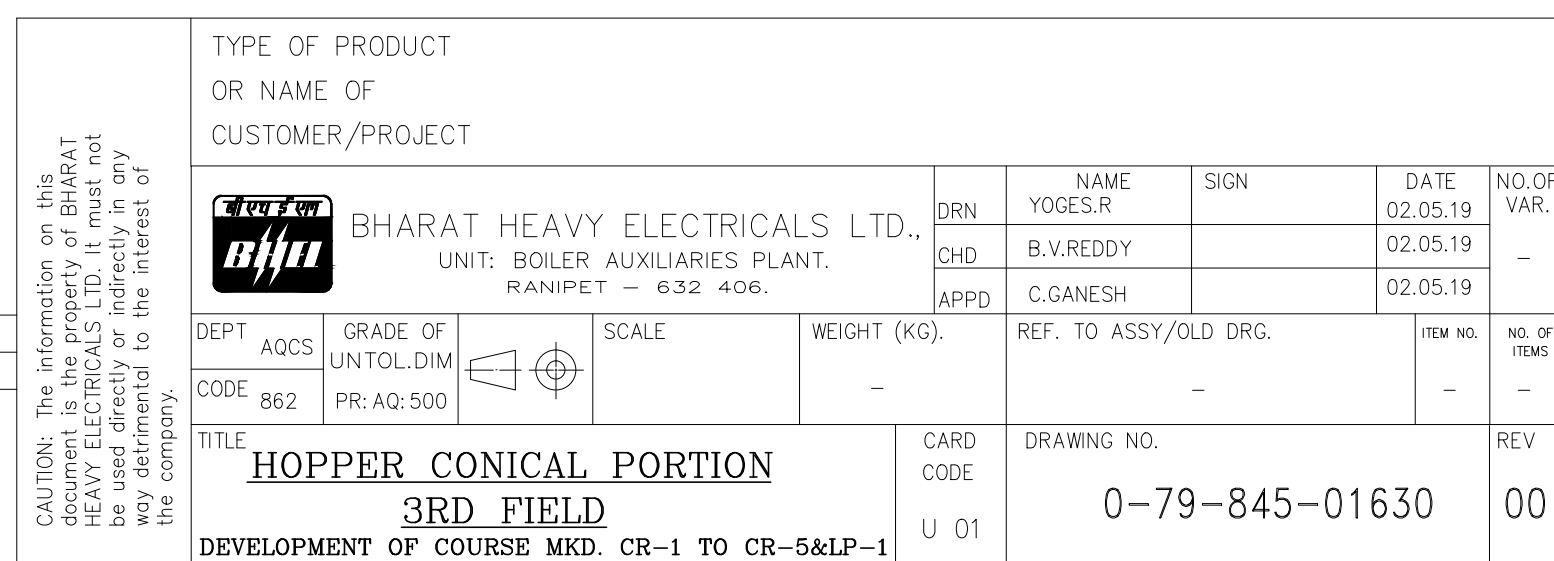
(SCALE 1:10)
(PLATE TO BE CUT IN 8 EQUAL PARTS AND 2 PARTS TO BE
WELDED WITH EACH HOPPER SEGMENT)

- NOTES:-**
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 175 ϕ FOR M-16 BOLTS U.N.O.
 3. ALL PERMANENT HOLES ARE 175 ϕ FOR M-16 BOLTS U.N.O.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK. U.N.O.
 6. PERMANENT HOLES SHOWN THUS. . . . 
 7. ERECTION HOLES SHOWN THUS. . . . 
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 10. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-1,2 & 3TH FIELD

THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-01628
0-79-845-01629
0-79-845-01630
0-79-845-01631

REV	DATE	ALTERED BY	REDDY	DEPT	AGOS	GRADE OF	SCALE	WEIGHT (KG.)	REF. TO ASSY/DWG DRC.	ITEM NO.	NO. OF PAGES
01	27.02.20	CHECKED BY	NAHAZ		662						
ZONE	REVISED AS MARKED			PPR: AG-500							
COLLECTED THIS DRAWING FROM THE DRAWING ROOM OF THE COMPANY. THE DRAWING IS NOT TO BE USED DIRECTLY BY THE COMPANY. THE DRAWING IS TO BE USED FOR THE PURPOSE OF THE COMPANY. THE DRAWING IS TO BE USED FOR THE PURPOSE OF THE COMPANY.											
TITLE: <u>HOOPER CONICAL PORTION</u> <u>3RD FIELD</u>								CARD CODE	DRAWING NO.	REV	
DEVELOPMENT OF COURSE MPPD. CR-1 TO CR-5&LP-1								U 01	0-79-845-01628	01	

3



REV	DATE	ALTERED
		CHECKED
ZONE		

DEVELOPMENT OF LINER PLATE MKD. LP-1

(SCALE 1:20)

PLAN 16-16

PLAN 10-10
(SCALE-120)

TRANSPORT STIFFENER ARRANGEMENT FOR COURSE MKD. CR-1

PLAN 17-17

(SCALE-1:20)

PLAN 19-19

(SCALE=1/20)

TRANSPORT STIFFENER ARRANGEMENT FOR COURSE MKD. CR-2

PLAN 20-20

PLAN 20-20
(SCALE-120)

(SS LINERS SHOULD BE PLUG WELDED WITH BOTTOM HOPPER WALL AT SHOP)

DETAIL OF ITEM NO. 59

DETAIL OF ITEM
(REQD. 1 NO.)

(SCALE 1:15)

PLAN 22-22

PLAN 22-22
(SCALE-1:20)

SECTION 24-24

SECTION 24-24
(SCALE-1:20)

TRANSPORT STIFFENER ARRANGEMENT

FOR COURSE MKD, CR-4 & CR-5

FOR COURSE MKD.

THIS DRAWING SHALL BE READ ALONG WITH

0-79-845-01628

0-79-845-01620
0-79-845-01630

0-79-845-01629
0-79-845-01629

0-79-845-01630

NOTES:-

1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 175W FOR M-16 BOLTS UND.
3. ALL PERMANENT HOLES ARE 175W FOR M-16 BOLTS UND.
4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK. UND.
6. PERMANENT HOLES SHOWN THUS. 
7. ERECTION HOLES SHOWN THUS. 
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. LIFTING EYE SHALL BE PROVIDED 2 MEMBERS PER PARTS AT SUITABLE FOR BALANCED LIFTING AND TRANSPORT
10. REF. DESIGN IS DRG. NO. PATRAU-TO-HOPPER TRANSPORT-1.2 & 3TH FIELD
11. THIS DRG. IS TO BE USED IN CONJ. WITH DRG. NO. /006K5H.1,2,3,4 OF 4

59	SK 1.8X22.8X14.53				15013500000			74.347	
58	PL 5A100M1599				AS2M 4242 T204			1	
					AA101780003			6.276	
					IS2062 Gr A			1	
					AA101200012			0.095	
					IS2062 Gr A			1	
					AA101200012			0.091	
					IS2062 Gr A			1	
					AA101200012			0.088	
					IS2062 Gr A			1	
					AA101780030			5.651	
54	PL 6X303X3035				IS2062 Gr A			1	
					AA101780033			5.949	
53	PL 5A05S0641				IS2062 Gr A			1	
					IS2062 Gr A			1	
52	50.NB(m) PPE 338				IS1036440000			0.850	
					IS1161			1	
51	50.NB(m) PPE 338				IS1036440000			1.700	
					IS1161			1	
49	PL 6X100X324				AA101780030			234.699	
					IS2062 Gr A			1.526	
48	PL 6X100X308				AA101780030			1.435	
					IS2062 Gr A			2	
					AA101780020			5.819	
47	QMC 75 615				IS2062 Gr A			4.391	
					AA101780020			2	
46	QMC 75 615				IS2062 Gr A			9.097	
					AA101780030			1.060	
45	PL 6X303X3025				IS2062 Gr A			12.332	
					AA101780030			2	
43	PL 6X368X723				IS2062 Gr A			0.854	
					AA101780033			5.860	
25	PL 5A128X170				IS2062 Gr A			1.297	
					AA101780033			3.333	
24	PL 5A100M1493				IS2062 Gr A			10.362	
					AA101780033			1.521	
42	PL 5A100X328				IS1161			10.563	
					IS1161			6.982	
39	50.NB(m) PPE 720				IS1036440000			1.521	
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38	50.NB(m) PPE 720				IS1161			6.982	
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37	50.NB(m) PPE 720				IS1161			10.563	
					IS1161			6.982	
36	PL 6X1975X3736				AA101780030			247.134	
					IS2062 Gr A			231.402	
35	PL 6X1975X3736				AA101780030			0.854	
					IS2062 Gr A			0.863	
25	PL 5A128X170				IS2062 Gr A			0.863	
					AA101780033			0.510	
14	PL 5A101X150				IS2062 Gr A			5.860	
					AA101780033			32.342	
13	PL 5A100X150				IS2062 Gr A			1.821	
					AA101780033			1.086	
24	PL 5A100M1493				IS2062 Gr A			2.520	
					AA101780033			1.967	
33	50.NB(m) PPE 362				IS1036440000			7.424	
					IS1161			1.967	
32	50.NB(m) PPE 336				IS1036440000			7.424	
					IS1161			1.967	
31	50.NB(m) PPE 336				IS1036440000			7.424	
					IS1161			1.967	
30	50.NB(m) PPE 391				IS1036440000			8.913	
					IS1161			12.178	
29	50.NB(m) PPE 1772				IS1036440000			17.444	
					IS1161			0.854	
28	50.NB(m) PPE 2421				AA101780033			0.863	
					IS2062 Gr A			0.510	
27	50.NB(m) PPE 1772				AA101780033			44.274	
					IS2062 Gr A			2.525	
26	PL 6X168X2665				IS1036440000			1.574	
					IS1161			3.224	
25	PL 5A128X170				IS1036440000			2.465	
					IS1161			7.424	
14	PL 5A161X150				IS1036440000			12.313	
					IS1161			15.578	
13	PL 5A100X150				IS1036440000			227.669	
					IS2062 Gr A			0.863	
24	PL 5A100M1493				AA101780033			0.510	
					IS2062 Gr A			6.174	
12	PL 5A100X150				AA101780033			5.946	
					IS2062 Gr A			56.208	
11	PL 5A100X150				AA101780033			733.696	
					IS2062 Gr A			1.373	
09	PL 2B1380S02221				AA101819143			2.817	
					IS2062 Gr A			2.485	
08	50.NB(m) PPE 273				IS1161			3.697	
					IS1036440000			7.942	
07	50.NB(m) PPE 360				IS1161			15.719	
					IS1036440000			19.205	
06	50.NB(m) PPE 494				IS1161			35.277	
					IS1036440000			1	
05	50.NB(m) PPE 726				IS1161			10	
					IS1036440000			15.719	
04	50.NB(m) PPE 579				IS1161			19.205	
					IS1036440000			35.277	
03	50.NB(m) PPE 3125				IS1161			1	
					IS1036440000			1	
02	50.NB(m) PPE 3888				IS1161			1	
					IS1036440000			1	
01	PL 6X180X4203				IS2062 Gr A			1	

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any

CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS
 LIMITED, COLEO, MACHINERY, PLANT

UNIT: BOILER AUXILIARIES PLAN
RANIPET - 632 406.

DEPT	AQCS	GRADE OF		SCALE
------	------	----------	--	-------

CODE 862	UNTOL. DIM	
	PR: 40-500	

TITLE	HOPPER CONICAL PORTION
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3RD FIELD

DEVELOPMENT OF COURSE MKD. CR-1 TO CR-5

14

14	
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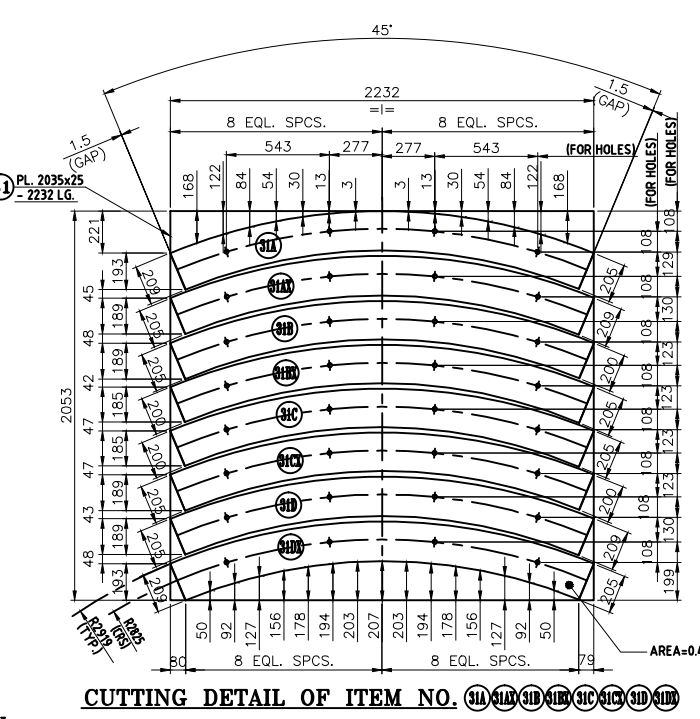
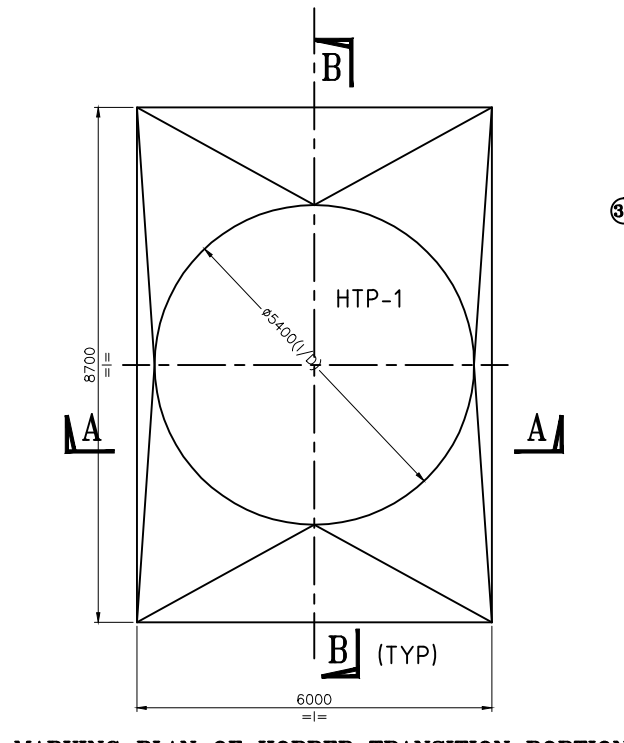
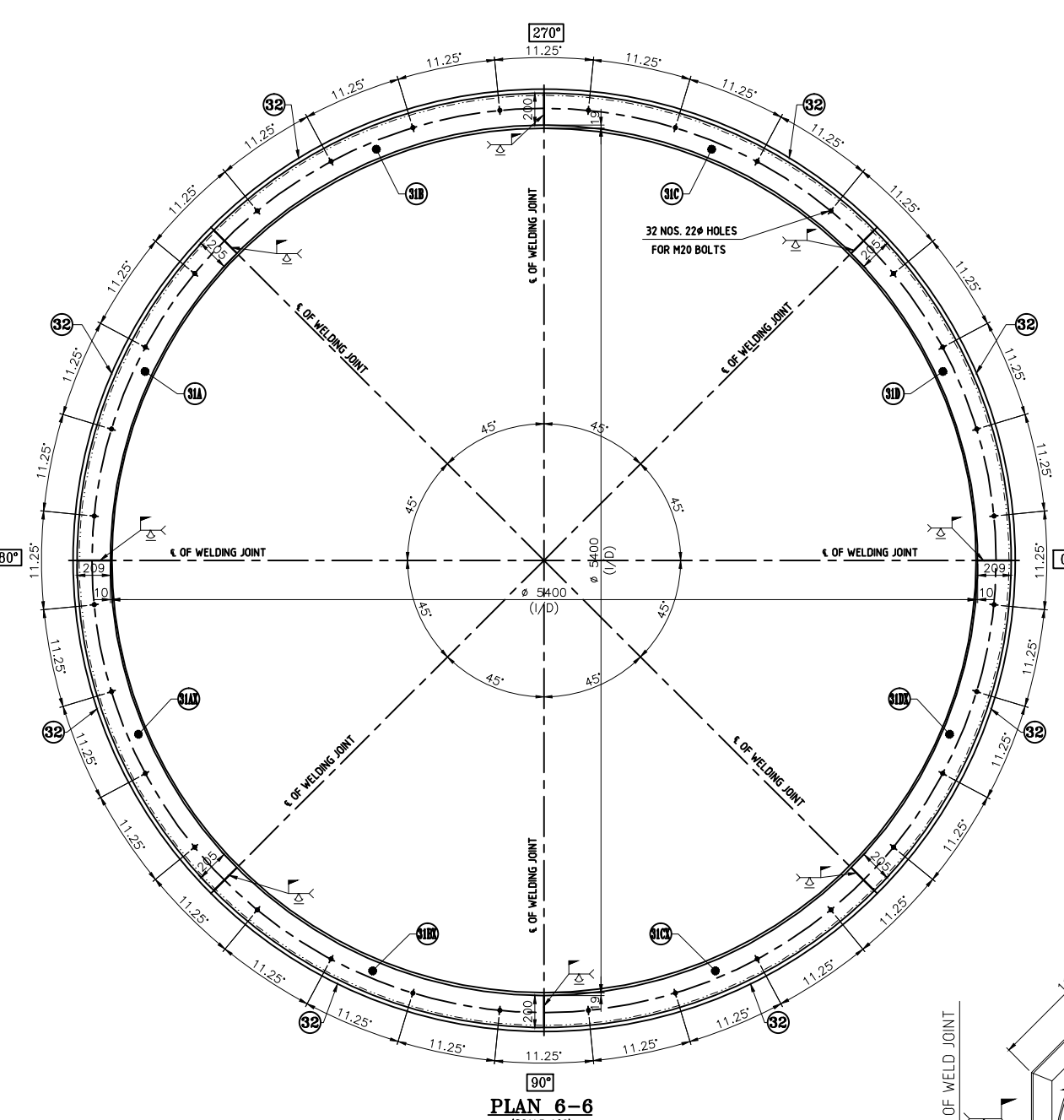
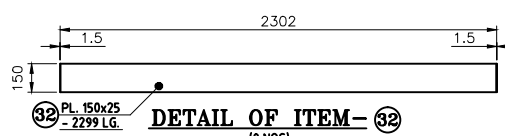
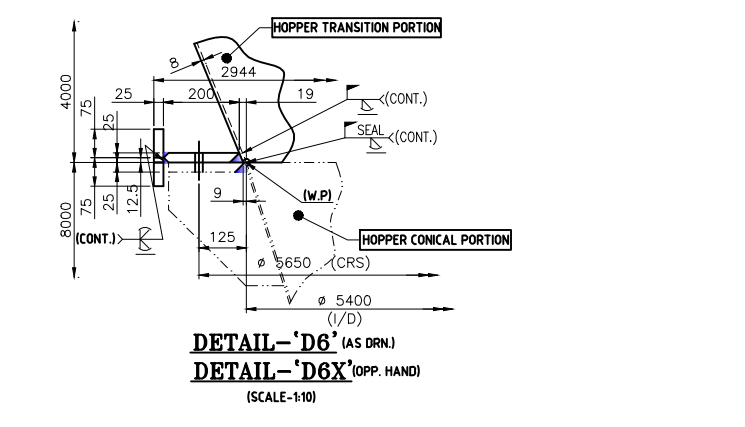
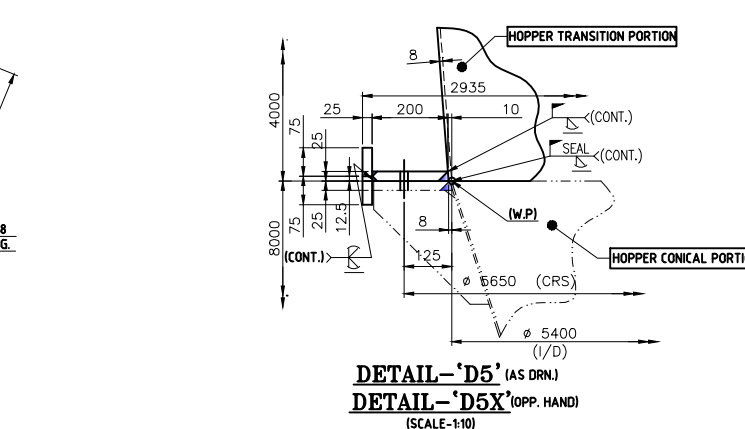
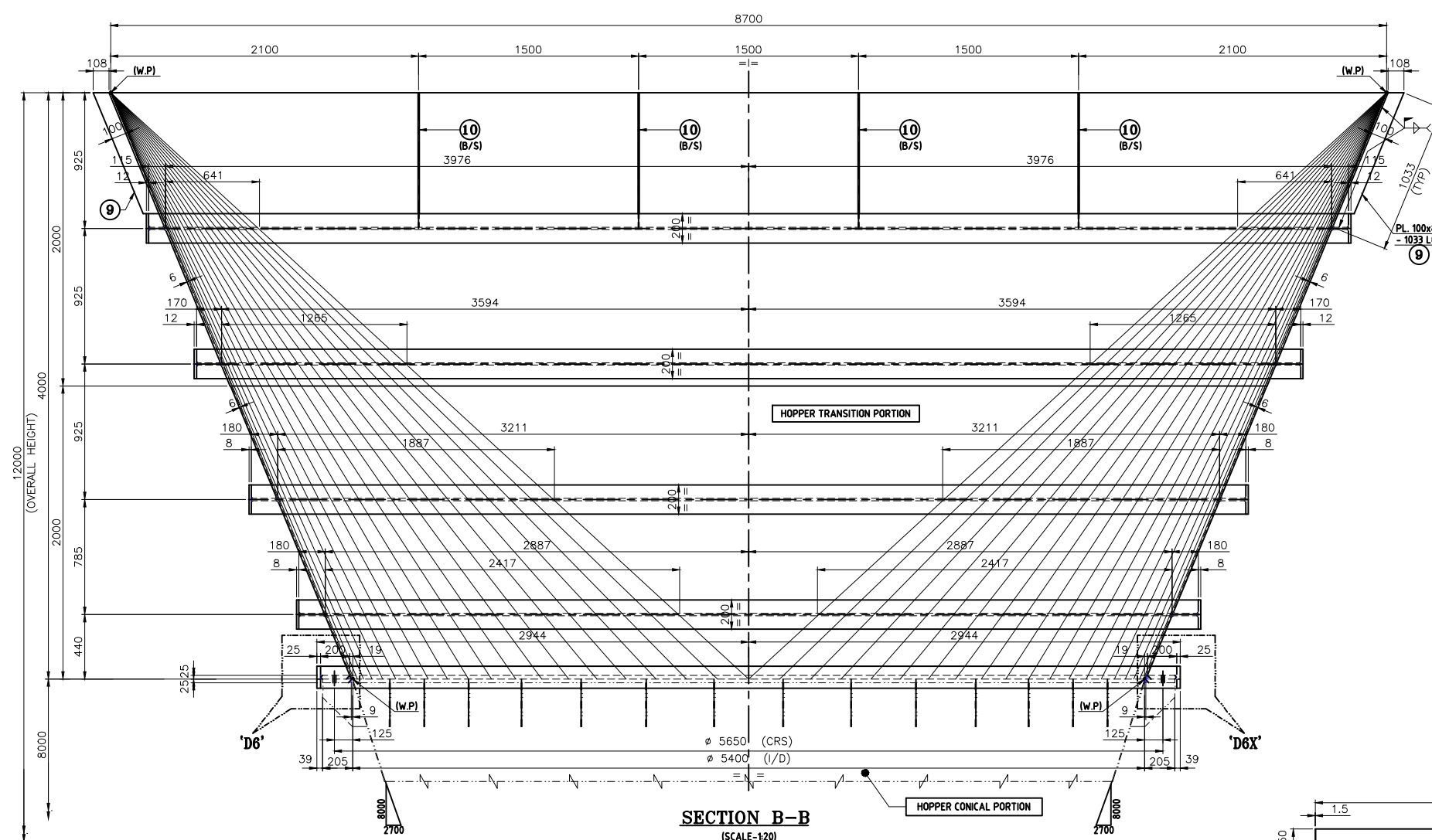
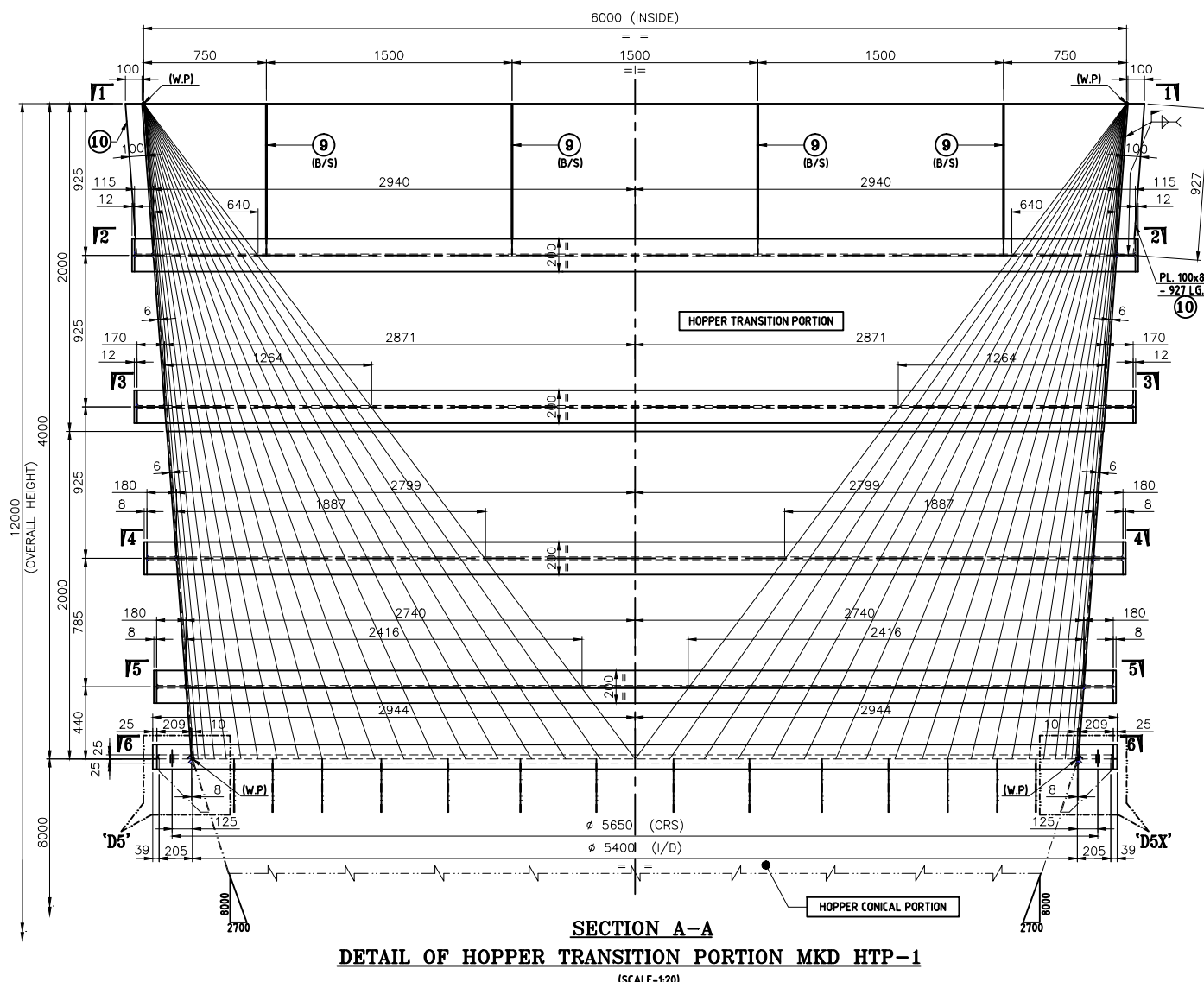
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16

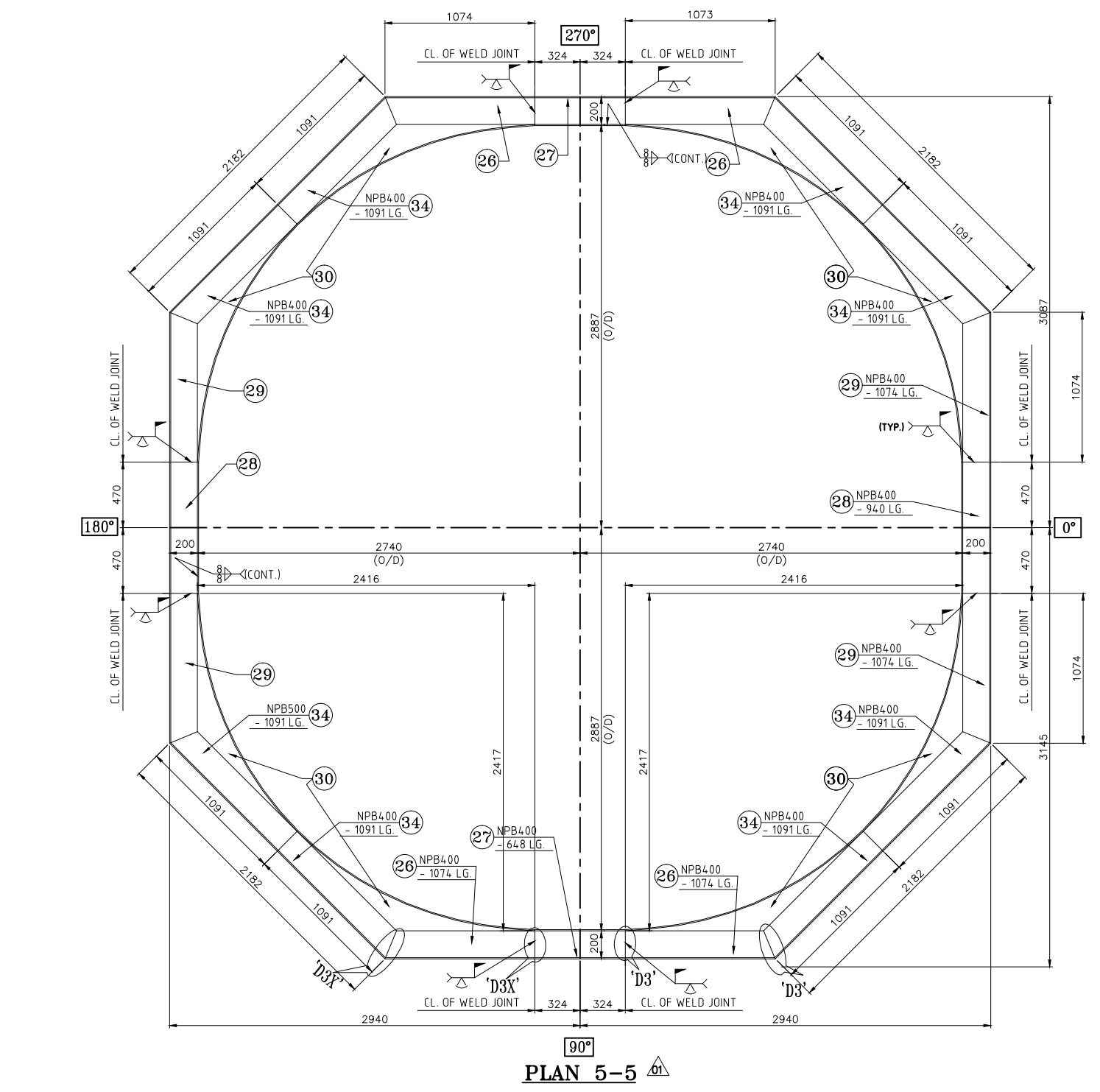
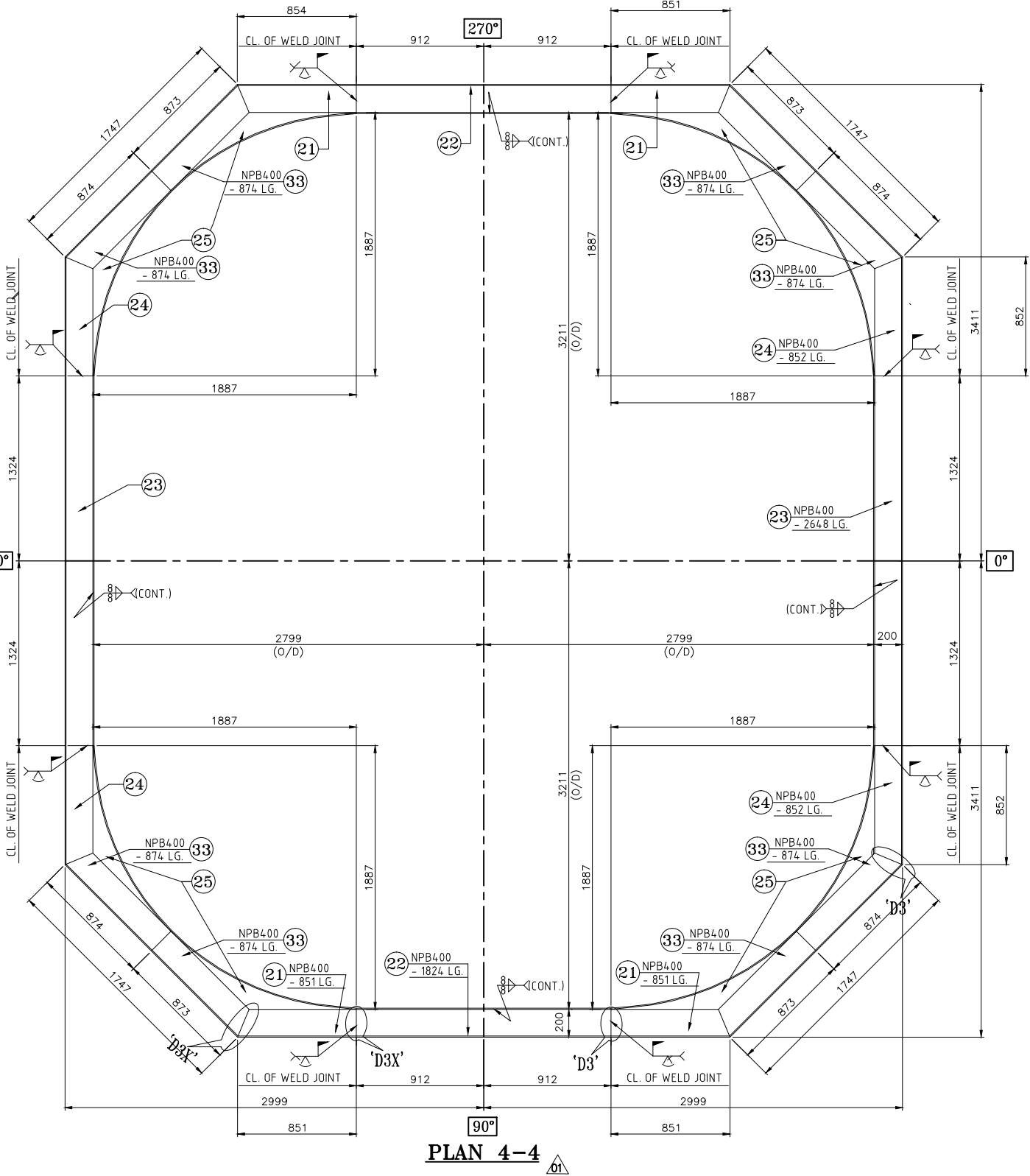
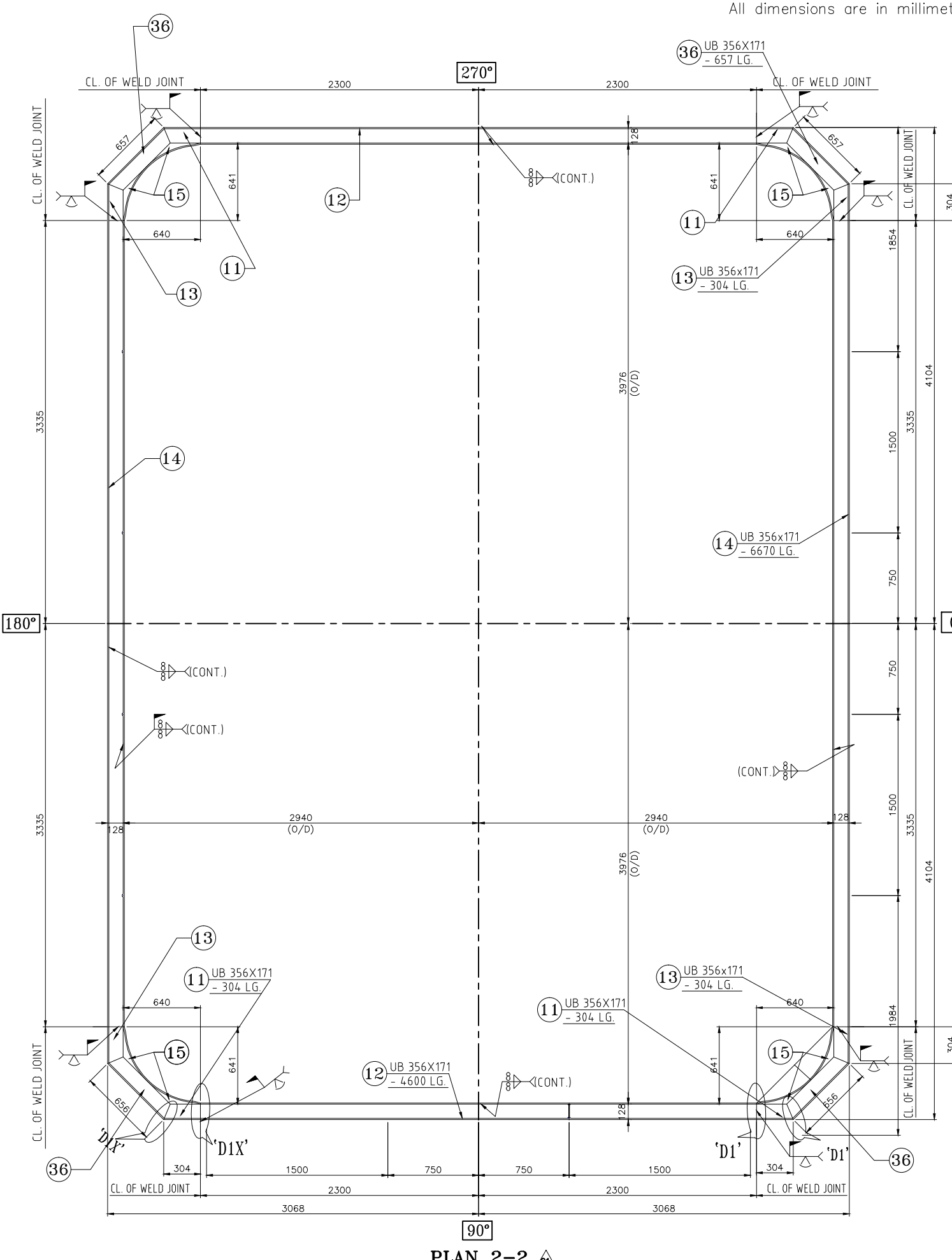
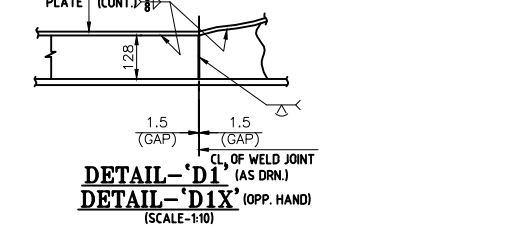
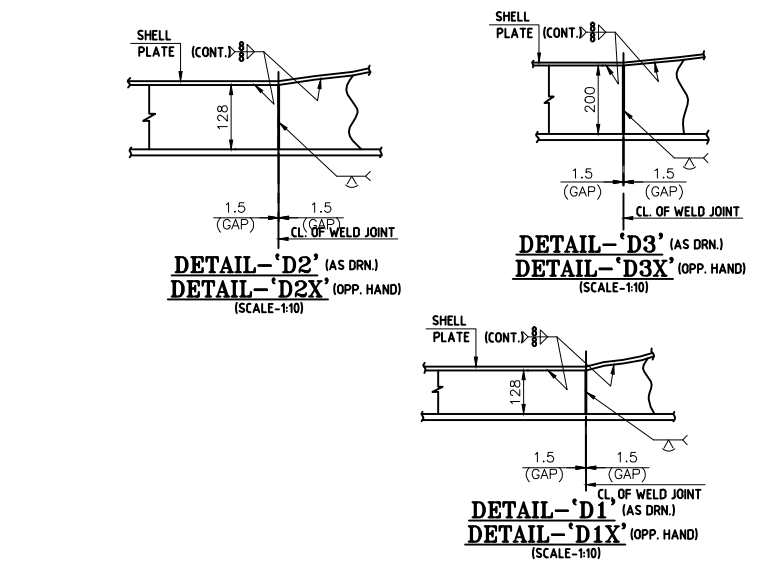
10

