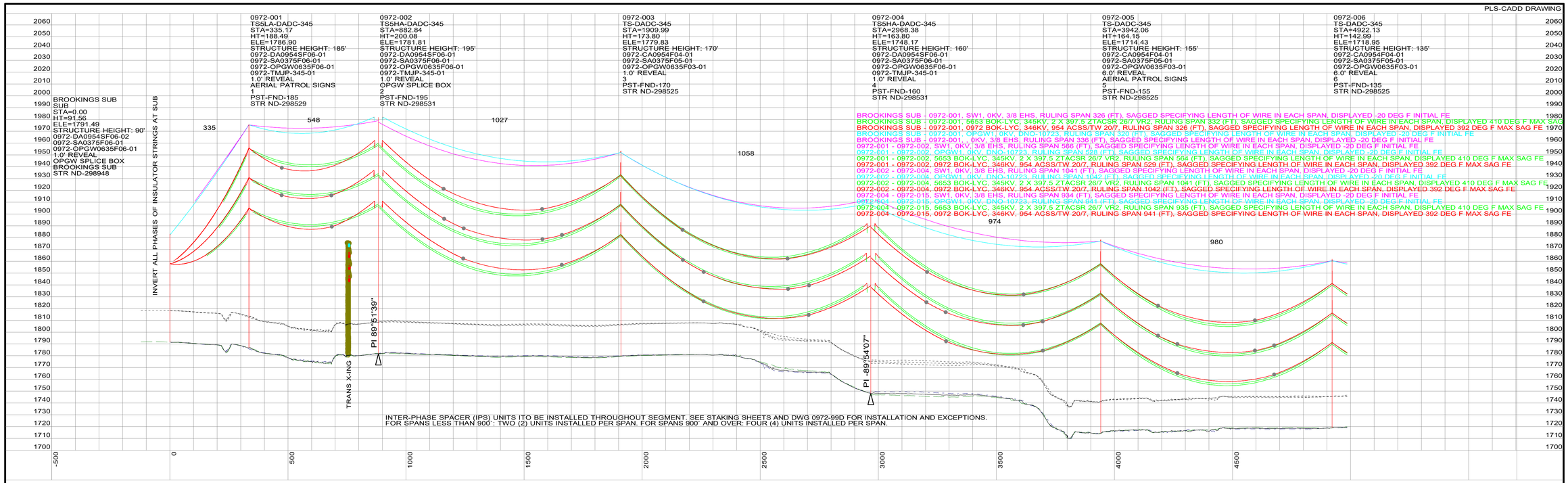
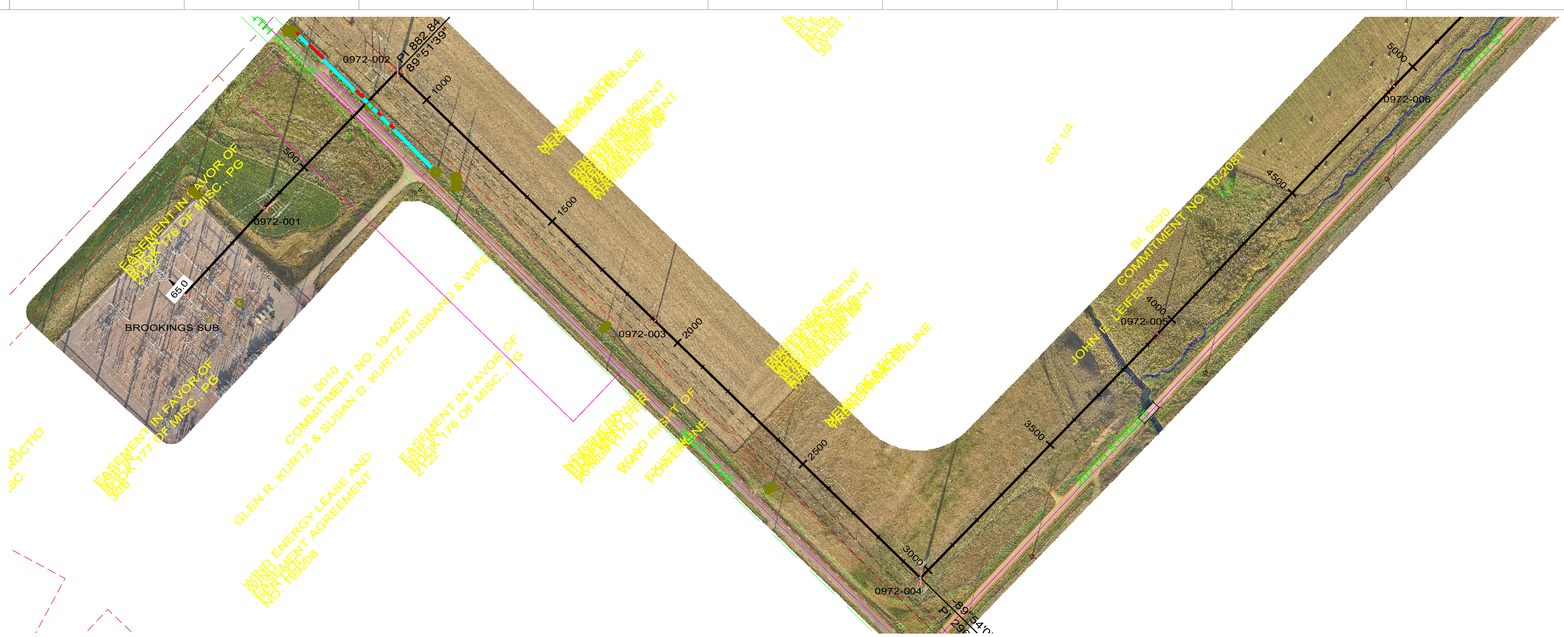
PLS-CADD DRAWING





NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA

CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 1 OF 56

PLS-CADD DRAWING

0972-006
TS-DADC-345
STA=4922.13
HT=142.99
ELE=1718.95
STRUCTURE HEIGHT: 135'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
6.0" REVEAL
6
PST-FND-135
STR ND-298525

0972-007
LAS-DADC-345
STA=5901.63
HT=160.25
ELE=1721.69
STRUCTURE HEIGHT: 150'
0972-CA0954F04-02
0972-SA0375F05-01
0972-OPGW0635F03-01
5.0" REVEAL
7
PST-FND-150
STR ND-298526

0972-008
LAS-DADC-345
STA=6900.55
HT=149.24
ELE=1748.12
STRUCTURE HEIGHT: 145'
0972-CA0954F04-02
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
8
PST-FND-145
STR ND-298526

0972-009
TS-DADC-345
STA=7710.43
HT=132.95
ELE=1766.96
STRUCTURE HEIGHT: 130'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
9
PST-FND-130
STR ND-298525

0972-010
TS-DADC-345
STA=8519.88
HT=142.50
ELE=1780.47
STRUCTURE HEIGHT: 140'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
AERIAL PATROL SIGNS
10
PST-FND-140
STR ND-298525

0972-011
TS-DADC-345
STA=9329.43
HT=132.82
ELE=1812.77
STRUCTURE HEIGHT: 130'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
11
PST-FND-130
STR ND-298525

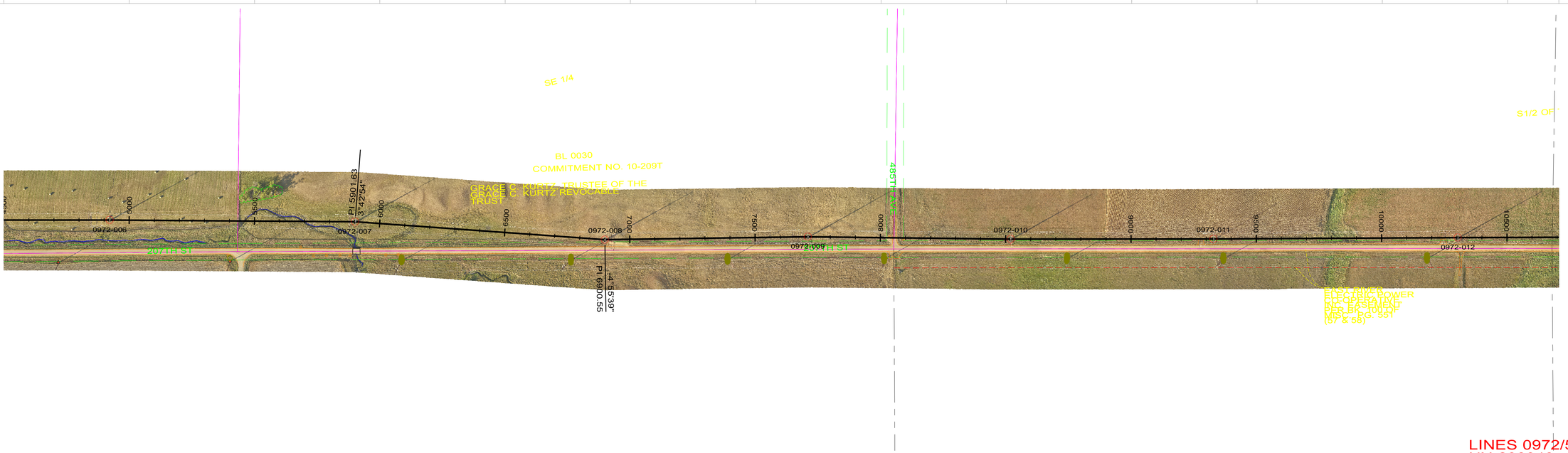
0972-012
TS-DADC-345
STA=10304.04
HT=137.38
ELE=1818.62
STRUCTURE HEIGHT: 135'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
12
PST-FND-135
STR ND-298525

