

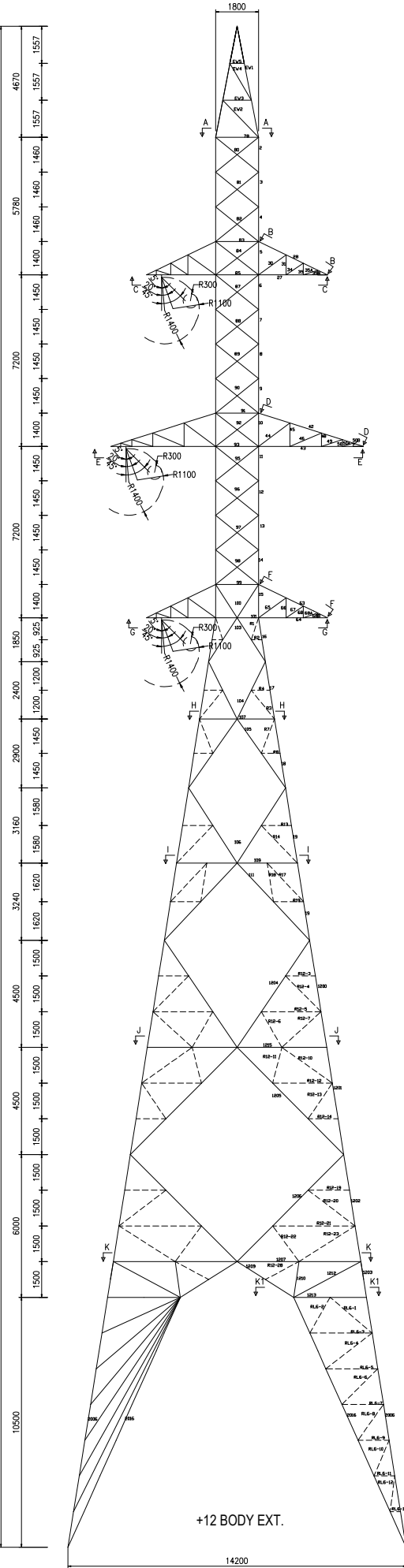
Construction of

220 kV Loop in Loop out Paliastomi- into Ozurgeti Substation and

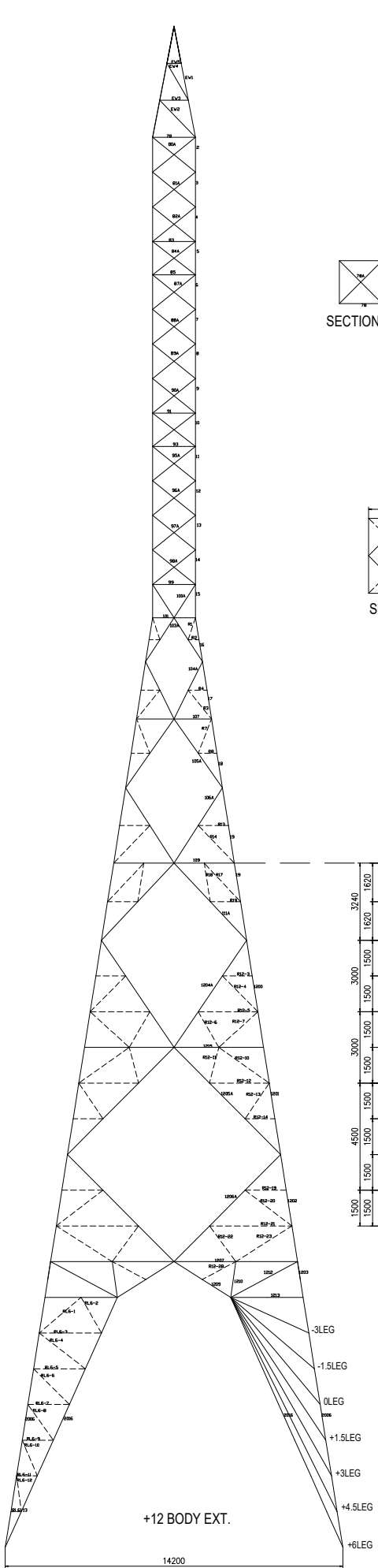
110 kV Double Circuit (D/C) Overhead Line from Ozurgeti Substation to Zoti HPP

Detailed Outline Drawing of Tower Type 12B-LC

00	08.04.2022	Issued for Approval	S.CELEBI	S.SAHIN	S.SAHIN
Rev. No.	Date	Description	Prepared by	Checked by	Approved by
Employer Logo and Business Name  GEORGIAN STATE ELECTROSYSTEM 2 Baratashvili Street Tbilisi 0105 Georgia			Project Name Open Programme Extension of the Transmission Network II BMZ No. 2015 68 286		
Engineer logo and business name  Fichtner GmbH & Co. KG Sarweystrasse 3 70191 Stuttgart / Germany			Contract Identification Number KfW/DSI/OHL-TD-Lot 2		
Contractor logo and business name  MITAS Energy & Metal Construction Inc. Eski Güvercinlik Yolu No: 113 Gazi 06560 Ankara / Turkey			Document Number 7145A07-EG-TWR-DWG-0428_00		
Document Title Detailed Outline Drawing of Tower Type 12B-LC			Scale n.a.		Sheet of Sheets Page 1 of 3



