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KHATOON ABAD GAS POWER PLANT
230KV SUBSTATION
GANTRY STRUCTURE DRAWING (2D) 230KV

REFERENCE DOCUMENT & DWG

LEGENDS

NOTES

KEY PLAN

D								
C								
B								
A	12105-MMN-SCC-L-5104	HOOD/DESIGN	HOOD/DESIGN	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	1408.04
O	FIRST ISSUE	HOOD/DESIGN	HOOD/DESIGN	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	1408.04
Rev.	DESCRIPTION	DRAWN	DESIGNED	CHKD.	HEAD	APPR.	DATE	



NIROO
TAVAN
GOSTAR
MOHAM
SHARGH
CO.



PROJECT: KHATOON ABAD GAS POWER PLANT
230KV AIS SUBSTATION

TITLE: GANTRY STRUCTURE DRAWING (2D) 230KV

OWNER'S DWG. NO.: MD1-RF-00-SS-C-08-NT8-404 REV. NO.: A

SCALE: AS SHOWN FORMAT: A3 FILE NO.: SHEET: 1 OF 8

CONTRACT NO.: DESIGN TYPE: BASIC DESIGN ☐ DETAIL DESIGN ☒



NATIONAL IRANIAN
COPPER INDUSTRIES
COMPANY
(N.I.C.I.)

DRAWN DESIGNED CHKD. HEAD APPR. DATE

MAPNA'S DWG. NO.: MD1-RF-00-SS-C-08-NT8-404 SUB CONTRACTOR DWG. NO.: A

XXXX IN-HOUSE REVISION

C							
B							
A	12105-MMN-SCC-L-5104	HOOD/DESIGN	HOOD/DESIGN	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	1408.04
O	FIRST ISSUE	HOOD/DESIGN	HOOD/DESIGN	DESIGN/CHKD	DESIGN/CHKD	DESIGN/CHKD	1408.04
Rev.	DESCRIPTION	DRAWN	DESIGNED	CHKD.	HEAD	APPR.	DATE

0 1 2 3 4 5 6 7 8 9 10

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DRAWING LIST				
NO.SHEET	SUBJECT	REV		
		0	A	B
1	COVER SHEET		√	
2	INDEX		√	
3	2SGAN1		√	
4	2SGAN2		√	
5	2SGAN3		√	
6	2SBG1		√	
7	2SBG2		√	
8	2SGAN4-2SBG3		√	

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E								DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404	 Mapna Power Plants Construction & Development Co(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY  NIROO CONSULTING ENGINEERING CO.		
		D												
	SUB CONTRACTOR DWG. NO.:	C											DRAWING TITLE:	REV. NO. : A
		A	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04					INDEX	SHEET: 2 OF: 8
MAPNA'S DWG. No. :	NIYAM'S LOGO	O	FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04	DESIGN STAGE :	FILE No.	FORMAT : A3	PROJECT : KHATOON ABAD GAS POWER PLANT 230KV AIS S/S		
		REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE						

NOTES

- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M16 U-BOLTS)

NO. 2SGAN1= 8

MARK	SIZE	LENGTH	WIDTH	QTY	TOTAL QTY	UNIT W.	TOTAL W.
2SCG1-1	L150*150*15	5950		2	2	201.1	402.2
2SCG1-2	L150*150*15	5950		2	2	201.1	402.2
2SCG1-3	L150*150*15	3500		2	2	118.3	236.6
2SCG1-4	L150*150*15	3500		2	2	118.3	236.6
2SCG1-5	L140*140*14	5200		2	2	152.9	305.8
2SCG1-6	L140*140*14	5200		2	2	152.9	305.8
2SCG1-7	L120*120*12	4000		2	2	86.4	172.8
2SCG1-8	L120*120*12	4000		2	2	86.4	172.8
