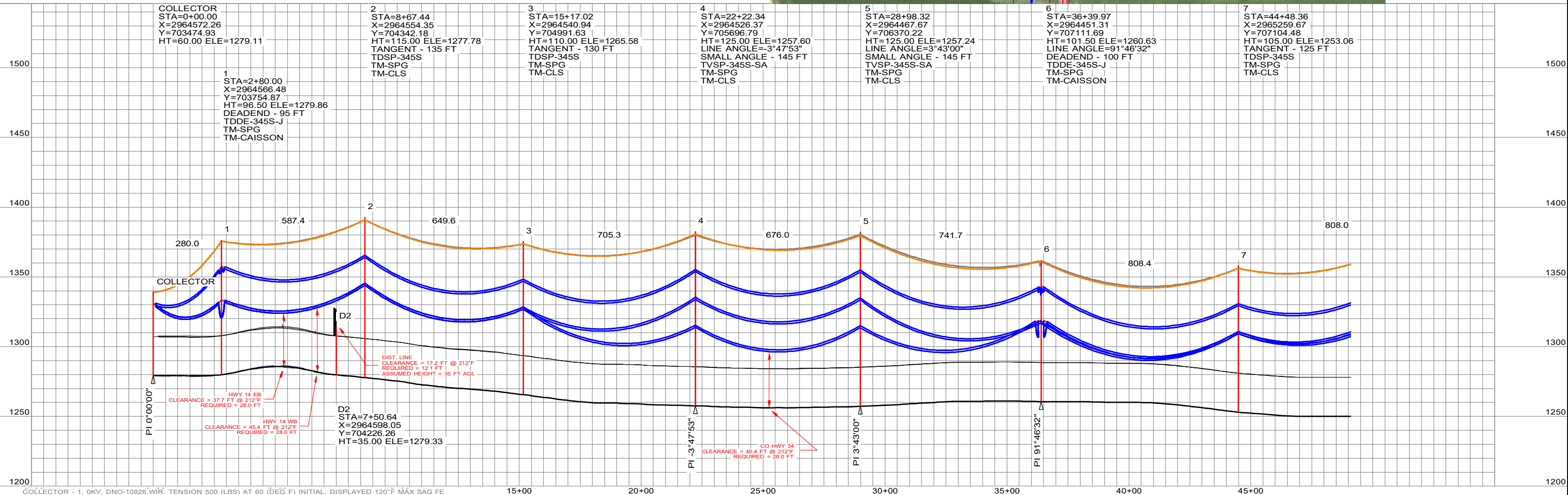


Point	STA	X	Y	HT	ELE	Notes
COLLECTOR	0+00.00	2964572.26	703474.93	60.00	1279.11	
1	2+80.00	2964566.48	703754.87	95.00	1279.86	DEADEND - 95 FT TM-SPG TM-CAISSON
2	8+67.44	2964554.35	704342.18	115.00	1277.78	TANGENT - 135 FT TDSP-345S TM-SPG TM-CLS
3	15+17.02	2964540.94	704991.63	110.00	1265.58	TANGENT - 130 FT TDSP-345S TM-SPG TM-CLS
4	22+22.34	2964526.37	705696.79	125.00	1257.60	LINE ANGLE = -3°47'53" SMALL ANGLE - 145 FT TVSP-345S-SA TM-SPG TM-CLS
5	28+98.32	2964467.67	706370.22	125.00	1257.24	LINE ANGLE = 3°43'00" SMALL ANGLE - 145 FT TVSP-345S-SA TM-SPG TM-CLS
6	36+39.97	2964451.31	707111.69	101.50	1260.63	LINE ANGLE = 91°46'32" DEADEND - 100 FT TDDE-345S-J TM-SPG TM-CAISSON
7	44+48.36	2965259.67	707104.48	105.00	1253.06	TANGENT - 125 FT TDSP-345S TM-SPG TM-CLS



COLLECTOR - 1, 0KV, DNO-10926 WIR, TENSION 500 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 1 - 6, 0KV, DNO-10926 7000CAT.WIR, TENSION 3124 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 6 - 8, 0KV, DNO-10926 6500CAT.WIR, TENSION 2777 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 COLLECTOR - 1, 0KV, 3-8 EHS.WIR, TENSION 350 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 1 - 6, 0KV, 3-8 EHS 7000CAT.WIR, TENSION 1912 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 6 - 8, 0KV, 3-8 EHS 6500CAT.WIR, TENSION 1774 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
 COLLECTOR - 1, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 1000 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE
 1 - 6, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 5859 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE
 6 - 8, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 6120 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE

- NOTES:**
 1. GROUND CLEARANCE LINE SHOWN AT 28 FT WITH WIRES DISPLAYED AT 212°F
 2. XY COORDINATES ARE MINNESOTA SOUTH, STATE PLANE NAD83, US SURVEY FT