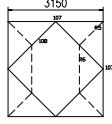
TRANSVERSE FACE



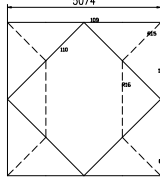
LONGITUDINAL FACE



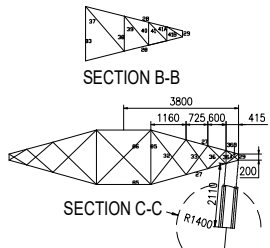
SECTION A-A



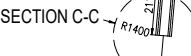
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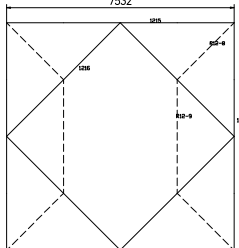
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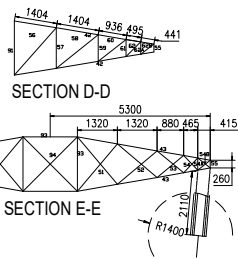
SECTION B-B



SECTION C-C

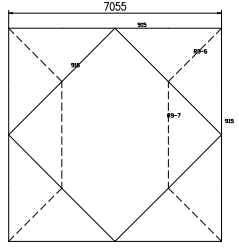


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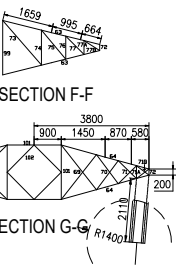


SECTION D-D

SECTION E-E

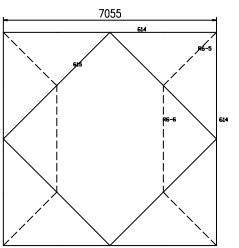


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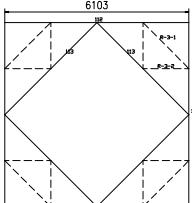


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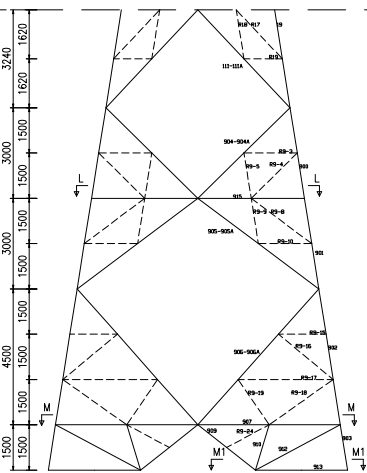
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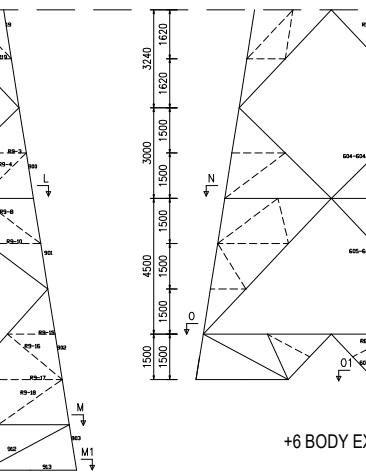
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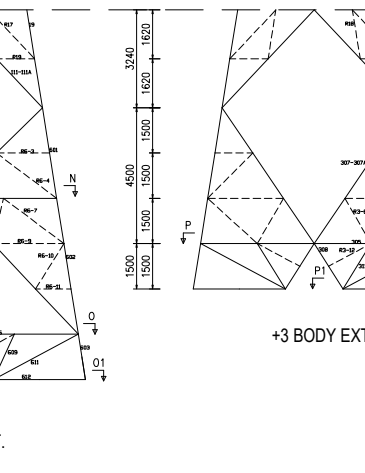
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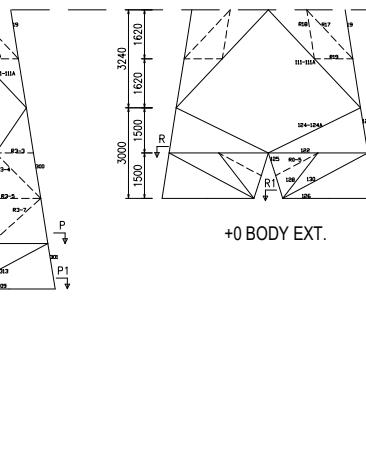
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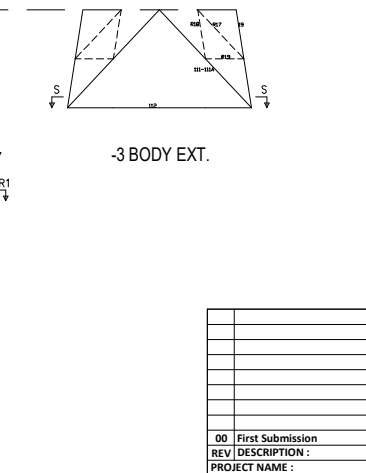
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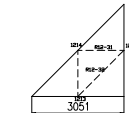
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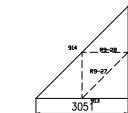
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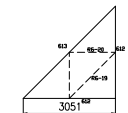
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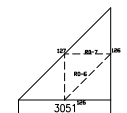
SECTION M2-M2



SECTION O2-O2



SECTION P2-P2



SECTION R2-R2

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+0 BODY EXT.

+3 BODY EXT.