2SCG1-9	L70*70*7	4350		2	2	32.1	64.2
2SCG1-10	L70*70*7	4350		2	2	32.1	64.2
2SCG1-15	L80*80*8	3970		2	2	38.4	76.7
2SCG1-15X	L80*80*8	3970		2	2	38.4	76.7
2SCG1-16	L80*80*8	3886		2	2	37.5	75.1
2SCG1-16X	L80*80*8	3886		2	2	37.5	75.1
2SCG1-17	L80*80*8	3618		2	2	34.9	69.9
2SCG1-17X	L80*80*8	3618		2	2	34.9	69.9
2SCG1-18	L80*80*8	3357		2	2	32.4	64.9
2SCG1-18X	L80*80*8	3357		2	2	32.4	64.9
2SCG1-19	L80*80*8	3104		2	2	30.0	60.0
2SCG1-19X	L80*80*8	3104		2	2	30.0	60.0
2SCG1-20	L80*80*8	2860		2	2	27.6	55.3
2SCG1-20X	L80*80*8	2860		2	2	27.6	55.3
2SCG1-21	L80*80*8	2629		2	2	25.4	50.8
2SCG1-21X	L80*80*8	2629		2	2	25.4	50.8
2SCG1-22	L80*80*8	2416		2	2	23.3	46.7
2SCG1-22X	L80*80*8	2416		2	2	23.3	46.7
2SCG1-23	L80*80*8	2224		2	2	21.5	43.0
2SCG1-23X	L80*80*8	2224		2	2	21.5	43.0
2SCG1-24	L80*80*8	1646		4	4	15.9	63.6
2SCG1-25	L80*80*8	920		4	4	8.9	35.5
2SCG1-26	L80*80*8	960		4	4	9.3	37.1
2SCG1-27	L60*60*6	1025		4	4	5.6	22.2
2SCG1-28	L50*50*5	1668		2	2	6.3	12.6
2SCG1-29	L50*50*5	1648		2	2	6.2	12.4
2SCG1-30	L50*50*5	474		2	2	1.8	3.6
2SCG1-31	L80*80*8	2399		2	2	23.2	46.3
2SCG1-31X	L80*80*8	2399		2	2	23.2	46.3
2SCG1-32	L80*80*8	2526		2	2	24.4	48.8
2SCG1-32X	L80*80*8	2526		2	2	24.4	48.8
2SCG1-33	L80*80*8	2470		2	2	23.9	47.7
2SCG1-33X	L80*80*8	2470		2	2	23.9	47.7
2SCG1-34	L80*80*8	2415		2	2	23.3	46.7
2SCG1-34X	L80*80*8	2415		2	2	23.3	46.7
2SCG1-35	L80*80*8	2362		2	2	22.8	45.6
2SCG1-35X	L80*80*8	2362		2	2	22.8	45.6
2SCG1-36	L80*80*8	2310		2	2	22.3	44.6
2SCG1-36X	L80*80*8	2310		2	2	22.3	44.6
2SCG1-37	L80*80*8	2260		2	2	21.8	43.7
2SCG1-37X	L80*80*8	2260		2	2	21.8	43.7
2SCG1-38	L80*80*8	2212		2	2	21.4	42.7
2SCG1-38X	L80*80*8	2212		2	2	21.4	42.7
2SCG1-39	L80*80*8	2165		2	2	20.9	41.8
2SCG1-39X	L80*80*8	2165		2	2	20.9	41.8
2SCG1-40	L80*80*8	1957		2	2	18.9	37.8
2SCG1-40X	L80*80*8	1957		2	2	18.9	37.8
2SCG1-41	L100*100*10	1120		4	4	16.9	67.6
2SCG1-42	L50*50*5	1150		4	4	4.3	17.3
2SCG1-43	L50*50*5	1748		2	2	6.6	13.2
2SCG1-44	L50*50*5	1688		2	2	6.4	12.7
2SCG1-45	L50*50*5	545		2	2	2.1	4.1
2SCG1-46	L50*50*5	1142		4	4	4.3	17.2
2SCG1-51	PL10	445	192	4	4	6.7	26.8
2SCG1-52	PL10	300	192	4	4	4.5	18.1
2SCG1-53	PL10	252	160	2	2	3.2	6.3
2SCG1-54	PL10	260	165	2	2	3.4	6.7
2SCG1-55	PL10	470	300	4	4	11.1	44.3
2SCG1-56	PL10	470	445	4	4	16.4	65.7
2SCG1-57	PL8	178	148	8	8	1.7	13.2
2SCG1-60	PL12	475	120	16	16	5.4	85.9
2SCG1-61	PL12	475	100	16	16	4.5	71.6
2SCG1-62	PL12	475	100	8	8	4.5	35.8
2SCG1-63	PL10	475	80	8	8	3.0	23.9
2SCG1-63F	PL2	235	60	8	8	0.2	1.8
2SCG1-70	PL35	400	400	4	4	44.0	175.8
2SCG1-71	PL10	400	320	4	4	10.0	40.2
2SCG1-72	PL10	320	272	4	4	6.8	27.3
2SCG1-73	PL10	320	110	12	12	2.8	33.2
2SCG1-74	PL10	320	100	8	8	2.5	20.1
							5355.2