0972-004 - 0972-015, SW1, 0KV, 3/8 EHS, RULING SPAN 934 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-004 - 0972-015, OPGW1, 0KV, DNO-10723, RULING SPAN 941 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-004 - 0972-015, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 935 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-004 - 0972-015, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 941 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE

980 999 810 809 810 975

PI 3°42'54"
PI -4°55'39"

5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000 10500



NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #20972 FINAL AS-BUIL T LIDAR	MWB	MWB	HWD	4/22/2016

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

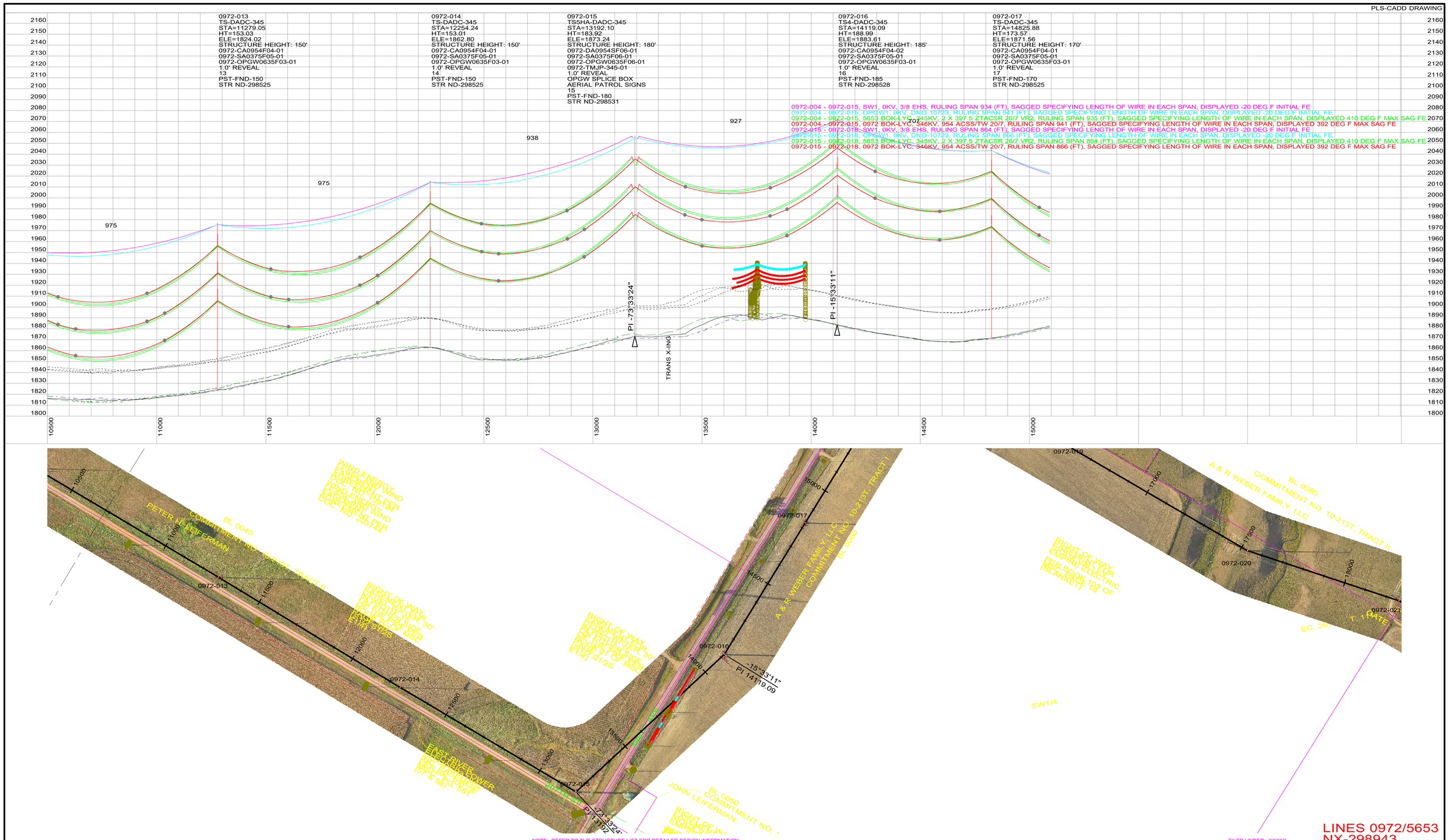
GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 2 OF 56