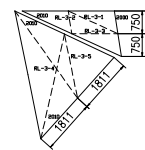
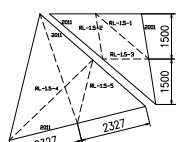
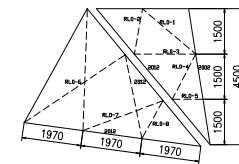
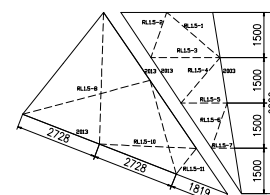
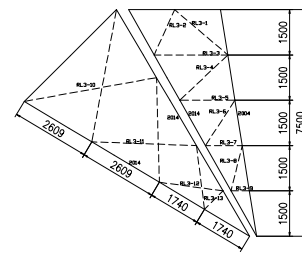
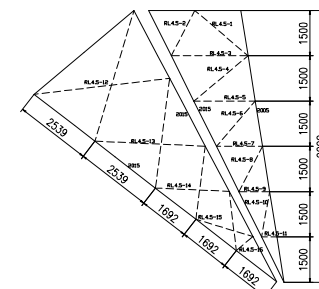
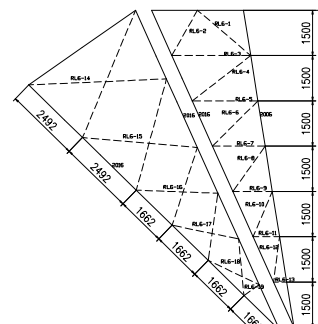
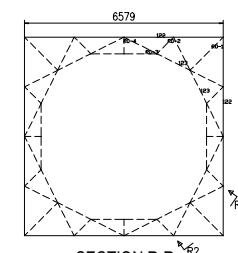
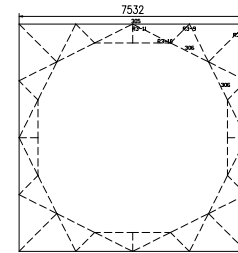
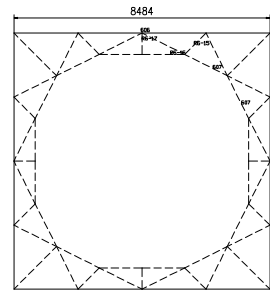
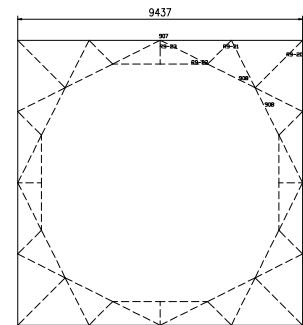
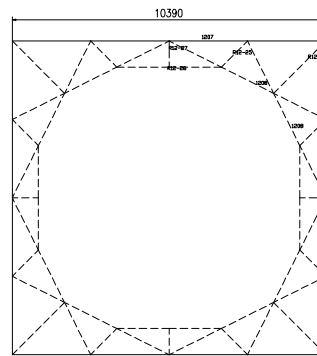
+6 BODY EXT.

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Group Label	Angle Type	Angle Size	Material	Bolts
DW1	SA5	75°/57°/6°	S355	4 M6-20B-8H
DW2	SA5	75°/57°/6°	S355	4 M6-20B-8H
DW3	SA5	75°/57°/6°	S355	4 M6-20B-8H
DW4	SA5	75°/57°/6°	S355	4 M6-20B-8H
DW5	SA5	75°/57°/6°	S355	4 M6-20B-8H
2	SA5	75°/57°/6°	S355	4 M6-20B-8H
3	SA5	75°/57°/6°	S355	4 M6-20B-8H
4	SA5	75°/57°/6°	S355	4 M6-20B-8H
5	SA5	100°/110°/8°	S355	4 M6-20B-8H
6	SA5	100°/110°/8°	S355	4 M6-20B-8H
7	SA5	100°/110°/8°	S355	4 M6-20B-8H
8	SA5	100°/110°/8°	S355	4 M6-20B-8H
9	SA5	100°/110°/8°	S355	4 M6-20B-8H
10	SA5	110°/110°/8°	S355	6 M6-20B-8H
11	SA5	110°/110°/8°	S355	6 M6-20B-8H
12	SA5	110°/110°/8°	S355	6 M6-20B-8H
13	SA5	130°/130°/12°	S355	6 M6-20B-8H
14	SA5	130°/130°/12°	S355	12 M6-20B-8H
15	SA5	130°/130°/12°	S355	12 M6-20B-8H
16	SA5	130°/130°/12°	S355	12 M6-20B-8H
17	SA5	130°/130°/12°	S355	12 M6-20B-8H
18	SA5	130°/130°/12°	S355	8 M6-20B-8H
19	SA5	130°/130°/12°	S355	8 M6-20B-8H
20	SA5	100°/70°/6°	S355	2 M6-20B-8H
28	SA5	60°/60°/6°	S355	2 M6-20B-8H
29	DA5	45°/45°/5°	S355	2 M6-16B-8H
30	DA5	45°/45°/5°	S355	2 M6-16B-8H
31	SA5	45°/45°/5°	S355	2 M6-16B-8H
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44	SA5	45°/45°/5°	S355	2 M6-16B-8H
45	SA5	45°/45°/5°	S355	2 M6-16B-8H
46	SA5	45°/45°/5°	S355	2 M6-16B-8H
47	SA5	45°/45°/5°	S355	2 M6-16B-8H
48	SA5	45°/45°/5°	S355	2 M6-16B-8H
49	SA5	45°/45°/5°	S355	2 M6-16B-8H
50	SA5	45°/45°/5°	S355	2 M6-16B-8H
51	SA5	45°/45°/5°	S355	2 M6-16B-8H
52	SA5	45°/45°/5°	S355	2 M6-16B-8H
53	SA5	45°/45°/5°	S355	2 M6-16B-8H
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55	DA5	45°/45°/5°	S355	2 M6-16B-8H
56	DA5	45°/45°/5°	S355	2 M6-16B-8H
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64	DA5	45°/45°/5°	S355	2 M6-16B-8H
65	DA5	45°/45°/5°	S355	2 M6-16B-8H
66	DA5	45°/45°/5°	S355	2 M6-16B-8H
67	DA5	45°/45°/5°	S355	2 M6-16B-8H
68	DA5	45°/45°/5°	S355	2 M6-16B-8H
69	DA5	45°/45°/5°	S355	2 M6-16B-8H
70	DA5	45°/45°/5°	S355	2 M6-16B-8H
71	DA5	45°/45°/5°	S355	2 M6-16B-8H
72	DA5	45°/45°/5°	S355	2 M6-16B-8H
73	DA5	45°/45°/5°	S355	2 M6-16B-8H
74	DA5	45°/45°/5°	S355	2 M6-16B-8H
75	DA5	45°/45°/5°	S355	2 M6-16B-8H
76	DA5	45°/45°/5°	S355	2 M6-16B-8H
77	DA5	45°/45°/5°	S355	2 M6-16B-8H
78	DA5	45°/45°/5°	S355	2 M6-16B-8H
79	DA5	45°/45°/5°	S355	2 M6-16B-8H
80	DA5	45°/45°/5°	S355	2 M6-16B-8H
81	DA5	45°/45°/5°	S355	2 M6-16B-8H
82	DA5	45°/45°/5°	S355	2 M6-16B-8H
83	DA5	45°/45°/5°	S355	2 M6-16B-8H
84	DA5	45°/45°/5°	S355	2 M6-16B-8H
85	DA5	45°/45°/5°	S355	2 M6-16B-8H
86	DA5	45°/45°/5°	S355	2 M6-16B-8H
87	DA5	45°/45°/5°	S355	2 M6-16B-8H
88	DA5	45°/45°/5°	S355	2 M6-16B-8H
89	DA5	45°/45°/5°	S355	2 M6-16B-8H
90	DA5	45°/45°/5°	S355	2 M6-16B-8H
91	DA5	45°/45°/5°	S355	2 M6-16B-8H
92	DA5	45°/45°/5°	S355	2 M6-16B-8H
93	DA5	45°/45°/5°	S355	2 M6-16B-8H
94	DA5	45°/45°/5°	S355	2 M6-16B-8H
95	DA5	45°/45°/5°	S355	2 M6-16B-8H
96	DA5	45°/45°/5°	S355	2 M6-16B-8H
97	DA5	45°/45°/5°	S355	2 M6-16B-8H
98	DA5	45°/45°/5°	S355	2 M6-16B-8H
99	DA5	45°/45°/5°	S355	2 M6-16B-8H
100	DA5	45°/45°/5°	S355	2 M6-16B-8H