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I)	SUB-CONTRACTOR'S LOGO	E						DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404	DRAWING TITLE: 2SGAN1	REV. NO. : A	 MAPNA POWER PLANTS CONSTRUCTION & DEVELOPMENT CO(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY  NIROO CONSULTING ENGINEERING CO.
		C										
		B										
	A	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEGHAN	DEGHAN	1405.04			SHEET: 3 OF: 8		
	O	FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEGHAN	DEGHAN	1405.04					
MAPNA'S DWG. No. :	NIYAM'S LOGO	REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE	DESIGN STAGE :	FILE No.	FORMAT : A3	PROJECT : KHATOON ABAD GAS POWER PLANT 230KV AIS S/S

NOTES

- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M16 U-BOLTS)

NO. 2SGAN2= 8

SECTION B-B

SECTION C-C

MARK	SIZE	LENGTH	WIDTH	QTY	TOTAL QTY	UNIT W.	TOTAL W.
25CG2-1	L140*140*14	4250		2	2	125.0	249.9
25CG2-2	L140*140*14	4250		2	2	125.0	249.9
25CG2-3	L120*120*12	5950		2	2	128.5	257.0
25CG2-4	L120*120*12	5950		2	2	128.5	257.0
25CG2-5	L100*100*10	5950		2	2	89.8	179.7
25CG2-6	L100*100*10	5950		2	2	89.8	179.7
25CG2-7	L80*80*8	2700		2	2	26.1	52.2
25CG2-8	L80*80*8	2700		2	2	26.1	52.2
25CG2-9	L70*70*7	4350		2	2	32.1	64.2
25CG2-10	L70*70*7	4350		2	2	32.1	64.2
25CG2-15	L80*80*8	3989		2	2	38.5	77.1
25CG2-15X	L80*80*8	3989		2	2	38.5	77.1
25CG2-16	L80*80*8	3904		2	2	37.7	75.4
25CG2-16X	L80*80*8	3904		2	2	37.7	75.4
25CG2-17	L80*80*8	3636		2	2	35.1	70.2
25CG2-17X	L80*80*8	3636		2	2	35.1	70.2
25CG2-18	L60*60*6	3374		2	2	18.3	36.6
25CG2-18X	L60*60*6	3374		2	2	18.3	36.6
25CG2-19	L60*60*6	3120		2	2	16.9	33.8
25CG2-19X	L60*60*6	3120		2	2	16.9	33.8
25CG2-20	L60*60*6	2875		2	2	15.6	31.2
25CG2-20X	L60*60*6	2875		2	2	15.6	31.2
25CG2-21	L60*60*6	2644		2	2	14.3	28.7
25CG2-21X	L60*60*6	2644		2	2	14.3	28.7
25CG2-22	L60*60*6	2429		2	2	13.2	26.3
25CG2-22X	L60*60*6	2429		2	2	13.2	26.3
25CG2-23	L60*60*6	2236		2	2	12.1	24.2
25CG2-23X	L60*60*6	2236		2	2	12.1	24.2
25CG2-24	L60*60*6	1979		2	2	10.7	21.5
25CG2-24X	L60*60*6	1979		2	2	10.7	21.5
25CG2-25	L80*80*8	950		4	4	9.2	36.7
25CG2-26	L80*80*8	960		2	2	9.3	18.5
25CG2-27	L80*80*8	1083		4	4	10.5	41.8
25CG2-28	L50*50*5	1664		2	2	6.3	12.5
25CG2-29	L50*50*5	1653		2	2	6.2	12.5
25CG2-30	L50*50*5	489		2	2	1.8	3.7
25CG2-31	L60*60*6	2400		2	2	13.0	26.0
25CG2-31X	L60*60*6	2400		2	2	13.0	26.0
25CG2-32	L60*60*6	2540		2	2	13.8	27.5
25CG2-32X	L60*60*6	2540		2	2	13.8	27.5
25CG2-33	L60*60*6	2484		2	2	13.5	26.9
25CG2-33X	L60*60*6	2484		2	2	13.5	26.9
25CG2-34	L60*60*6	2428		2	2	13.2	26.3
25CG2-34X	L60*60*6	2428		2	2	13.2	26.3
25CG2-35	L60*60*6	2374		2	2	12.9	25.7
25CG2-35X	L60*60*6	2374		2	2	12.9	25.7
25CG2-36	L60*60*6	2322		2	2	12.6	25.2
25CG2-36X	L60*60*6	2322		2	2	12.6	25.2
25CG2-37	L60*60*6	2271		2	2	12.3	24.6
25CG2-37X	L60*60*6	2271		2	2	12.3	24.6
25CG2-38	L60*60*6	2223		2	2	12.0	24.1
25CG2-38X	L60*60*6	2223		2	2	12.0	24.1
25CG2-39	L60*60*6	2176		2	2	11.8	23.6
25CG2-39X	L60*60*6	2176		2	2	11.8	23.6
25CG2-40	L60*60*6	2022		2	2	11.0	21.9
25CG2-40X	L60*60*6	2022		2	2	11.0	21.9
25CG2-41	L100*100*10	1150		4	4	17.4	69.5
25CG2-42	L50*50*5	1182		4	4	4.5	17.8
25CG2-43	L50*50*5	1750		2	2	6.6	13.2
25CG2-44	L50*50*5	1694		2	2	6.4	12.8
25CG2-45	L50*50*5	560		2	2	2.1	4.2
25CG2-46	L50*50*5	1142		4	4	4.3	17.2
25CG2-51	PL10	420	184	4	4	6.1	24.3
25CG2-52	PL10	320	184	4	4	4.6	18.5
25CG2-53	PL10	264	160	2	2	3.3	6.6
25CG2-54	PL10	272	160	2	2	3.4	6.8
25CG2-55	PL10	458	320	2	2	11.5	23.0
25CG2-56	PL10	320	184	2	2	4.6	9.2
25CG2-57	PL10	458	420	2	2	15.1	30.2
25CG2-58	PL10	420	184	2	2	6.1	12.1
25CG2-59	PL8	180	150	8	8	1.7	13.6
25CG2-60	PL12	475	100	8	8	4.5	35.8
25CG2-61	PL10	475	80	8	8	3.0	23.9
25CG2-61F	PL2	235	60	8	8	0.2	1.8
25CG2-62	PL10	375	100	8	8	2.9	23.6
25CG2-63	PL8	375	80	8	8	1.9	15.1
25CG2-63F	PL2	185	60	16	16	0.2	2.8
25CG2-64	PL10	375	80	8	8	2.4	18.8
25CG2-65	PL8	375	70	8	8	1.6	13.2
25CG2-66	PL8	135	50	8	8	0.4	3.4
25CG2-70	PL35	400	400	4	4	44.0	175.8
25CG2-71	PL10	400	320	4	4	10.0	40.2
25CG2-72	PL10	320	272	4	4	6.8	27.3
25CG2-73	PL10	320	110	12	12	2.8	33.2
25CG2-74	PL10	320	100	8	8	2.5	20.1
							3799.0

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E						DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404	 Mapna Power Plants Construction & Development Co(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY  NIROO CONSULTING ENGINEERING CO.			
		D									DRAWING TITLE: 2SGAN2	REV. NO. : A SHEET: 4 OF: 8	
		C											
	SUB CONTRACTOR DWG. NO.:												
	MAPNA'S DWG. No. :	NIYAM'S LOGO	B										
A			12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEGHAN	DEGHAN	1405.04					
O			FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEGHAN	DEGHAN	1405.04					
		REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE	DESIGN STAGE :	FILE No.	FORMAT : A3	PROJECT :	KHATOON ABAD GAS POWER PLANT 230KV AIS S/S

NOTES

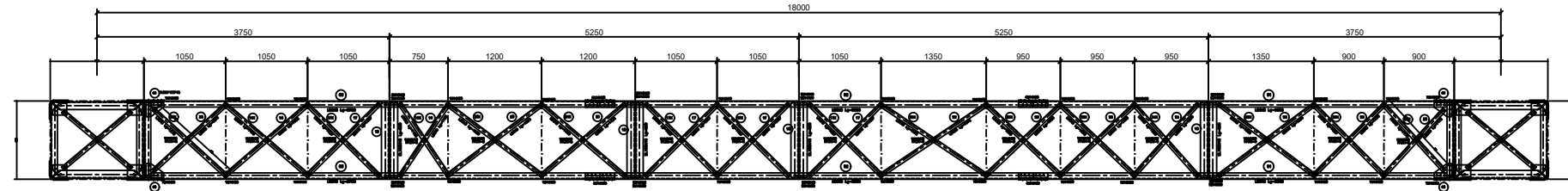
- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M16 U-BOLTS)