PLS-CADD DRAWING



LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY S.M.

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

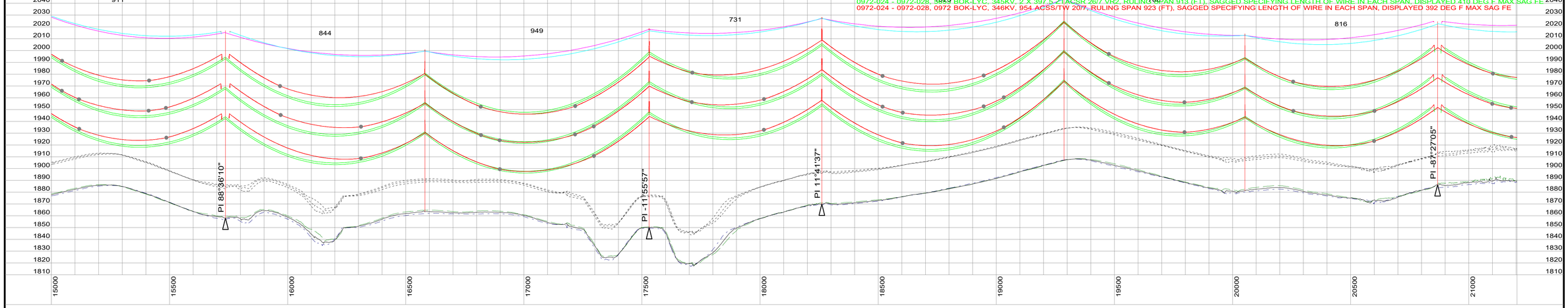
200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

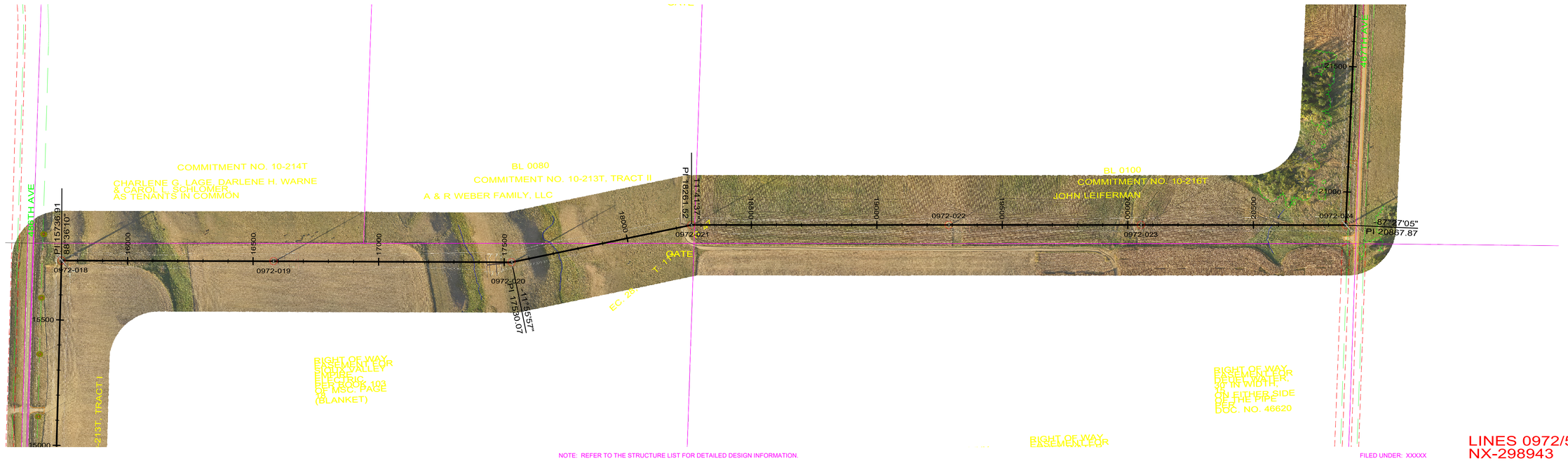
DWG. NO.
0972-91D
REVISION: 17
SHEET 3 OF 56