1-79-845-07055
DRAWING NO.

All dimensions are in millimetres



IT-31 SHALL BE SPLITTED IN 8 PARTS AND TO BE SENT WITH DU-008 (4NOS) AND 007 (4NOS)



PL THICKNESS	1 (SIZE OF WELD IN MM)	BOTH SIDE IS REQUIRED
8 & 10	6	BOTH SIDE IS REQUIRED
12	6	BOTH SIDE IS REQUIRED
16 & 20	12	BOTH SIDE IS REQUIRED
25	14	BOTH SIDE IS REQUIRED
28 & 32	20	BOTH SIDE IS REQUIRED
36 & 40	20	BOTH SIDE IS REQUIRED
45 & 50	25	BOTH SIDE IS REQUIRED

13. FOR STRAIGHT PORTION STITCH WELDING SHALL BE FOLLOWED BETWEEN HOPPER WALL AND STIFFENER AND FOR CURVED PORTION FULL WELDING SHALL BE FOLLOWED BETWEEN HOPPER WALL AND STIFFENER.

THIS DRAWING SHALL BE READ ALONG WITH

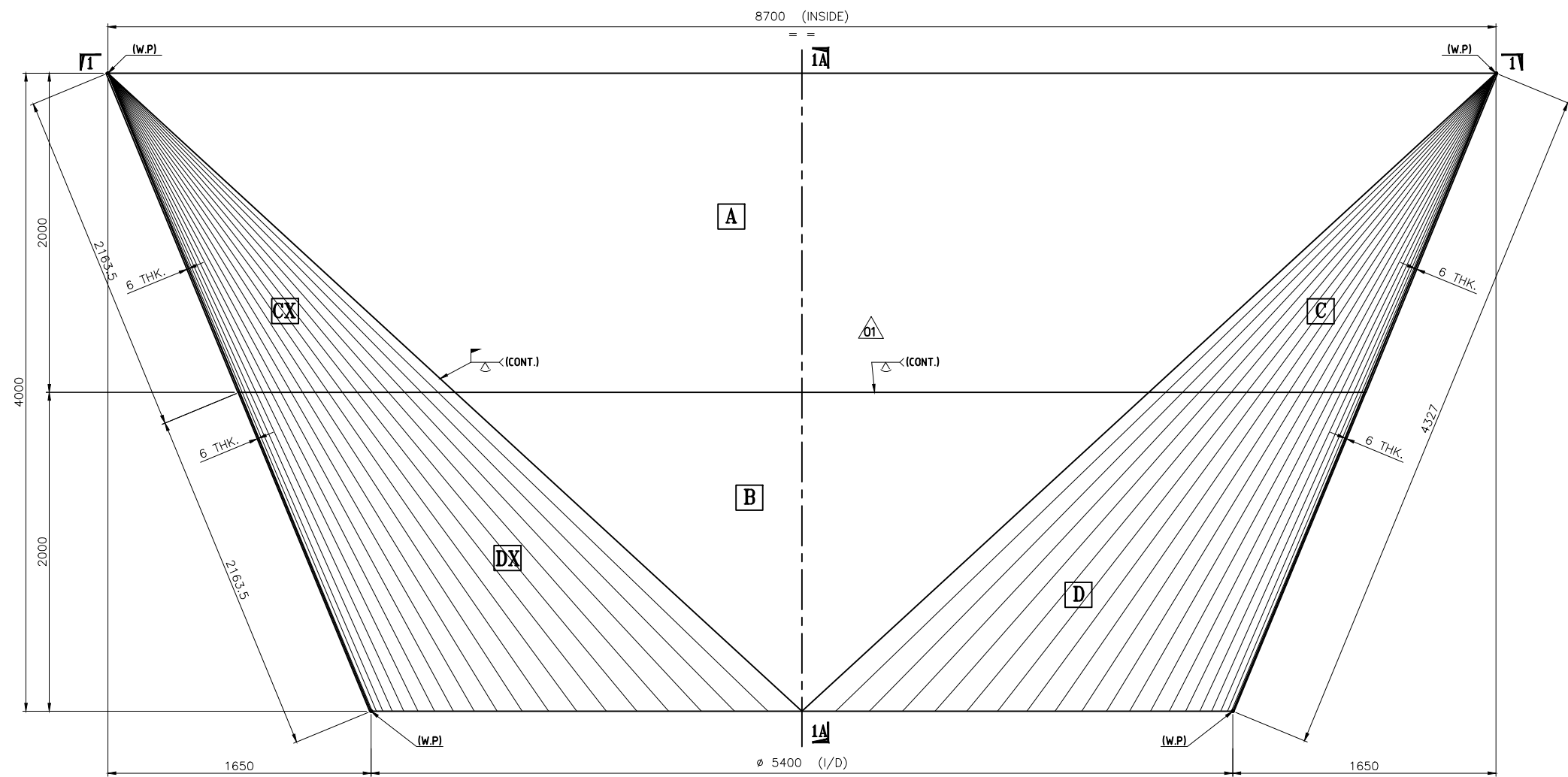
0-79-845-07056
0-79-845-07057

REV	DATE	ALTERED	ADARSH
01	31.07.19	CHECKED	M.K.NARAYAN/C.G

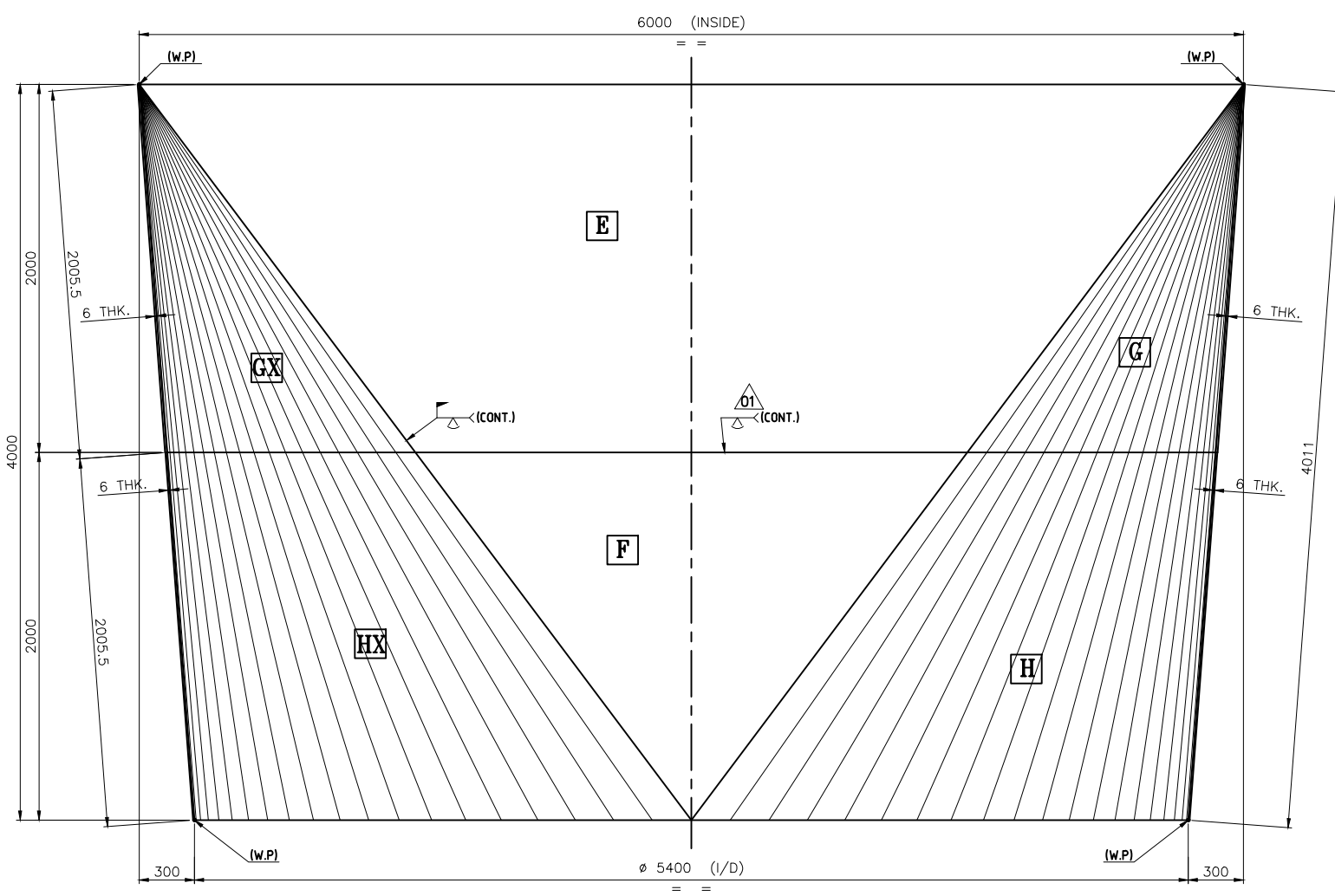
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME ADARSH		SIGN B.V.REDDY	DATE 23-04-19	NO. OF VAR.
Bharat Heavy Electricals Ltd. UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		DRN C.GANESH		APPD C.GANESH	DATE 23-04-19	NO. OF VAR.
DEPT AQC	GRADE OF UNTOLODIM CODE 862	SCALE 1:60	WEIGHT (KG.) -	REF. TO ASSY/OLD DRG. -	ITEM NO. -	REV -
TITLE HOPPER TRANSITION PORTION 4TH FIELD TO 10TH FIELD-I		CARD CODE U 01	DRAWING NO. 1-79-845-07055		REV 01	

1-79-845-07056
DRAWING NO.

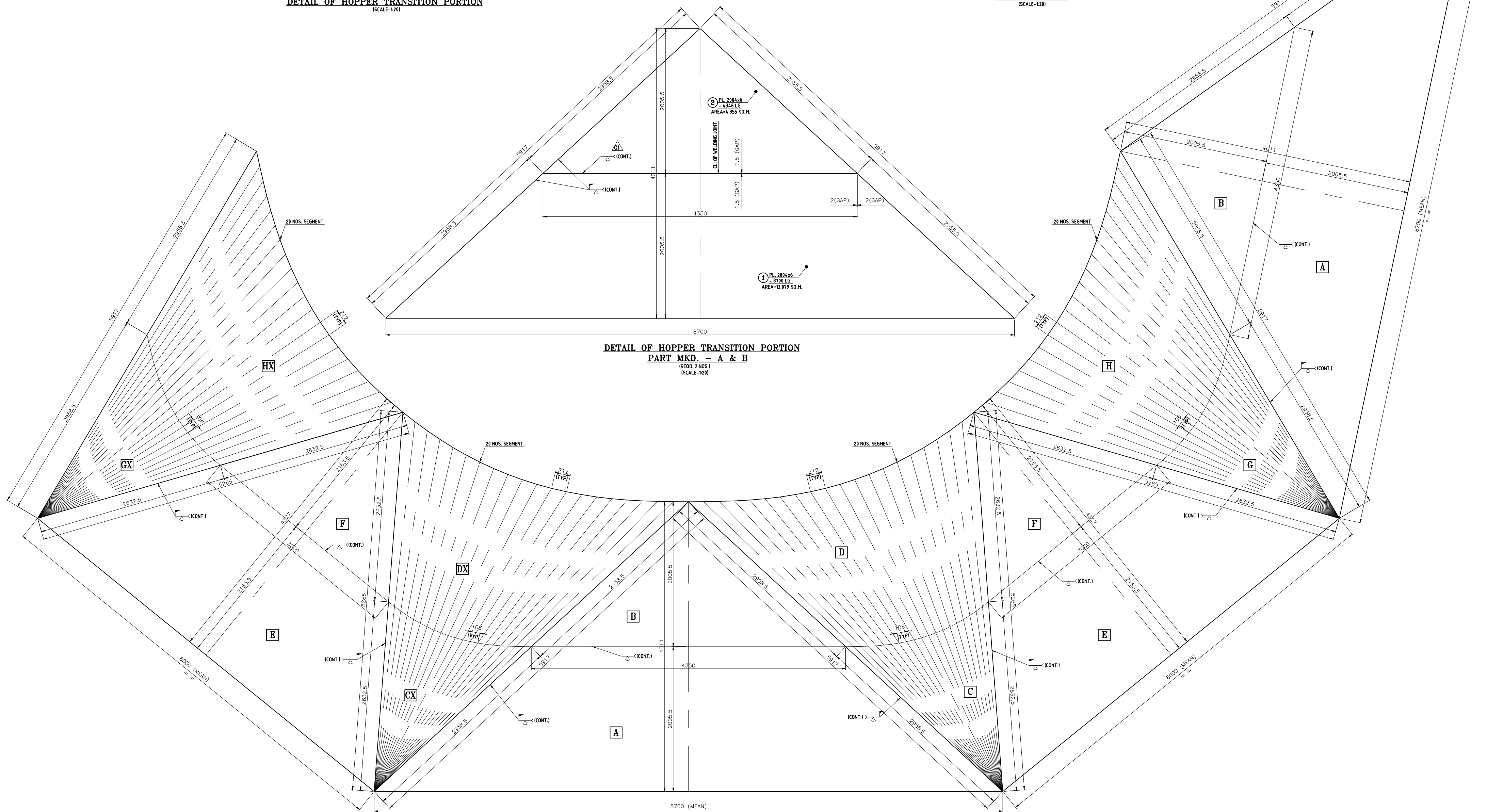
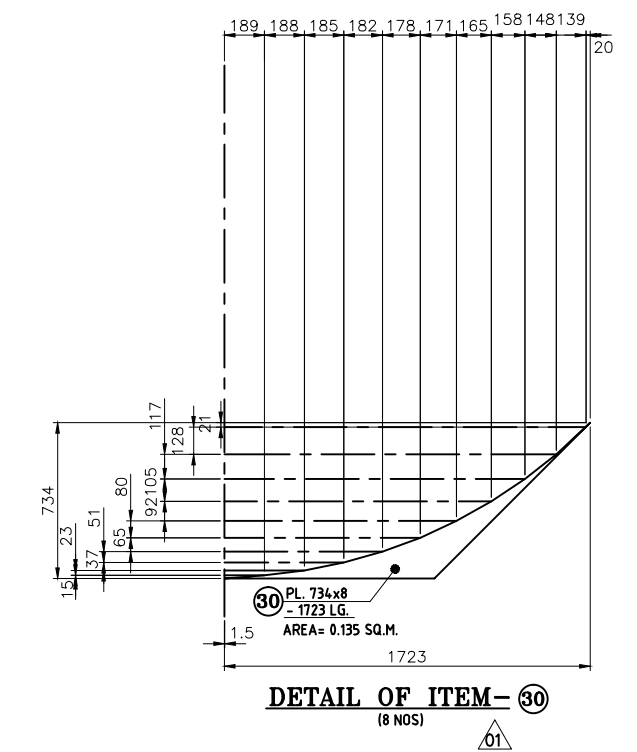
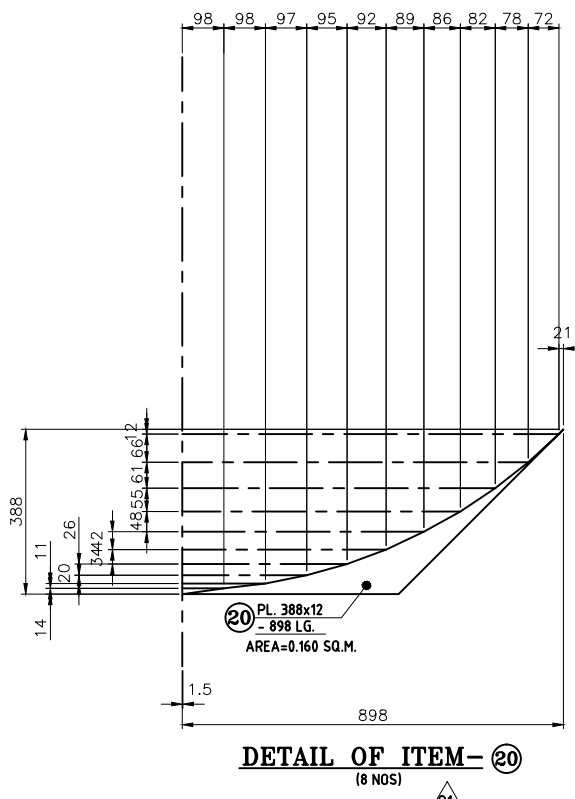
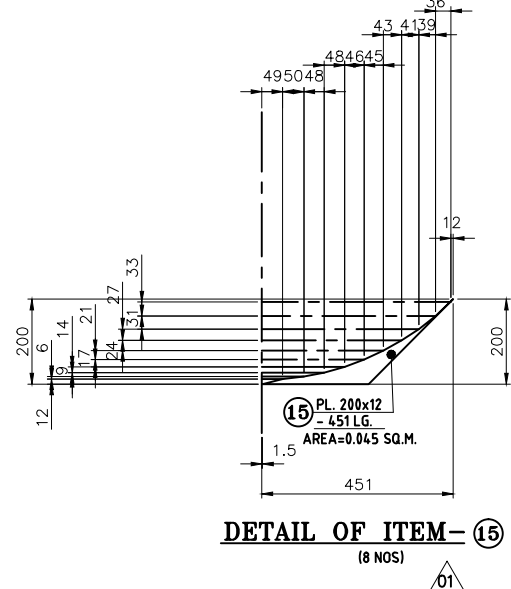
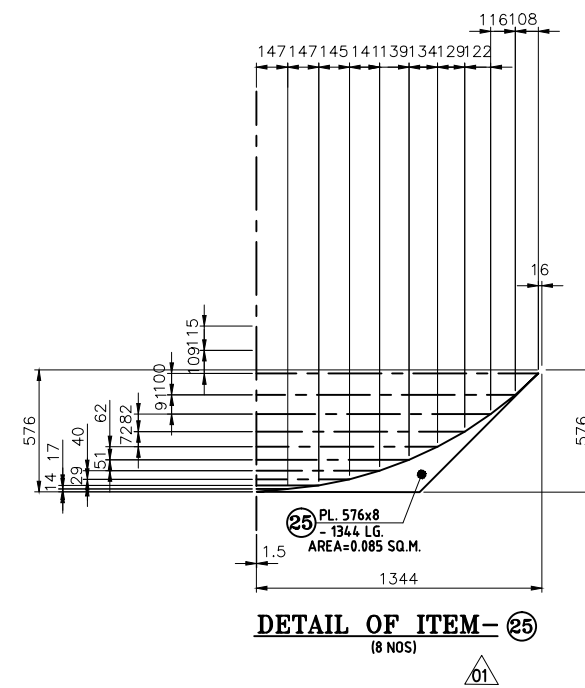
All dimensions are in millimetres



DETAIL OF HOPPER TRANSITION PORTION
(SCALE-1:20)



SECTION 1A-1A
(SCALE-1:20)



DEVELOPMENT OF HOPPER TRANSITION PORTION
(SCALE-1:20)

THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07055
1-79-845-07057

REV	DATE	ALTERED	ADARSH
01	31.07.19	CHECKED	M.K.NAHAK/C.G
ZONE	01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.		
	02. IT- 11 TO 24 CHANGED TO NPB 500 TO AVOID PLATE WELDING.		
	03. IT- 15,20,25 AND 30 PLATE SIZE CORRECTED.		
	04. IT- 33,34,35 AND 36 ADDED.		

CAUTION: The information on this drawing is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any form without the written consent of the company.

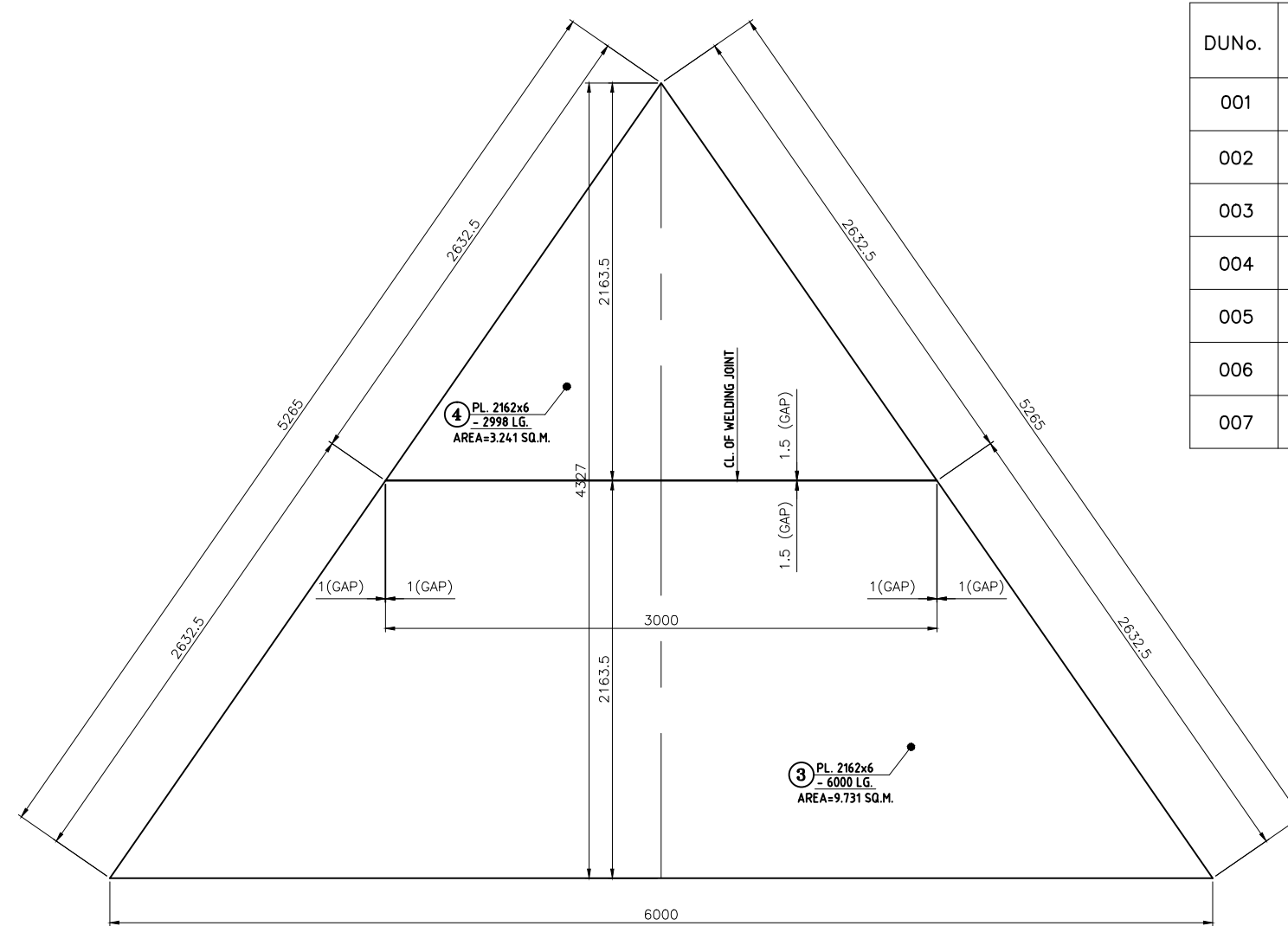
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				NAME SIGN		DATE NO. OF VAR.	
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN		YOGES		23-04-19	
		CHD		B.V.REDDY		23-04-19	
		APPD		C.GANESH		23-04-19	
DEPT	AQCS	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.		
CODE	862	PR: QA: 500	 1:60	-	-		
TITLE				CARD CODE	DRAWING NO.		REV
HOPPER TRANSITION PORTION 4TH FIELD TO 10TH FIELD-II				U 01	1-79-845-07056		01

Size A1

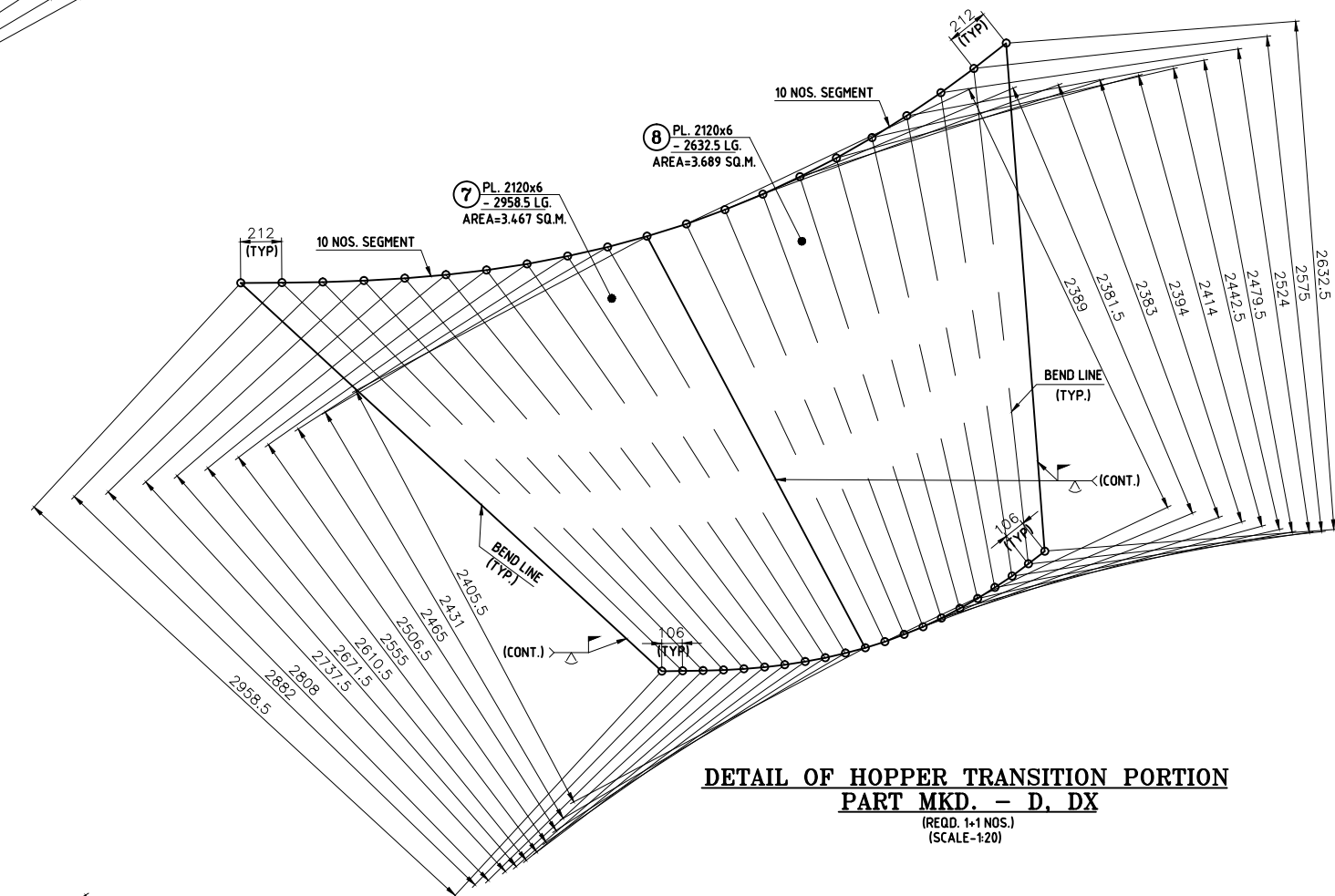
12

DESPATCH TABLE FOR 1 ASSEMBLY OF HOPPER TRANSITION PART :-

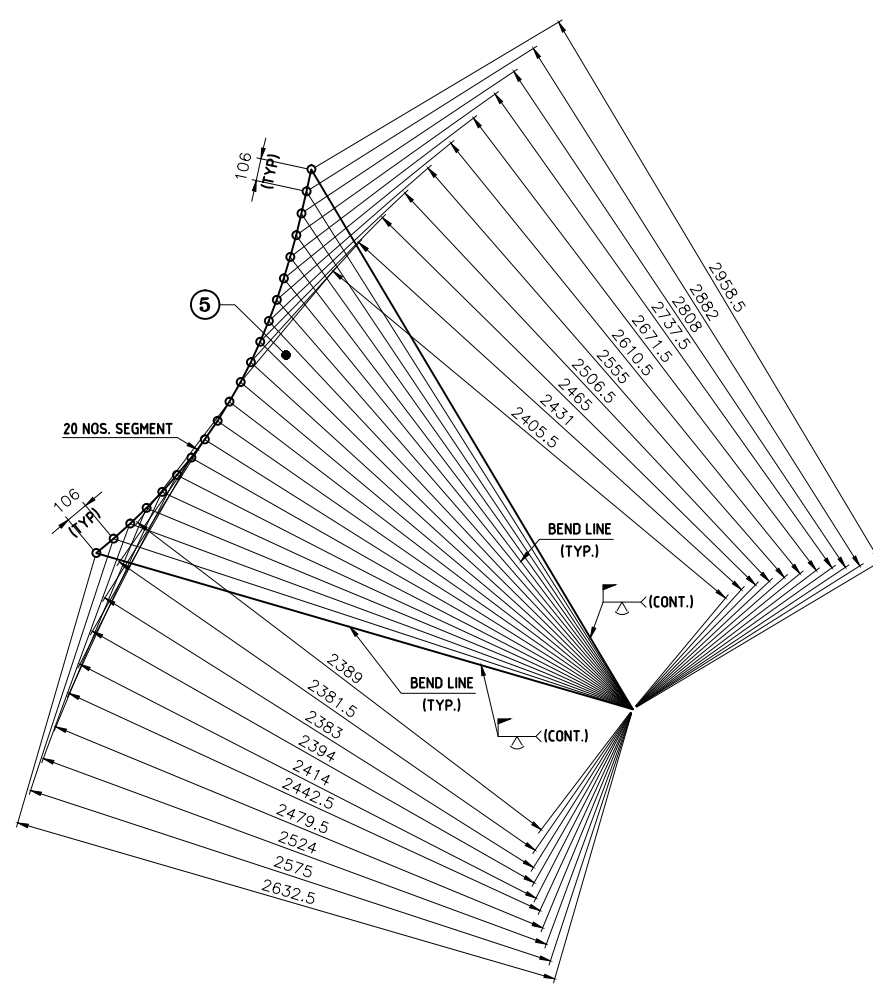
DUNo.	DESCRIPTION	QTY	ITEM No. NO.OFF										WEIGHT FOR 1 NO (IN Kg)	TOTAL WEIGHT FOR 1 HOPPER TRANSITION (IN Kg)
001	TRIANGULAR WALL-I	2	01 1	14 1	19 1	10 4					928.173	1856.346		
002	TRIANGULAR WALL-II	2	02 1	23 1	28 1					328.505	657.010			
003	TRIANGULAR WALL-III	2	03 1	12 1	17 1	09 4					683.535	1367.070		
004	TRIANGULAR WALL - IV	2	04 1	22 1	27 1					234.598	469.196			
005	CONICAL WALL-I	4	05 1	11 1	13 1	35 1	25 2	16 1	18 1	35 1	20 2	246.690	986.760	
006	CONICAL WALL-II	4	07 1	21 1	33 1	25 1	26 1	34 1	30 1	31 1	32 1	471.697	1886.788	
007	CONICAL WALL-III	4	08 1	24 1	33 1	25 1	29 1	34 1	30 1	31 1	32 1	477.744	1910.976	
												TOTAL WEIGHT FOR 1	9134.146 KG	