NO. 2SGAN3= 8

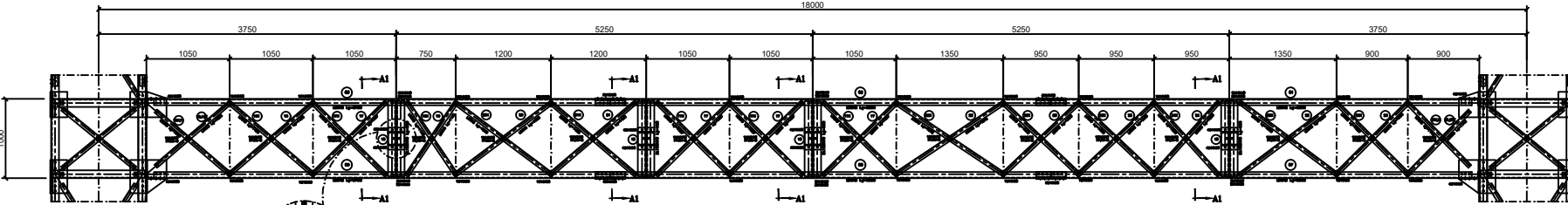
SECTION B-B

MARK	SIZE	LENGTH	WIDTH	QTY	TOTAL QTY	UNIT W.	TOTAL W.
25CG3-1	L140*140*14	5750		2	2	169.1	338.1
25CG3-2	L140*140*14	5750		2	2	169.1	338.1
25CG3-3	L120*120*12	4250		2	2	91.8	183.6
25CG3-4	L120*120*12	4250		2	2	91.8	183.6
25CG3-5	L120*120*12	5150		2	2	111.2	222.5
25CG3-6	L120*120*12	5150		2	2	111.2	222.5
25CG3-7	L100*100*10	3700		2	2	55.9	111.7
25CG3-8	L100*100*10	3700		2	2	55.9	111.7
25CG3-9	L70*70*7	4350		2	2	32.1	64.2
25CG3-10	L70*70*7	4350		2	2	32.1	64.2
25CG3-15	L80*80*8	3989		2	2	38.5	77.1
25CG3-15X	L80*80*8	3989		2	2	38.5	77.1
25CG3-16	L80*80*8	3904		2	2	37.7	75.4
25CG3-16X	L80*80*8	3904		2	2	37.7	75.4
25CG3-17	L80*80*8	3636		2	2	35.1	70.2
25CG3-17X	L80*80*8	3636		2	2	35.1	70.2
25CG3-18	L80*80*8	3374		2	2	32.6	65.2
25CG3-18X	L80*80*8	3374		2	2	32.6	65.2
25CG3-19	L80*80*8	3120		2	2	30.1	60.3
25CG3-19X	L80*80*8	3120		2	2	30.1	60.3
25CG3-20	L80*80*8	2875		2	2	27.8	55.5
25CG3-20X	L80*80*8	2875		2	2	27.8	55.5
25CG3-21	L80*80*8	2644		2	2	25.5	51.1
25CG3-21X	L80*80*8	2644		2	2	25.5	51.1
25CG3-22	L80*80*8	2429		2	2	23.5	46.9
25CG3-22X	L80*80*8	2429		2	2	23.5	46.9
25CG3-23	L80*80*8	2236		2	2	21.6	43.2
25CG3-23X	L80*80*8	2236		2	2	21.6	43.2
25CG3-24	L80*80*8	1944		2	2	18.8	37.6
25CG3-24X	L80*80*8	1944		2	2	18.8	37.6
25CG3-25	L80*80*8	950	4	4	4	9.2	36.7
25CG3-26	L80*80*8	960	2	2	2	9.3	18.5
25CG3-27	L80*80*8	1083	4	4	4	10.5	41.8
25CG3-28	L50*50*5	1639		2	2	6.2	12.4
25CG3-29	L50*50*5	1653		2	2	6.2	12.5
25CG3-30	L50*50*5	489		2	2	1.8	3.7
25CG3-31	L60*60*6	2400		2	2	13.0	26.0
25CG3-31X	L60*60*6	2400		2	2	13.0	26.0
25CG3-32	L60*60*6	2540		2	2	13.8	27.5
25CG3-32X	L60*60*6	2540		2	2	13.8	27.5
25CG3-33	L60*60*6	2484		2	2	13.5	26.9
25CG3-33X	L60*60*6	2484		2	2	13.5	26.9
25CG3-34	L60*60*6	2428		2	2	13.2	26.3
25CG3-34X	L60*60*6	2428		2	2	13.2	26.3
25CG3-35	L60*60*6	2374		2	2	12.9	25.7
25CG3-35X	L60*60*6	2374		2	2	12.9	25.7
25CG3-36	L60*60*6	2322		2	2	12.6	25.2
25CG3-36X	L60*60*6	2322		2	2	12.6	25.2
25CG3-37	L60*60*6	2271		2	2	12.3	24.6
25CG3-37X	L60*60*6	2271		2	2	12.3	24.6
25CG3-38	L60*60*6	2223		2	2	12.0	24.1
25CG3-38X	L60*60*6	2223		2	2	12.0	24.1
25CG3-39	L60*60*6	2176		2	2	11.8	23.6
25CG3-39X	L60*60*6	2176		2	2	11.8	23.6
25CG3-40	L60*60*6	2002		2	2	10.9	21.7
25CG3-40X	L60*60*6	2002		2	2	10.9	21.7
25CG3-41	L100*100*10	1150	4	4	4	17.4	69.5
25CG3-42	L50*50*5	1182	4	4	4	4.5	17.8
25CG3-43	L50*50*5	1750	2	2	2	6.6	13.2
25CG3-44	L50*50*5	1694	2	2	2	6.4	12.8
25CG3-45	L50*50*5	560	2	2	2	2.1	4.2
25CG3-46	L50*50*5	1142		4	4	4.3	17.2
25CG3-51	PL10	420	184	4	4	6.1	24.3
25CG3-52	PL10	345	184	4	4	5.0	19.9
25CG3-53	PL10	264	160	2	2	3.3	6.6
25CG3-54	PL10	272	160	2	2	3.4	6.8
25CG3-55	PL10	458	320	2	2	11.5	23.0
25CG3-56	PL10	320	184	2	2	4.6	9.2
25CG3-57	PL10	458	420	2	2	15.1	30.2
25CG3-58	PL10	420	184	2	2	6.1	12.1
25CG3-59	PL8	180	150	8	8	1.7	13.6
25CG3-60	PL12	475	100	8	8	4.5	35.8
25CG3-61	PL10	475	80	8	8	3.0	23.9
25CG3-61F	PL2	235	60	8	8	0.2	1.8
25CG3-62	PL10	475	100	8	8	3.7	29.8
25CG3-63	PL10	475	80	8	8	3.0	23.9
25CG3-64	PL10	375	80	8	8	2.4	18.8
25CG3-65	PL8	375	70	8	8	1.6	13.2
25CG3-65F	PL2	185	60	8	8	0.2	1.4
25CG3-66	PL6	135	50	8	8	0.3	2.5
25CG3-70	PL35	400	400	4	4	44.0	175.8
25CG3-71	PL10	400	320	4	4	10.0	40.2
25CG3-72	PL10	320	272	4	4	6.8	27.3
25CG3-73	PL10	320	110	12	12	2.8	33.2
25CG3-74	PL10	320	100	8	8	2.5	20.1
							4362.5