Group Label	Angle Type	Angle Size	Material	Bolts
55	SAE	45°/45°	S355	2-M16 (6.8)
56	SAE	60°/60°	S355	2-M16 (6.8)
57	SAE	45°/45°	S355	2-M16 (6.8)
58	SAE	45°/45°	S355	2-M16 (6.8)
59	SAE	45°/45°	S355	2-M16 (6.8)
60	SAE	45°/45°	S355	2-M16 (6.8)
61	SAE	45°/45°	S355	2-M16 (6.8)
62	SAE	45°/45°	S355	2-M16 (6.8)
63	SAE	60°/60°	S355	2-M16 (6.8)
64	SAE	70°/70°	S355	2-M16 (6.8)
65	SAE	45°/45°	S355	2-M16 (6.8)
66	SAE	45°/45°	S355	2-M16 (6.8)
67	SAE	45°/45°	S355	2-M16 (6.8)
68	SAE	45°/45°	S355	2-M16 (6.8)
69	SAE	45°/45°	S355	2-M16 (6.8)
70	SAE	45°/45°	S355	2-M16 (6.8)
71	SAE	45°/45°	S355	2-M16 (6.8)
72	SAE	45°/45°	S355	2-M16 (6.8)
73	SAE	60°/60°	S355	2-M16 (6.8)
74	SAE	45°/45°	S355	2-M16 (6.8)
75	SAE	45°/45°	S355	2-M16 (6.8)
76	SAE	45°/45°	S355	2-M16 (6.8)
77	SAE	45°/45°	S355	2-M16 (6.8)
78	SAE	45°/45°	S355	2-M16 (6.8)
79	SAE	45°/45°	S355	2-M16 (6.8)
80	SAE	45°/45°	S355	2-M16 (6.8)
81	SAE	45°/45°	S355	2-M16 (6.8)
82	SAE	45°/45°	S355	2-M16 (6.8)
83	SAE	45°/45°	S355	2-M16 (6.8)
84	SAE	45°/45°	S355	2-M16 (6.8)
85	SAE	45°/45°	S355	2-M16 (6.8)
86	SAE	45°/45°	S355	2-M16 (6.8)
87	SAE	45°/45°	S355	2-M16 (6.8)
88	SAE	45°/45°	S355	2-M16 (6.8)
89	SAE	50°/50°	S355	2-M16 (6.8)
90	SAE	45°/45°	S355	2-M16 (6.8)
91	SAE	45°/45°	S355	2-M16 (6.8)
92	SAE	50°/50°	S355	2-M16 (6.8)
93	SAE	70°/70°	S355	2-M16 (6.8)
94	SAE	45°/45°	S355	2-M16 (6.8)
95	SAE	60°/60°	S355	2-M16 (6.8)
96	SAE	45°/45°	S355	2-M16 (6.8)