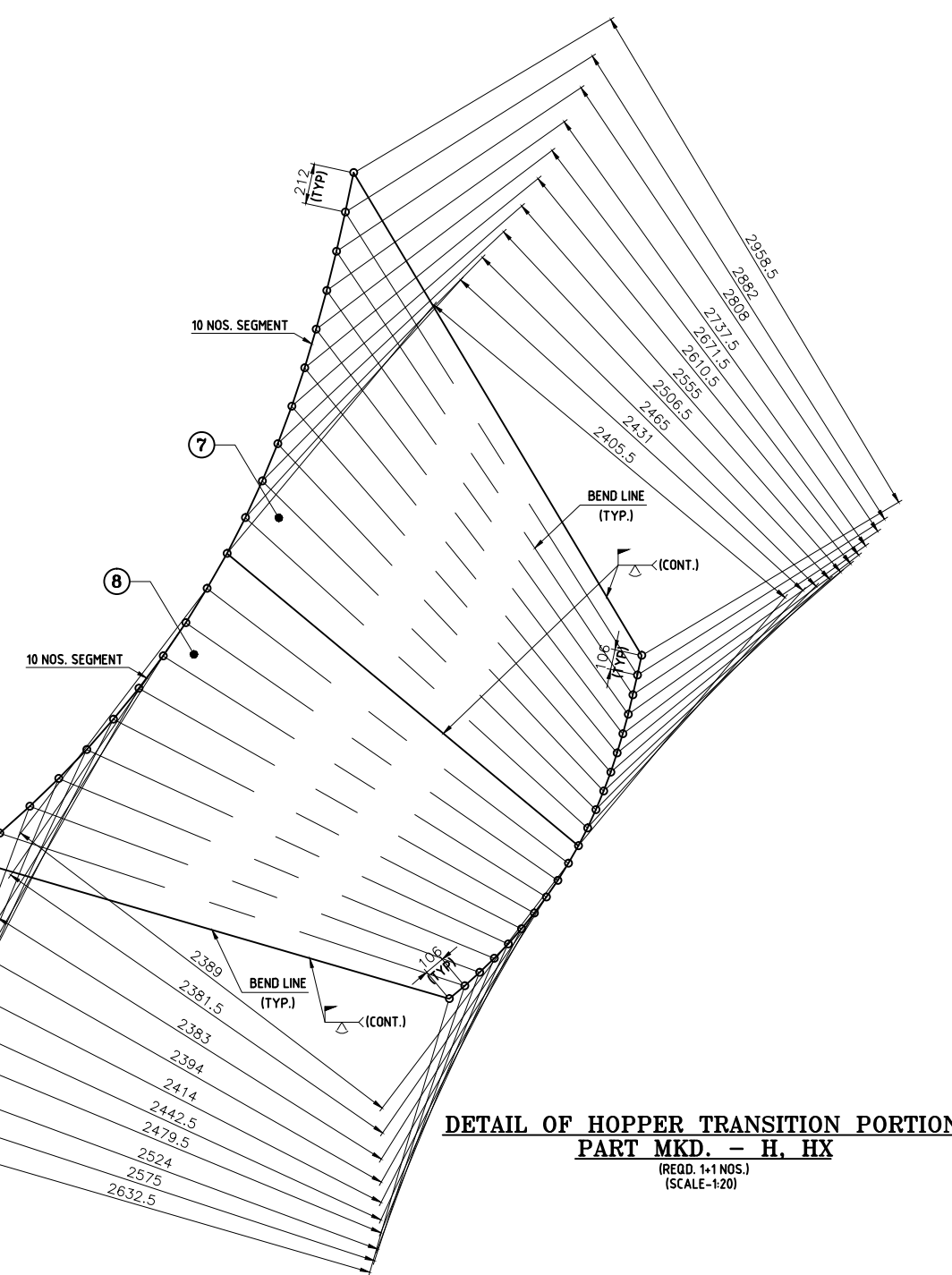
DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - E & F
(REQD. 2 NOS.)
(SCALE-120)



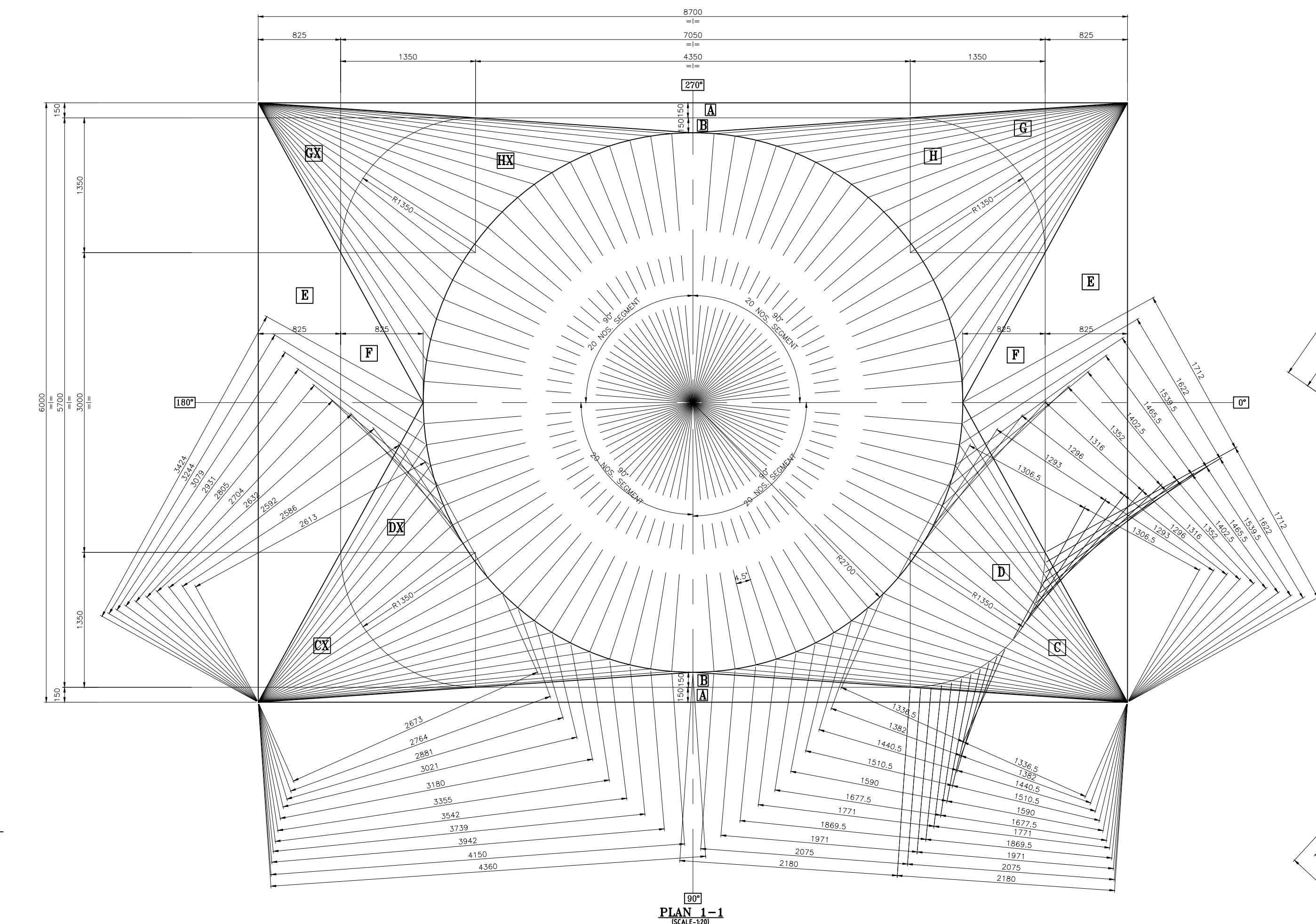
DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - D, DX



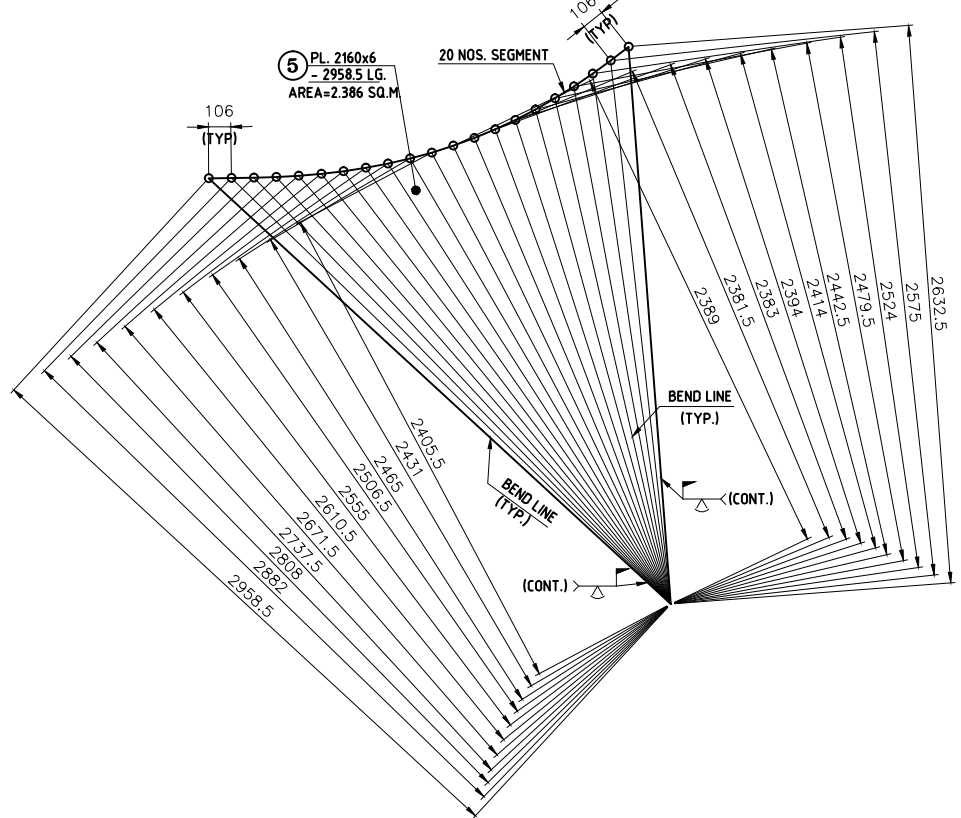
DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - G, GX
(REQD. 1+1 NOS.)
(SCALE-1:20)



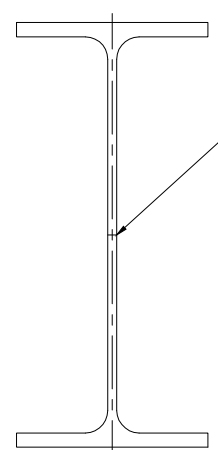
DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - H, HX
(REQD. 1+1 NOS.)
(SCALE-1:20)



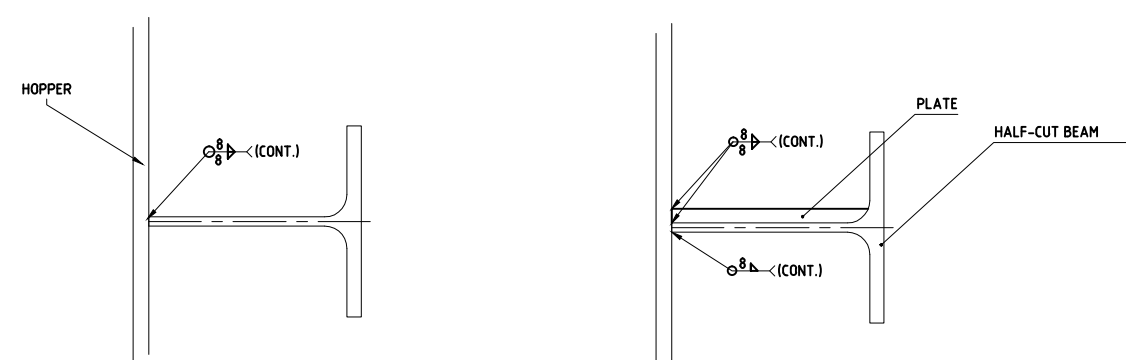
PLAN 1-1
(SCALE=1/20)



DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - C, CX
(REQD. 1+1 NOS.)
(SCALE 1:20)



BEAM TO BE CUT
TYP



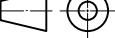
NOTES:—

1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 1750 FOR M-16 BOLTS UNO.
3. ALL PERMANENT HOLES ARE 1750 FOR M-16 BOLTS UNO.
4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK. UNO.
6. PERMANENT HOLES SHOWN THUS. . . . 
7. ERECTION HOLES SHOWN THUS. . . . 
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. TRANSITION PART SHALL BE SENT IN 4 PARTS
10. LIFTING EYE, SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
11. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-4TH FIELD
12. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. .../001(SH. 1,2,3 OF 3)
13. JOINTS FOR ITEM-05 (IF REQUIRED) SHALL BE GIVEN AT THE MID SPAN IN HORIZONTAL DIRECTION.

THIS DRAWING SHALL BE READ ALONG WITH
0-79-845-07055
0-79-845-07056

REV	DATE	ALTERED	ADARSH
01	31.07.19	CHECKED	M.K.NAHAK/C/G
ZONE			
	01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.		
	02. IT- 11 TO 24 CHANGED TO NPB 500 TO AVOID PLATE WELDING.		
	03. IT- 15,20,25 AND 30 PLATE SIZE CORRECTED.		
	04. IT- 33,34,35,36 AND NOTE-13 ADDED.		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT													
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				NAME		SIGN		DATE		NO. OF EVALS.			
				DRN		YOGES				23-04-19		-	
				CHD		B.V.REDDY				23-04-19		-	
				APPD		C.GANESH				23-04-19		-	
REF. TO ASSY/OLD DRG.										ITEM NO.		NO. OF ITEM	
DEPT		AQCS		GRADE OF UNTL/DIM		SCALE		WEIGHT (KG).		-		-	
CODE		862		PR:QA:500				1:60		-		-	
TITLE				HOPPER TRANSITION PORTION 4TH FIELD TO 10TH FIELD-III				CARD CODE		DRAWING NO.			
								U 01		1-79-845-07057			
										REV			
										01			