NO	REVISION	DATE	BY	APR
A	ISSUED FOR PRELIMINARY DESIGN	03/26/21	KCJ	DCE

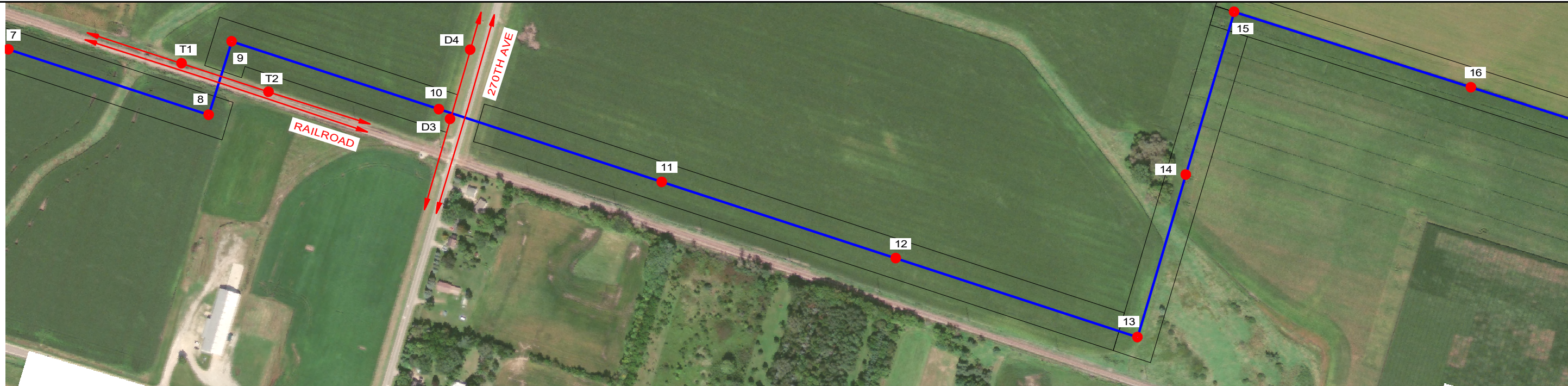


ENGINEERING RECORD		DATE
DRAWN	K. JOHNSON	03/26/21
DESIGNED	K. JOHNSON	03/26/21
CHECKED	D. EVANS	03/26/21
APPROVED		

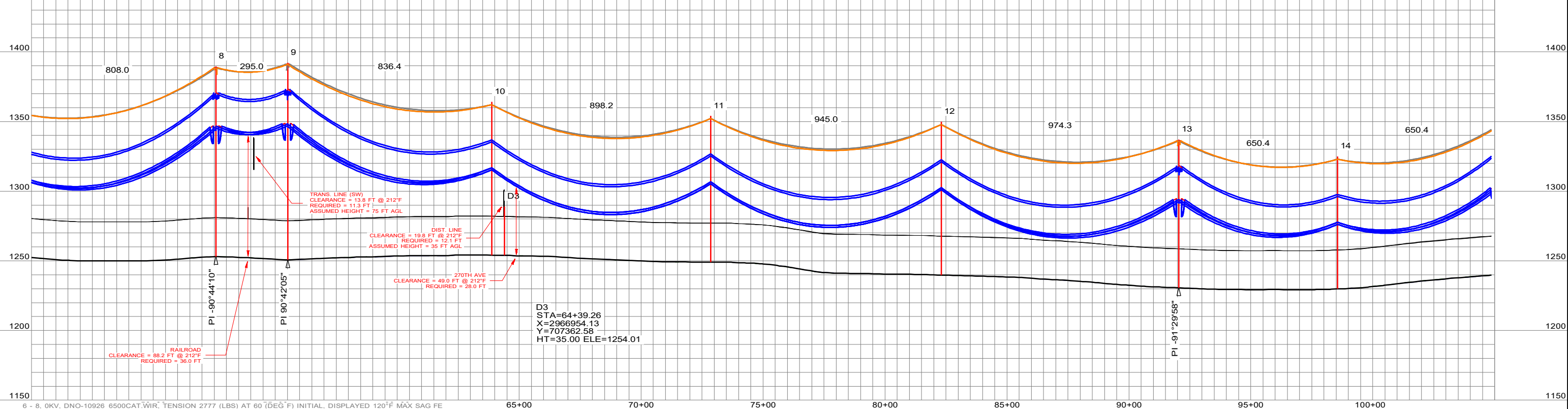
VERT. SCALE: 1" = 70'
 HORZ. SCALE: 1" = 400'