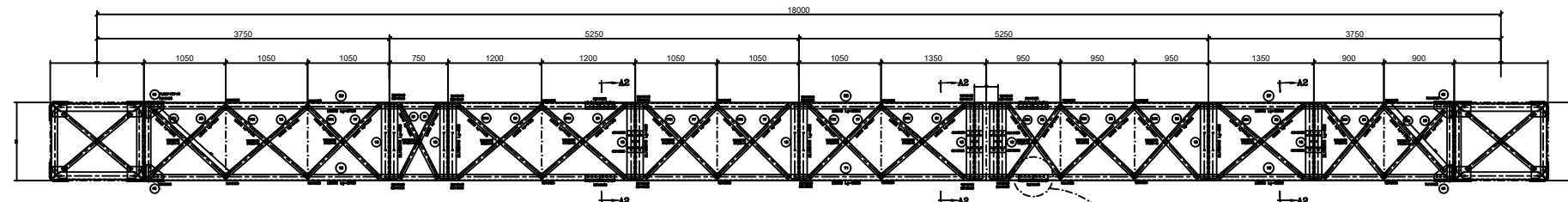
 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E							DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404	 NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY Mapna Power Plants Construction & Development Co(MD-1)	 NIROO CONSULTING ENGINEERING CO.		
	SUB CONTRACTOR DWG. NO.:	B										DRAWING TITLE: 2SGAN3	REV. NO. : A
		A	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04					SHEET: 5 OF: 8
		MAPNA'S DWG. No. :	NIYAM'S LOGO	O	FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04	DESIGN STAGE :	FILE No.	FORMAT : A3
			REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE				



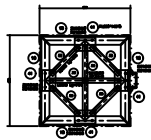
TOP VIEW



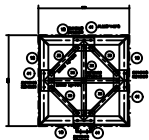
FRONT VIEW



BOTTOM VIEW



SECTION A1-A1



SECTION A2-A2

NOTES

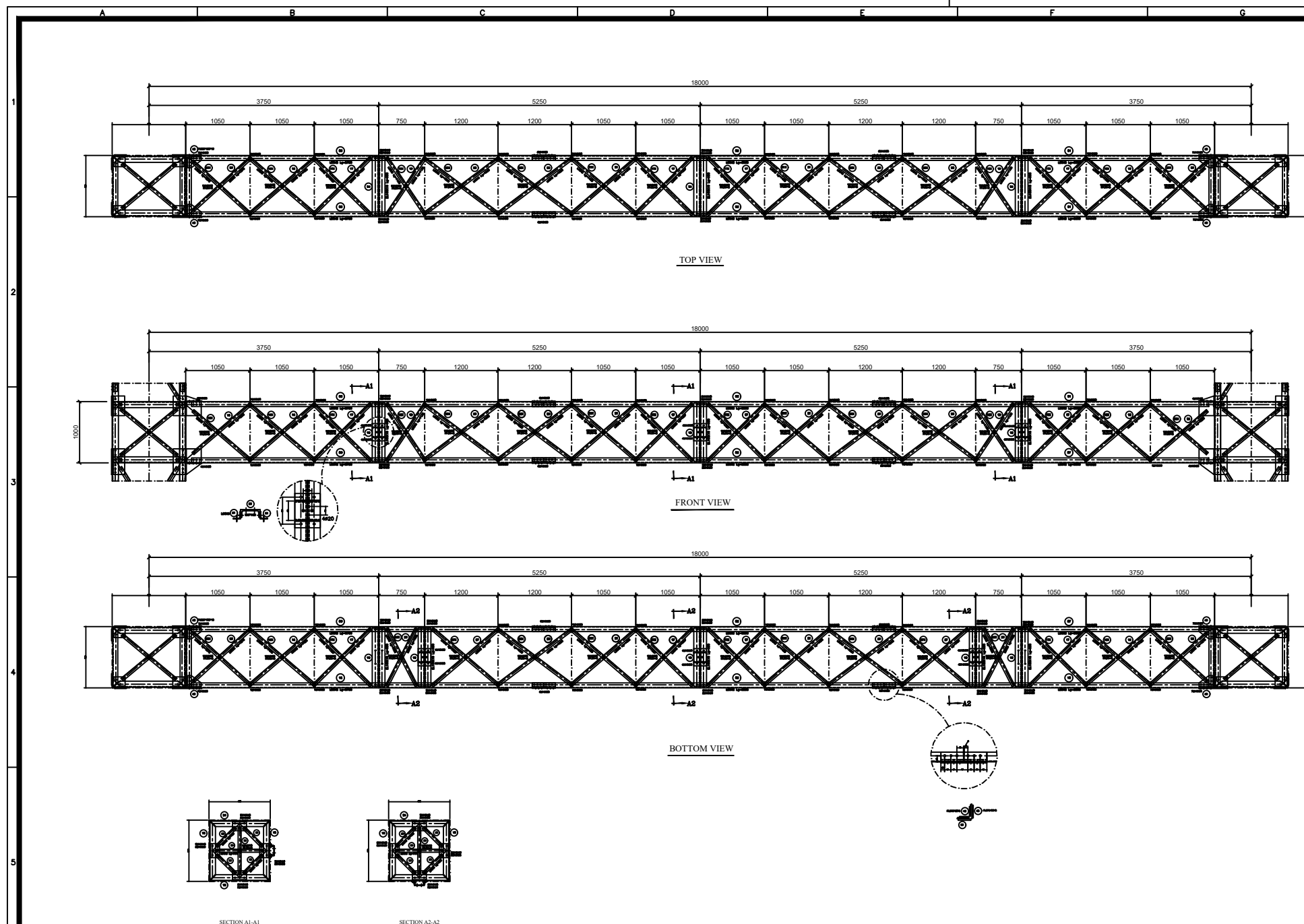
- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M18 U-BOLTS)