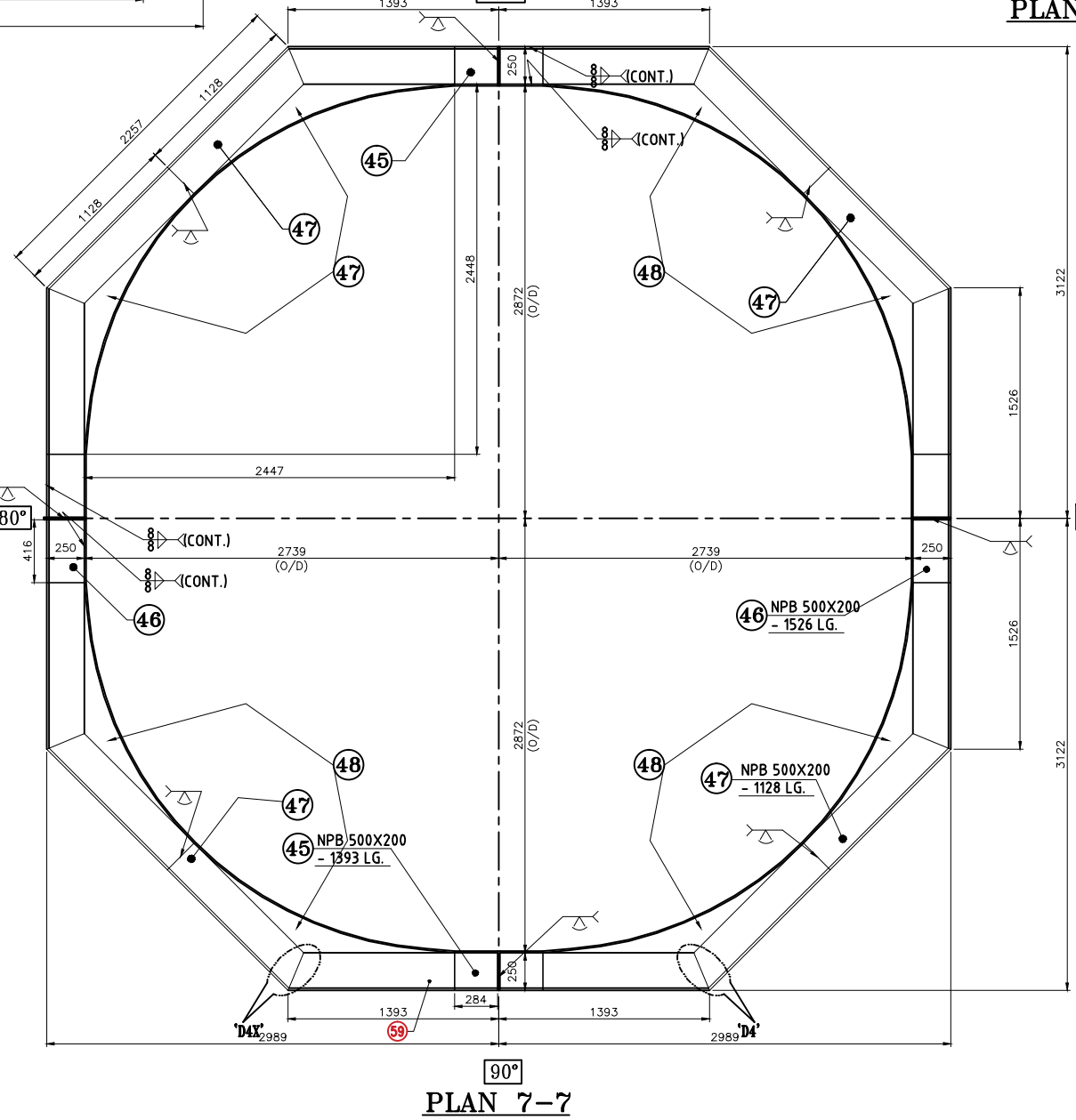
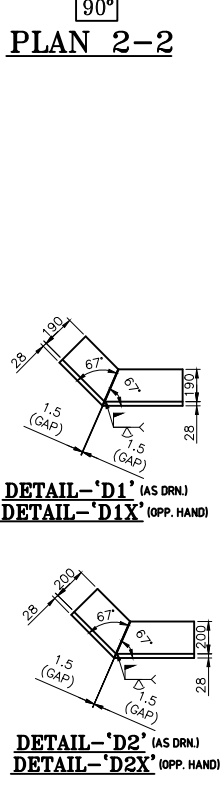
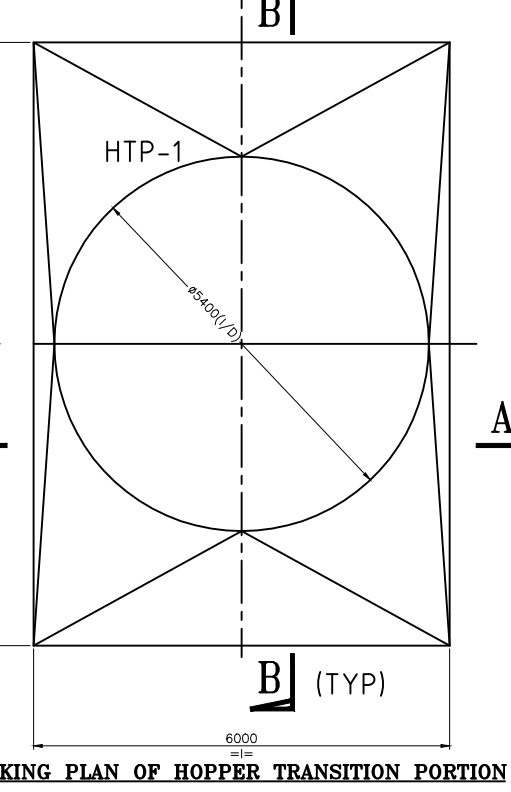
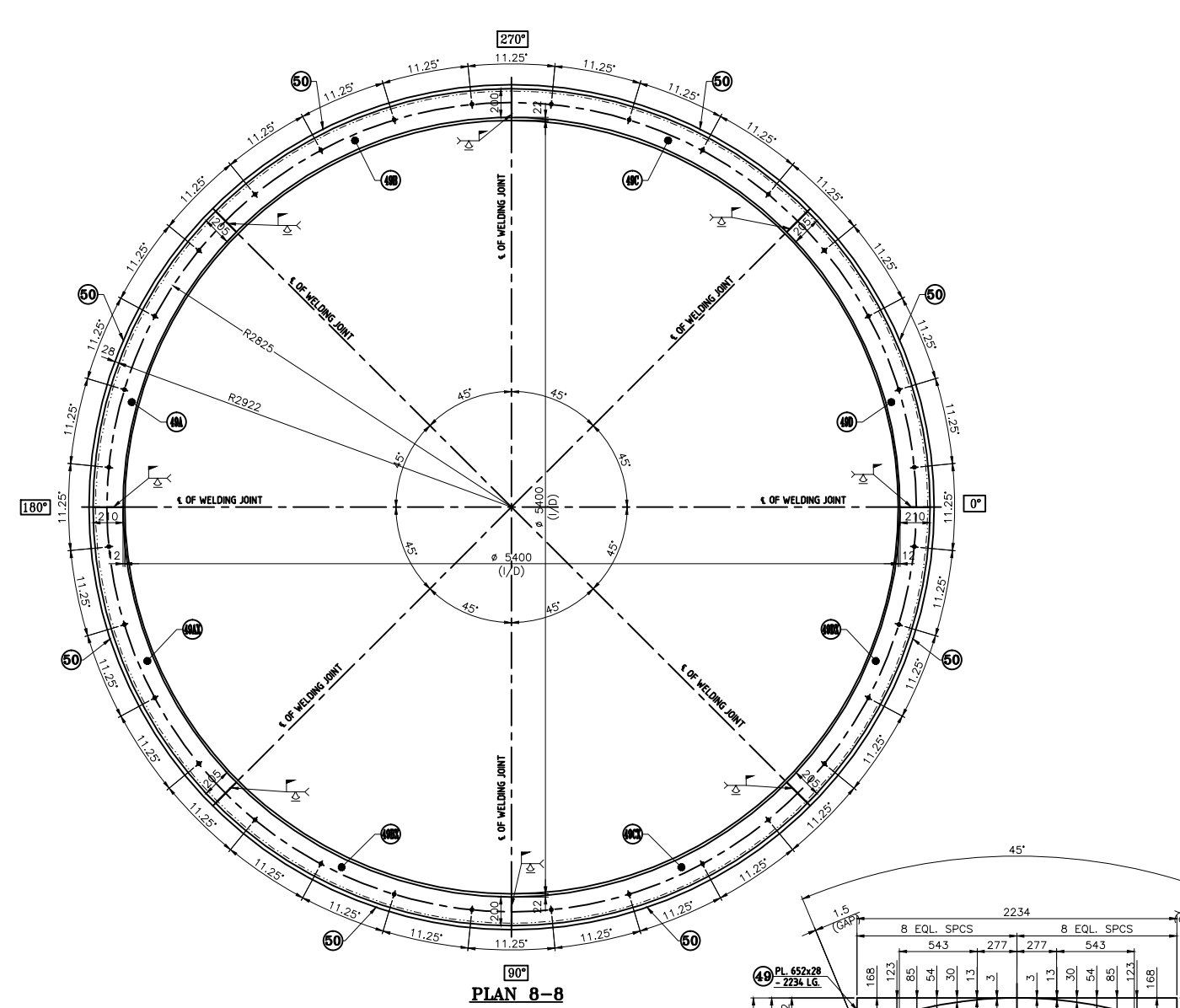
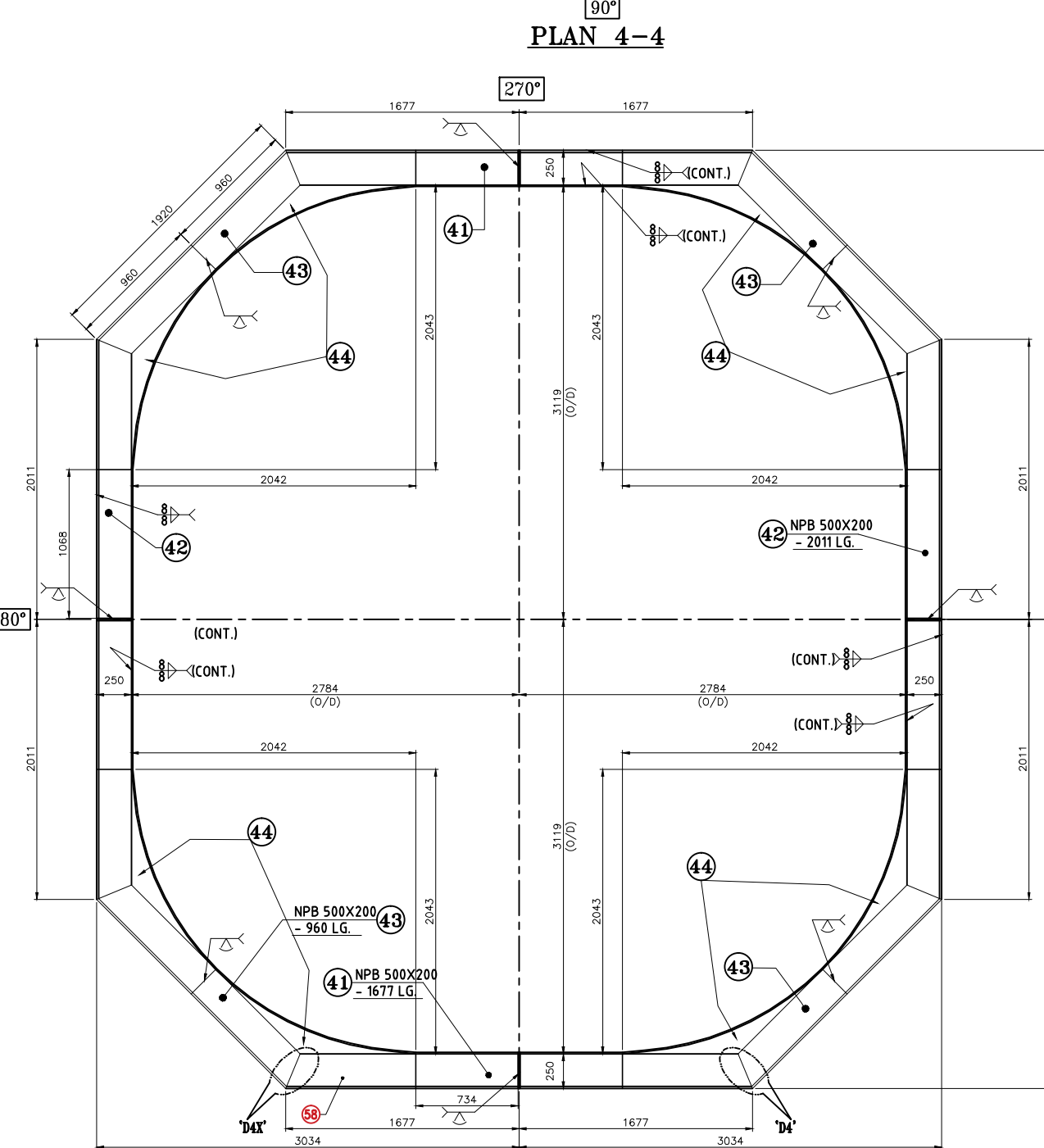
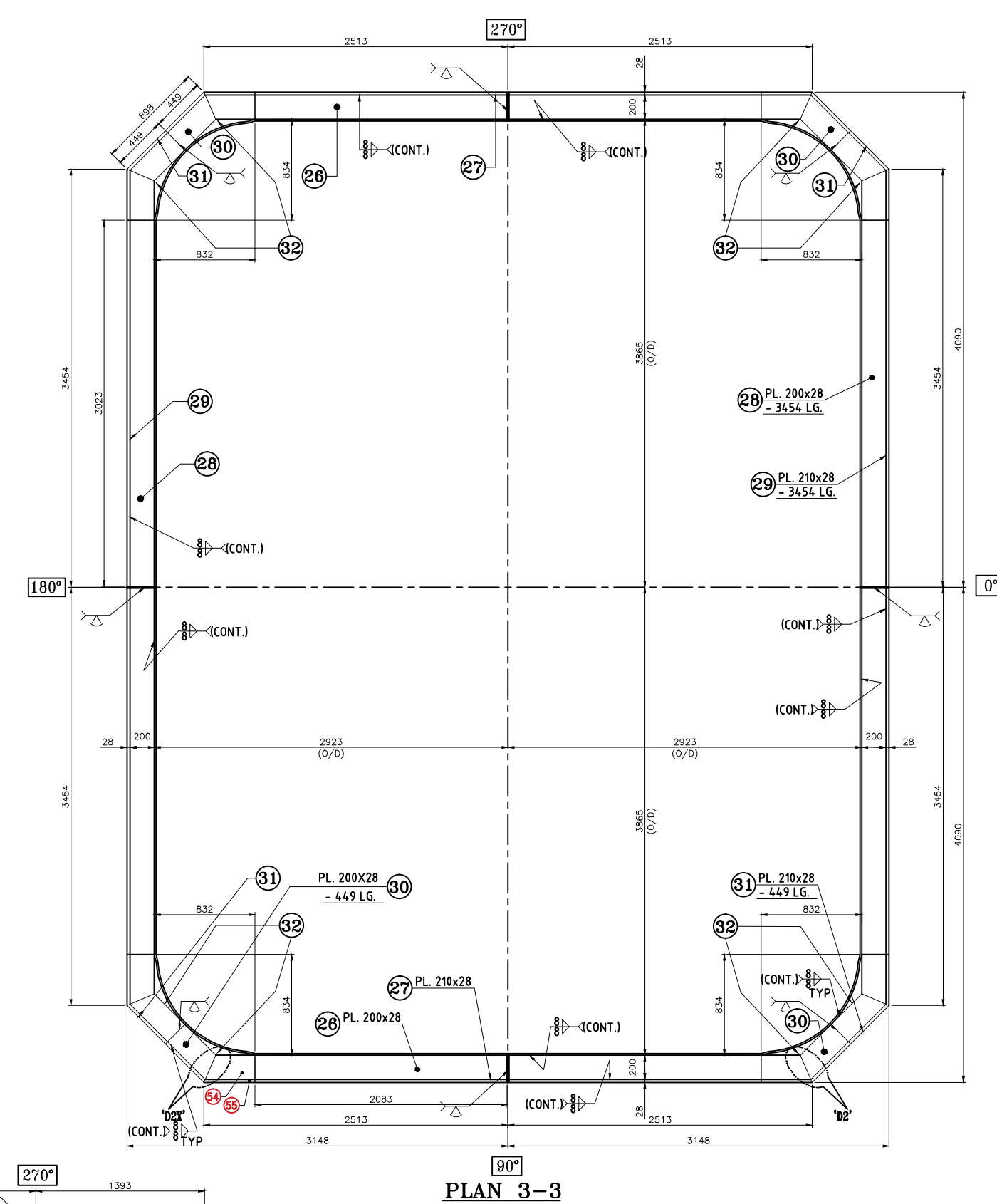
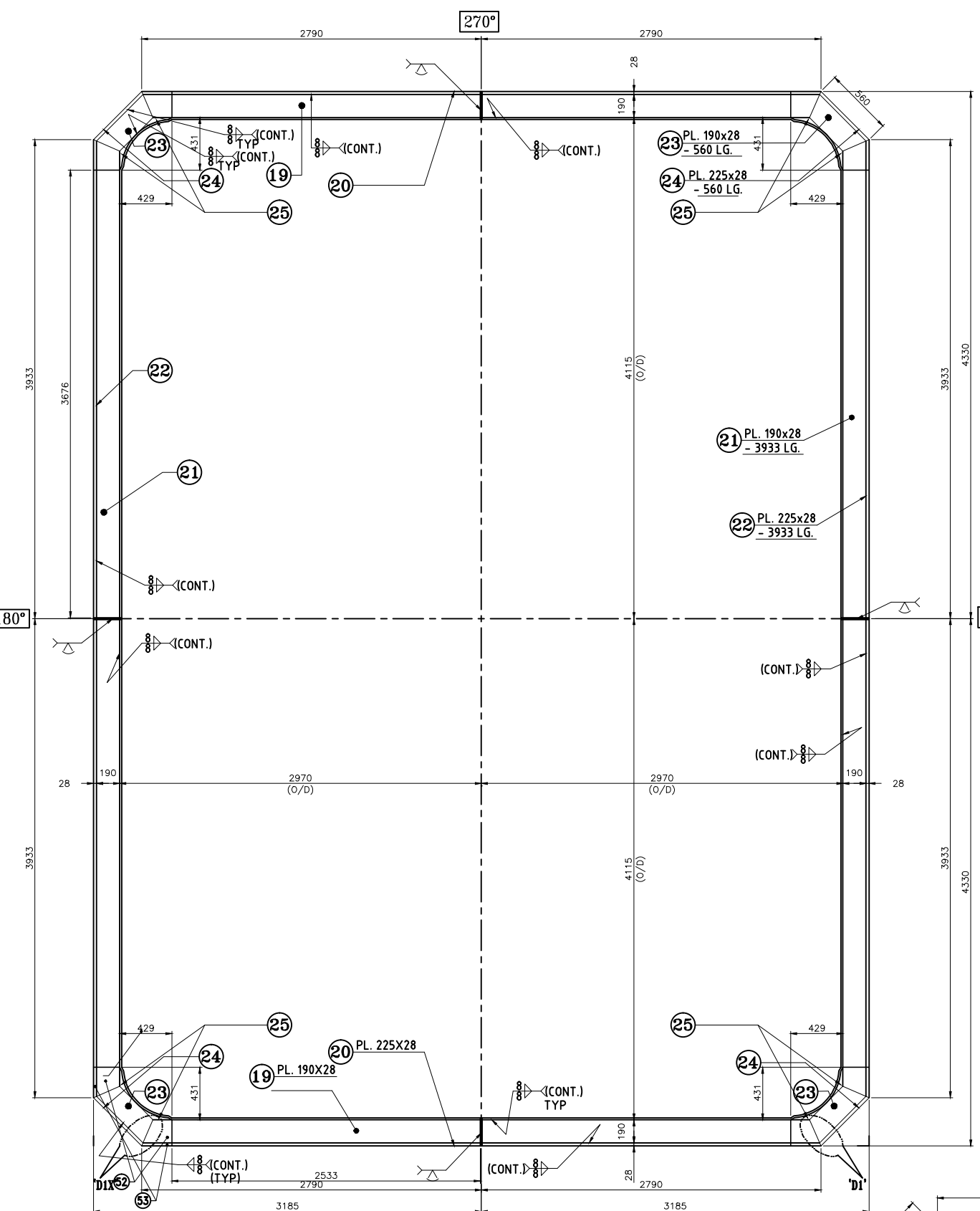
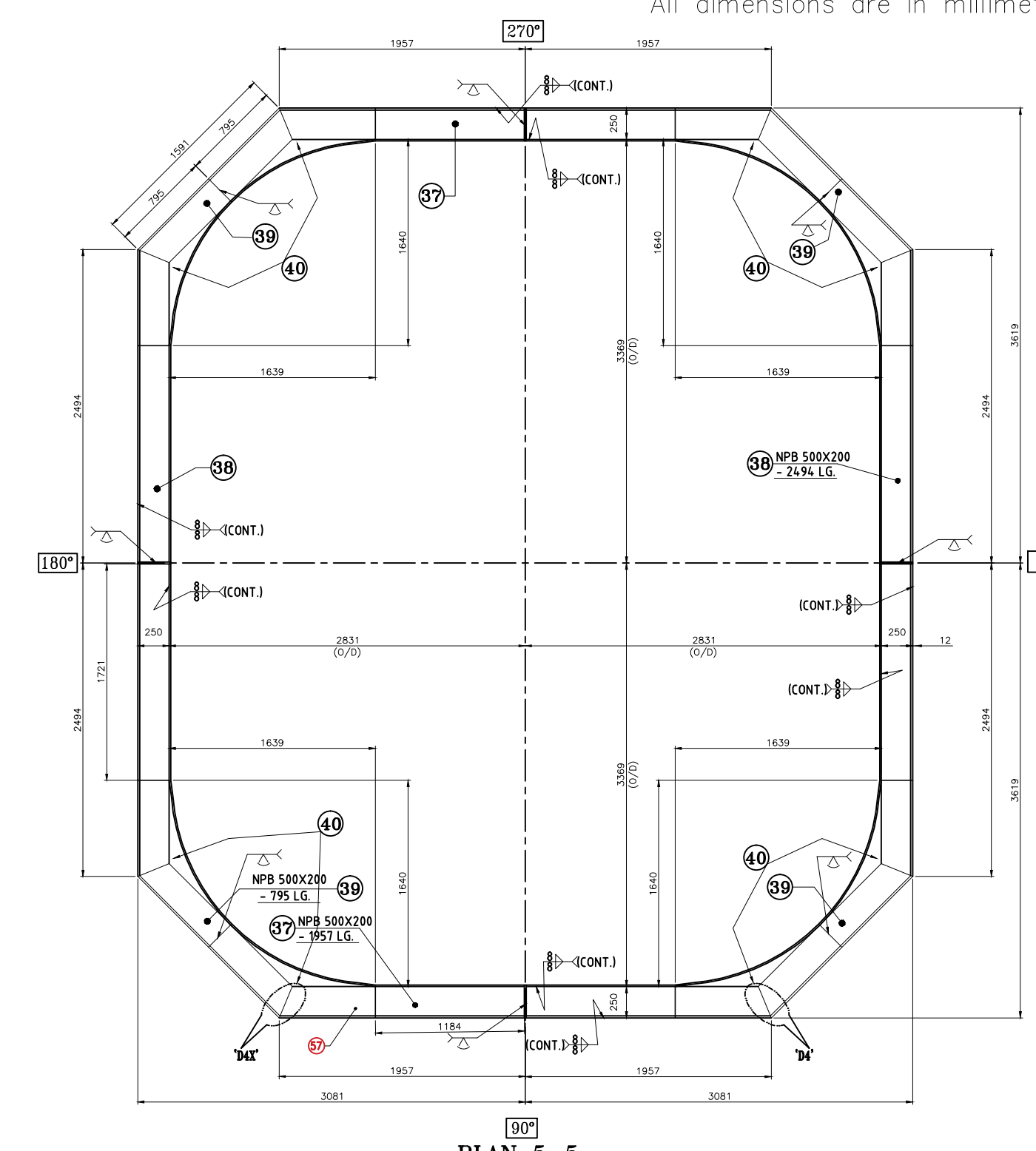
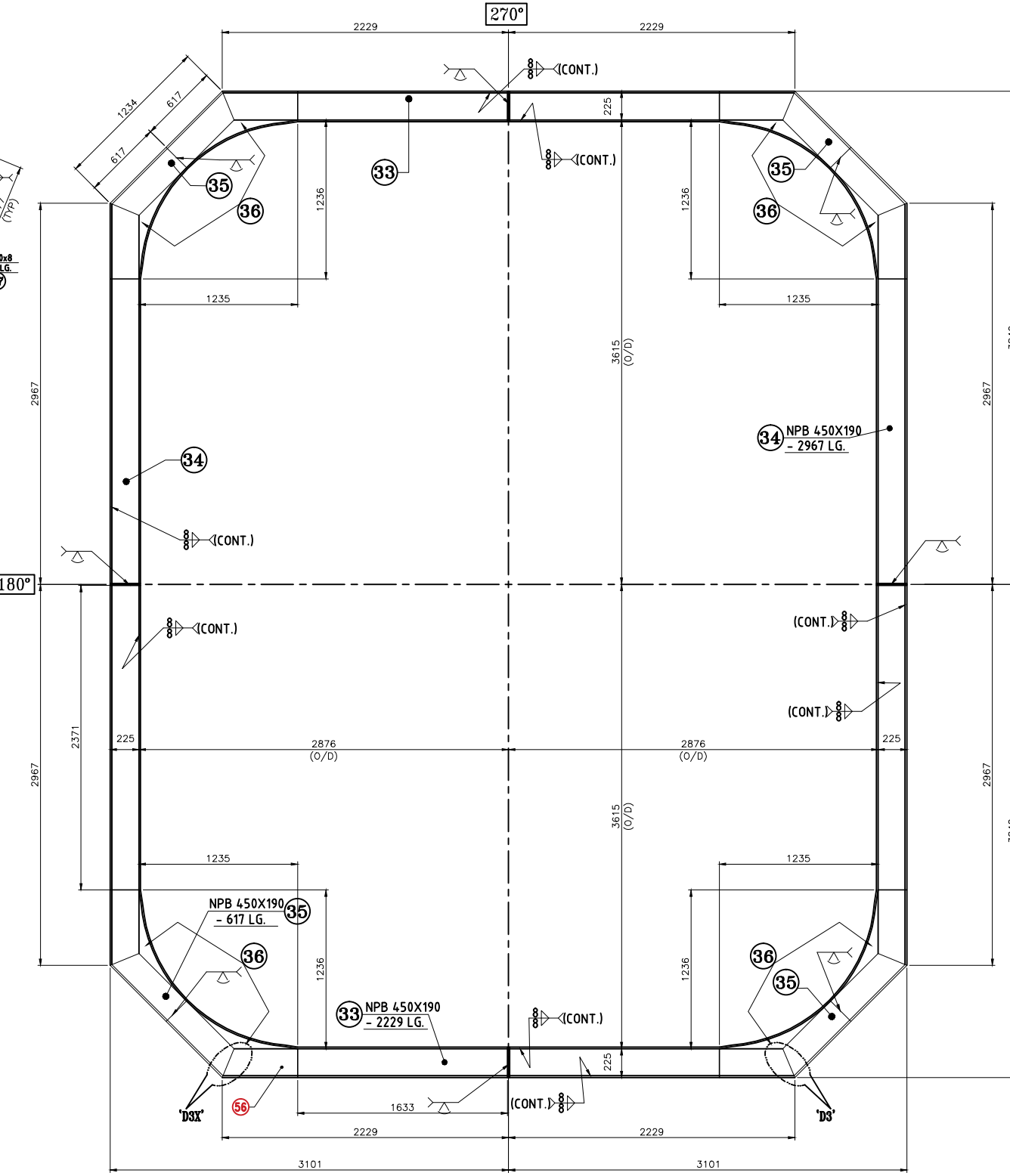
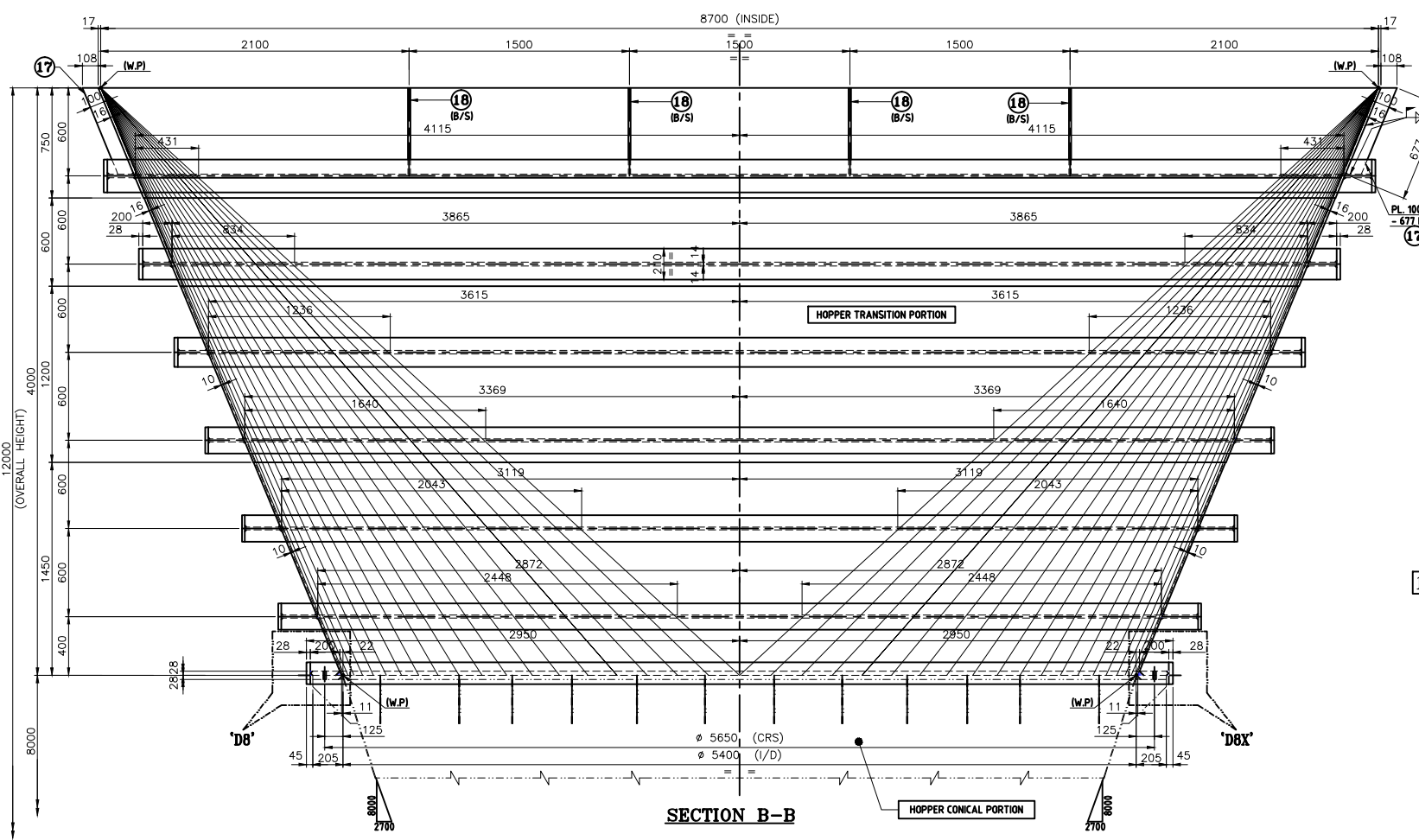
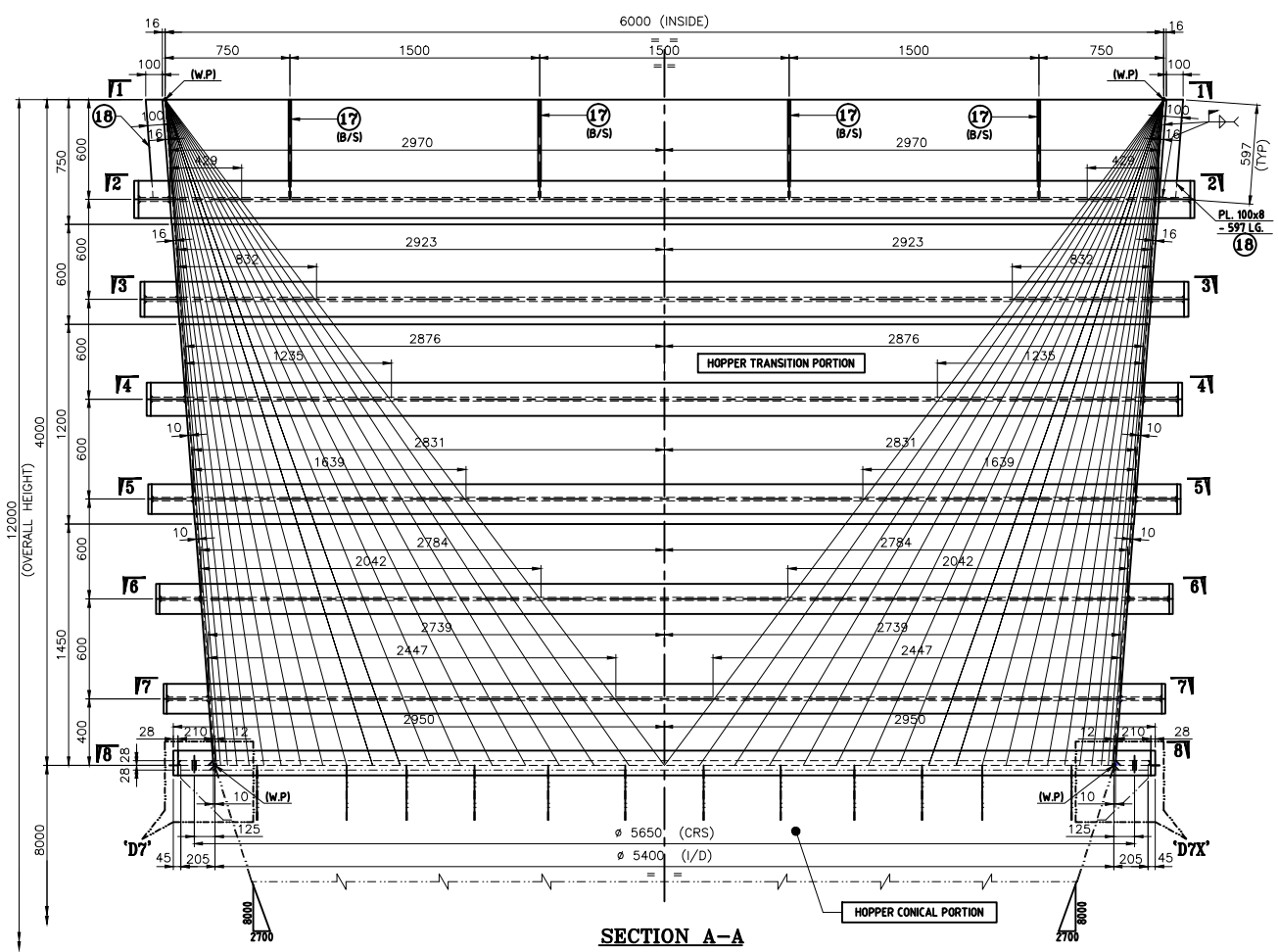
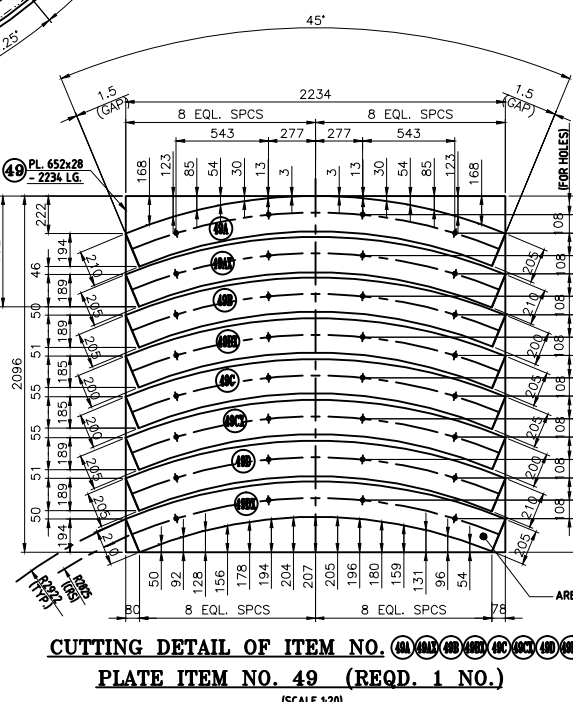
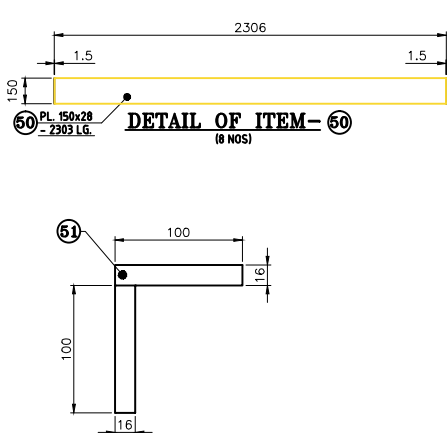
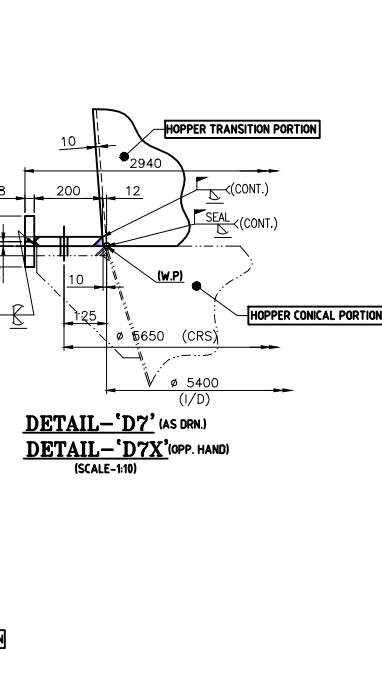


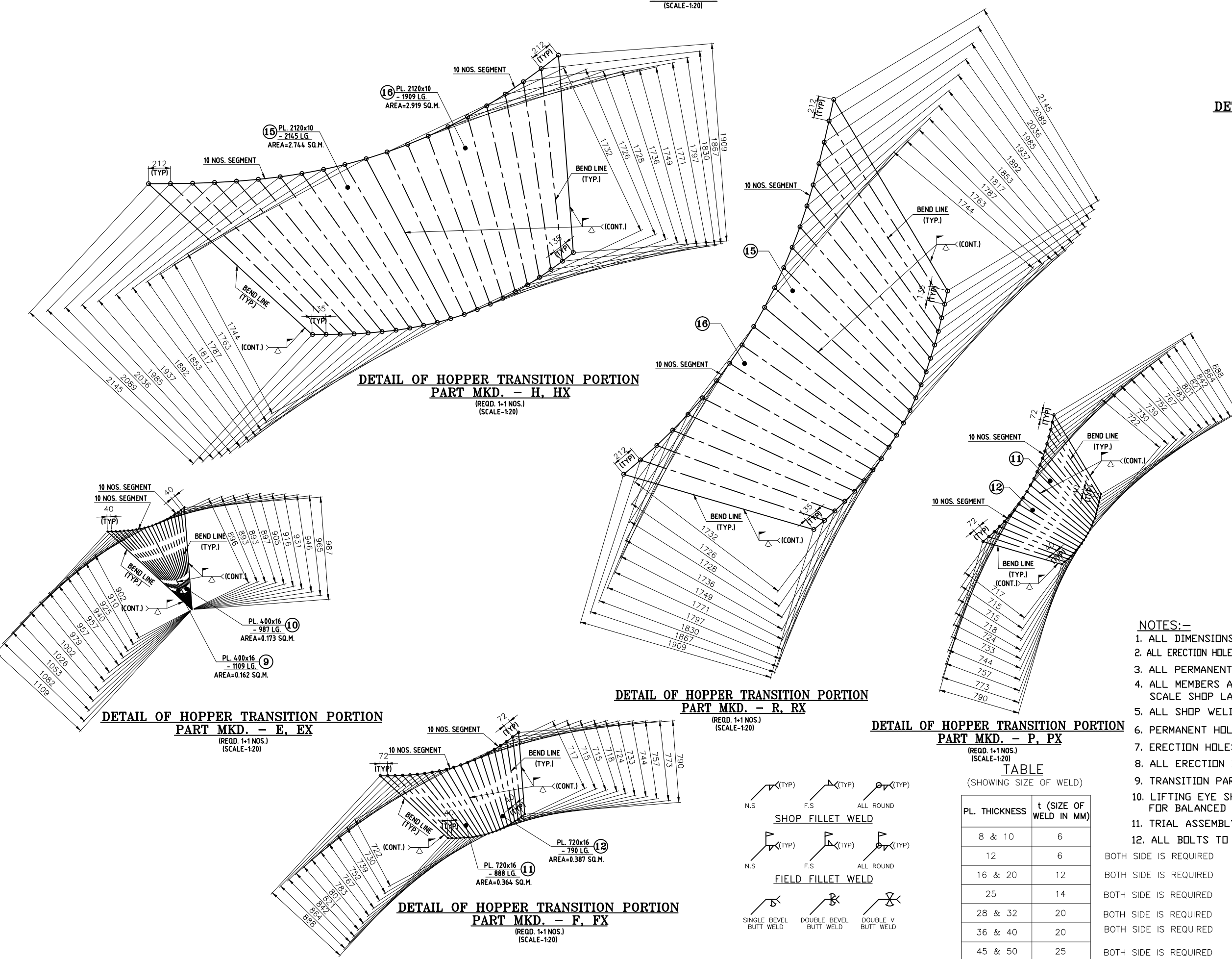
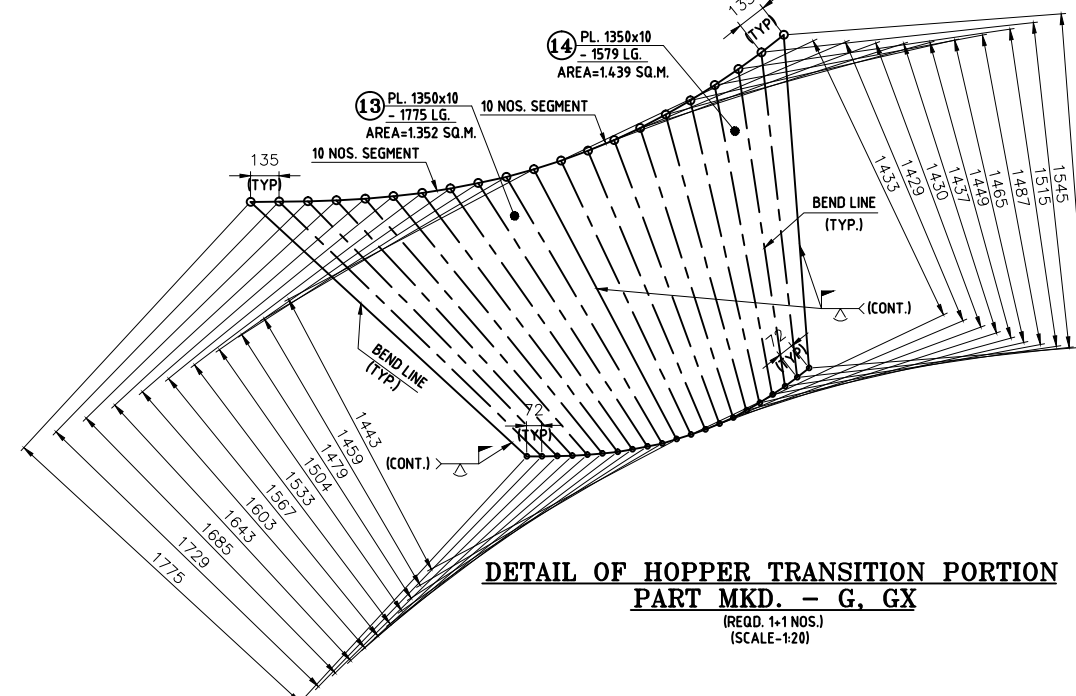
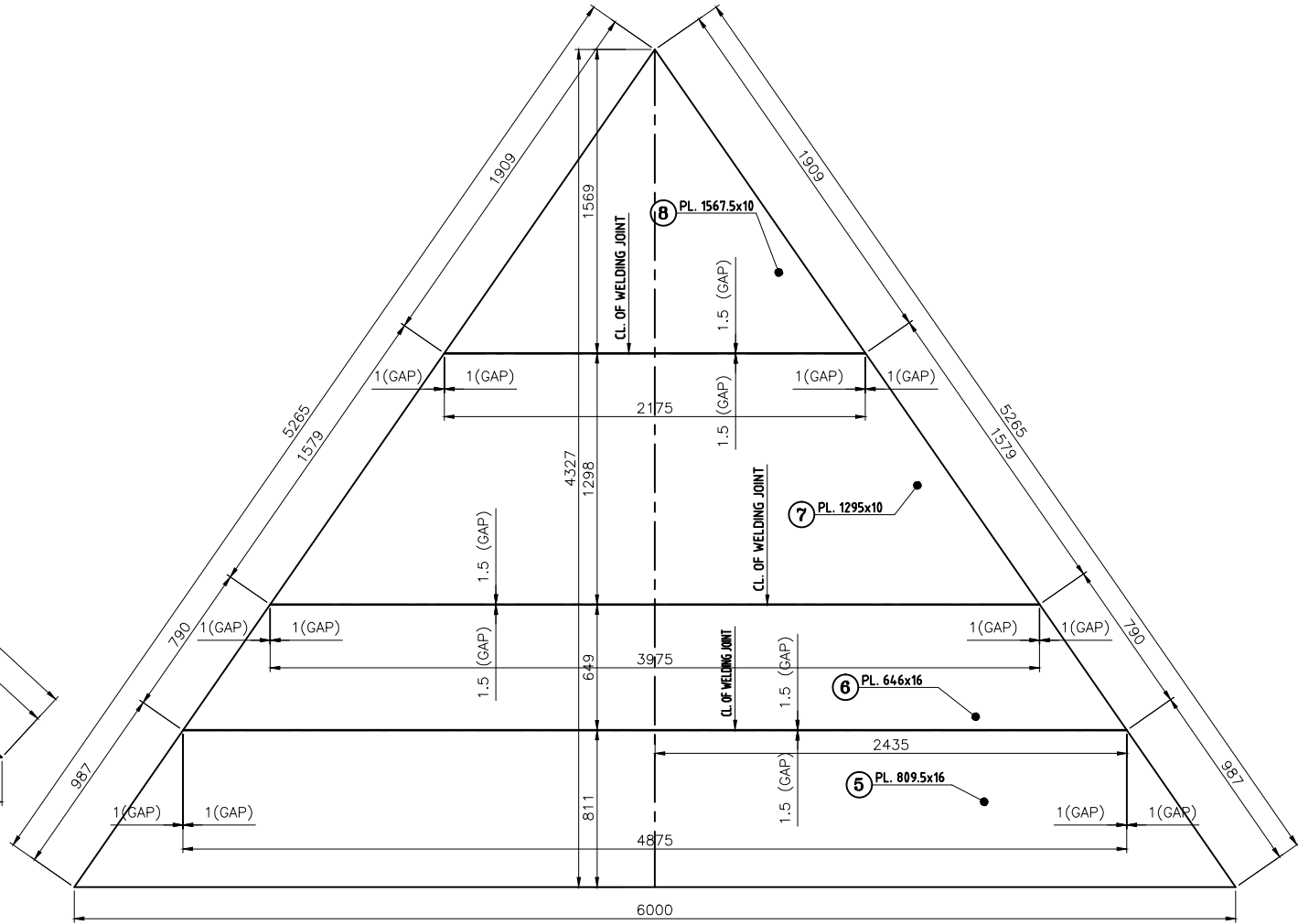
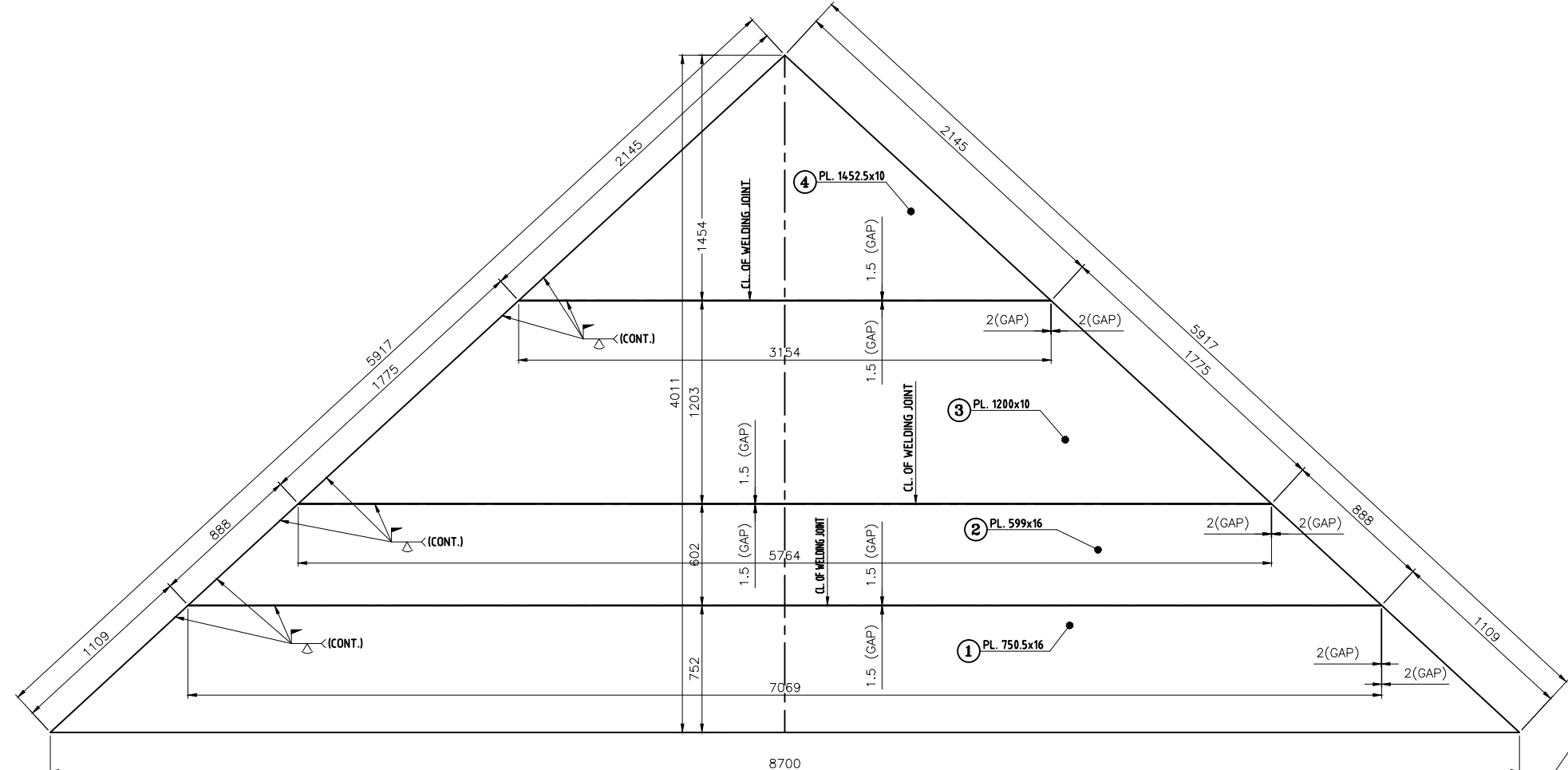
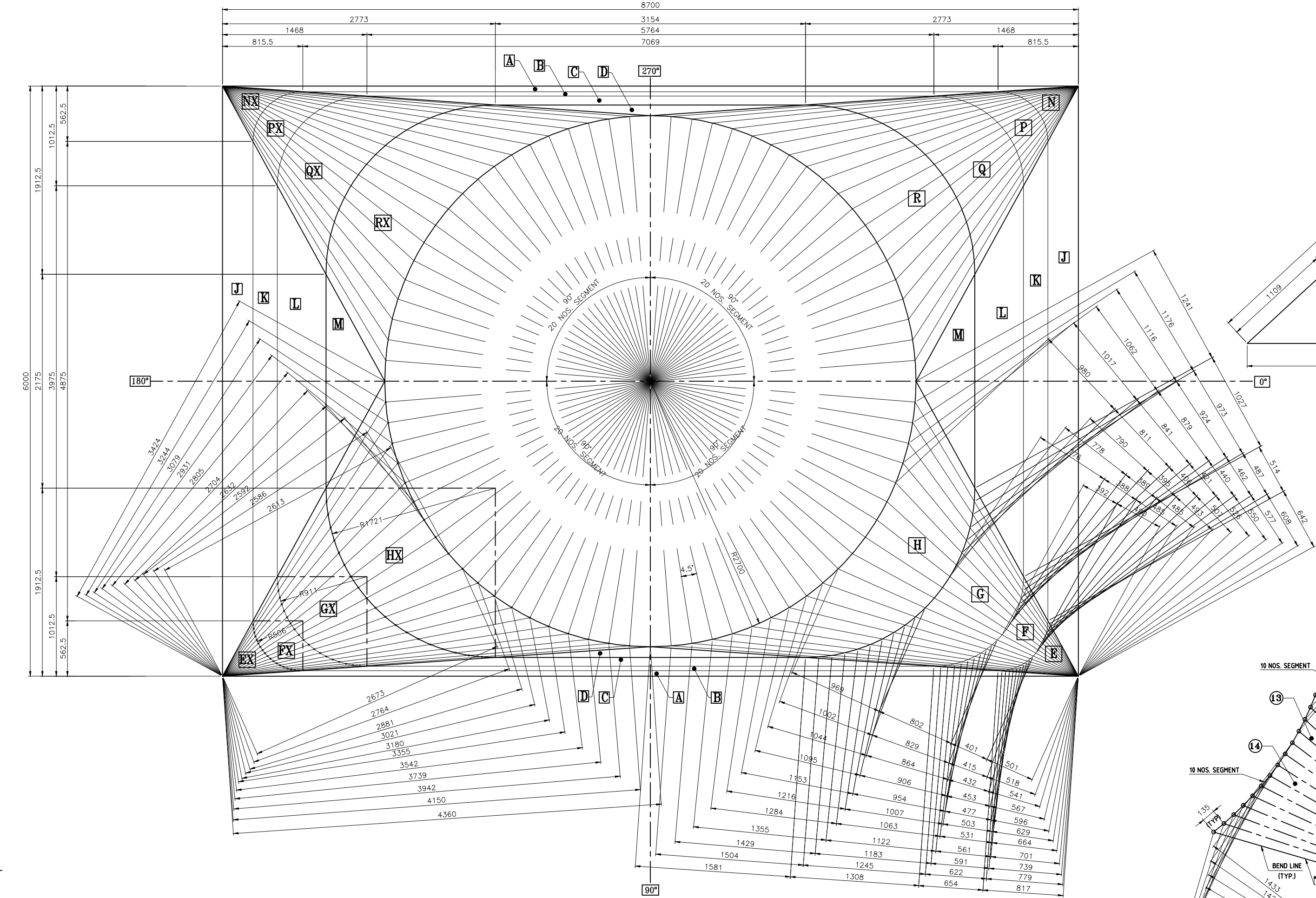
TABLE (SHOWING SIZE OF WELD)		
PL THICKNESS	WELD SIZE (MM)	WELD SIZE (MM)
6 & 10	6	6
12	6	6
16 & 20	12	12
25	14	14
28 & 32	20	20
36 & 40	20	20
45 & 50	25	25

- NOTES:-
1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN M.
 2. ALL EJECTION HOLES ARE 175H FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 175H FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
 6. PERMANENT HOLES SHOWN THUS
 7. EJECTION HOLES SHOWN THUS
 8. ALL EJECTION BOLTS SHALL BE RETAINED IN POSITION.
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS.
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 11. TRIAL ASSEMBLY TO BE MADE AT FABRICATION SITE.
 12. ALL BOLTS TO BE MATCH DRILLED.



THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07058
1-79-845-07059
1-79-845-07060

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME YOGES		SIGN B.V. REDDY		DATE 30-04-19		NO. OF VAR.	
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		DRN SHD		NAME C.GANESH		DATE 30-04-19		NO. OF ITEMS	
DEPT AOCs		GRADE OF UNTOLODM		SCALE		WEIGHT (KG.)		REF. TO ASSY/OLD DRG.	
CODE 862		PR:QA:500		CARD CODE		DRAWING NO. 1-79-845-07058		REV 01	
TITLE HOPPER TRANSITION PORTION 1ST FIELD I									



DETAIL OF HOPPER TRANSITION PORTION PART MKD - Q, QX

SCALE: 1:20

DETAIL OF HOPPER TRANSITION PORTION PART MKD - N, NX

SCALE: 1:20

- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.50 FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 17.50 FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION.
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UND.
 6. PERMANENT HOLES SHOWN THUS.
 7. ERECTION HOLES SHOWN THUS.
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 11. TRIAL ASSEMBLY TO BE MADE AT FABRICATION SITE
 12. ALL BOLTS TO BE MATCH DRILLED

PL. THICKNESS	1 (SIZE OF WELD IN MM)
8 & 10	6
12	6
16 & 20	12
25	14
28 & 32	20
36 & 40	20
45 & 50	25

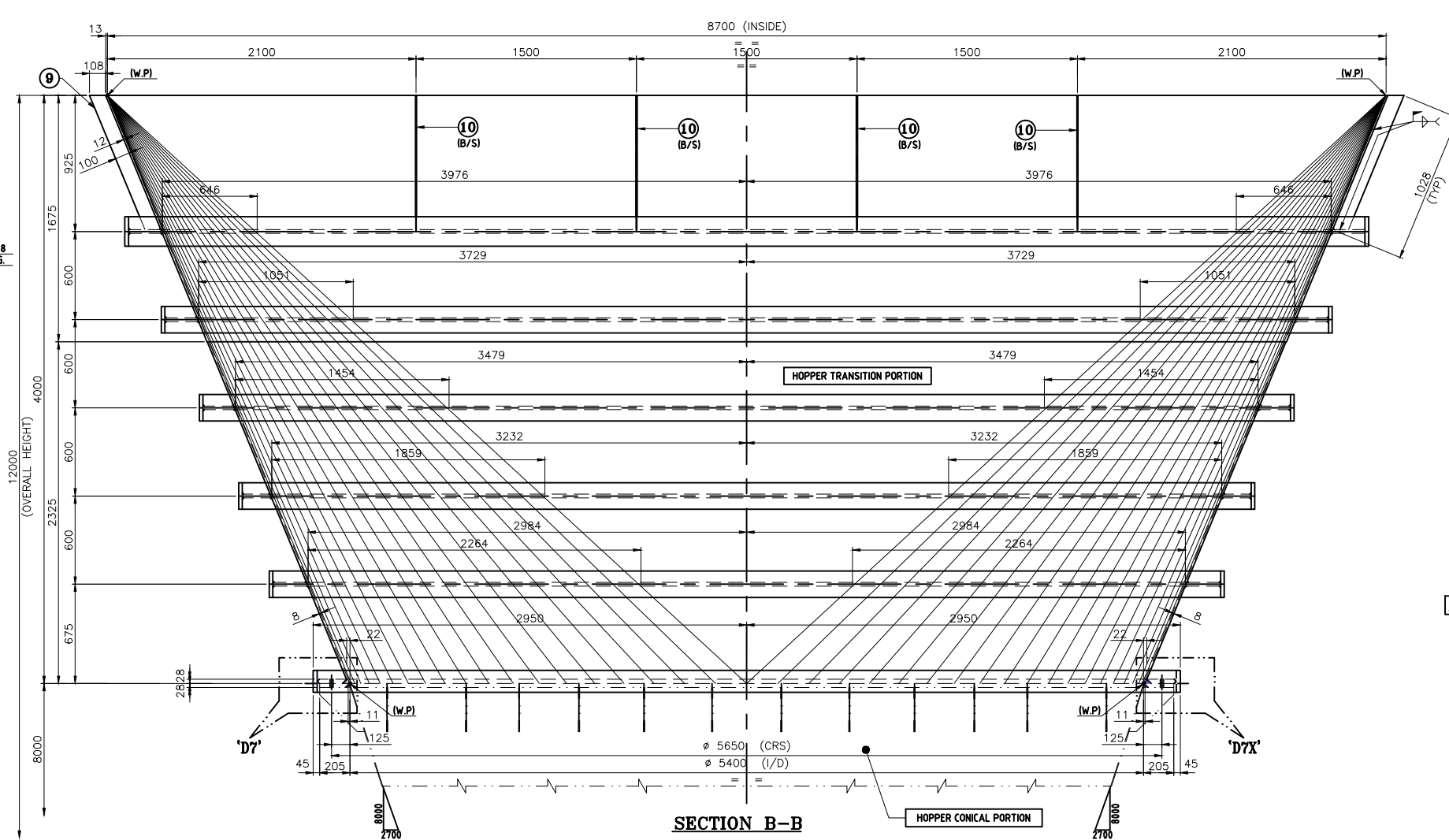
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED

THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07058
1-79-845-07059
1-79-845-07060

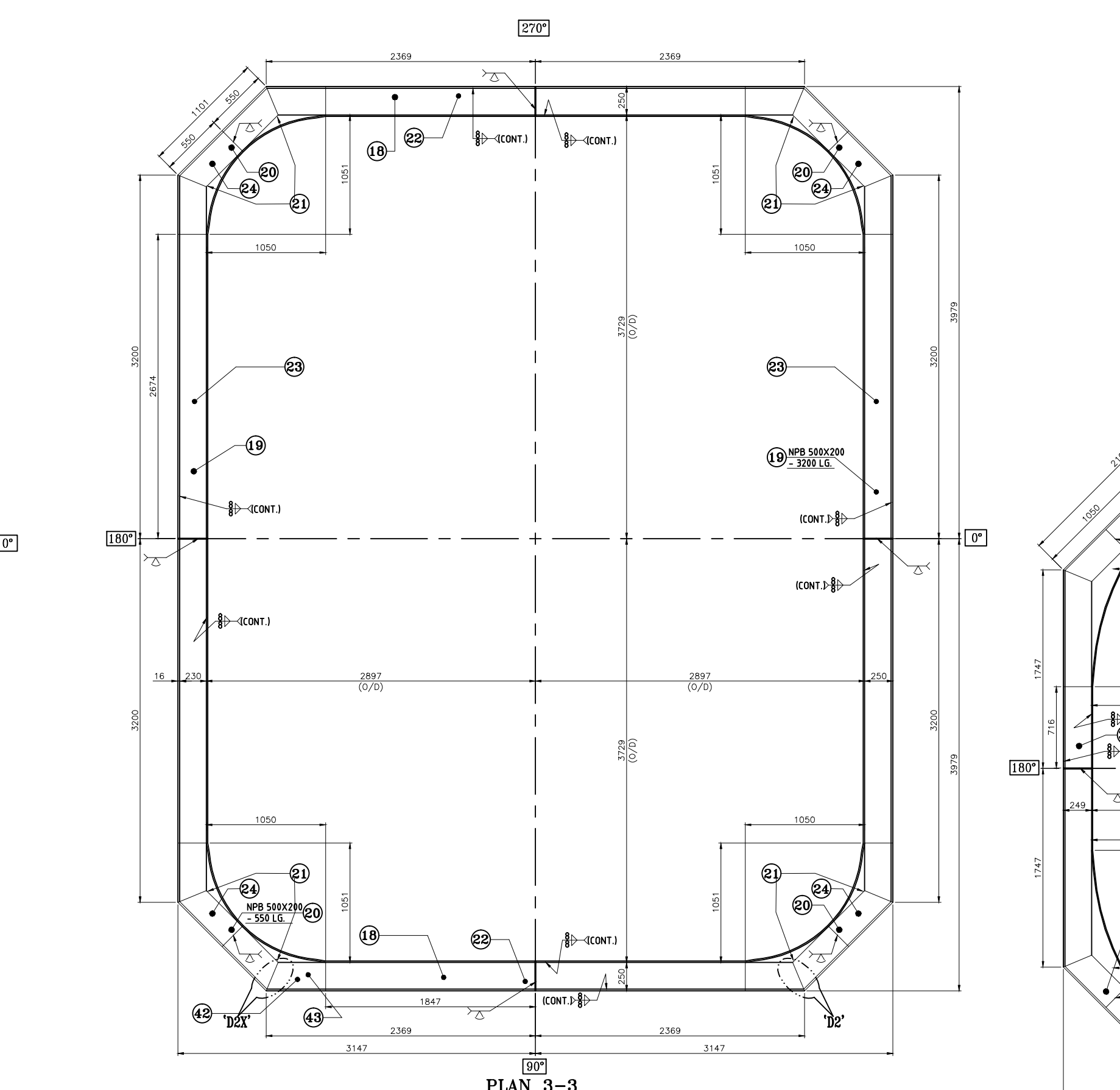
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL SPECN	QTY	UNIT	VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL SPECN	QTY	UNIT
	51	PL 16x100x100 LIFTING EYE			AA1011808110	IS2062 Gr A	1.256										
	50	PL 28x150x2303			AA1011819163	IS2062 Gr A	75.930										
	49	PL 28x652x2234			AA1011819163	IS2062 Gr B	101.987										
	48	PL 10x724x1723			AA1011808072	IS2062 Gr A	10.915										
	47	NPB 500X200-1128			IS2062 Gr A	IS2062 Gr A	102.310										
	46	NPB 500X200-1526			IS2062 Gr A	IS2062 Gr A	37.723										
	45	NPB 500X200-1393			IS2062 Gr A	IS2062 Gr A	25.753										
	44	PL 10x605x1437			AA1011808072	IS2062 Gr A	7.693										
	43	NPB 500X200-960			IS2062 Gr A	IS2062 Gr A	87.072										
	42	NPB 500X200-1068			IS2062 Gr A	IS2062 Gr A	96.846										
	41	NPB 500X200-1677			IS2062 Gr A	IS2062 Gr A	66.559										
	40	PL 10x488x1151			AA1011808072	IS2062 Gr A	5.130										
	39	NPB 500X200-795			IS2062 Gr A	IS2062 Gr A	72.107										
	38	NPB 500X200-1721			IS2062 Gr A	IS2062 Gr A	156.060										
	37	NPB 500X200-1957			IS2062 Gr A	IS2062 Gr A	107.365										
	36	PL 10x370x865			AA1011808072	IS2062 Gr A	3.003										
	35	NPB 450X190-617			IS2062 Gr A	IS2062 Gr A	47.879										
	34	NPB 450X190-2967			IS2062 Gr A	IS2062 Gr A	163.918										
	33	NPB 450X190-2229			IS2062 Gr A	IS2062 Gr A	126.671										
	32	PL 28x254x579			AA1011819163	IS2062 Gr A	7.349										
	31	PL 28x210x449			IS2062 Gr B	IS2062 Gr B	20.725										

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL SPECN	QTY	UNIT	VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL SPECN	QTY	UNIT
	30	PL 28X200X449			AA1011819163	IS 2062 Gr B	17.872										
	29	PL 28X210X3023			AA1011819163	IS 2062 Gr B	139.536										
	28	PL 28X200X3023			AA1011819163	IS 2062 Gr B	132.891										
	27	PL 28X210X2083			AA1011819163	IS 2062 Gr B	96.147										
	26	PL 28X200X2083			AA1011819163	IS 2062 Gr B	91.569										
	25	PL 28X137X292			AA1011819163	IS 2062 Gr B	5.329										
	24	PL 28X225X560			AA1011819163	IS 2062 Gr B	27.695										
	23	PL 28X190X560			AA1011819163	IS 2062 Gr B	20.019										
	22	PL 28X225X3676			AA1011819163	IS 2062 Gr B	181.797										
	21	PL 28X190X3676			AA1011819163	IS 2062 Gr B	153.517										
	20	PL 28X225X2533			AA1011819163	IS 2062 Gr B	125.270										
	19	PL 28X190X2533			AA1011819163	IS 2062 Gr B	105.783										
	18	PL 8X100X597			AA1011808056	IS2062 Gr A	3.749										
	17	PL 8X100X677			AA1011808056	IS2062 Gr A	4.252										
	16	PL 10X2120X1909			AA1011808072	IS2062 Gr A	229.142										
	15	PL 10X2120X2145			AA1011808072	IS2062 Gr A	215.404										
	14	PL 10X1350X1579			AA1011808072	IS2062 Gr A	112.962										
	13	PL 10X1350X1775			AA1011808072	IS2062 Gr A	106.132										
	12	PL 16X720X790			AA1011808110	IS2062 Gr A	48.607										
	11	PL 16X720X888			AA1011808110	IS2062 Gr A	45.718										
	10	PL 16X400X987			AA1011808110	IS2062 Gr A	21.729										
	09	PL 16X400X1109			AA1011808110	IS2062 Gr A	20.347										
	08	PL 10X1567.5X2175			AA1011808072	IS2062 Gr A	133.727										
	07	PL 10X1295X3975			AA1011808072	IS2062 Gr A	312.655										
	06	PL 16X464X4875			AA1011808110	IS2062 Gr A	359.072										
	05	PL 16X809.5X6000			AA1011808110	IS2062 Gr A	552.976										
	04	PL 10X1452.5X3154			AA1011808072	IS2062 Gr A	179.613										
	03	PL 10X1200X5764			AA1011808072	IS2062 Gr A	419.986										
	02	PL 16X599X7069			AA1011808110	IS2062 Gr A	482.704										
	01	PL 16X750.5X8700			AA1011808110	IS2062 Gr A	743.363										

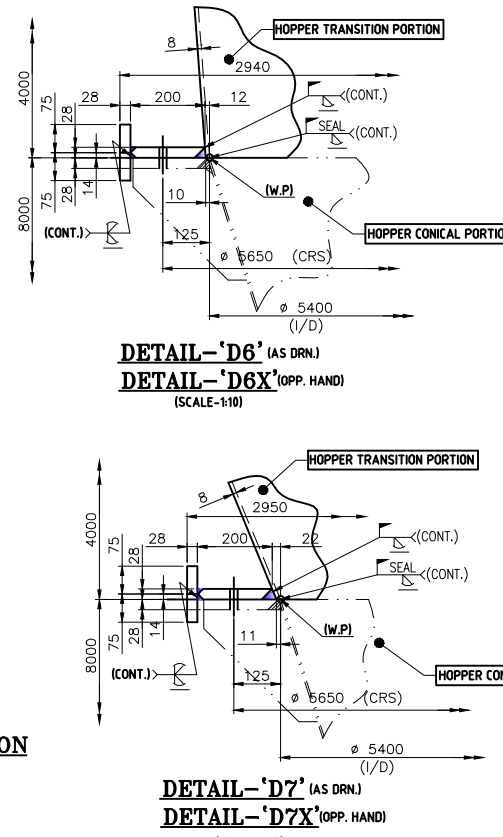
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	NAME	SIGN	DATE	NO. OF VAR.
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.	YOGES	B.V.REDDY	30-04-19	-
DEPT AOCs GRADE OF UNTOL.DIM. SCALE WEIGHT (KG). REF. TO ASSY/OLD DRG.	CHD	C.GANESH	30-04-19	-
CODE 862 PR:0A:500	APPD			
TITLE	CARD CODE	DRAWING NO.	REV	NO. OF ITEMS
HOPPER TRANSITION PORTION 1ST FIELD-III	U 01	1-79-845-07060	01	



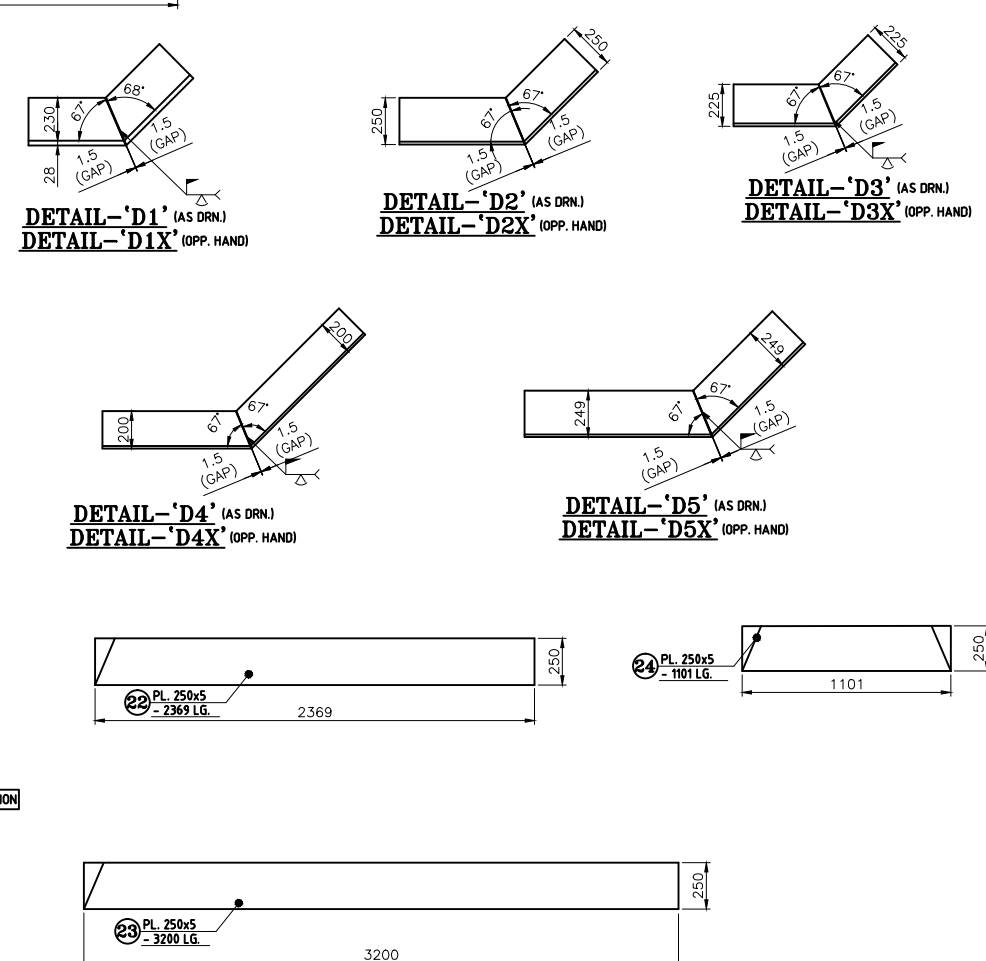
SECTION A-A
DETAIL OF HOPPER TRANSITION PORTION MKD HTP-1



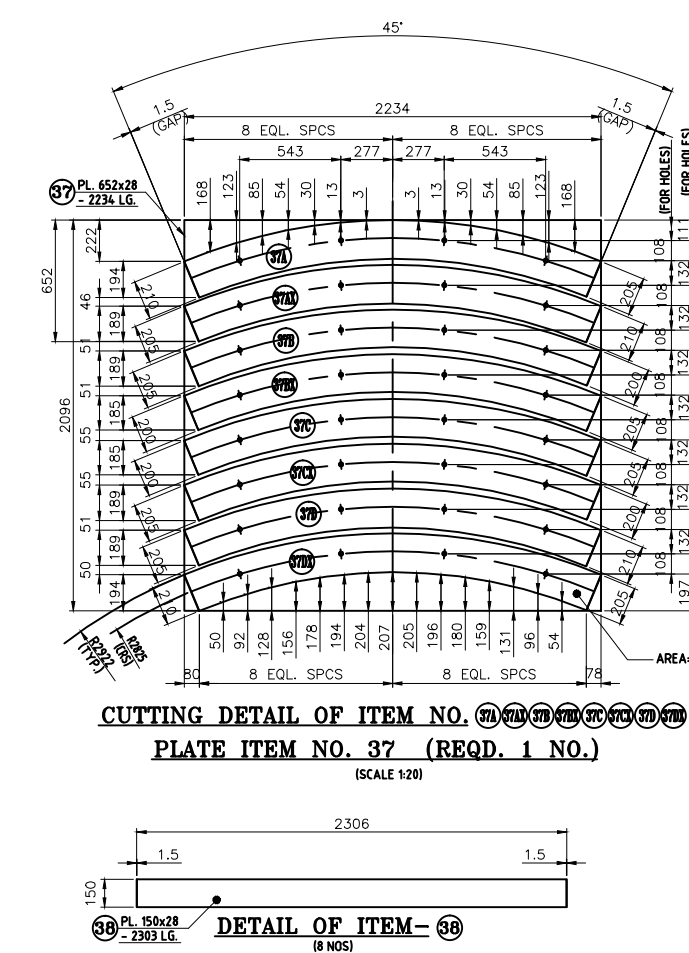
PLAN 2-2



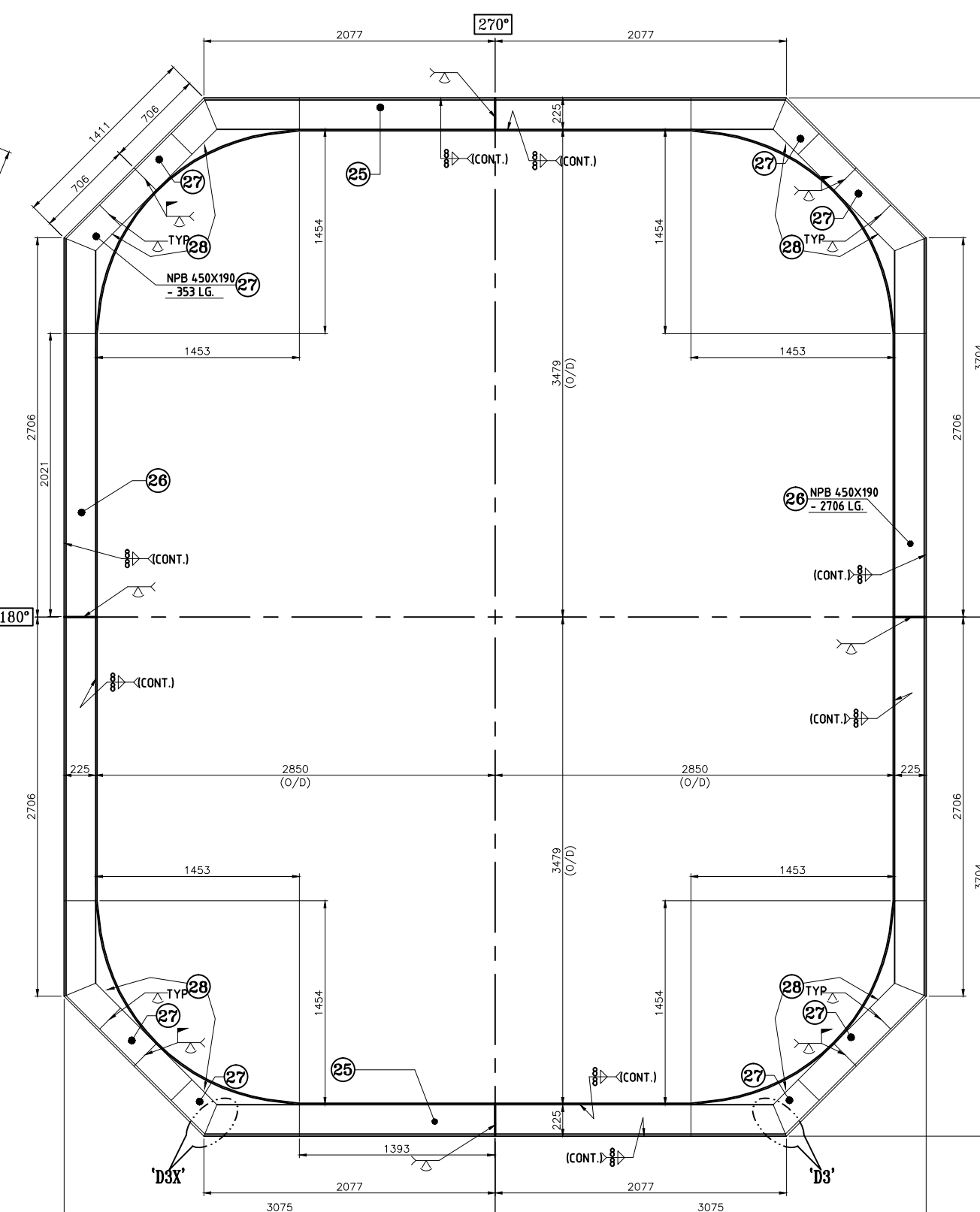
MARKING PLAN OF HOPPER TRANSITION PORTION



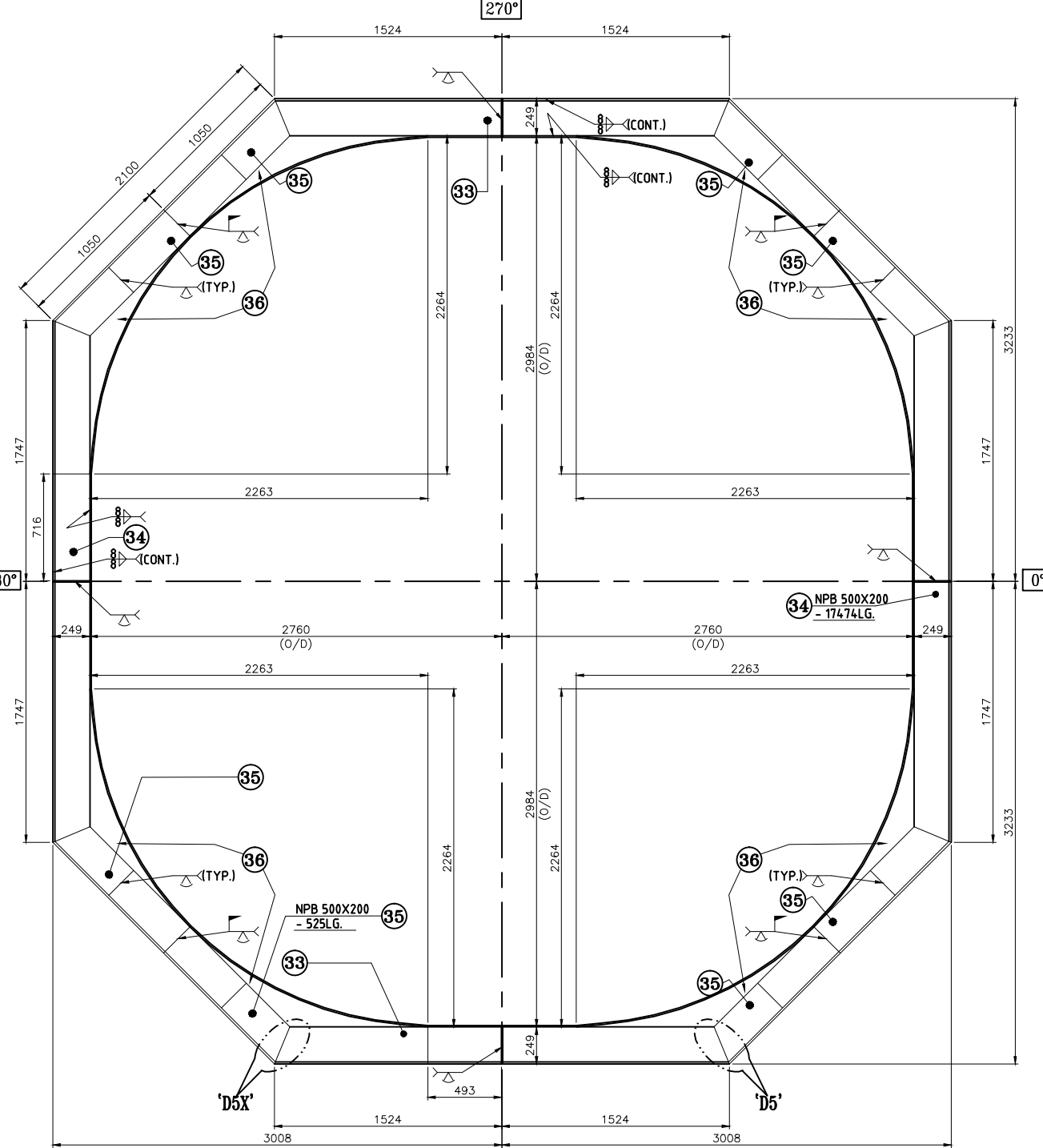
PLAN 3-3



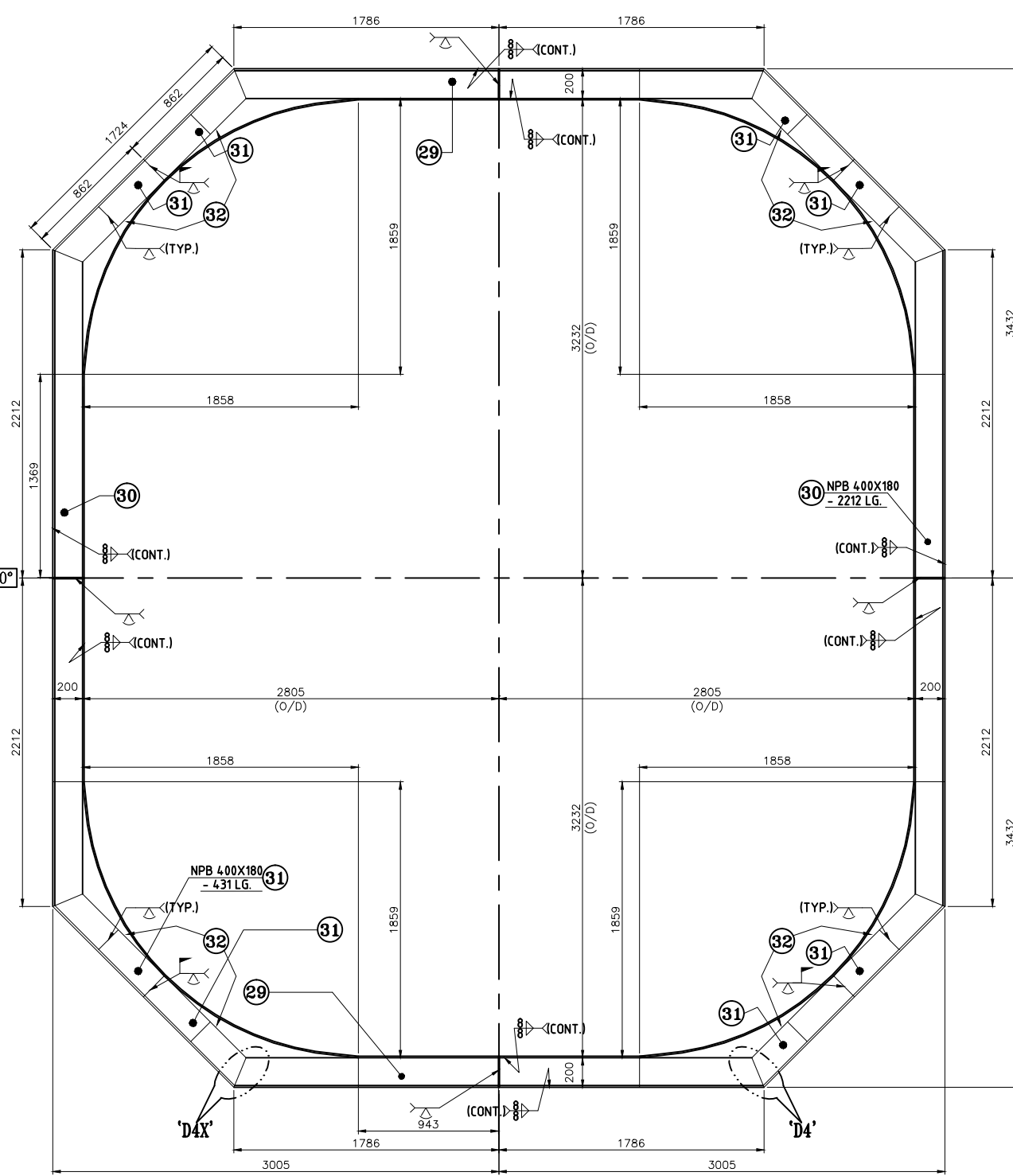
CUTTING DETAIL OF ITEM NO. 37 (REQD. 1 NO.)