PLS-CADD DRAWING

0972-018	0972-019	0972-020	0972-021	0972-022	0972-023	0972-024
TS5HA-DADC-345	TS-DADC-345	TS3-DADC-345	TS3-DADC-345	TS-DADC-345	TS-DADC-345	TS5HA-DADC-345
STA=15736.91	STA=16581.24	STA=17530.07	STA=18261.52	STA=19286.64	STA=20052.33	STA=20867.87
HT=158.90	HT=137.56	HT=169.03	HT=158.53	HT=138.18	HT=133.04	HT=138.40
ELE=1858.08	ELE=1863.48	ELE=1849.99	ELE=1869.91	ELE=1906.98	ELE=1881.29	ELE=1886.26
STRUCTURE HEIGHT: 155'	STRUCTURE HEIGHT: 135'	STRUCTURE HEIGHT: 165'	STRUCTURE HEIGHT: 155'	STRUCTURE HEIGHT: 135'	STRUCTURE HEIGHT: 130'	STRUCTURE HEIGHT: 135'
0972-DA0954SF06-01	0972-CA0954F04-01	0972-CA0954F04-02	0972-CA0954F04-02	0972-CA0954F04-01	0972-CA0954F04-01	0972-DA0954SF06-01
0972-SA0375F06-01	0972-SA0375F05-01	0972-SA0375F05-01	0972-SA0375F05-01	0972-SA0375F05-01	0972-SA0375F05-01	0972-SA0375F06-01
0972-OPGW0635F06-01	0972-OPGW0635F03-01	0972-OPGW0635F03-01	0972-OPGW0635F03-01	0972-OPGW0635F03-01	0972-OPGW0635F03-01	0972-OPGW0635F06-01
0972-TMJP-345-01	1.0' REVEAL	1.0' REVEAL	1.0' REVEAL	1.0' REVEAL	1.0' REVEAL	0972-TMJP-345-01
1.0' REVEAL	19	AERIAL PATROL SIGNS	21	22	23	1.0' REVEAL
18	PST-FND-135	20	PST-FND-155	PST-FND-135	PST-FND-130	24
PST-FND-155	STR ND-298525	PST-FND-165	STR ND-298527	STR ND-298525	STR ND-298525	PST-FND-135
STR ND-298531		STR ND-298527				STR ND-298531

0972-015 - 0972-018, SW1, 0KV, 3/8 EHS, RULING SPAN 864 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-015 - 0972-018, OPGW1, 0KV, DNO-10723, RULING SPAN 866 (FT), SAGGED SPECIFYING LENGTHS OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-015 - 0972-018, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 864 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-015 - 0972-018, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 866 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-018 - 0972-024, SW1, 0KV, 3/8 EHS, RULING SPAN 874 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-018 - 0972-024, OPGW1, 0KV, DNO-10723, RULING SPAN 873 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-018 - 0972-024, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 874 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-018 - 0972-024, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 873 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-024 - 0972-028, SW1, 0KV, 3/8 EHS, RULING SPAN 912 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-024 - 0972-028, OPGW1, 0KV, DNO-10723, RULING SPAN 923 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-024 - 0972-028, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 912 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-024 - 0972-028, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 923 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE





NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REV	DESCRIPTION	DWN	DGN	CHK	DATE
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