BYRON SOLAR 345 KV TRANSMISSION LINE
PLAN AND PROFILE
 STA -5+00 TO STA 49+10

BYS-B-T004-01 REVISION NO: A



<p>8 STA=52+56.31 X=2966067.59 Y=707097.27 HT=136.50 ELE=1253.06 LINE ANGLE=-90°44'10" DEADEND - 135 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>9 STA=55+51.35 X=2966066.43 Y=707392.30 HT=141.50 ELE=1250.66 LINE ANGLE=90°42'05" DEADEND - 140 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>10 STA=63+87.73 X=2966902.78 Y=707385.35 HT=110.00 ELE=1254.04 TANGENT - 130 FT TDSP-345S TM-SPG TM-CLS</p>	<p>11 STA=72+85.89 X=2967800.91 Y=707377.89 HT=105.00 ELE=1249.01 TANGENT - 125 FT TDSP-345S TM-SPG TM-CLS</p>	<p>12 STA=82+30.93 X=2968745.91 Y=707370.03 HT=110.00 ELE=1239.80 TANGENT - 130 FT TDSP-345S TM-SPG TM-CLS</p>	<p>13 STA=92+05.24 X=2969720.19 Y=707361.94 HT=106.50 ELE=1230.65 LINE ANGLE=-91°29'58" DEADEND - 105 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>14 STA=98+55.66 X=2969708.58 Y=708012.25 HT=95.00 ELE=1229.89 TANGENT - 115 FT TDSP-345S TM-SPG TM-CLS</p>
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6 - 8, 0KV, DNO-10926 6500CAT.WIR, TENSION 2777 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
8 - 9, 0KV, DNO-10926 3500CAT.WIR, TENSION 1608 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
9 - 13, 0KV, DNO-10926 7000CAT.WIR, TENSION 2970 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
13 - 15, 0KV, DNO-10926 6000CAT.WIR, TENSION 2622 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
6 - 8, 0KV, 3-8 EHS 6500CAT.WIR, TENSION 1774 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
8 - 9, 0KV, 3-8 EHS 3500CAT.WIR, TENSION 954 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
9 - 13, 0KV, 3-8 EHS 7000CAT.WIR, TENSION 1912 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
13 - 15, 0KV, 3-8 EHS 6000CAT.WIR, TENSION 1637 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE
6 - 8, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 6120 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE
8 - 9, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 3000 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE
9 - 13, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 6229 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE
13 - 15, 345KV, DRAKE_ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 5853 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE

NOTES:
 1. GROUND CLEARANCE LINE SHOWN AT 28 FT WITH WIRES DISPLAYED AT 212°F
 2. XY COORDINATES ARE MINNESOTA SOUTH, STATE PLANE NAD83, US SURVEY FT



A	ISSUED FOR PRELIMINARY DESIGN	03/26/21	KCJ	DCE
NO	REVISION	DATE	BY	APR



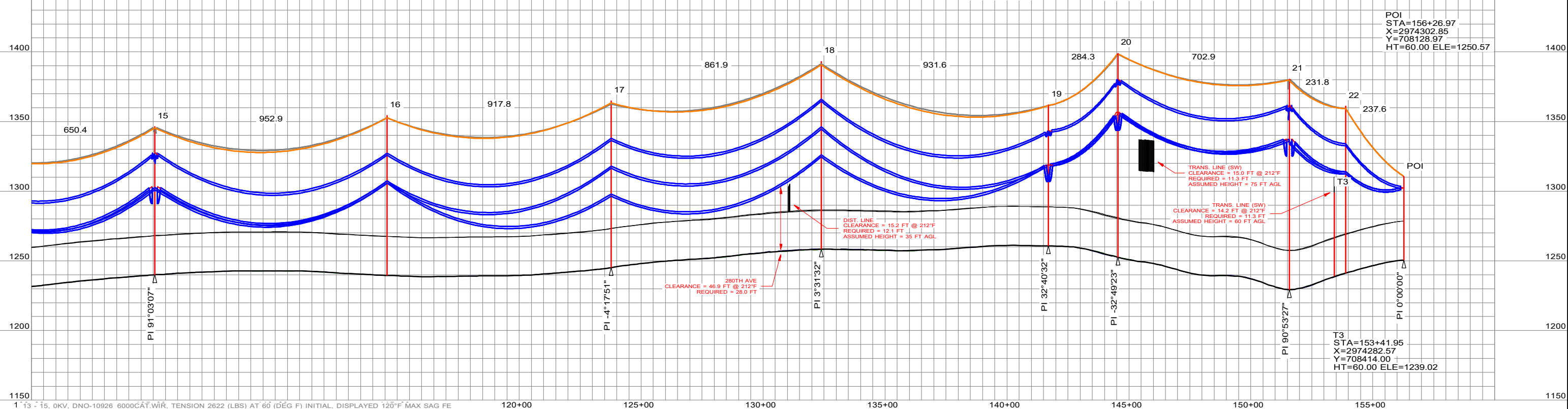
ENGINEERING RECORD		DATE
DRAWN	K. JOHNSON	03/26/21
DESIGNED	K. JOHNSON	03/26/21
CHECKED	D. EVANS	03/26/21
APPROVED		
VERT. SCALE: 1" = 70'		HORZ. SCALE: 1" = 400'