Group	Angle Type	Angle Size	Material	Bolts
96A	SAL	65°/56°	S355	2-M16 (8.8)
96B	SAL	65°/56°	S355	2-M16 (8.8)
97A	SAL	65°/56°	S355	2-M16 (8.8)
98	SAL	60°/50°	S355	2-M16 (8.8)
99	SAL	60°/50°	S355	2-M16 (8.8)
99	SAL	65°/56°	S355	2-M16 (8.8)
100	SAL	60°/50°	S355	2-M16 (8.8)
100A	SAL	60°/50°	S355	2-M16 (8.8)
101	SAL	70°/70°	S355	4-M16 (8.8)
101A	SAL	70°/70°	S355	4-M16 (8.8)
102	SAL	65°/56°	S355	2-M16 (8.8)
103	SAL	100°/100°	S355	2-M16 (8.8)
103A	SAL	100°/100°	S355	2-M16 (8.8)
104	SAL	80°/80°	S355	2-M16 (8.8)
104A	SAL	80°/80°	S355	2-M16 (8.8)
105	SAL	80°/80°	S355	2-M16 (8.8)
106	SAL	80°/80°	S355	2-M16 (8.8)
106A	SAL	80°/80°	S355	2-M16 (8.8)
107	SAL	80°/80°	S355	2-M16 (8.8)
108	SAL	55°/55°	S355	2-M16 (8.8)
108A	SAL	55°/55°	S355	2-M16 (8.8)
109	SAL	70°/70°	S355	2-M16 (8.8)
110	SAL	70°/70°	S355	2-M16 (8.8)
111	SAL	80°/80°	S355	2-M16 (8.8)
111A	SAL	80°/80°	S355	2-M16 (8.8)
112	SAL	80°/80°	S355	2-M16 (8.8)
113	SAL	80°/80°	S355	2-M16 (8.8)
113A	SAL	80°/80°	S355	2-M16 (8.8)
122	SAL	75°/75°	S355	2-M16 (8.8)
123	SAL	60°/50°	S355	2-M16 (8.8)
124	SAL	110°/110°	S355	2-M16 (8.8)
125	SAL	110°/110°	S355	2-M16 (8.8)
126	DAL	45°/45°	S355	2-M16 (8.8)
127	DAL	80°/80°	S355	2-M16 (8.8)
128	SAL	80°/80°	S355	2-M16 (8.8)
129	SAL	70°/70°	S355	2-M16 (8.8)
130	SAL	110°/110°	S355	2-M16 (8.8)
2000	SAL	110°/110°	S355	8-M16 (8.8)
2001	SAL	110°/110°	S355	8-M16 (8.8)
2002	SAL	110°/110°	S355	8-M16 (8.8)
2003	SAL	110°/110°	S355	8-M16 (8.8)
2004	SAL	110°/110°	S355	8-M16 (8.8)
2005	SAL	110°/110°	S355	8-M16 (8.8)
2006	SAL	110°/110°	S355	8-M16 (8.8)
2007	SAL	110°/110°	S355	8-M16 (8.8)
2008	SAL	110°/110°	S355	8-M16 (8.8)
2009	SAL	110°/110°	S355	8-M16 (8.8)
2010	SAL	80°/80°	S355	2-M16 (8.8)
2011	SAL	80°/80°	S355	2-M16 (8.8)
2012	SAL	80°/80°	S355	2-M16 (8.8)
2013	SAL	80°/80°	S355	2-M16 (8.8)
2014	SAL	80°/80°	S355	2-M16 (8.8)
2015	SAL	80°/80°	S355	2-M16 (8.8)
2016	SAL	80°/80°	S355	2-M16 (8.8)
300	SAL	110°/110°	S355	8-M16 (8.8)
301	SAL	110°/110°	S355	8-M16 (8.8)
302	SAL	75°/75°	S355	2-M16 (8.8)
303	SAL	75°/75°	S355	2-M16 (8.8)
304	SAL	75°/75°	S355	2-M16 (8.8)
305	SAL	75°/75°	S355	2-M16 (8.8)
306	SAL	75°/75°	S355	2-M16 (8.8)
307	SAL	100°/100°	S355	2-M16 (8.8)
307A	SAL	100°/100°	S355	2-M16 (8.8)
308	DAL	45°/45°	S355	2-M16 (8.8)