NO. 2SBG2= 4

MARK	SIZE	LENGTH	WIDTH	QTY	TOTAL QTY	UNIT W.	TOTAL W.
2SBG1-1	L80*80*8	5300		1	1	51.2	51.2
2SBG1-2	L80*80*8	5550		1	1	53.6	53.6
2SBG1-3	L80*80*8	5750		1	1	55.5	55.5
2SBG1-4	L80*80*8	5300		1	1	51.2	51.2
2SBG1-5	L80*80*8	5550		1	1	53.6	53.6
2SBG1-6	L80*80*8	5750		1	1	55.5	55.5
2SBG1-7	L80*80*8	5300		1	1	51.2	51.2
2SBG1-8	L80*80*8	5550		1	1	53.6	53.6
2SBG1-9	L80*80*8	5750		1	1	55.5	55.5
2SBG1-10	L80*80*8	5300		1	1	51.2	51.2
2SBG1-11	L80*80*8	5550		1	1	53.6	53.6
2SBG1-12	L80*80*8	5750		1	1	55.5	55.5
2SBG1-15	L50*50*5	1253		2	2	4.7	9.4
2SBG1-15X	L50*50*5	1253		2	2	4.7	9.4
2SBG1-16	L50*50*5	1433		4	4	5.4	21.6
2SBG1-16X	L50*50*5	1433		4	4	5.4	21.6
2SBG1-17	L50*50*5	1327		16	16	5.0	80.0
2SBG1-17X	L50*50*5	1327		16	16	5.0	80.0
2SBG1-18	L100*100*10	950		32	32	14.3	459.0
2SBG1-19	L50*50*5	1135		3	3	4.3	12.8
2SBG1-19X	L50*50*5	1135		3	3	4.3	12.8
2SBG1-20	L50*50*5	1550		3	3	5.8	17.5
2SBG1-20X	L50*50*5	1550		3	3	5.8	17.5
2SBG1-21	L50*50*5	1438		6	6	5.4	32.5
2SBG1-21X	L50*50*5	1438		6	6	5.4	32.5
2SBG1-22	L50*50*5	1672		3	3	6.3	18.9
2SBG1-22X	L50*50*5	1672		3	3	6.3	18.9
2SBG1-23	L50*50*5	1358		7	7	5.1	35.8
2SBG1-23X	L50*50*5	1358		7	7	5.1	35.8
2SBG1-24	L50*50*5	1258		4	4	4.7	19.0
2SBG1-24X	L50*50*5	1258		4	4	4.7	19.0
2SBG1-25	L50*50*5	1555		3	3	5.9	17.6
2SBG1-25X	L50*50*5	1555		3	3	5.9	17.6
2SBG1-26	L50*50*5	1323		3	3	5.0	15.0
2SBG1-26X	L50*50*5	1323		3	3	5.0	15.0
2SBG1-27	L50*50*5	1143		2	2	4.3	8.6
2SBG1-27X	L50*50*5	1143		2	2	4.3	8.6
2SBG1-28	L50*50*5	1278		2	2	4.8	9.6
2SBG1-28X	L50*50*5	1278		2	2	4.8	9.6
2SBG1-29	L100*100*10	950		8	8	14.3	114.8
2SBG1-30	L50*50*5	1172		2	2	4.4	8.8
2SBG1-30X	L50*50*5	1172		2	2	4.4	8.8
2SBG1-31	L50*50*5	1062		2	2	4.0	8.0
2SBG1-32	L50*50*5	1164		1	1	4.4	4.4
2SBG1-32X	L50*50*5	1164		1	1	4.4	4.4
2SBG1-33	L50*50*5	1442		1	1	5.4	5.4
2SBG1-33X	L50*50*5	1442		1	1	5.4	5.4
2SBG1-34	L50*50*5	1226		1	1	4.6	4.6
2SBG1-34X	L50*50*5	1226		1	1	4.6	4.6
2SBG1-35	L50*50*5	435		32	32	1.6	52.5
2SBG1-36	L50*50*5	764		16	16	2.9	46.1
2SBG1-40	PL10	225	180	8	8	3.2	25.4
2SBG1-41	PL8	230	145	32	32	2.1	67.0
2SBG1-45	PL8	375	80	16	16	1.9	30.1
2SBG1-46	PL6	375	60	16	16	1.1	17.0
2SBG1-50	UNP160	208		12	12	3.9	46.9
2SBG1-51	L60*60*6	208		24	24	1.1	27.1
							2178.9

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E								DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404			 Mapna Power Plants Construction & Development Co(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY	 NIROO CONSULTING ENGINEERING CO.	
		D									DRAWING TITLE: 2SBG1					
		C														
	B									REV. NO. : A						SHEET: 6 OF: 8
	A	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04									
MAPNA'S DWG. No. :	NIYAM'S LOGO	O	FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04	DESIGN STAGE :		FILE No.	FORMAT : A3	PROJECT : KHATOON ABAD GAS POWER PLANT 230KV AIS S/S			
		REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE								

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MARK	SIZE	LENGTH	WIDTH	QTY	TOTAL QTY	UNIT W.	TOTAL W.
2SBG2-1	L80*80*8	5300		1	1	51.2	51.2
2SBG2-2	L80*80*8	5550		1	1	53.6	53.6
2SBG2-3	L80*80*8	5750		1	1	55.5	55.5
2SBG2-4	L80*80*8	5300		1	1	51.2	51.2
2SBG2-5	L80*80*8	5550		1	1	53.6	53.6
2SBG2-6	L80*80*8	5750		1	1	55.5	55.5
2SBG2-7	L80*80*8	5300		1	1	51.2	51.2
2SBG2-8	L80*80*8	5550		1	1	53.6	53.6
2SBG2-9	L80*80*8	5750		1	1	55.5	55.5
2SBG2-10	L80*80*8	5300		1	1	51.2	51.2
2SBG2-11	L80*80*8	5550		1	1	53.6	53.6
2SBG2-12	L80*80*8	5750		1	1	55.5	55.5
2SBG2-15	L50*50*5	1253		2	2	4.7	9.4
2SBG2-15X	L50*50*5	1253		2	2	4.7	9.4
2SBG2-16	L50*50*5	1433		8	8	5.4	43.2
2SBG2-16X	L50*50*5	1433		8	8	5.4	43.2
2SBG2-17	L50*50*5	1327		16	16	5.0	80.0
2SBG2-17X	L50*50*5	1327		16	16	5.0	80.0
2SBG2-18	L100*100*10	950		22	22	14.3	315.6
2SBG2-19	L50*50*5	1135		6	6	4.3	25.7
2SBG2-19X	L50*50*5	1135		6	6	4.3	25.7
2SBG2-20	L50*50*5	1550		14	14	5.8	81.8
2SBG2-20X	L50*50*5	1550		14	14	5.8	81.8
2SBG2-21	L50*50*5	1433		8	8	5.4	43.2
2SBG2-21X	L50*50*5	1433		8	8	5.4	43.2
2SBG2-22	L50*50*5	1253		2	2	4.7	9.4
2SBG2-22X	L50*50*5	1253		2	2	4.7	9.4
2SBG2-23	L50*50*5	1278		2	2	4.8	9.6
2SBG2-23X	L50*50*5	1278		2	2	4.8	9.6
2SBG2-24	L100*100*10	950		6	6	14.3	86.1
2SBG2-25	L50*50*5	1278		2	2	4.8	9.6
2SBG2-25X	L50*50*5	1278		2	2	4.8	9.6
2SBG2-26	L50*50*5	1062		2	2	4.0	8.0
2SBG2-26X	L50*50*5	1062		2	2	4.0	8.0
2SBG2-27	L50*50*5	1437		2	2	5.4	10.8
2SBG2-27X	L50*50*5	1437		2	2	5.4	10.8
2SBG2-28	L50*50*5	435		24	24	1.6	39.4
2SBG2-29	L50*50*5	764		12	12	2.9	34.6
2SBG2-40	PL10	225	180	8	8	3.2	25.4
2SBG2-41	PL8	230	145	12	12	2.1	25.1
2SBG2-45	PL8	375	80	16	16	1.9	30.1
2SBG2-46	PL6	375	60	16	16	1.1	17.0
2SBG2-50	UNP160	208		9	9	3.9	35.2
2SBG2-51	L60*60*6	208		18	18	1.1	20.3
							1932.1