**BYRON SOLAR 345 KV TRANSMISSION LINE
 PLAN AND PROFILE
 STA 45+00 TO STA 104+87**

BYS-B-T004-02 REVISION NO: A



<p>15 STA=105+06.07 X=2969696.96 Y=708662.56 HT=106.50 ELE=1240.02 LINE ANGLE=91°03'07" DEADEND - 105 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>16 STA=114+59.00 X=2970649.88 Y=708662.09 HT=115.00 ELE=1239.53 TANGENT - 135 FT TDSP-345S TM-SPG TM-CLS</p>	<p>17 STA=123+76.82 X=2971567.70 Y=708661.63 HT=120.00 ELE=1245.13 LINE ANGLE=-4°17'51" SMALL ANGLE - 140 FT TVSP-345S-SA TM-SPG TM-CLS</p>	<p>18 STA=132+38.70 X=2972427.20 Y=708725.78 HT=135.00 ELE=1258.29 LINE ANGLE=3°31'32" SMALL ANGLE - 155 FT TVSP-345S-SA TM-SPG TM-CLS</p>	<p>19 STA=141+70.35 X=2973358.77 Y=708737.87 HT=101.50 ELE=1260.78 LINE ANGLE=32°40'32" DEADEND - 100 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>20 STA=144+54.70 X=2973600.08 Y=708587.47 HT=146.50 ELE=1252.66 LINE ANGLE=-32°49'23" DEADEND - 145 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>21 STA=151+57.55 X=2974302.85 Y=708598.40 HT=151.50 ELE=1229.27 LINE ANGLE=90°53'27" DEADEND - 150 FT TDDE-345S-J TM-SPG TM-CAISSON</p>	<p>22 STA=153+89.40 X=2974302.85 Y=708366.55 HT=120.00 ELE=1241.23 TANGENT - 140 FT TDSP-345S TM-SPG TM-CLS</p>
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13 - 15, 0KV, DNO-10926 6000CAT.WIR, TENSION 2622 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE	120+00	125+00	130+00	135+00	140+00	145+00	150+00	155+00
15 - 19, 0KV, DNO-10926 7000CAT.WIR, TENSION 2957 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
19 - 20, 0KV, DNO-10926 1750CAT.WIR, TENSION 696 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
20 - 21, 0KV, DNO-10926 WIR, TENSION 3200 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
21 - POI, 0KV, DNO-10926 1750CAT.WIR, TENSION 721 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
13 - 15, 0KV, 3-8 EHS 6000CAT.WIR, TENSION 1637 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
15 - 19, 0KV, 3-8 EHS 7000CAT.WIR, TENSION 1911 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
19 - 20, 0KV, 3-8 EHS 1750CAT.WIR, TENSION 478 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
20 - 21, 0KV, 3-8 EHS.WIR, TENSION 2000 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
21 - POI, 0KV, 3-8 EHS 1750CAT.WIR, TENSION 478 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 120°F MAX SAG FE								
13 - 15, 345KV, DRAKE ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 5853 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE								
15 - 19, 345KV, DRAKE ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 6258 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE								
19 - 20, 345KV, DRAKE ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 1500 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE								
20 - 21, 345KV, DRAKE ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 5955 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE								
21 - POI, 345KV, DRAKE ACSR.WIR, 3 PHASES, BUNDLE OF 2, TENSION 1500 (LBS) AT 60 (DEG F) INITIAL, DISPLAYED 212°F (100°C) MAX SAG FE								

NOTES:
 1. GROUND CLEARANCE LINE SHOWN AT 28 FT WITH WIRES DISPLAYED AT 212°F
 2. XY COORDINATES ARE MINNESOTA SOUTH, STATE PLANE NAD83, US SURVEY FT



A	ISSUED FOR PRELIMINARY DESIGN	03/26/21	KCJ	DCE
NO	REVISION	DATE	BY	APR



ENGINEERING RECORD		DATE
DRAWN	K. JOHNSON	03/26/21
DESIGNED	K. JOHNSON	03/26/21
CHECKED	D. EVANS	03/26/21
APPROVED		
VERT. SCALE: 1" = 70'	HORZ. SCALE: 1" = 400'	

**BYRON SOLAR 345 KV TRANSMISSION LINE
 PLAN AND PROFILE
 STA 100+00 TO STA 157+06**

BYB-B-T004-03 REVISION NO: A