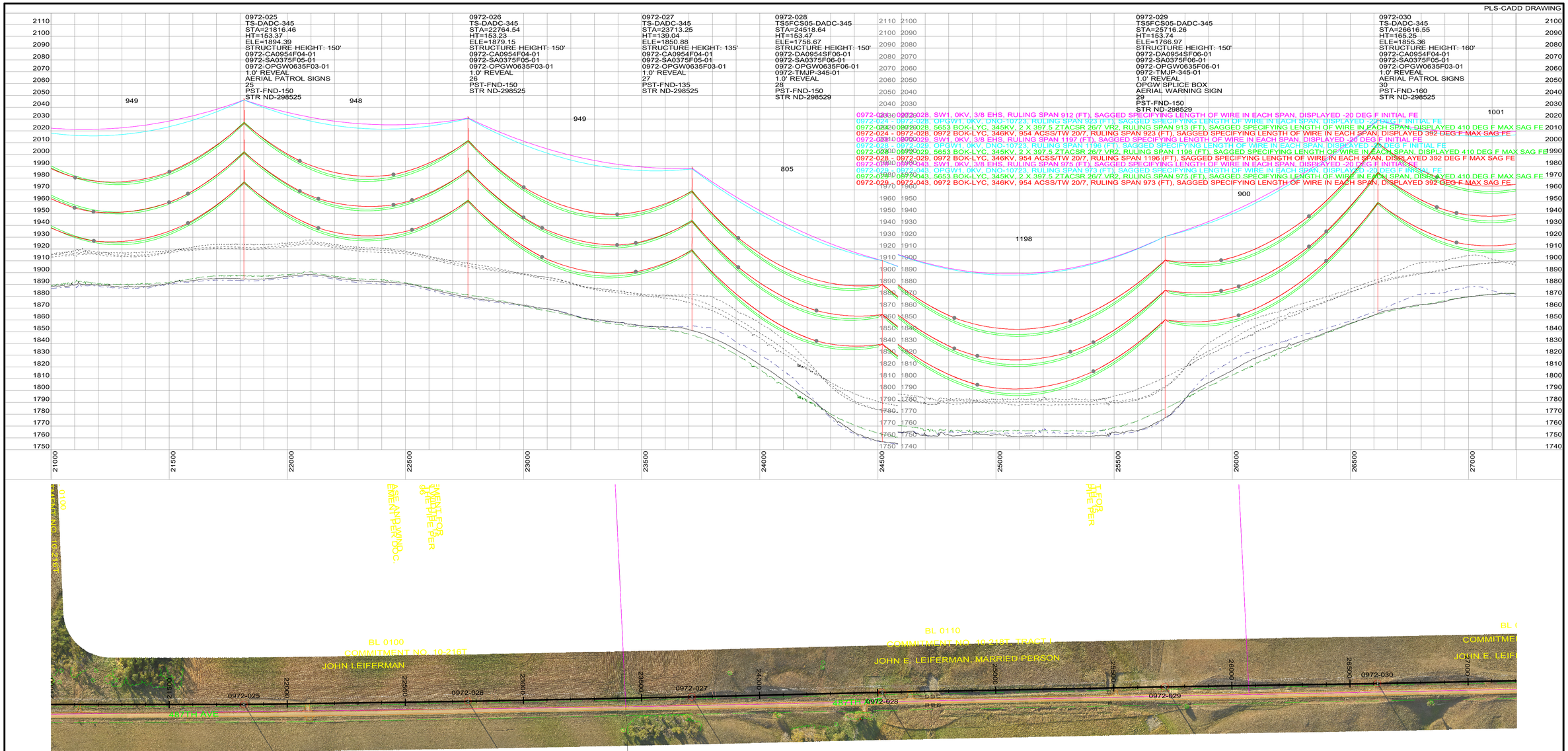
GREAT RIVER ENERGY S.M.

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17

PLS-CADD DRAWING



NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

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LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #200969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 5 OF 56

PLS-CADD DRAWING

0972-031
TS-DADC-345
STA=27617.20
HT=154.59
ELE=1873.59
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
31
PST-FND-150
STR ND-298525

0972-032
TS-DADC-345
STA=28616.92
HT=158.75
ELE=1880.15
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
32
PST-FND-155
STR ND-298525