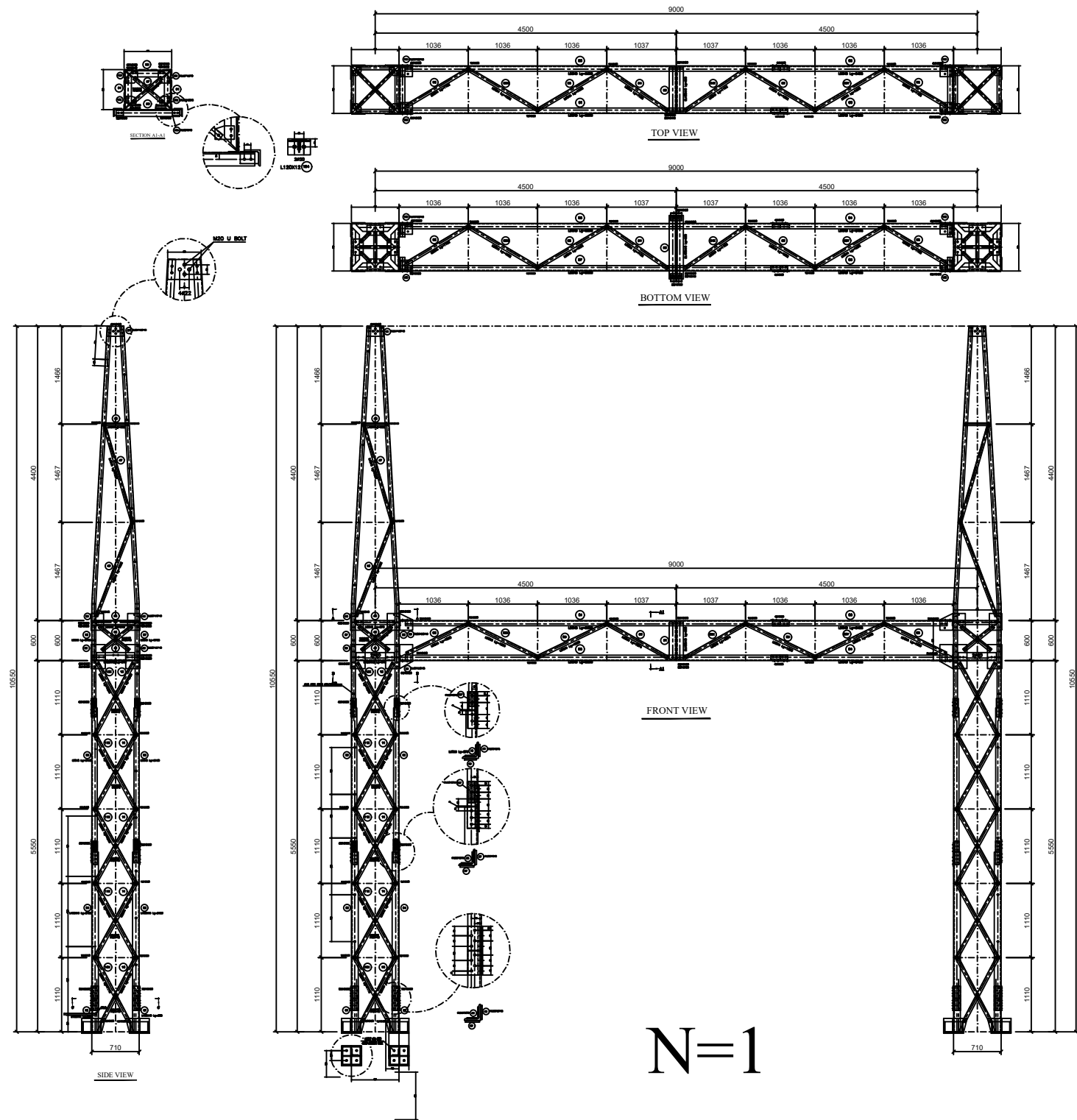
NOTES

- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M18 U-BOLTS)

NO. 2SBG2= 12

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E						DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404			 Mapna Power Plants Construction & Development Co(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY	 NIROO CONSULTING ENGINEERING CO.	
		D							DRAWING TITLE: 2SBG2					
		C												
	SUB CONTRACTOR DWG. NO.:	A							REV. NO. : A					SHEET: 7 OF: 8
MAPNA'S DWG. No. :	B	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04	DESIGN STAGE :			FILE No.	FORMAT : A3	PROJECT : KHATOON ABAD GAS POWER PLANT 230KV AIS S/S	
	O	FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04							
	REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE							
NIYAM'S LOGO														

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N=1

NOTES

- 1- ALL ANGLES ARE FROM MILD STEEL WITH YIELD STRENGTH 2400 Kg/cm² exemption
- 2- ALL BOLTS ARE M16 WITH GRADE 8.8
- 3- LEG DISTANCES AT BASE OF GANTRY ARE FROM CENTER TO CENTER OF LEG ANGLES.
- 4- S IS SHIELDWIRE ATTACHMENT POINT TO COLUMN. (70 mm M18 U-BOLTS)