Group Label	Type	Angle Size	Material	Bolts
111	SAR	65/60°	S355	2 M16-6g/8.8
112	SAR	75/75°	S355	2 M16-6g/8.8
113	SAR	90/90°	S355	2 M16-6g/8.8
601	SAR	100/102°	S355	8 M20-8.8
602	SAR	100/102°	S355	8 M20-8.8
603	SAR	100/102°	S355	8 M20-8.8
604	SAR	100/102°	S355	8 M20-8.8
605	SAR	100/102°	S355	2 M16-6g/8.8
606A	SAR	90/90°	S355	2 M16-6g/8.8
606B	SAR	90/90°	S355	2 M16-6g/8.8
606C	SAR	80/80°	S355	2 M16-6g/8.8
607	SAR	80/80°	S355	2 M16-6g/8.8
608	SAR	80/80°	S355	2 M16-6g/8.8
609	SAR	50/50°	S355	2 M16-6g/8.8
110	SAR	70/70°	S355	2 M16-6g/8.8
610	SAR	80/80°	S355	2 M16-6g/8.8
611	SAR	80/80°	S355	2 M16-6g/8.8
612	SAR	80/80°	S355	2 M16-6g/8.8
613	SAR	80/80°	S355	2 M16-6g/8.8
614	SAR	80/80°	S355	2 M16-6g/8.8
615	SAR	100/100°	S355	2 M16-6g/8.8
616	SAR	100/100°	S355	2 M16-6g/8.8
617	SAR	100/102°	S355	8 M20-8.8
618	SAR	100/102°	S355	8 M20-8.8
619	SAR	100/102°	S355	8 M20-8.8
620	SAR	100/102°	S355	8 M20-8.8
621	SAR	100/102°	S355	8 M20-8.8
622	SAR	100/102°	S355	8 M20-8.8
623	SAR	100/102°	S355	8 M20-8.8
624	SAR	100/102°	S355	8 M20-8.8
625	SAR	100/102°	S355	2 M16-6g/8.8
626	SAR	100/102°	S355	2 M16-6g/8.8
627	SAR	75/75°	S355	2 M16-6g/8.8
628	SAR	75/75°	S355	2 M16-6g/8.8
629	SAR	75/75°	S355	2 M16-6g/8.8
630	SAR	45/45°	S355	2 M16-6g/8.8
631	SAR	60/60°	S355	2 M16-6g/8.8
632	SAR	60/60°	S355	2 M16-6g/8.8
633	SAR	80/80°	S355	2 M16-6g/8.8
634	SAR	80/80°	S355	2 M16-6g/8.8
635	SAR	100/100°	S355	2 M16-6g/8.8
636	SAR	100/100°	S355	2 M16-6g/8.8
637	SAR	100/100°	S355	2 M16-6g/8.8
638	SAR	100/100°	S355	2 M16-6g/8.8
639	SAR	100/100°	S355	2 M16-6g/8.8
640	SAR	100/100°	S355	2 M16-6g/8.8
641	SAR	100/100°	S355	2 M16-6g/8.8
642	SAR	100/100°	S355	2 M16-6g/8.8
643	SAR	100/100°	S355	2 M16-6g/8.8
644	SAR	100/100°	S355	2 M16-6g/8.8
645	SAR	100/100°	S355	2 M16-6g/8.8
646	SAR	100/100°	S355	2 M16-6g/8.8
647	SAR	100/100°	S355	2 M16-6g/8.8
648	SAR	100/100°	S355	2 M16-6g/8.8
649	SAR	100/100°	S355	2 M16-6g/8.8
650	SAR	100/100°	S355	2 M16-6g/8.8
651	SAR	100/100°	S355	2 M16-6g/8.8
652	SAR	100/100°	S355	2 M16-6g/8.8
653	SAR	100/100°	S355	2 M16-6g/8.8
654	SAR	100/100°	S355	2 M16-6g/8.8
655	SAR	100/100°	S355	2 M16-6g/8.8
656	SAR	100/100°	S355	2 M16-6g/8.8
657	SAR	100/100°	S355	2 M16-6g/8.8
658	SAR	100/100°	S355	2 M16-6g/8.8
659	SAR	100/100°	S355	2 M16-6g/8.8
660	SAR	100/100°	S355	2 M16-6g/8.8
661	SAR	100/100°	S355	2 M16-6g/8.8
662	SAR	100/100°	S355	2 M16-6g/8.8
663	SAR	100/100°	S355	2 M16-6g/8.8
664	SAR	100/100°	S355	2 M16-6g/8.8
665	SAR	100/100°	S355	2 M16-6g/8.8
666	SAR	100/100°	S355	2 M16-6g/8.8
667	SAR	100/100°	S355	2 M16-6g/8.8
668	SAR	100/100°	S355	2 M16-6g/8.8
669	SAR	100/100°	S355	2 M16-6g/8.8
670	SAR	100/100°	S355	2 M16-6g/8.8
671	SAR	100/100°	S355	2 M16-6g/8.8
672	SAR	100/100°	S355	2 M16-6g/8.8
673	SAR	100/100°	S355	2 M16-6g/8.8
674	SAR	100/100°	S355	2 M16-6g/8.8
675	SAR	100/100°	S355	2 M16-6g/8.8
676	SAR	100/100°	S355	2 M16-6g/8.8
677	SAR	100/100°	S355	2 M16-6g/8.8
678	SAR	100/100°	S355	2 M16-6g/8.8
679	SAR	100/100°	S355	2 M16-6g/8.8
680	SAR	100/100°	S355	2 M16-6g/8.8
681	SAR	100/100°	S355	2 M16-6g/8.8
682	SAR	100/100°	S355	2 M16-6g/8.8
683	SAR	100/100°	S355	2 M16-6g/8.8
684	SAR	100/100°	S355	2 M16-6g/8.8
685	SAR	100/100°	S355	2 M16-6g/8.8
686	SAR	100/100°	S355	2 M16-6g/8.8
687	SAR	100/100°	S355	2 M16-6g/8.8
688	SAR	100/100°	S355	2 M16-6g/8.8
689	SAR	100/100°	S355	2 M16-6g/8.8
690	SAR	100/100°	S355	2 M16-6g/8.8
691	SAR	100/100°	S355	2 M16-6g/8.8
692	SAR	100/100°	S355	2 M16-6g/8.8
693	SAR	100/100°	S355	2 M16-6g/8.8
694	SAR	100/100°	S355	2 M16-6g/8.8
695	SAR	100/100°	S355	2 M16-6g/8.8
696	SAR	100/100°	S355	2 M16-6g/8.8
697	SAR	100/100°	S355	2 M16-6g/8.8
698	SAR	100/100°	S355	2 M16-6g/8.8
699	SAR	100/100°	S355	2 M16-6g/8.8
700	SAR	100/100°	S355	2 M16-6g/8.8