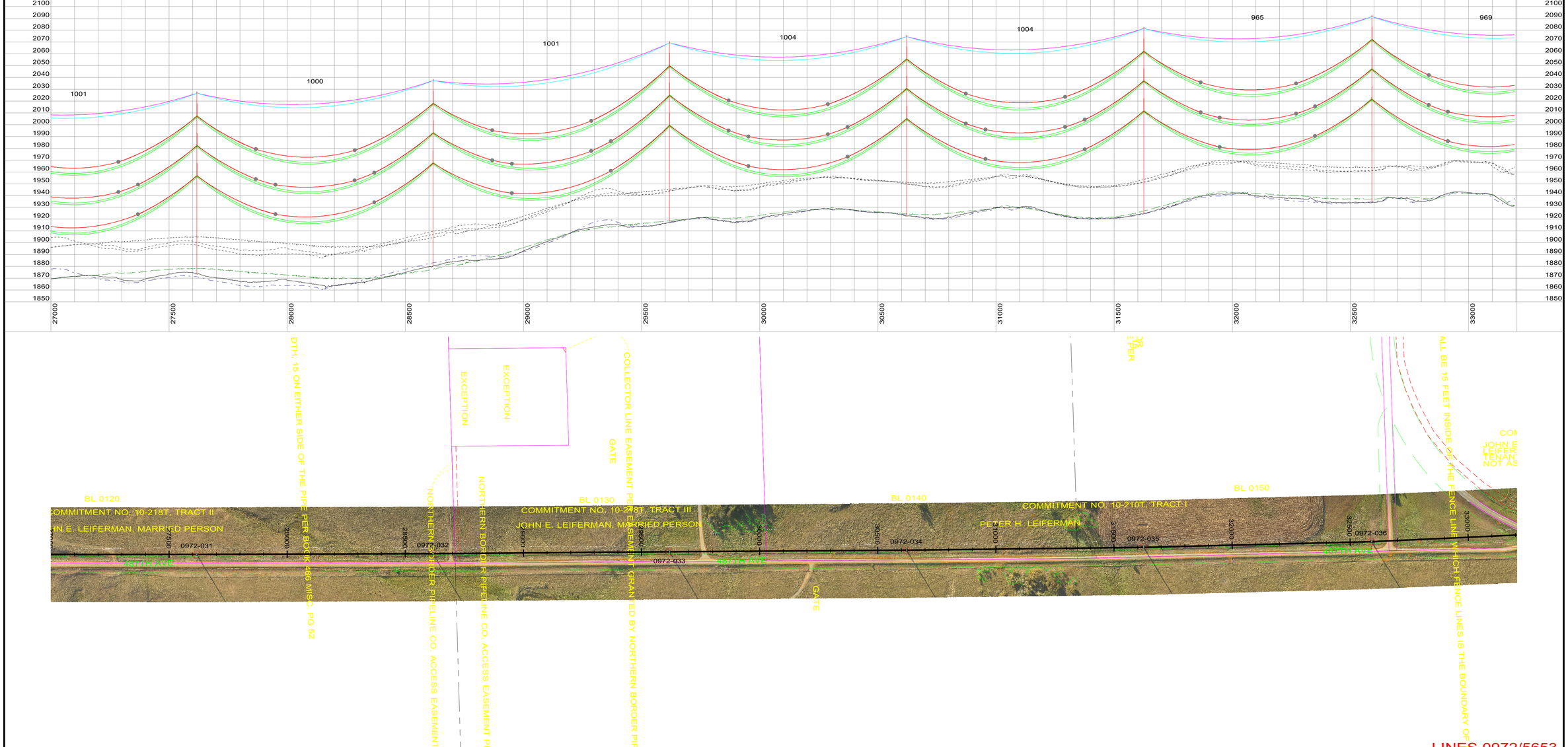
0972-033
TS-DADC-345
STA=29617.94
HT=153.45
ELE=1917.34
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
33
PST-FND-150
STR ND-298525

0972-034
TS-DADC-345
STA=30621.59
HT=153.31
ELE=1922.78
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
34
PST-FND-150
STR ND-298525

0972-035
TS-DADC-345
STA=31625.30
HT=158.50
ELE=1924.49
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
AERIAL PATROL SIGNS
AERIAL WARNING SIGN
35
PST-FND-155
STR ND-298525

0972-036
TS-DADC-345
STA=32590.34
HT=158.89
ELE=1934.13
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
36
PST-FND-155
STR ND-298525

0972-029 - 0972-043, SW1, 0KV, 3/8 EHS, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, OPGW1, 0KV, DNO-10723, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-029 - 0972-043, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE



NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001830 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001830 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 6 OF 56

PLS-CADD DRAWING

0972-037
LAS-DADC-345
STA=33559.51
HT=153.31
ELE=1935.40
STRUCTURE HEIGHT: 150'
0972-CA0954F04-02
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
AERIAL PATROL SIGNS
37
PST-FND-150
STR ND-298526