MARK	SIZE	LENGT	WIDT	QTY	TOTAL	UNIT W	TOTAL
2SCG4-1	L100*100*	500		4	4	7.6	30.2
2SCG4-2	L100*100*	500		4	4	7.6	30.2
2SCG4-3	L100*100*	2183		4	4	33.0	131.9
2SCG4-4	L100*100*	2183		4	4	33.0	131.9
2SCG4-5	L80*80*8	2150		4	4	20.8	83.1
2SCG4-6	L80*80*8	2150		4	4	20.8	83.1
2SCG4-7	L60*60*6	5708		4	4	30.9	123.7
2SCG4-8	L60*60*6	5708		4	4	30.9	123.7
2SCG4-10	L50*50*4	1110		8	8	3.4	27.2
2SCG4-10X	L50*50*4	1110		8	8	3.4	27.2
2SCG4-11	L50*50*4	1316		40	40	4.0	161.1
2SCG4-11X	L50*50*4	1316		8	8	4.0	32.2
2SCG4-12	L50*50*4	1246		8	8	3.8	30.5
2SCG4-12X	L50*50*4	1246		8	8	3.8	30.5
2SCG4-41	L120*120*	570		8	8	12.3	98.5
2SCG4-42	L50*50*4	568		16	16	1.7	27.8
2SCG4-43	L60*60*6	570		8	8	3.1	24.7
2SCG4-44	L80*80*8	690		2	2	6.7	13.3
2SCG4-45	L80*80*8	192		4	4	1.9	7.4
2SCG4-46	L40*40*4	1522		8	8	3.7	29.5
2SCG4-47	L40*40*4	1567		8	8	3.8	30.3
2SCG4-48	L40*40*4	382		8	8	0.9	7.4
2SCG4-49	L50*50*4	774		4	4	2.4	9.5
2SCG4-50	L50*50*4	198		8	8	0.6	4.8
2SCG4-51	L50*50*4	456		4	4	1.4	5.6
2SCG4-55	PL10	360	197	12	12	5.6	66.8
2SCG4-56	PL10	250	170	12	12	3.3	40.0
2SCG4-57	PL10	251	150	4	4	3.0	11.8
2SCG4-58	PL10	251	150	4	4	3.0	11.8
2SCG4-59	PL10	380	250	4	4	7.5	29.8
2SCG4-60	PL10	407	360	4	4	11.5	46.0
2SCG4-61	PL8	210	141	8	8	1.9	14.9
2SCG4-62	PL8	244	150	8	8	2.3	18.4
2SCG4-65	PL10	365	90	16	16	2.6	41.3
2SCG4-66	PL8	365	90	16	16	2.1	33.0
2SCG4-67	PL8	350	70	16	16	1.5	24.6
2SCG4-68	PL8	350	60	16	16	1.3	21.1
2SCG4-68F	PL2	160	50	16	16	0.1	2.0
2SCG4-69	PL8	275	60	16	16	1.0	16.6
2SCG4-69F	PL2	100	50	16	16	0.1	1.3
2SCG4-70	L60*60*6	275		8	8	1.5	11.9
2SCG4-71	PL20	300	300	8	8	14.1	113.0
2SCG4-72	PL10	346	200	8	8	5.4	43.5
2SCG4-73	PL10	200	196	8	8	3.1	24.6
2SCG4-74	PL10	200	140	8	8	2.2	17.6
2SCG4-75	PL10	200	140	32	32	2.2	70.3
2SCG4-76	PL10	280	200	32	32	4.4	140.7

MARK	SIZE	LENGT	WIDT	QTY	TOTAL	UNIT W.	TOTAL
2SBG3-80	L80*80*8	2495		1	1	24.1	24.1
2SBG3-81	L80*80*8	2460		1	1	54.1	54.1
2SBG3-82	L80*80*8	2495		1	1	24.1	24.1
2SBG3-83	L80*80*8	5600		1	1	54.1	54.1
2SBG3-84	L80*80*8	2495		1	1	24.1	24.1
2SBG3-85	L80*80*8	5600		1	1	54.1	54.1
2SBG3-86	L80*80*8	2495		1	1	24.1	24.1
2SBG3-87	L80*80*8	5600		1	1	54.1	54.1
2SBG3-88	L50*50*4	1050		4	4	3.2	12.9
2SBG3-89	L50*50*4	1200		4	4	3.7	14.7
2SBG3-89X	L50*50*4	1200		2	2	3.7	7.3
2SBG3-89Y	L50*50*4	1200		2	2	3.7	7.3
2SBG3-90	L50*50*4	1074		2	2	3.3	6.6
2SBG3-90X	L50*50*4	1074		2	2	3.3	6.6
2SBG3-91	L100*100*	550		4	4	8.3	33.2
2SBG3-92	L50*50*4	1102		4	4	3.4	13.5
2SBG3-93	L50*50*4	1252		4	4	3.8	15.3
2SBG3-93X	L50*50*4	1252		2	2	3.8	7.7
2SBG3-93Y	L50*50*4	1252		22	22	3.8	84.3
2SBG3-94	L50*50*4	1132		2	2	3.5	6.9
2SBG3-94X	L50*50*4	1132		2	2	3.5	6.9
2SBG3-95	L100*100*	660		2	2	10.0	19.9
2SBG3-96	L100*100*	660		2	2	10.0	19.9
2SBG3-97	L50*50*4	560		2	2	1.7	3.4
2SBG3-98	PL8	250	70	8	8	1.1	8.8
2SBG3-99	PL6	250	60	8	8	0.7	5.7
2SBG3-100	PL10	170	136	8	8	1.8	14.5
2SBG3-101	PL8	167	167	2	2	1.8	3.5
2SBG3-102	PL8	145	100	2	2	0.9	1.8
2SBG3-103	PL8	139	91	2	2	0.8	1.6
2SBG3-104	L120*120*	168		2	2	3.6	7.3

 NATIONAL IRANIAN COPPER INDUSTRIES COMPANY (N.I.C.I.)	SUB-CONTRACTOR'S LOGO	E							DWG./Doc. No. MD1-RF-00-SS-C-08-NT6-404	 Mapna Power Plants Construction & Development Co(MD-1)	NIROO TAVAN GOSTAR MOHAM SHARGH COMPANY 	 NIROO CONSULTING ENGINEERING CO.	
		D											
		C											
	SUB CONTRACTOR DWG. NO.:	B							DRAWING TITLE: 2SGAN4-2SBG3				REV. NO. : A
		A	12105-MMN-SCC-L-5104	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04					
O		FIRST ISSUE	HADIZADEGAN	HADIZADEGAN	DEHGHAN	DEHGHAN	1405.04						
MAPNA'S DWG. No. :	NIYAM'S LOGO	REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE	DESIGN STAGE :	FILE No.	FORMAT : A3	PROJECT : KHATOON ABAD GAS POWER PLANT 230KV AIS S/S	