Group Label	Angle Type	Angle Size	Material
R1	SAE	50°50°4	S235
R2	SAE	45°45°4	S235
R3	SAE	55°55°4	S235
R4	SAE	45°45°4	S235
R5	SAE	45°45°4	S235
R6	SAE	55°55°4	S235
R7	SAE	45°45°4	S235
R8	SAE	45°45°4	S235
R13	SAE	50°50°4	S235
R14	SAE	50°50°4	S235
R15	SAE	60°60°5	S235
R16	SAE	60°60°5	S235
R17	SAE	50°50°4	S235
R18	SAE	45°45°4	S235
R19	SAE	50°50°4	S235
R12-3	SAE	50°50°4	S235
R12-4	SAE	45°45°4	S235
R12-5	SAE	60°60°5	S235
R12-6	SAE	50°50°4	S235
R12-7	SAE	55°55°5	S235
R12-8	SAE	65°65°5	S235
R12-9	SAE	80°80°6	S235
R12-10	SAE	65°65°5	S235
R12-11	SAE	45°45°4	S235
R12-12	SAE	60°60°5	S235
R12-13	SAE	45°45°4	S235
R12-14	SAE	50°50°4	S235
R12-15	SAE	50°50°4	S235
R12-16	SAE	55°55°4	S235
R12-17	SAE	80°80°6	S235
R12-18	SAE	60°60°5	S235
R12-19	SAE	70°70°5	S235
R12-20	SAE	60°60°5	S235
R12-21	SAE	55°55°4	S235
R12-22	SAE	65°65°5	S235
R12-23	SAE	70°70°5	S235
R12-24	SAE	60°60°5	S235
R12-25	SAE	50°50°4	S235
R12-26	SAE	75°75°5	S235
R12-27	SAE	45°45°4	S235
R12-28	SAE	55°55°4	S235
R12-29	SAE	55°55°4	S235
R12-30	SAE	55°55°5	S235
R9-3	SAE	50°50°5	S235
R9-4	SAE	55°55°4	S235
R9-5	SAE	45°45°4	S235
R9-6	SAE	60°60°5	S235
R9-7	SAE	75°75°5	S235
R9-8	SAE	60°60°5	S235
R9-9	SAE	45°45°4	S235
R9-10	SAE	50°50°4	S235
R9-15	SAE	55°55°4	S235
R9-16	SAE	50°50°4	S235
R9-17	SAE	75°75°5	S235
R9-18	SAE	65°65°5	S235
R9-19	SAE	50°50°4	S235
R9-20	SAE	60°60°5	S235
R9-21	SAE	50°50°4	S235
R9-22	SAE	70°70°5	S235
R9-23	SAE	45°45°4	S235
R9-24	SAE	55°55°4	S235

Bolts	Group Label	Angle Type	Angle Size
2M-(16)8	R9-27	SA	55°55'55"
2M-(16)8	R9-28	SA	55°55'55"
2M-(16)8	R6-3	SA	50°50'05"
1M-(16)8	R6-4	SA	55°55'54"
1M-(16)8	R6-5	SA	65°65'55"
1M-(16)8	R6-6	SA	75°65'55"
1M-(16)8	R6-7	SA	55°55'55"
1M-(16)8	R6-8	SA	45°45'54"
1M-(16)8	R6-9	SA	60°60'05"
1M-(16)8	R6-10	SA	45°45'54"
1M-(16)8	R6-11	SA	45°45'54"
1M-(16)8	R6-12	SA	55°55'55"
1M-(16)8	R6-15	SA	45°45'54"
1M-(16)8	R6-16	SA	70°70'05"
1M-(16)8	R6-17	SA	45°45'54"
1M-(16)8	R6-18	SA	50°50'04"
1M-(16)8	R6-19	SA	35°35'55"
1M-(16)8	R6-20	SA	55°55'55"
1M-(16)8	R3-3	SA	50°50'04"
1M-(16)8	R3-4	SA	55°55'55"
1M-(16)8	R3-5	SA	60°60'05"
1M-(16)8	R3-6	SA	45°45'54"
1M-(16)8	R3-7	SA	50°50'04"
1M-(16)8	R3-8	SA	50°50'04"
1M-(16)8	R3-9	SA	45°45'54"
1M-(16)8	R3-10	SA	65°65'55"
1M-(16)8	R3-11	SA	45°45'54"
1M-(16)8	R3-12	SA	50°50'04"
1M-(16)8	R3-15	SA	55°55'55"
1M-(16)8	R3-16	SA	55°55'54"
1M-(16)8	R3-17	SA	55°55'54"
1M-(16)8	R0-2	SA	45°45'54"
1M-(16)8	R0-3	SA	60°60'05"
1M-(16)8	R0-4	SA	45°45'54"
1M-(16)8	R0-5	SA	45°45'54"
1M-(16)8	R0-6	SA	35°35'55"
1M-(16)8	R0-7	SA	55°55'55"
1M-(16)8	R3-1	SA	55°55'55"
1M-(16)8	R3-2	SA	55°55'54"
1M-(16)8	R16-1	SA	50°50'04"
1M-(16)8	R16-2	SA	45°45'54"
1M-(16)8	R16-3	SA	65°65'55"
1M-(16)8	R16-4	SA	55°55'55"
1M-(16)8	R16-5	SA	60°60'05"
1M-(16)8	R16-6	SA	45°45'54"
1M-(16)8	R16-7	SA	50°50'05"
1M-(16)8	R16-8	SA	45°45'54"
1M-(16)8	R16-9	SA	50°50'04"
1M-(16)8	R16-10	SA	45°45'54"
1M-(16)8	R16-11	SA	45°45'54"
1M-(16)8	R16-12	SA	60°60'05"
1M-(16)8	R16-13	SA	45°45'54"
1M-(16)8	R16-14	SA	75°75'55"
1M-(16)8	R16-15	SA	55°55'55"
1M-(16)8	R16-16	SA	45°45'54"
1M-(16)8	R16-17	SA	45°45'54"
1M-(16)8	R16-18	SA	45°45'54"