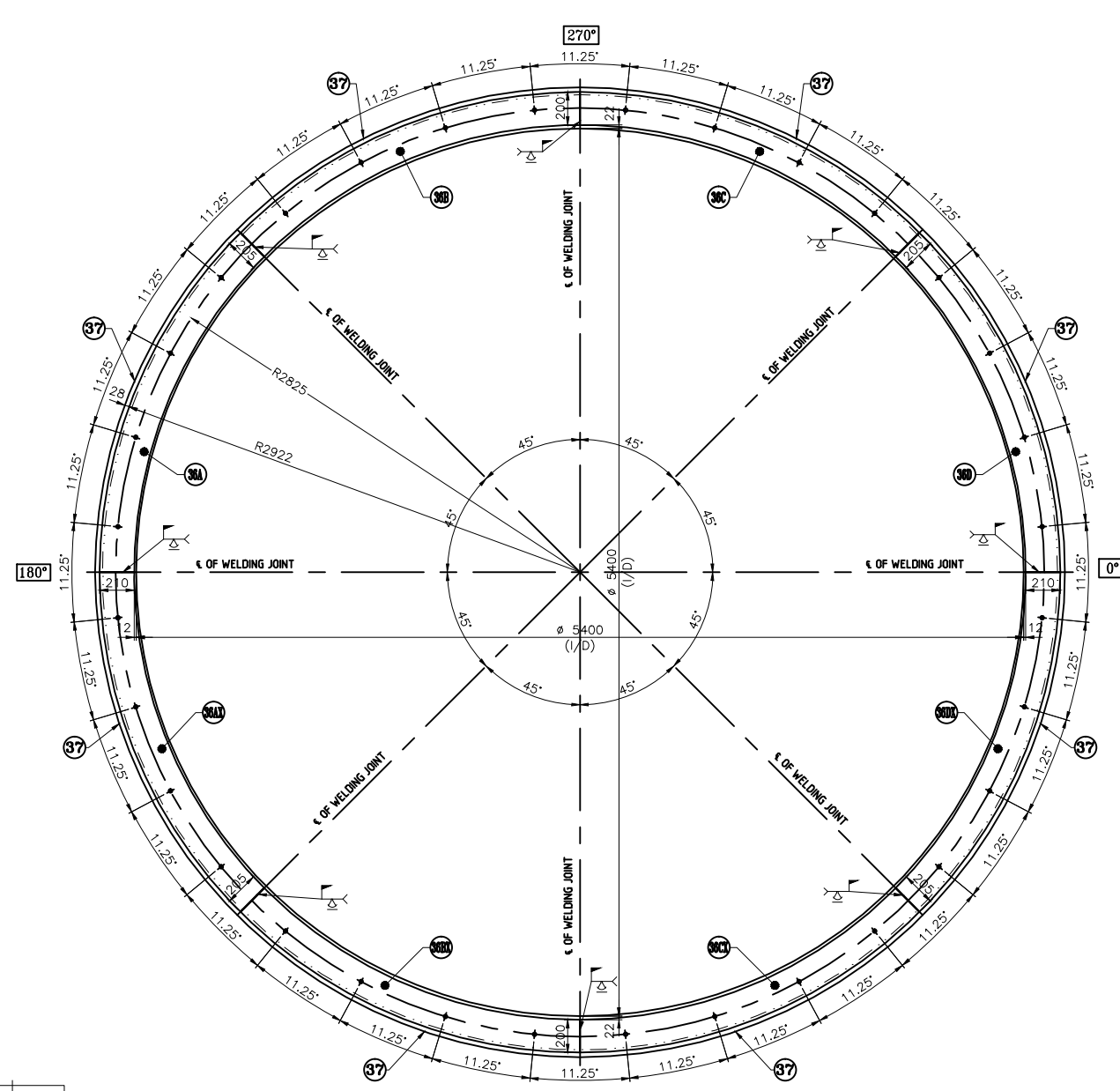
PLAN 4-4



PLAN 6-6



PLAN 5-5



PLAN 8-8

NOTES:-

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN M.
2. ALL ERECTION HOLES ARE 1754 FOR 6M-BOLTS UNID.
3. PERMANENT HOLES ARE 1754 FOR 6M-BOLTS UNID.
4. ALL PLATES AND GUSSET PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNID.
6. PERMANENT HOLES SHOWN THIS . . . 
7. ERECTION HOLES SHOWN THIS . . . 
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. TRANSITION PART SHALL BE SENT IN 4 PARTS
10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION
11. TRAIL ASSEMBLY TO BE MADE AT FABRICATION SITE
12. ALL BOLTS TO BE MATCH DRILLED

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

[illegible]

BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DEPT AQCS	GRADE OF UNTOL.DIM	
CODE	BB 24 500	

862	PR:QA:500		
TITLE	<u>HOPPER TRANSITION PORTIO</u> <u>2ND FIELD-I</u>		

	NAME	SIGN	DATE	NO.OF VAR.
DRN	YOGES		29-04-19	
CHD	B.V.REDDY		29-04-19	
APPD	C.GANESH		29-04-19	

KG).	REF. TO ASSY/OLD DRG.
	-

BOARD CODE	DRAWING NO.
01	1-79-845-07061

size A1

13

THIS DRAWING SHALL BE READ ALONG WITH

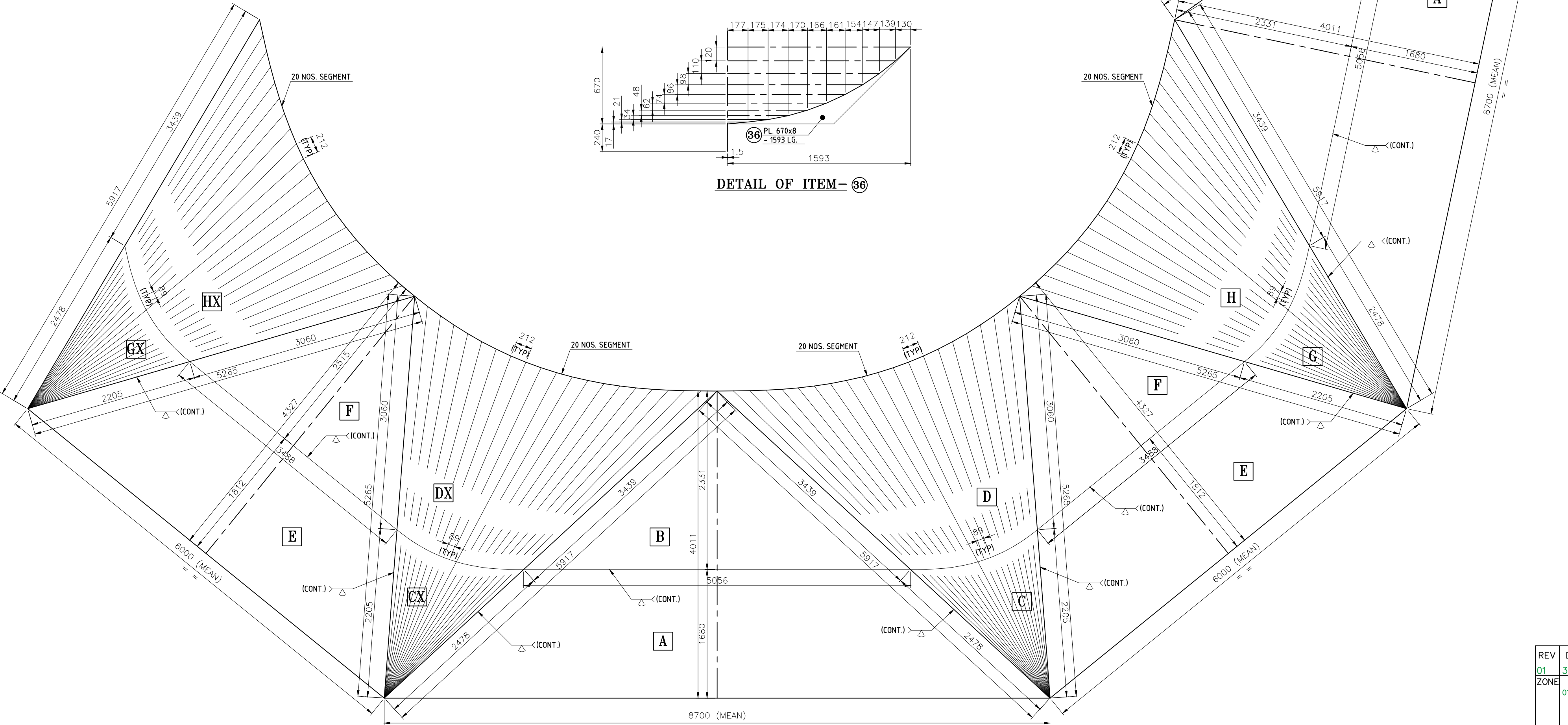
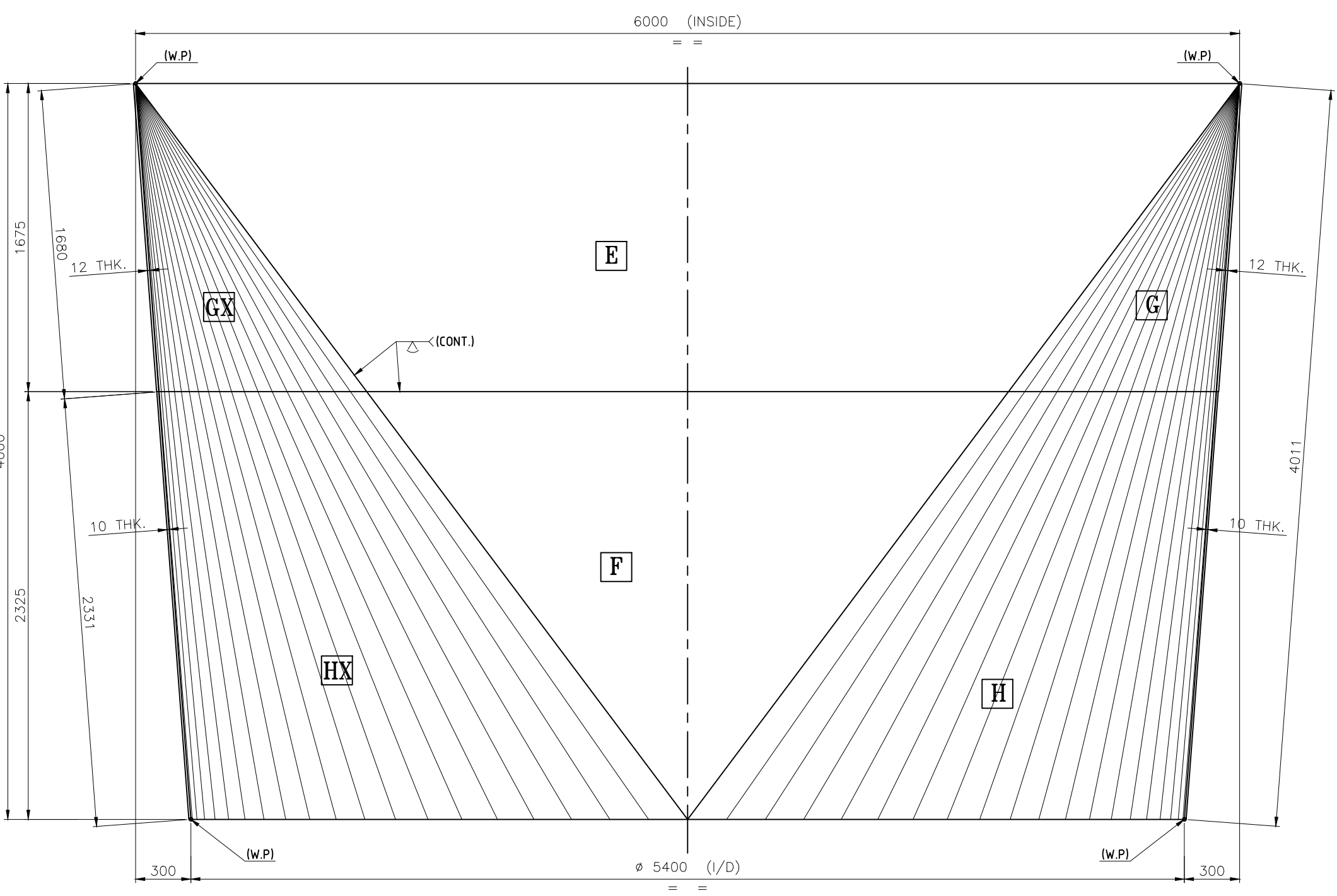
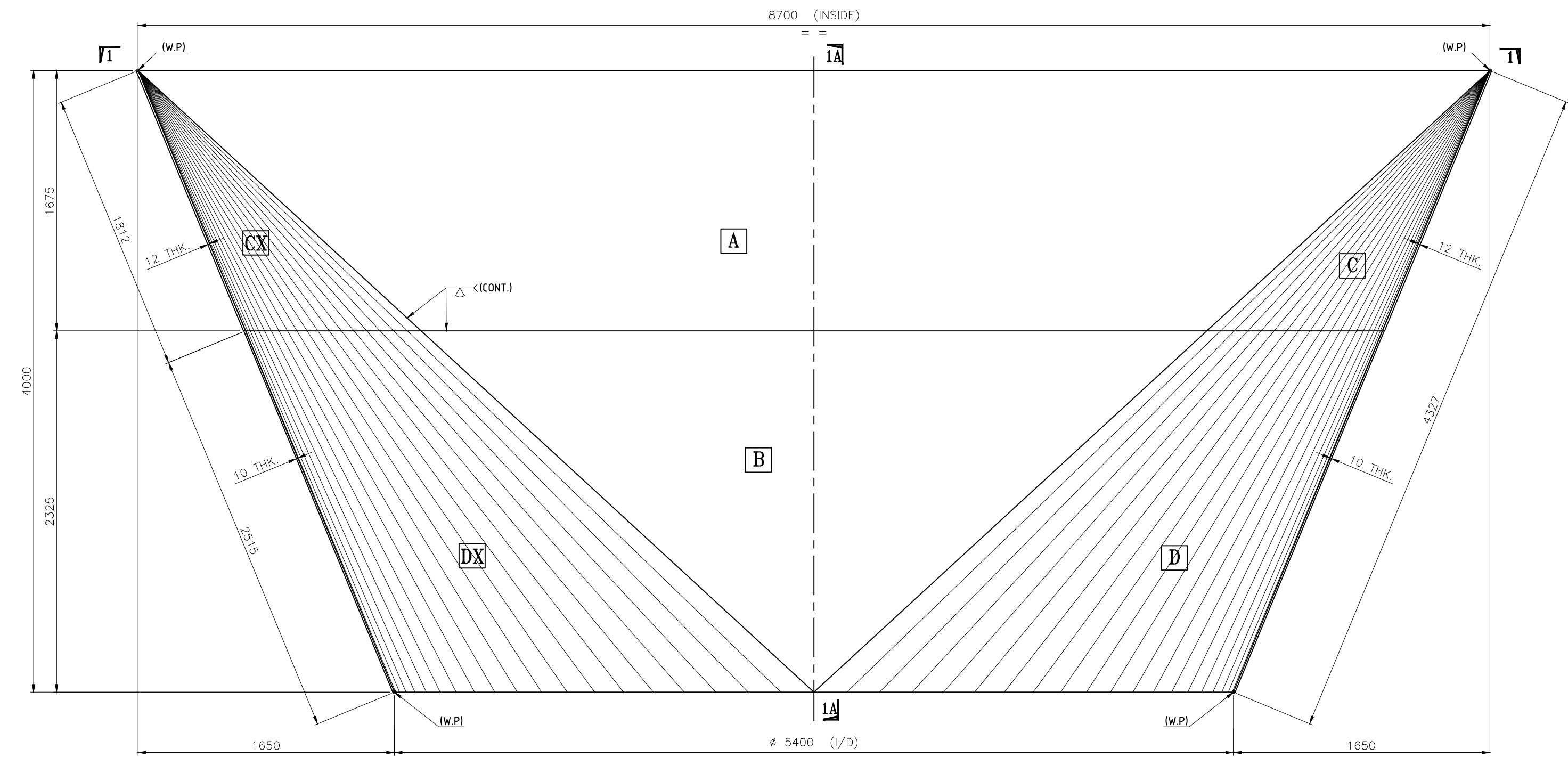
1-79-845-07061

1-79-845-07062

1-79-845-07063

REV	DATE	ALTERED	YOGES R
01	31.07.19	CHECKED	M.K.NAHAK/C/G
ZONE			
01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.			

REV	DATE	ALTERED	YOGES R
01	31.07.19	CHECKED	M.K.NAHAK/C.G
ZONE	01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.		



THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07061
1-79-845-07062
1-79-845-07063

- NOTES:-
2. ALL ERECTION HOLES ARE 17.5# FOR M-16 BOLTS UNL.
 3. ALL PERMANENT HOLES ARE 17.5# FOR M-16 BOLTS UNL.
 4. ALL MEMBERS AND GUSSET'S PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNL.
 6. PERMANENT HOLES SHOWN THUS:
 7. ERECTION HOLES SHOWN THUS:
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER DU AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 11. REF. DESIGN DRG. NO. PATRATU-HOPPER TRANSITION-2TH FIELD
 12. THIS DRG. IS TO READ IN CONJ. WITH DRG. NO. /004SH. 1,2,3 OF 3

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME YOGES		DATE 29-04-19	NO. OF VAR.
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		DRN CHD	B.V.REDDY	29-04-19	-
DEPT AQC'S		SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.
CODE 862		GRADE OF UNL/DIM PR: QA: 500	-	-	-
TITLE HOPPER TRANSITION PORTION 2ND FIELD-II		CARD CODE U 01	DRAWING NO. 1-79-845-07062	REV	NO. OF ITEMS
REV 01 DATE 31.07.19 ZONE 01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.		ALTERED YOGES R CHECKED M.K.NAHAK/C.G			

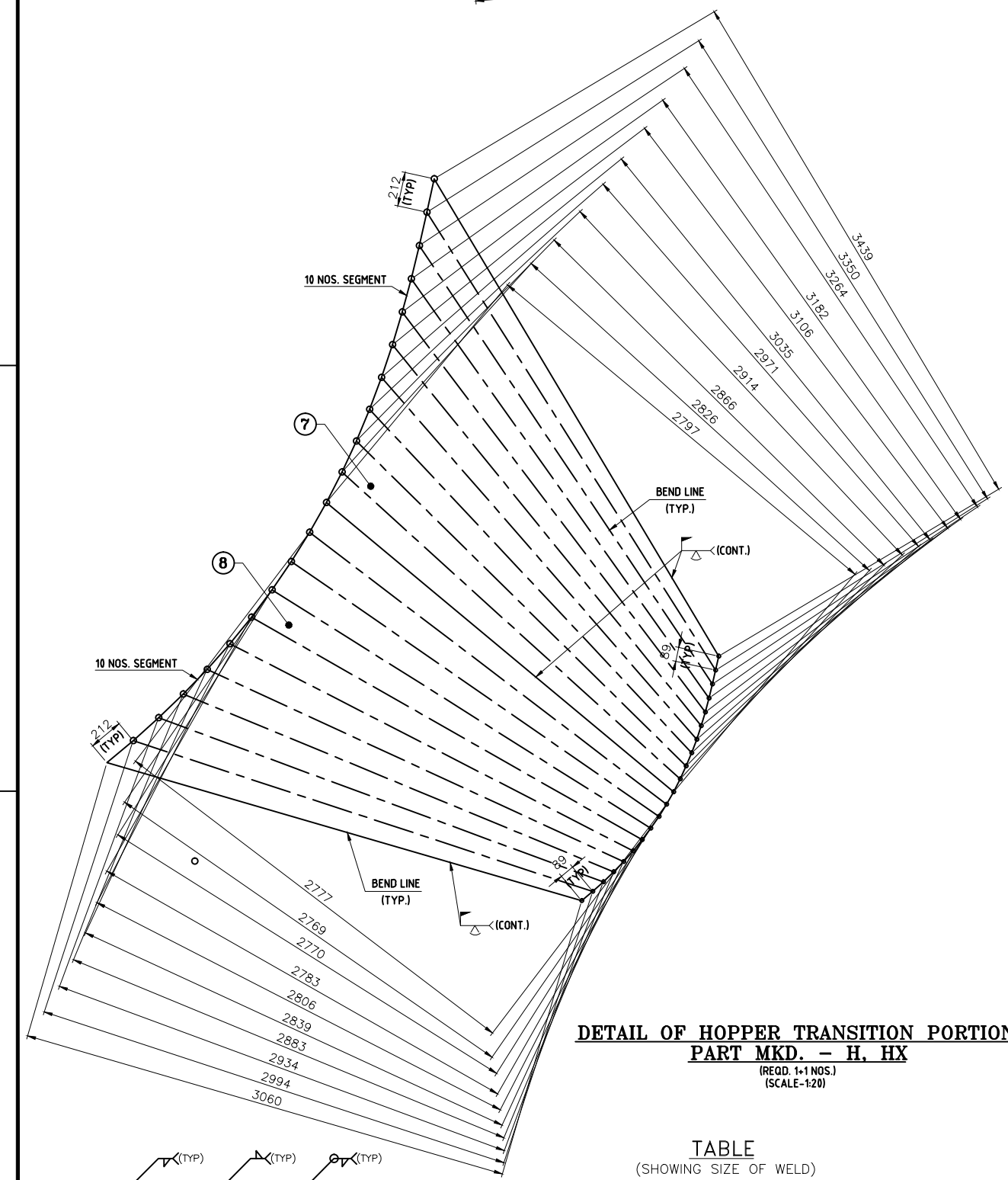
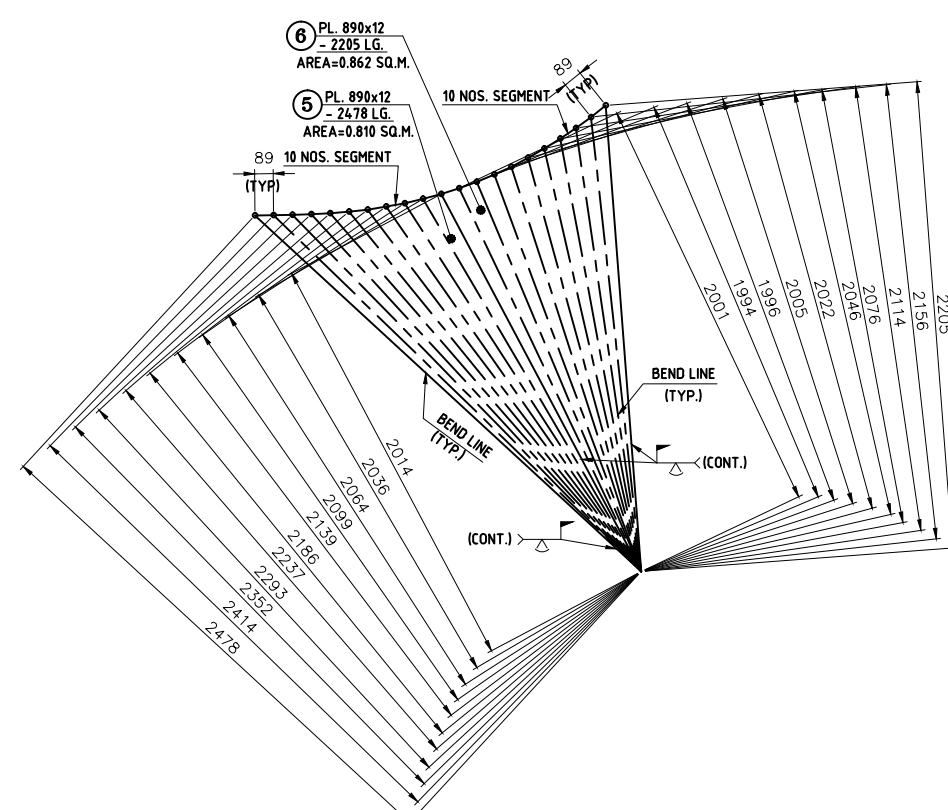
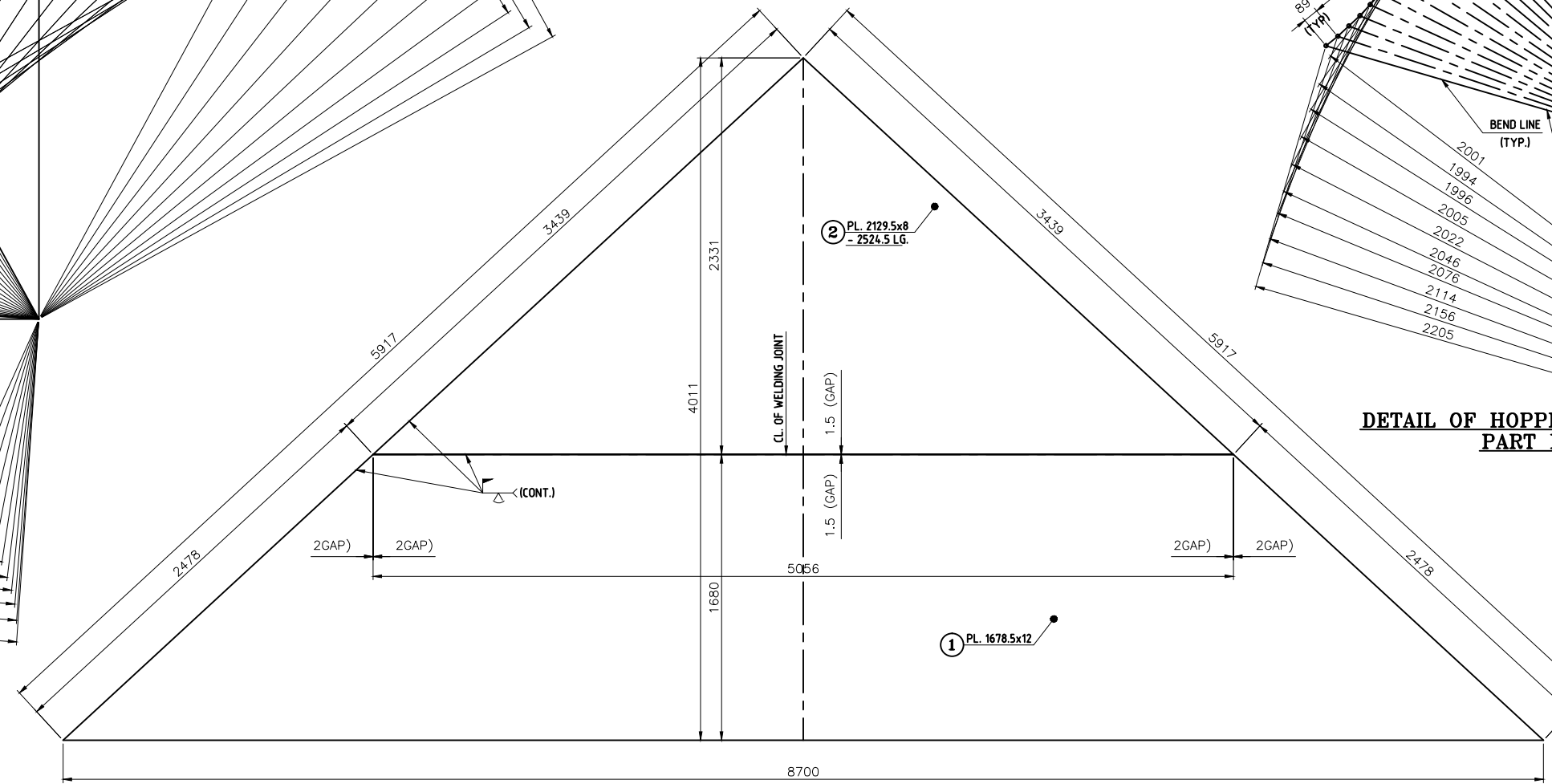
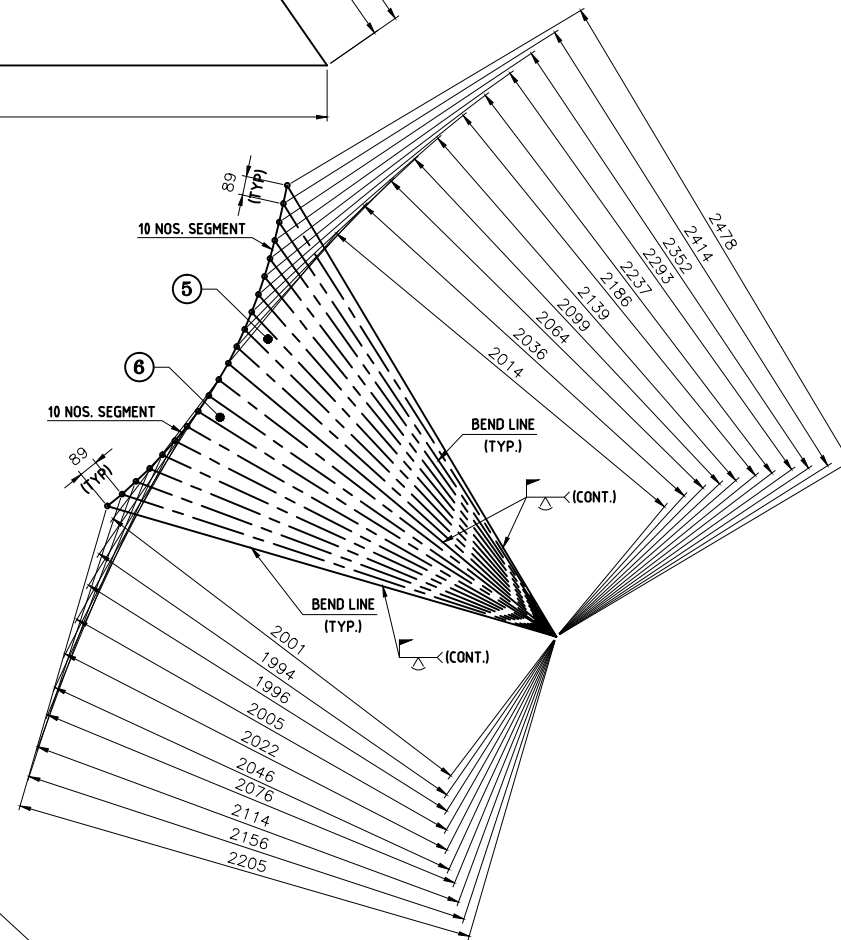
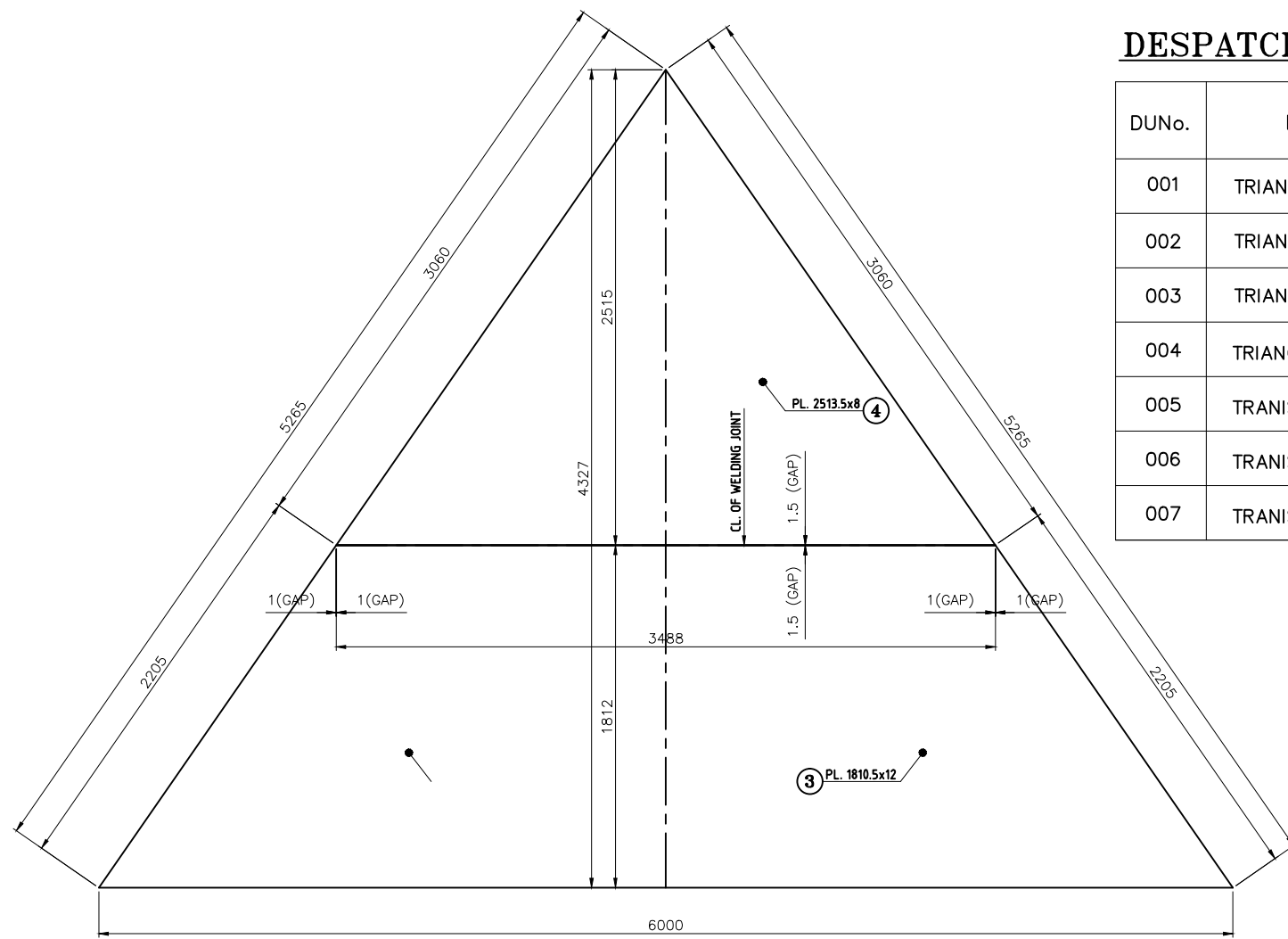
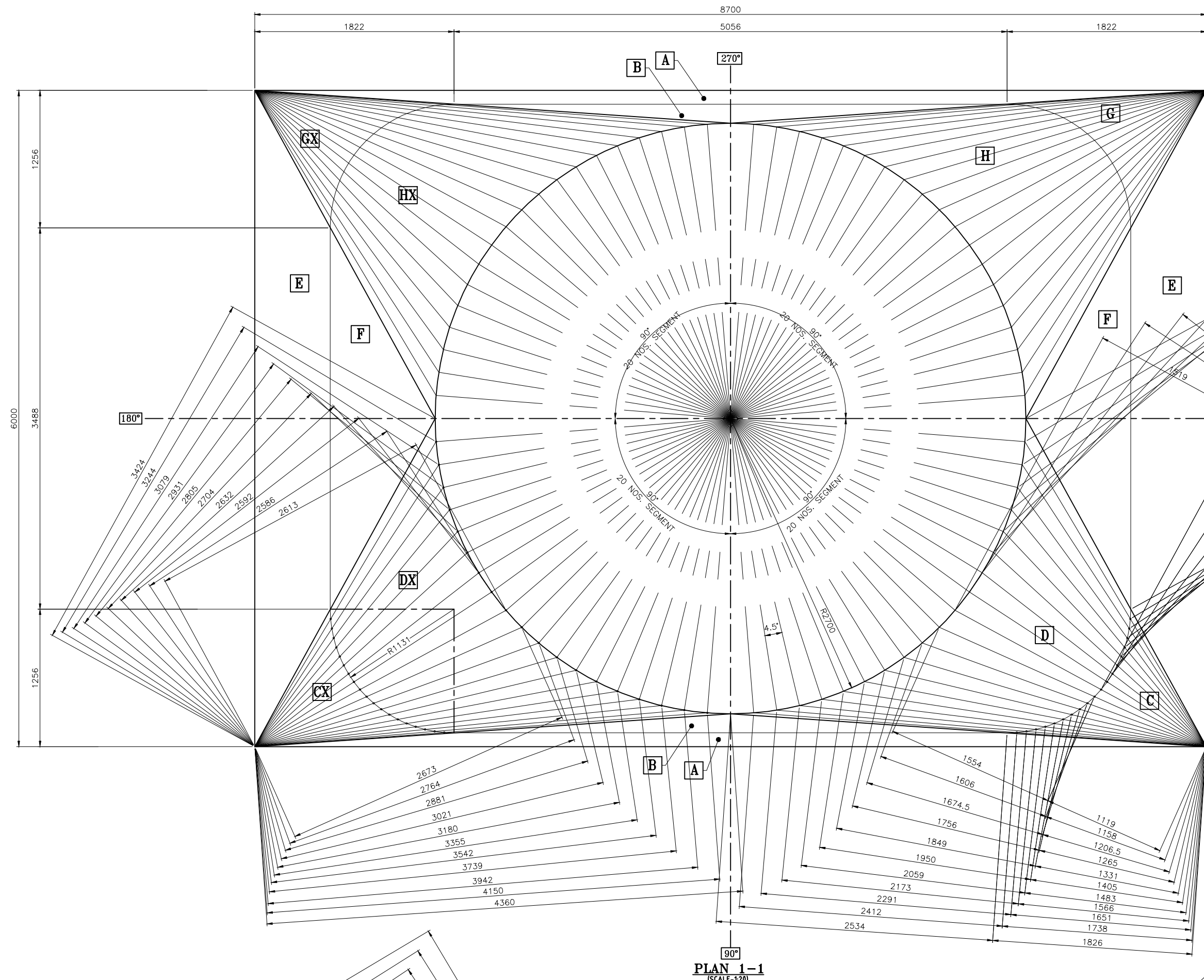
1-79-845-07063
DRAWING NO.

THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07061
1-79-845-07062
1-79-845-07063

All dimensions are in millimetres

DESPATCH TABLE FOR 1 ASSEMBLY OF HOPPER TRANSITION PART :-

DUNo.	DESCRIPTION	QTY	ITEM No.														NO.OFF
			01	10	13	14	19	23									
001	TRIANGULAR WALL-I	2	1	4	2	2	1	2									
002	TRIANGULAR WALL-II	2	02	26	30	34	1										
003	TRIANGULAR WALL-III	2	03	09	11	12	18	22									
004	TRIANGULAR WALL - IV	2	04	25	29	33	1										
005	TRANSITION1	4	05	06	15	16	17	20	24	21	40	42	43				
006	TRANSITION2	4	07	27	28	31	32	35	36	37	38	39	44	45	46		
007	TRANSITION3	4	08	27	28	31	32	35	36	37	38	39	44	45	46		



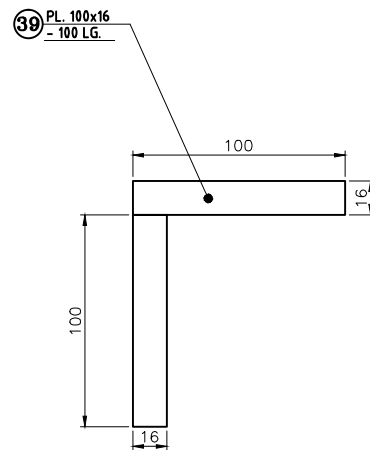
DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - H, HX
(REGD. 1-NOS.)
(SCALE-1:20)

DETAIL OF HOPPER TRANSITION PORTION
PART MKD. - D, DX
(REGD. 1-NOS.)
(SCALE-1:20)

46	NPB 500X200-1021	150096520000	81.027
45	NPB 400X180-834	IS2062 E 350	4
		150096550000	55.294
44	NPB 450X190-680	IS2062 E 350	4
		150096540000	45.084
43	PL 5X250X522	AA1011808013	5.122
42	NPB 500X200-515	IS2062 Gr A	4
		150096530000	40.870
41	PL 28X200X360	IS2062 E 350	4
		AA1011808056	15.826
40	PL 28X230X349	IS2062 Gr B	8
		AA1011808056	15.141
		IS2062 Gr B	8

NOTES:-
2. ALL ERECTION HOLES ARE 17.50 FOR M-16 BOLTS UNL.
3. ALL PERMANENT HOLES ARE 17.50 FOR M-16 BOLTS UNL.
4. ALL MEMBERS AND GUSSET'S PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
5. ALL SHIP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNL.
6. PERMANENT HOLES SHOWN THUS: . . .
7. ERECTION HOLES SHOWN THUS: . . .
8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
9. TRANSITION PART SHALL BE SENT IN 4 PARTS
10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER DU AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION

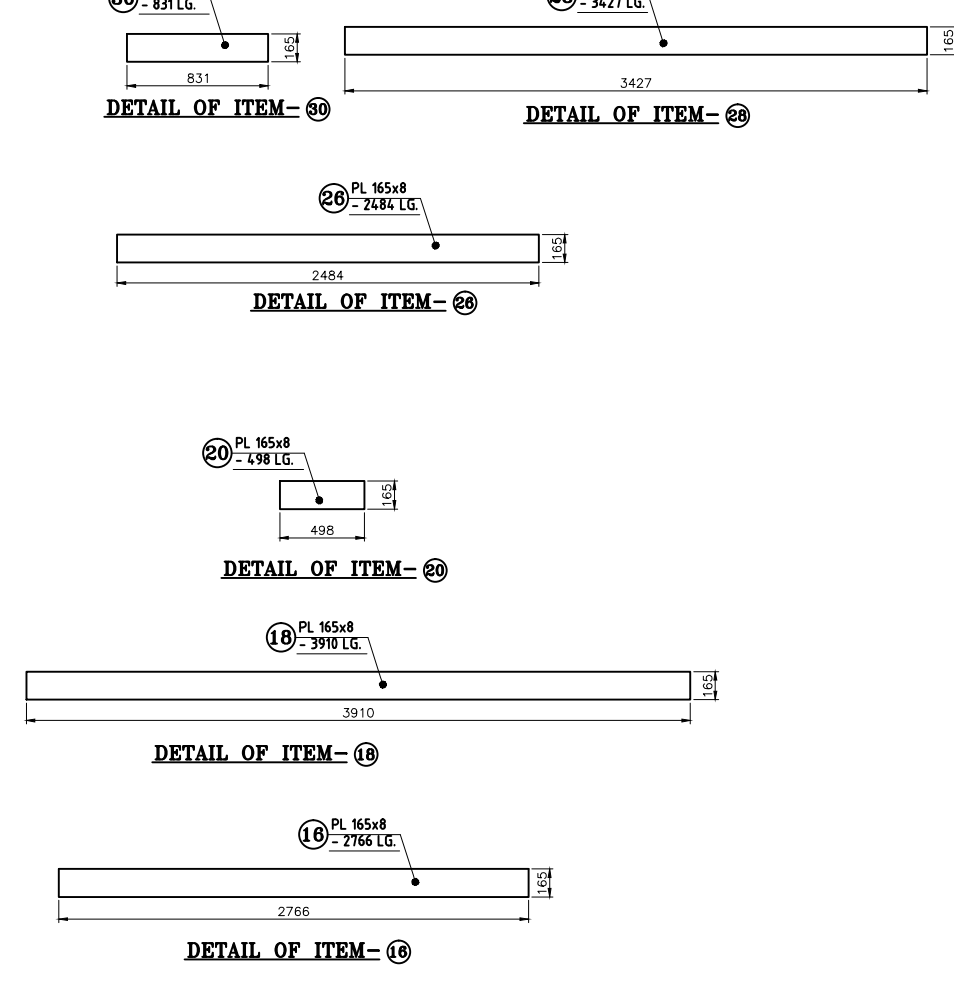
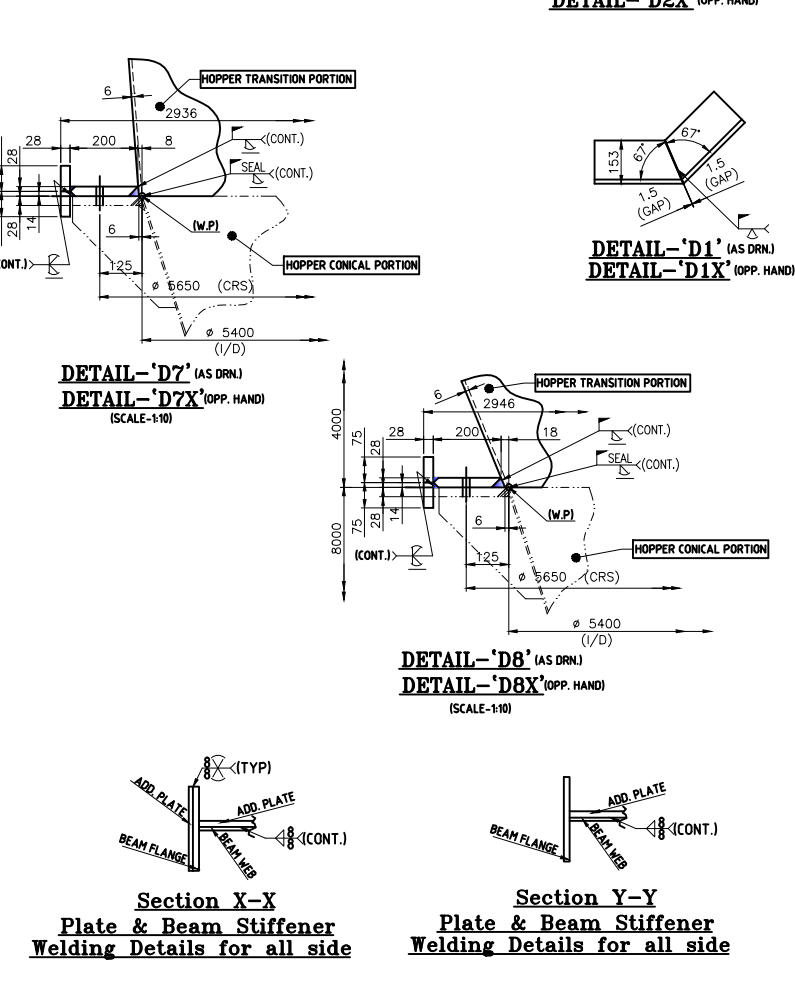
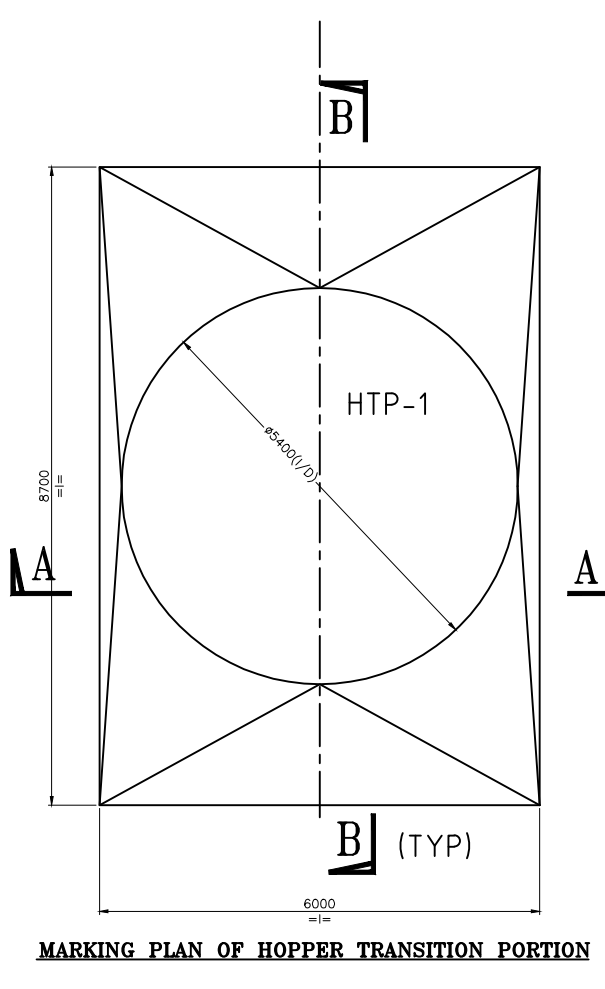
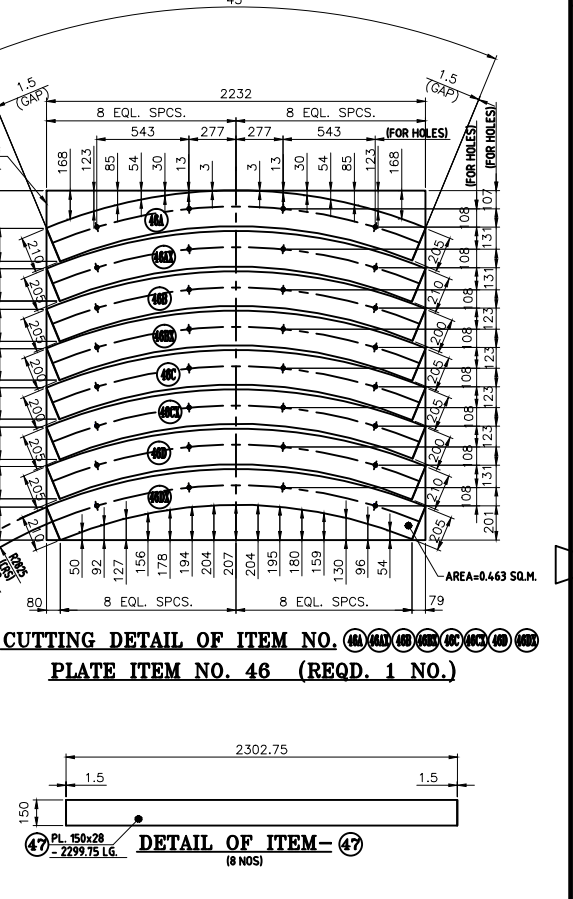
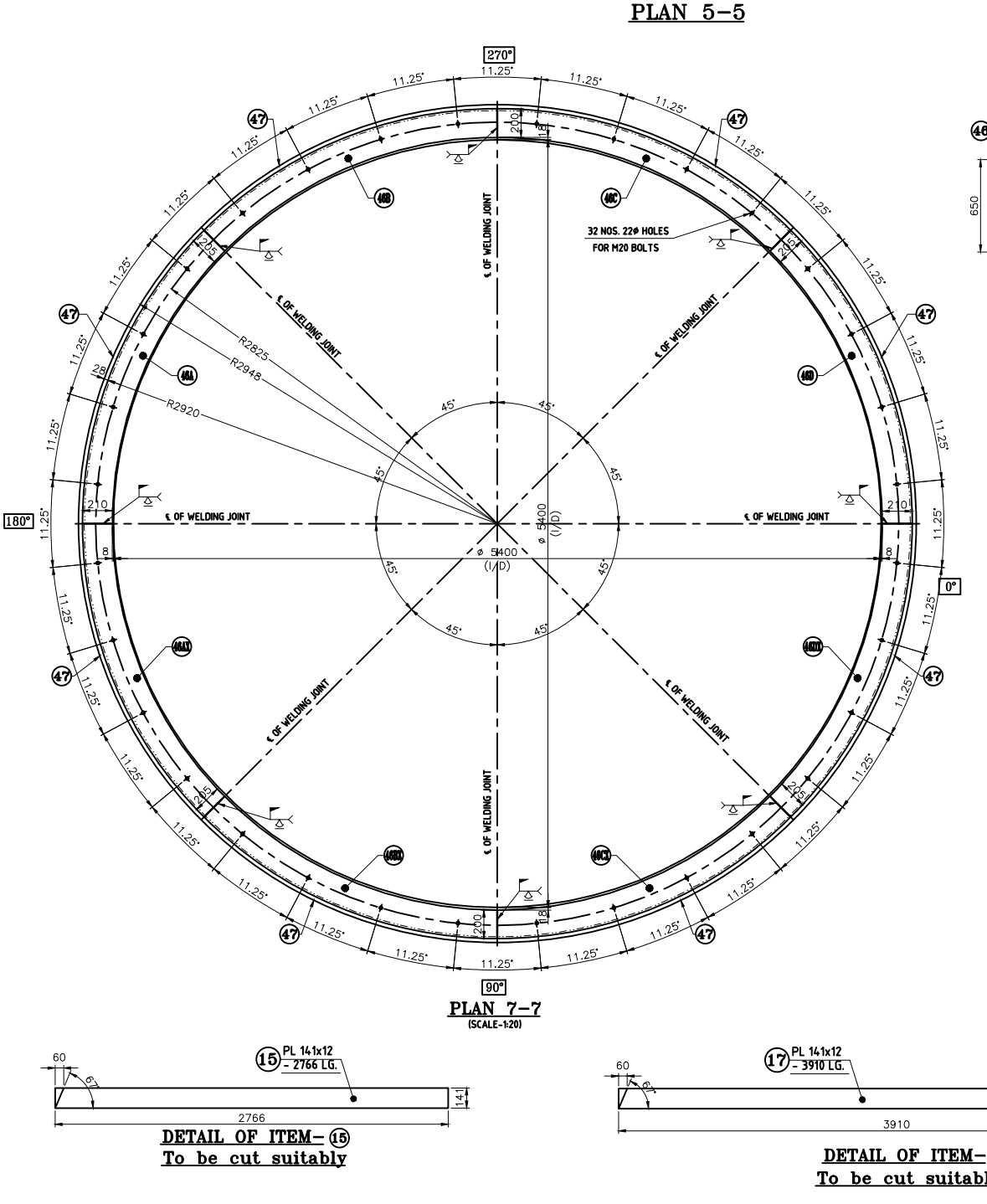
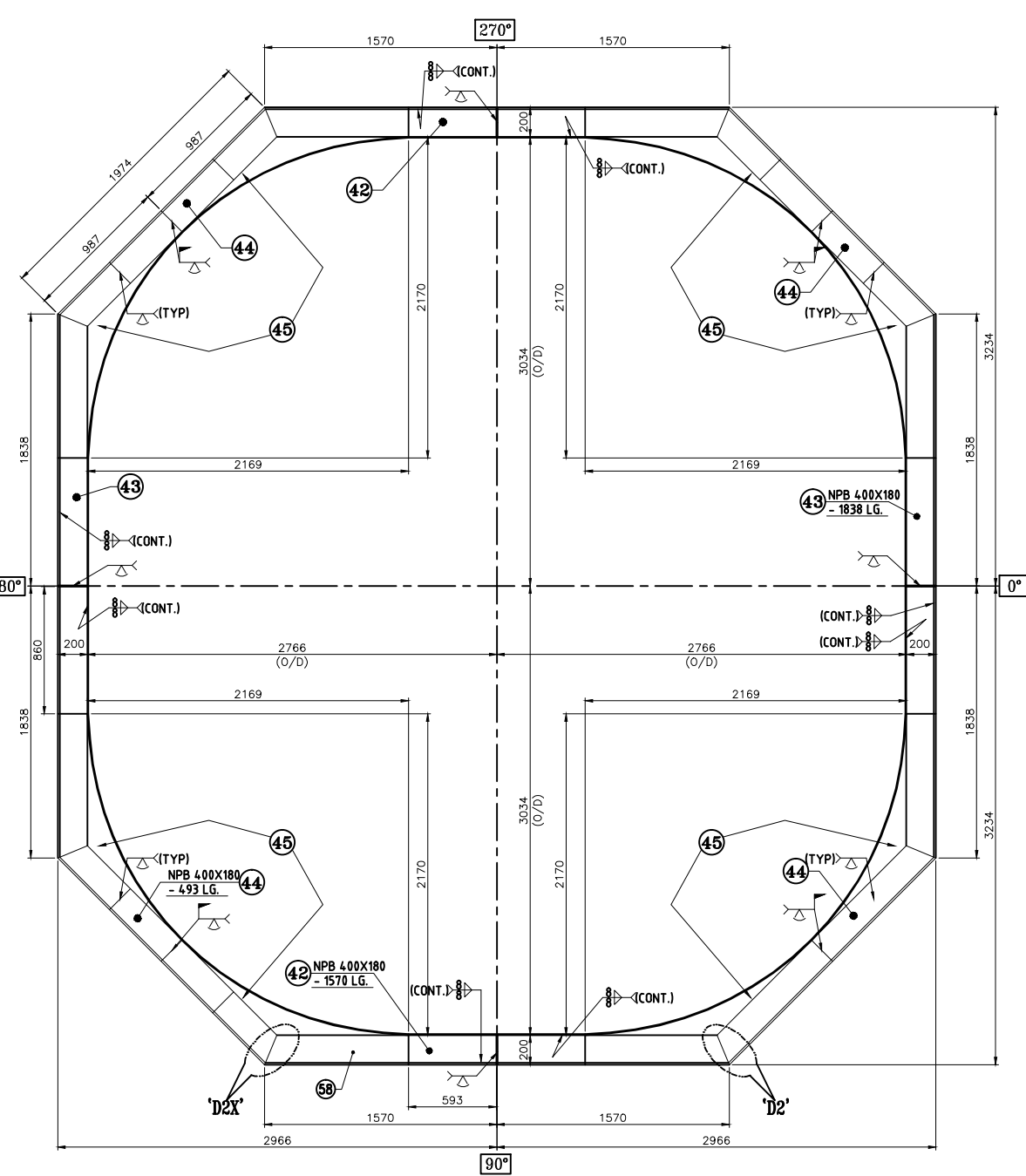
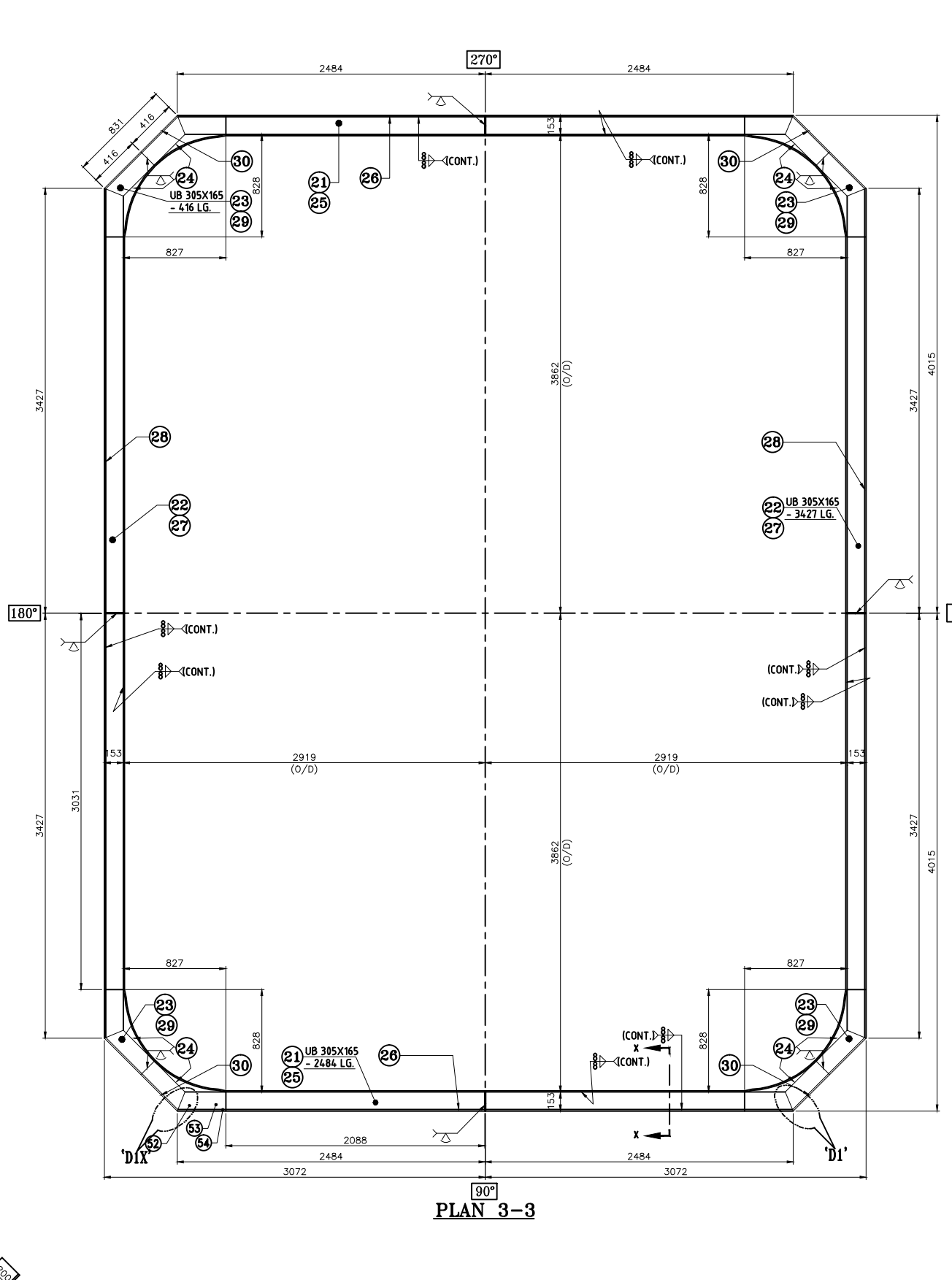
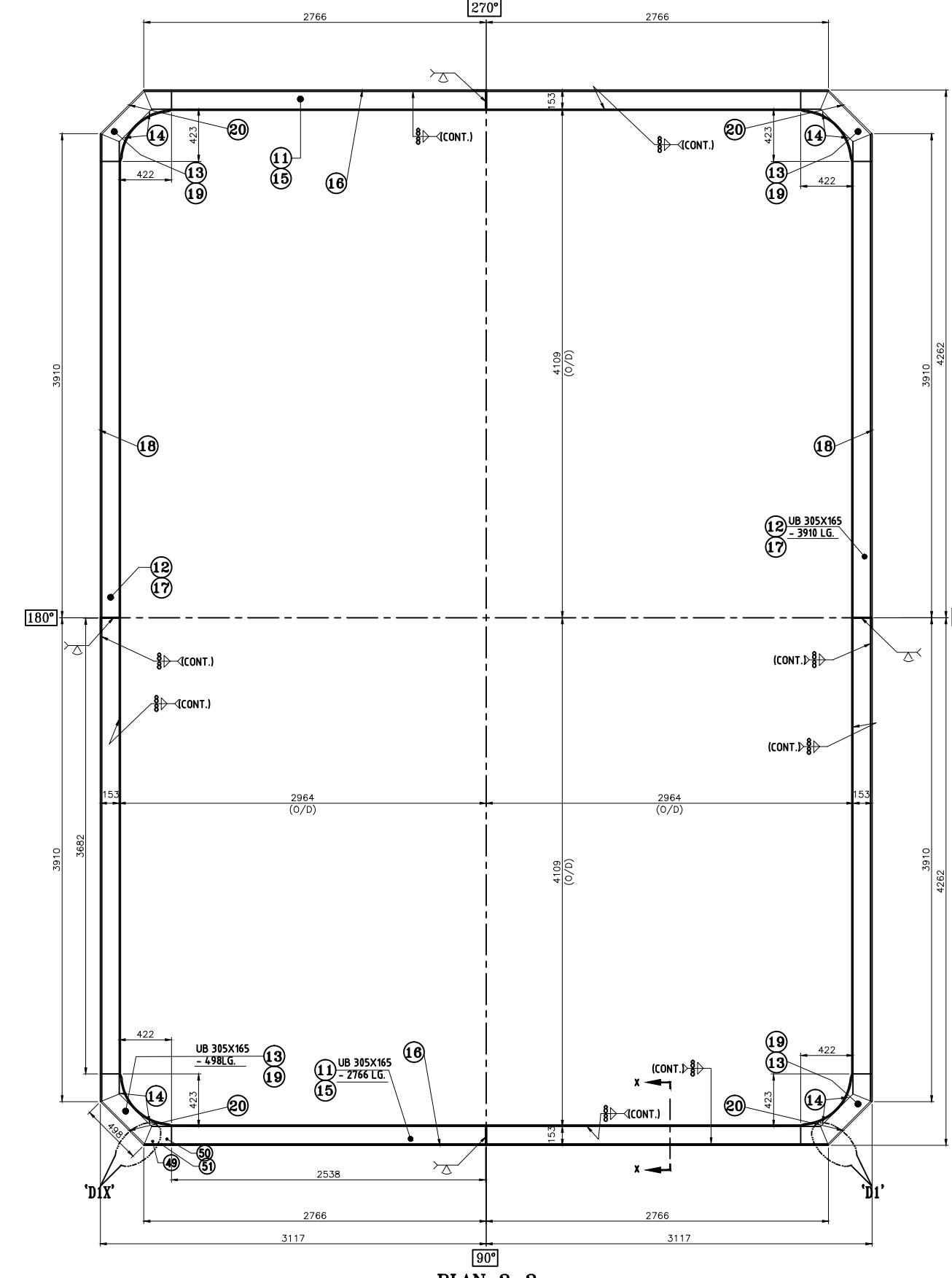
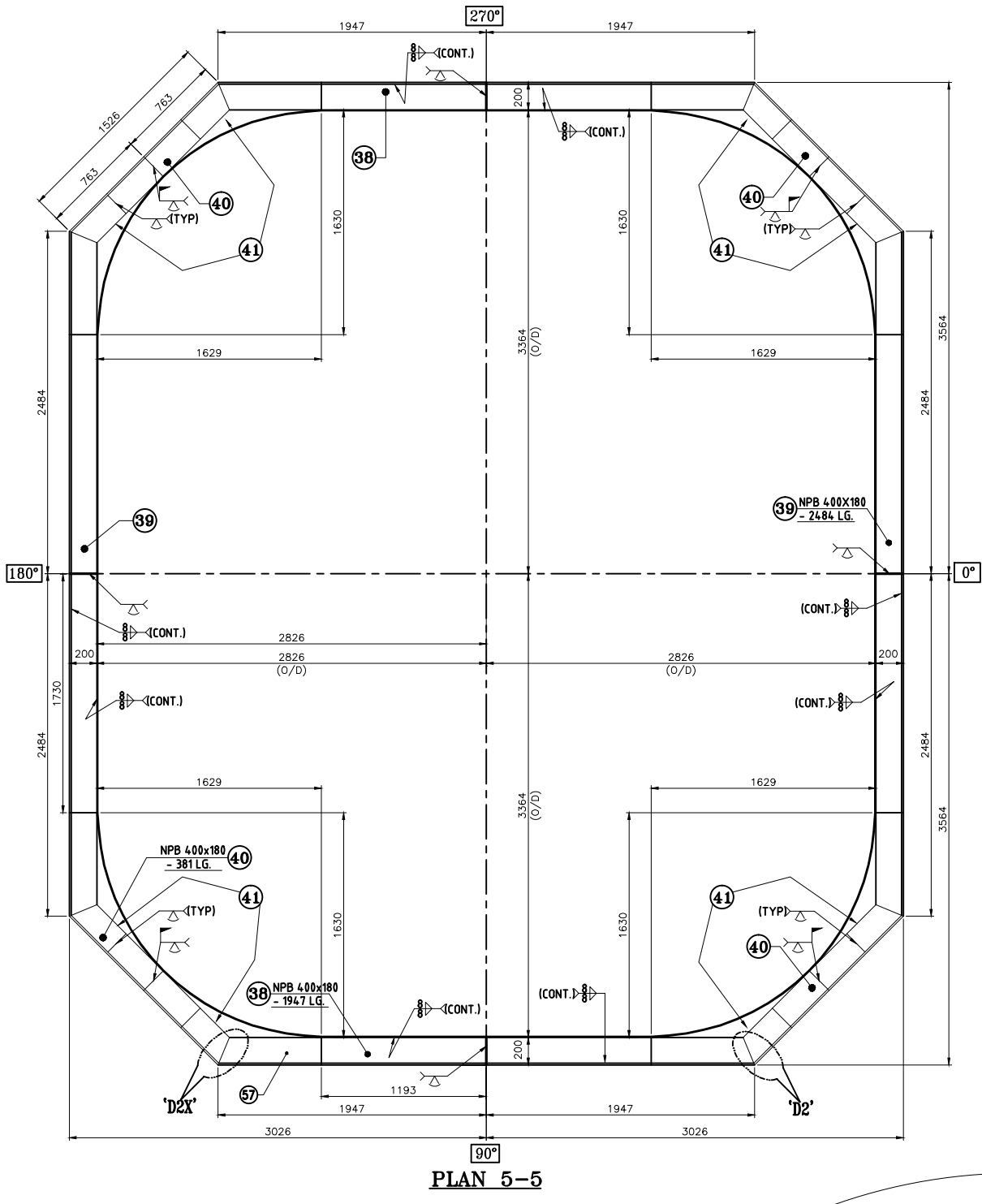
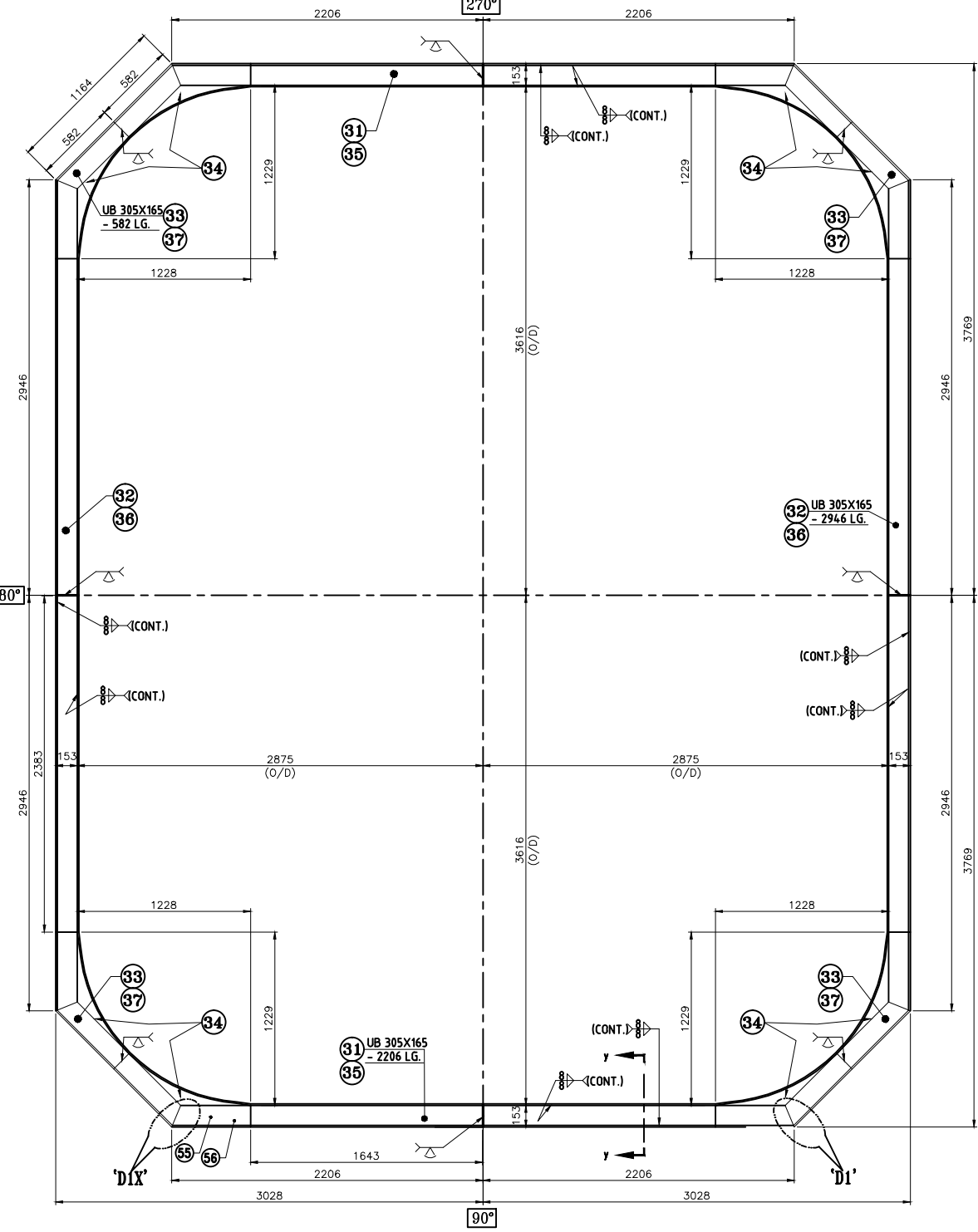
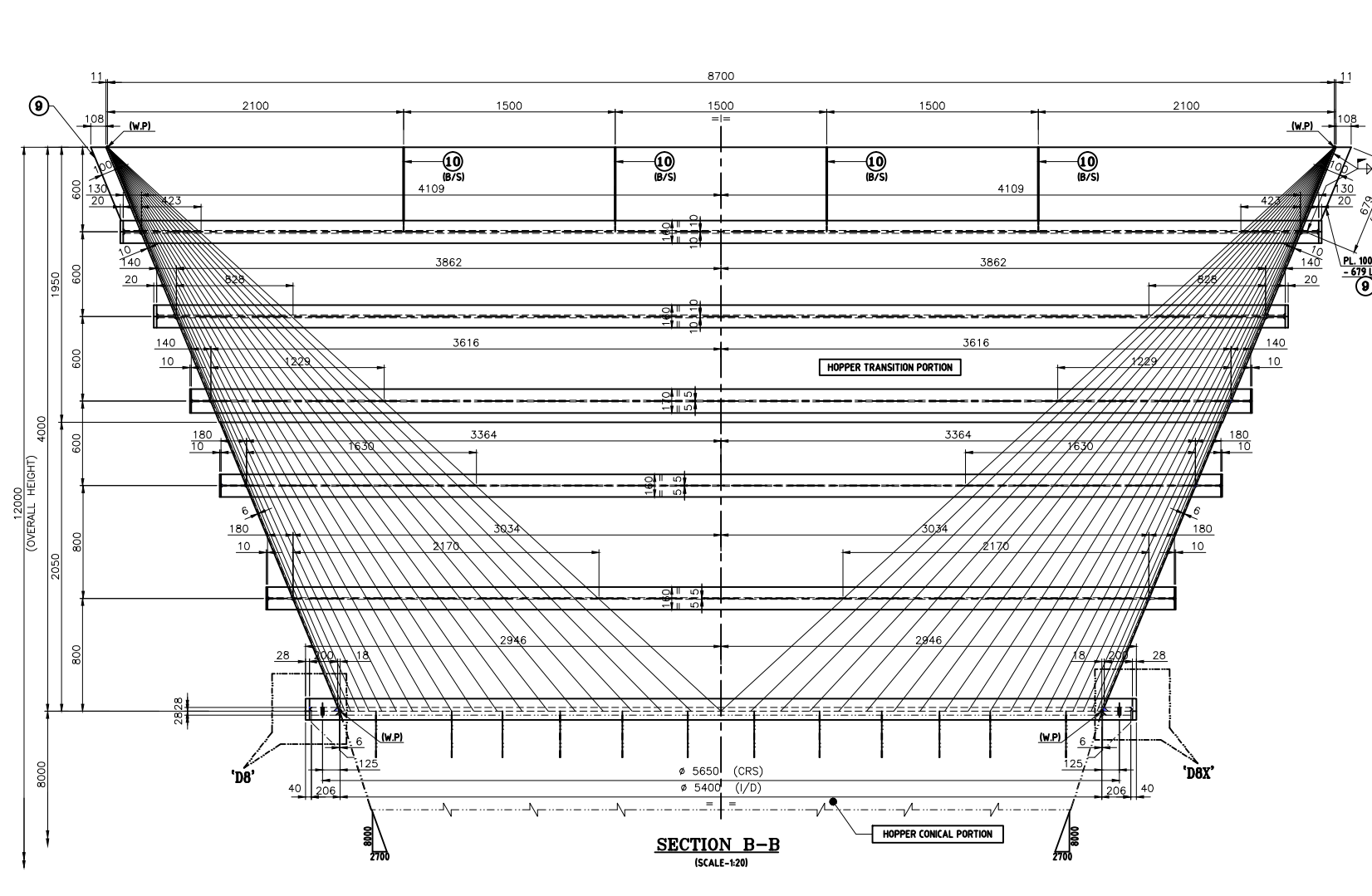
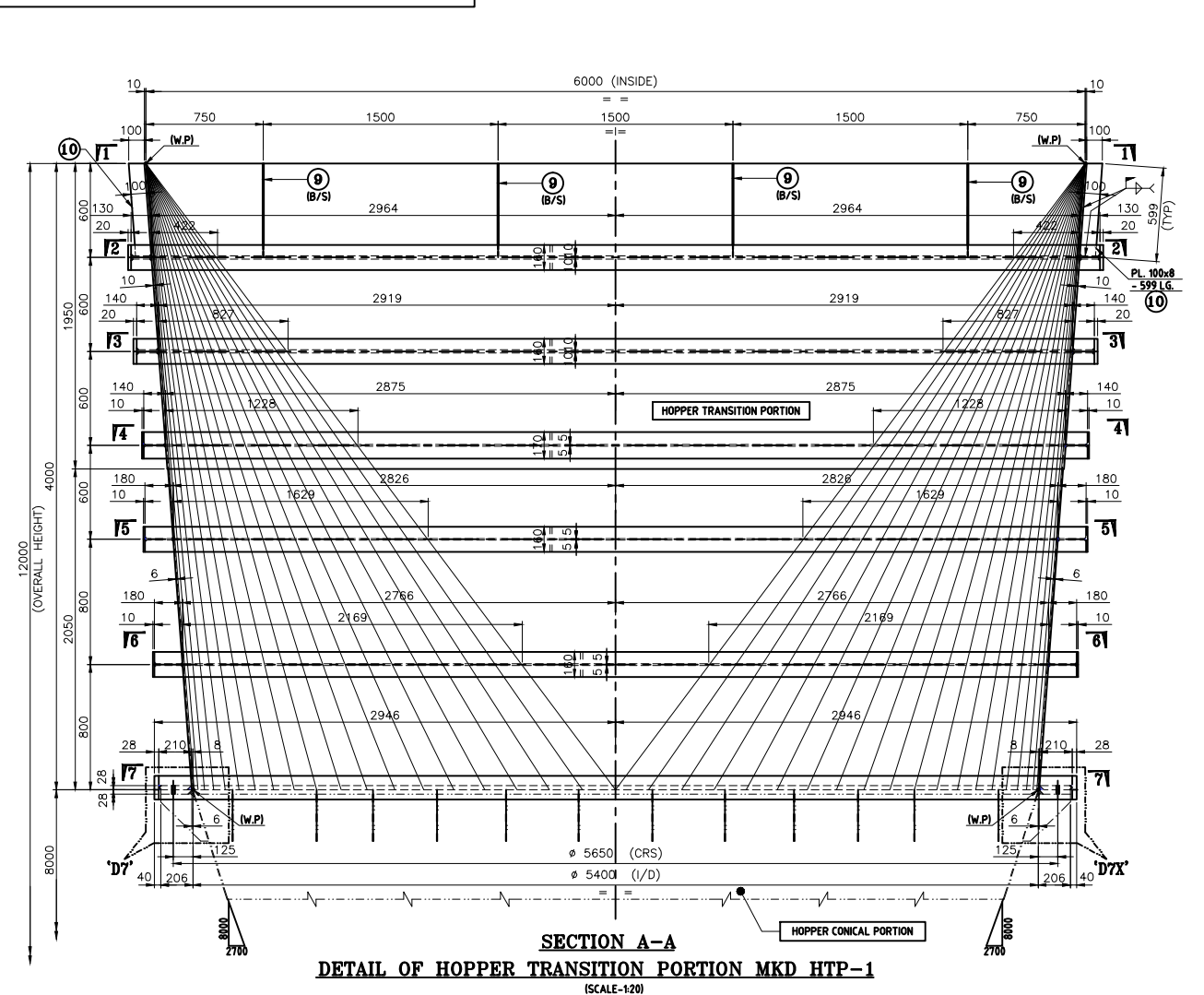
LIFTING EYE
DETAIL OF ITEM NO-39



TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME		SIGN		DATE		NO.OF VAR.	
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		YOGES		B.V.REDDY		29-04-19		-	
DEPT ACQS		GRADE OF UNL/DIM		SCALE		WEIGHT (KG).		REF. TO ASSY/OLD DRG.	
CODE 862		PR: GA: 500							
TITLE		HOPPER TRANSITION PORTION 2ND FIELD-III		CARD CODE		DRAWING NO.		REV	
						1-79-845-07063		01	

DRAWING NO. 1-79-845-07064

All dimensions are in millimetres



- NOTES:-
1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN M
 2. ALL ERECTION HOLES ARE 17.5% FOR M-16 BOLTS UNL
 3. ALL PERMANENT HOLES ARE 17.5% FOR M-16 BOLTS UNL
 4. ALL MEMBERS AND GUSSET PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm THICK AND SITE WELD ARE 6mm THICK UNL
 6. PERMANENT HOLES SHOWN THUS:
 7. ERECTION HOLES SHOWN THUS:
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION
 11. TRAIL ASSEMBLY TO BE MADE AT FABRICATION SITE
 12. ALL BOLTS TO BE MATCH DRILLED

TABLE
(SHOWING SIZE OF WELD)

PL THICKNESS	L (SIZE OF WELD IN MM)
8 & 10	6
12	6
16 & 20	12
25	14
28 & 32	20
36 & 40	20
45 & 50	25

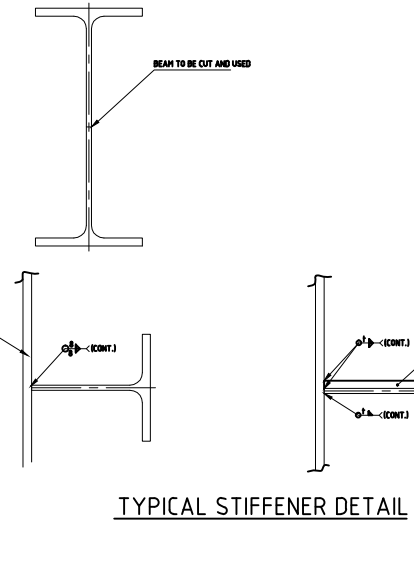
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BOTH SIDE IS REQUIRED

BOTH SIDE IS REQUIRED

BOTH SIDE IS REQUIRED

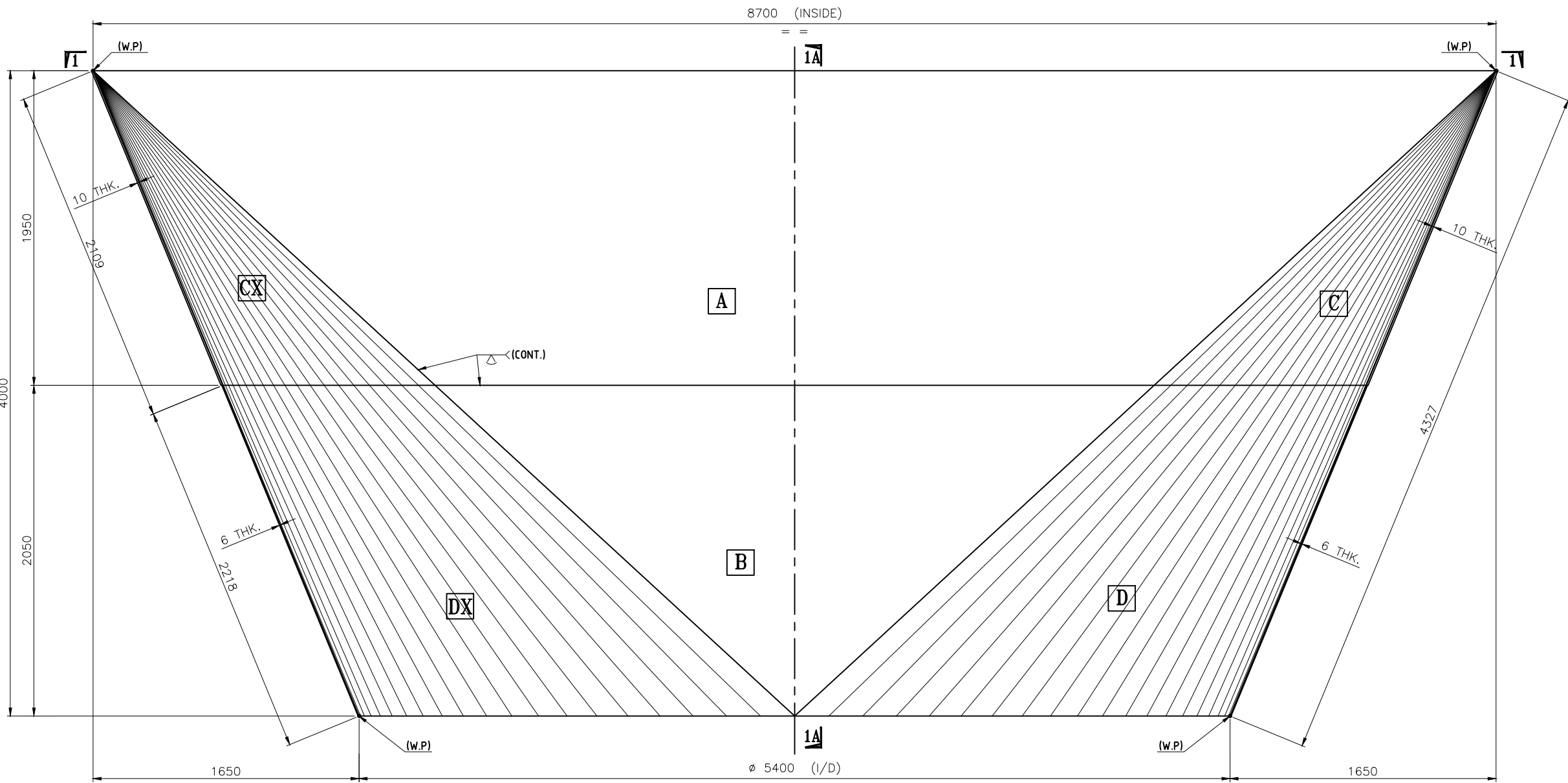
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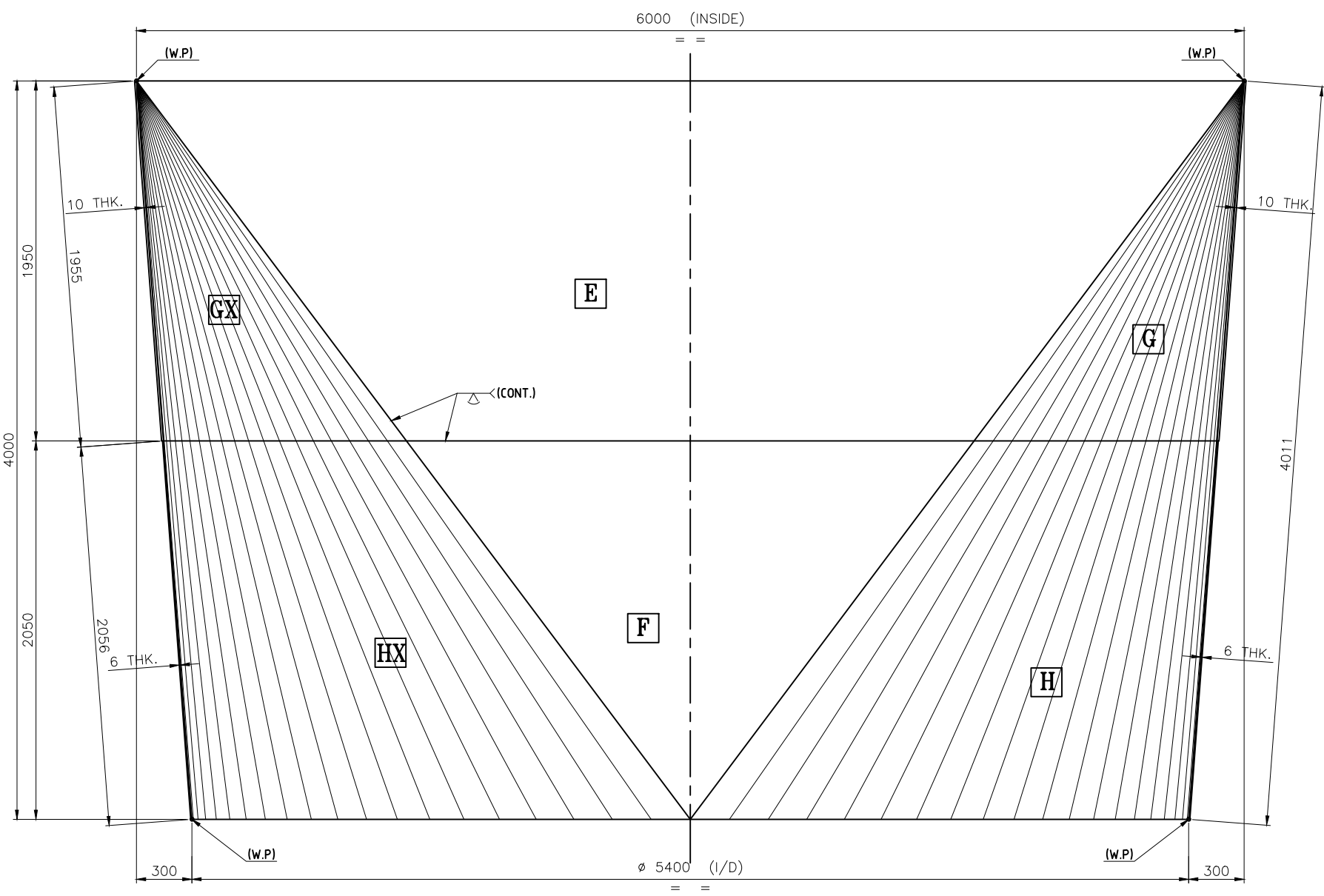
THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07064
1-79-845-07065
1-79-845-07066

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME YOGES		SIGN B.V.REDDY		DATE 14-05-19		NO. OF VAR.	
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		DRN CHD		APPD C.GANESH		DATE 14-05-19		NO. OF REV.	
DEPT AQC	GRADE OF UNL/DIM FR: 0A: 500	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.		ITEM NO.		NO. OF ITEMS	
TITLE HOPPER TRANSITION PORTION 3RD FIELD-I		CARD CODE U 01		DRAWING NO. 1-79-845-07064		REV		H	

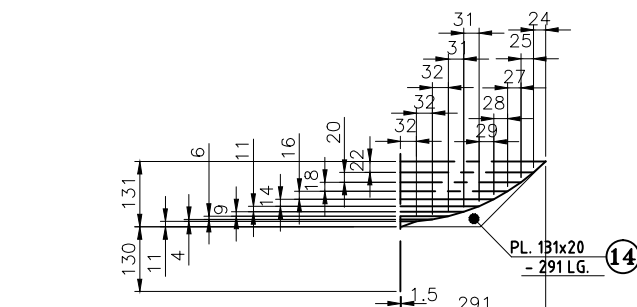
All dimensions are in millimetres



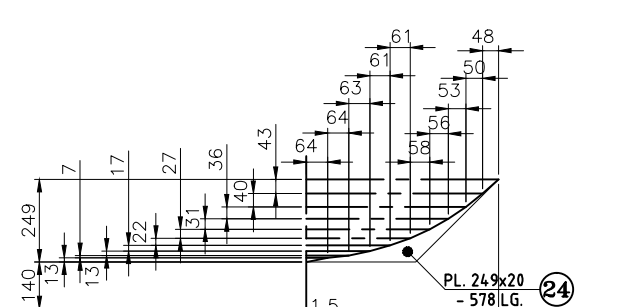
DETAIL OF HOPPER TRANSITION PORTION



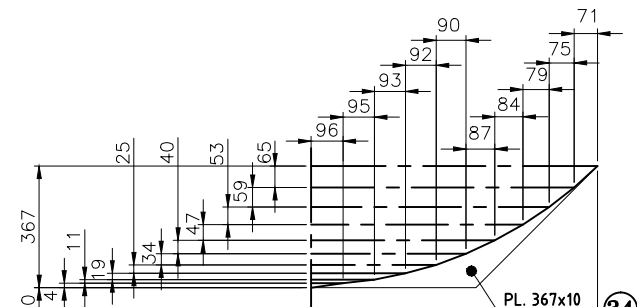
SECTION 1A-1A
(SCALE-1:20)



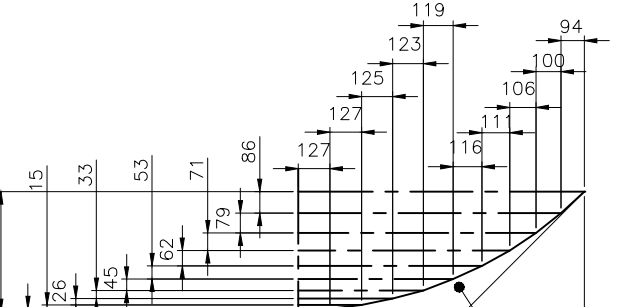
DETAIL OF ITEM-14



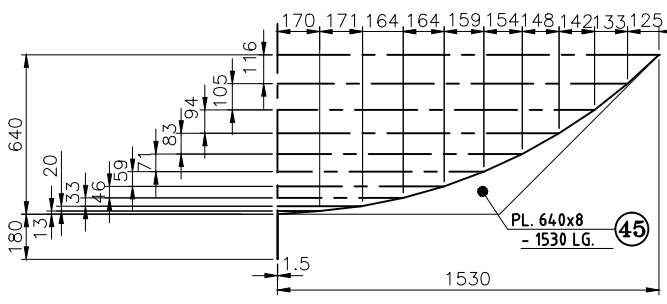
DETAIL OF ITEM-24



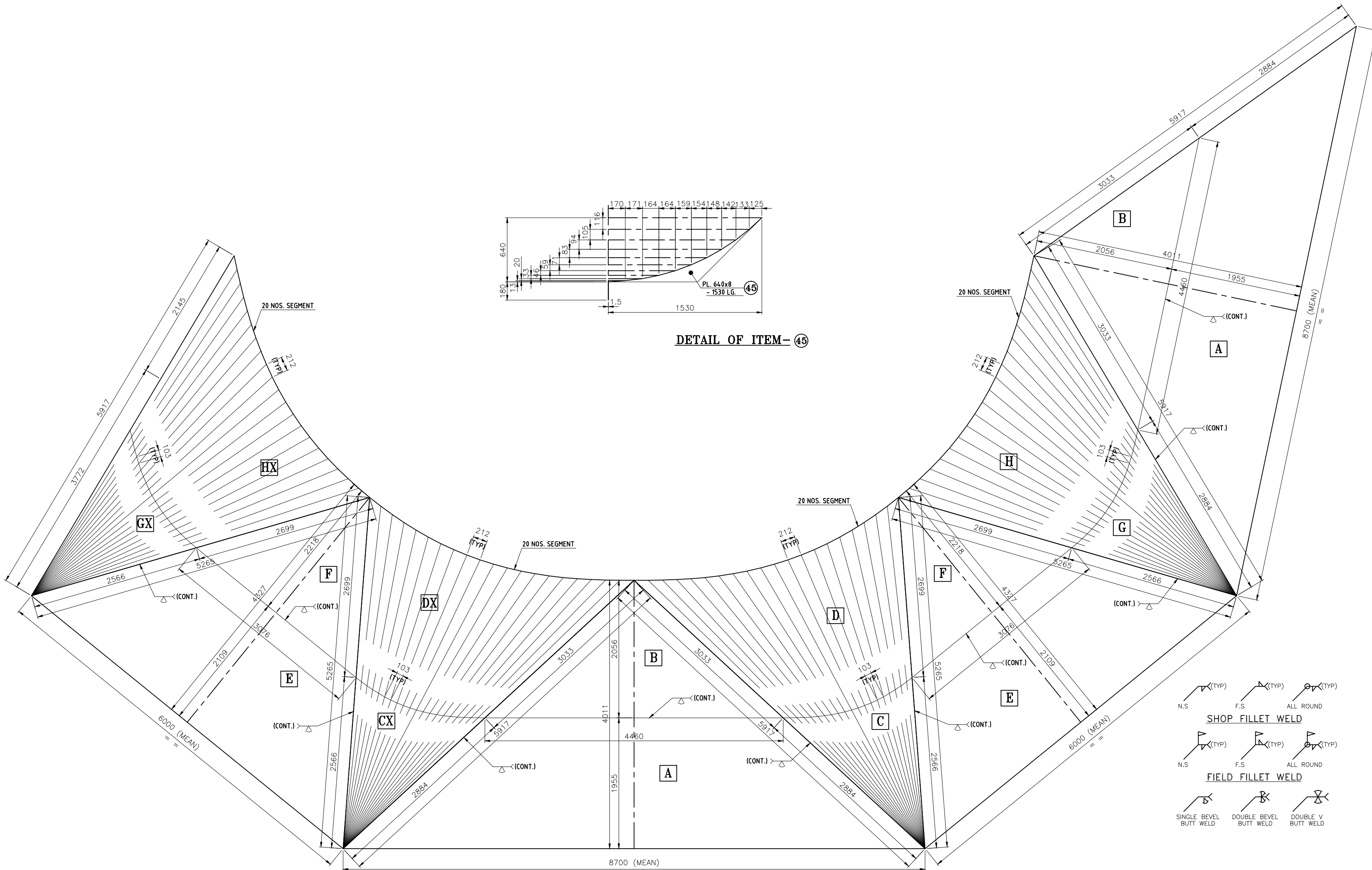
DETAIL OF ITEM-34



DETAIL OF ITEM-44



DETAIL OF ITEM-45



DEVELOPMENT OF HOPPER TRANSITION PORTION

DESPATCH TABLE FOR 1 ASSEMBLY OF HOPPER TRANSITION PART :-

DUNo.	DESCRIPTION	QTY	ITEM No.	NO.OFF
001	TRIANGULAR WALL-I	2	01 10 12 17 18 22 27 28 32 36	
002	TRIANGULAR WALL-II	2	02 39 43	
003	TRIANGULAR WALL-III	2	03 09 11 15 16 21 25 26 31 35	
004	TRIANGULAR WALL - IV	2	04 38 42	
005	TRANSITION1	4	05 06 13 14 19 20 23 24 29 30 33 34 37 49 50 51 52 53 54 55 56	
006	TRANSITION2	4	07 40 41 44 45 46 47 48 57 58	
007	TRANSITION3	4	08 40 41 44 45 46 47 48 57 58	

- NOTES:-
1. ALL DIMENSIONS ARE IN MM. & LEVELS ARE IN M.
 2. ALL ERECTION HOLES ARE 17.5# FOR M-16 BOLTS UND.
 3. ALL PERMANENT HOLES ARE 17.5# FOR M-16 BOLTS UND.
 4. ALL MEMBERS AND GUSSETS PLATES TO BE CUT AFTER FULL SCALE SHOP LAYOUT BEFORE FABRICATION
 5. ALL SHOP WELD ARE 6mm. THICK AND SITE WELD ARE 6mm. THICK. UND.
 6. PERMANENT HOLES SHOWN THUS.
 7. ERECTION HOLES SHOWN THUS.
 8. ALL ERECTION BOLTS SHALL BE RETAINED IN POSITION
 9. TRANSITION PART SHALL BE SENT IN 4 PARTS
 10. LIFTING EYE SHALL BE PROVIDED 2 NUMBERS PER PARTS AT SUITABLE FOR BALANCED HANDLING AND TRANSPORTATION.
 11. TRIAL ASSEMBLY TO BE MADE AT FABRICATION SITE
 12. ALL BOLTS TO BE MATCH DRILLED

PL. THICKNESS	t (SIZE OF WELD IN MM)
8 & 10	6
12	6
16 & 20	12
25	14
28 & 32	20
36 & 40	20
45 & 50	25

BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED
BOTH SIDE IS REQUIRED

THIS DRAWING SHALL BE READ ALONG WITH
1-79-845-07064
1-79-845-07065
1-79-845-07066

REV	DATE	ALTERED	YOGES R
01	31.07.19	CHECKED	M.K.NAHAK/C.G

NOTE: 01. WELDING DETAILS CORRECTED IN DRG FOR EASE IN HANDLING AND TRANSPORTATION.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME SIGN		DATE NO.OF VAR.	
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET - 632 406.		YOGES		14-05-19	
DEPT AGCS		B.V.REDDY		14-05-19	
CODE 862		C.GANESH		14-05-19	
TITLE HOPPER TRANSITION PORTION 3RD FIELD-II		CARD CODE U 01		DRAWING NO. 1-79-845-07065	
REV 01		WEIGHT (KG). -		ITEM NO. 01	

REV	DATE	ALTERED
		CHECKED
ZONE		

ALL DIMENSIONS ARE IN MILLIMETRES

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRE & LEVELS ARE IN METRE
2. FOR WELDING DETAILS REFER TABLE AS SHOWN BELOW.
3. MANUFACTURING REQUIREMENTS SHALL BE AS PER APPLICABLE QP.
4. ALL SHOP BURRS TO BE REMOVED & SURFACES TO BE PROPERLY CLEANED BEFORE PAINTING OF FINISHED PRODUCT.
5. CONNECTING MEMBERS SHALL BE TRIAL ASSEMBLED AND THEN MATCH DRILLED INCASE OF BOLTED CONNECTION.
6. CONTACT SURFACES SHALL BE SUCH THAT PROPER SEATING BETWEEN THEM SHALL BE ENSURED. THE GAP BETWEEN THEM AT ANY PLACE SHALL BE AS PER QP.
7. THE COMPONENTS SHALL BE MATCH DRILLED TO THE CORRESPONDING SPLICE PLATES.
8. COLUMN WELDING WITH BASE PLATE SHALL BE FULL PENETRATING WELD AS SHOWN BELOW.
9. MOMENT PLATES IN COLUMNS ARE TO BE FABRICATED AND WELDED WITH RESPECTIVE COLUMNS AS PER RELEVANT DRAWINGS.
10. INCASE OF MISSING DIMENSIONS(OR)DOUBT IT SHALL NOT BE ASSUMED, AND IT SHALL BE CLARIFIED WITH ENGINEERING BEFORE STARTING OF THE ACTIVITY.
12. DU'S MANUFACTURED IN MULTIPLE ASSEMBLIES, AFTER ENGINEERING APPROVAL SHALL BE BUNDLED AND TACK WELDED AND SENT AS SINGLE ASSEMBLY. ALL INDIVIDUAL ITEM TO BE PART MARKED WITH PGMA, ITEM NO. & DU NO.
13. IN ADDITION TO BE ABOVE SAID, ANY SPECIAL NOTES MENTIONED IN THE DRAWING/TENDER/CONTRACT REQUIREMENT SHALL BE FOLLOWED.
14. PAINTING REQUIREMENT SHALL BE AS PER RELEVANT QP/PS.
15. FOR COLUMN/BEAM/GUSSET,ETC., ORIENTATION REFER RELEVANT MARKING DRAWING.

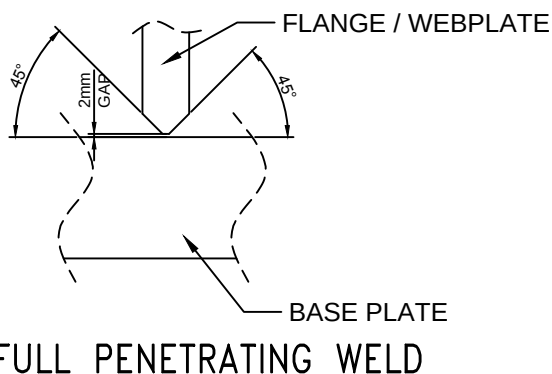
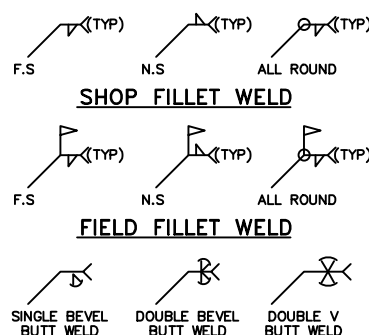
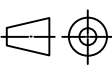


TABLE
(SHOWING SIZE OF WELD)

PL. THICKNESS	t (SIZE OF WELD IN MM)
8 & 10	6
12	8
16 & 20	12
25	14
28 & 32	20
36 & 40	20
45 & 50	25



 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	NAME	SIGN	DATE	NO.OF VAR
		CHD	B.V. REDDY	sd.	23.10.2019	-
		APPD	M.K.NAHAK	sd.	23.10.2019	-
DEPT AQCS	GRADE OF UNTOL.DIM	 SCALE N.T.S	WEIGHT (KG).	REF. TO ASSY./OLD DRG.	ITEM NO.	NO. OF ITEMS
CODE 862	PR: QA: 500		-	-	-	-
TITLE STANDARD FABRICATION NOTES			CARD CODE U 01	DRAWING NO. 4-00-000-32487		REV 00