Material	Bolts	Group Label	Angle Type
S235	IM-16(8.8)	RLE-19	SAE
S235	IM-16(8.8)	RL4-5.1	SAE
S235	IM-16(8.8)	RL4-5.2	SAE
S235	IM-16(8.8)	RL4-5.3	SAE
S235	IM-16(8.8)	RL4-5.4	SAE
S235	IM-16(8.8)	RL4-5.5	SAE
S235	IM-16(8.8)	RL4-5.6	SAE
S235	IM-16(8.8)	RL4-5.7	SAE
S235	IM-16(8.8)	RL4-5.8	SAE
S235	IM-16(8.8)	RL4-5.9	SAE
S235	IM-16(8.8)	RL4-5.10	SAE
S235	IM-16(8.8)	RL4-5.11	SAE
S235	IM-16(8.8)	RL4-5.12	SAE
S235	IM-16(8.8)	RL4-5.13	SAE
S235	IM-16(8.8)	RL4-5.14	SAE
S235	IM-16(8.8)	RL4-5.15	SAE
S235	IM-16(8.8)	RL4-5.16	SAE
S235	IM-16(8.8)	RL4-5.17	SAE
S235	IM-16(8.8)	RL3-2	SAE
S235	IM-16(8.8)	RL3-3	SAE
S235	IM-16(8.8)	RL3-4	SAE
S235	IM-16(8.8)	RL3-5	SAE
S235	IM-16(8.8)	RL3-6	SAE
S235	IM-16(8.8)	RL3-7	SAE
S235	IM-16(8.8)	RL3-8	SAE
S235	IM-16(8.8)	RL3-9	SAE
S235	IM-16(8.8)	RL3-10	SAE
S235	IM-16(8.8)	RL3-11	SAE
S235	IM-16(8.8)	RL3-12	SAE
S235	IM-16(8.8)	RL3-13	SAE
S235	IM-16(8.8)	RL3-14	SAE
S235	IM-16(8.8)	RL5-2	SAE
S235	IM-16(8.8)	RL5-3	SAE
S235	IM-16(8.8)	RL5-4	SAE
S235	IM-16(8.8)	RL5-5	SAE
S235	IM-16(8.8)	RL5-6	SAE
S235	IM-16(8.8)	RL5-7	SAE
S235	IM-16(8.8)	RL5-8	SAE
S235	IM-16(8.8)	RL5-10	SAE
S235	IM-16(8.8)	RL5-11	SAE
S235	IM-16(8.8)	RL0-1	SAE
S235	IM-16(8.8)	RL0-2	SAE
S235	IM-16(8.8)	RL0-3	SAE
S235	IM-16(8.8)	RL0-4	SAE
S235	IM-16(8.8)	RL0-5	SAE
S235	IM-16(8.8)	RL0-6	SAE
S235	IM-16(8.8)	RL0-7	SAE
S235	IM-16(8.8)	RL0-8	SAE
S235	IM-16(8.8)	RL1-5.1	SAE
S235	2M-16(8.8)	RL1-5.3	SAE
S235	IM-16(8.8)	RL1-5.4	SAE
S235	IM-16(8.8)	RL1-5.5	SAE
S235	IM-16(8.8)	RL3-1	SAE
S235	IM-16(8.8)	RL3-2	SAE
S235	IM-16(8.8)	RL3-3	SAE
S235	IM-16(8.8)	RL3-4	SAE

Angle Size	Material	Bolts
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
60°x60°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
55°x55°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
75°x75°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
60°x60°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
65°x65°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
60°x60°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
55°x55°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
75°x75°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
75°x75°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
50°x50°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
70°x70°	S235	IM-16 (8-B)
55°x55°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
45°x45°	S235	IM-16 (8-B)
70°x70°	S235	IM-16 (8-B)

00	First Submission	08.04.22	S.Celebi
REV:	DESCRIPTION :	DATE	BY
PROJECT NAME :			
Open Programme Extension of the Transmission Network II			
BMZ No. 2015 68 286			
Contract Identification No. KfW/D5/OHL-TD-Lot 2			
EMPLOYER :			
JSC Georgian State Electrosystem (GSE)			
Baratashvili Street, Tbilisi, Georgia, 0105			
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ENGINEER :			
Fichtner GmbH & Co. KG			
Sarweystrasse 370191 Stuttgart / Germany			
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CONTRACTOR :			
Mitas Energy and Metal Constuction Inc.			
Eski Givircilerci Yolu No: 113 - Gazl - Ankara / Turkey			
 info@mitasenergy.com			
APPROVAL AREA :		STATUS :	
REVIEWED BY :		AP	☐
		AC	☐
DATE OF REVIEW :		NA	☐
APPROVED BY :		TITLE :	
	S.SAHIN		
CHECKED BY :		DETAILED TOWER DRAWING OF TOWER TYPE 12B-LC	
	S. SAHIN		
DESIGNED BY :			
	S.CELEBI		
DRAWN BY :			
	S.CELEBI		
DATE OF ISSUE :			
	08.04.2022		
SCALE:	DOC NO.:	REV.:	PAGE:
N.A.	715A07-EGR-TWR-DWG-0428_00	0	3 of 3