0972-038
TS-DADC-345
STA=34522.31
HT=148.45
ELE=1933.43
STRUCTURE HEIGHT: 145'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
38
PST-FND-145
STR ND-298525

0972-039
TS-DADC-345
STA=35484.83
HT=143.09
ELE=1905.49
STRUCTURE HEIGHT: 140'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
39
PST-FND-140
STR ND-298525

0972-040
TS-DADC-345
STA=36447.86
HT=144.01
ELE=1906.98
STRUCTURE HEIGHT: 140'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
AERIAL PATROL SIGNS
40
PST-FND-140
STR ND-298525

0972-041
TS-DADC-345
STA=37410.50
HT=153.81
ELE=1913.57
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
41
PST-FND-150
STR ND-298525

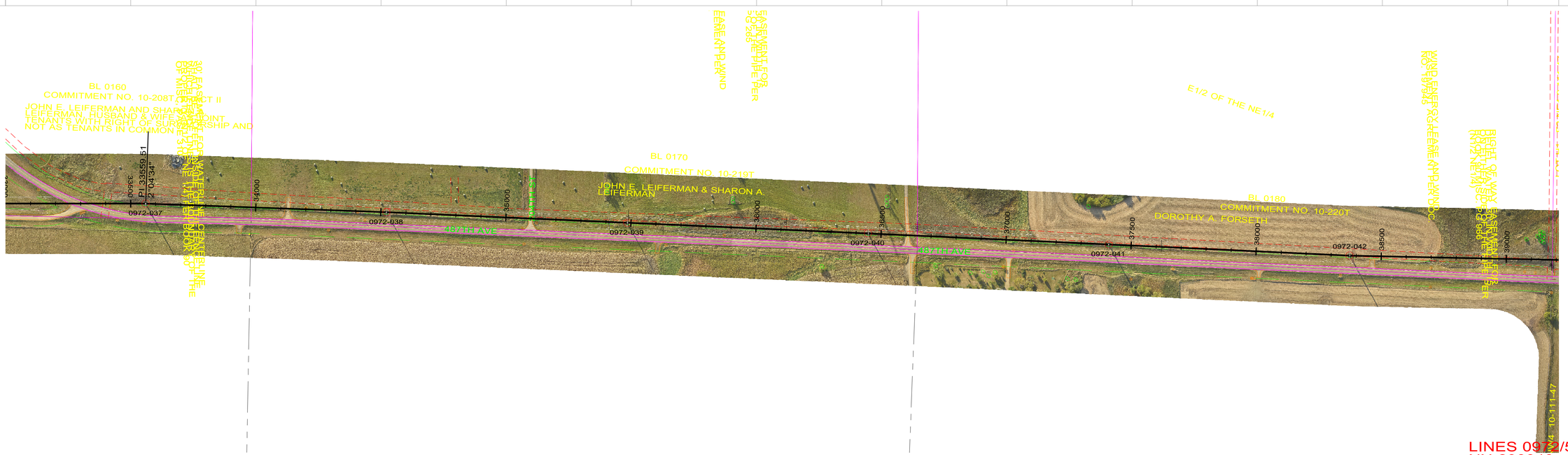
0972-042
TS-DADC-345
STA=38373.15
HT=153.12
ELE=1921.20
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0" REVEAL
42
PST-FND-150
STR ND-298525

0972-029 - 0972-043, SW1, 0KV, 3/8 EHS, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, OPGW1, 0KV, DNO-10723, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-029 - 0972-043, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE

969 963 963 963 963 963 971

CONDUCTOR SPLICES

PI 2°04'34"



NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

POWER ENGINEERS

REVISIONS					
16	IFC - XCEL WBS # A-0001908 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A-0001908 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A-0001839 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169/186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 7 OF 56

PLS-CADD DRAWING

0972-043
TS5HA-DADC-345
STA=39343.78
HT=143.74
ELE=1916.45
STRUCTURE HEIGHT: 140'
0972-DA0954SF06-01
0972-SA0375F06-01
0972-OPGW0635F06-01
0972-TMJP-345-01
1.0' REVEAL
AERIAL PATROL SIGNS
43
PST-FND-140
STR ND-298531

0972-044
TS-DADC-345
STA=40102.98
HT=158.78
ELE=1898.58
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
44
PST-FND-155
STR ND-298525

0972-045
TS-DADC-345
STA=41037.02
HT=142.64
ELE=1874.93
STRUCTURE HEIGHT: 140'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
AERIAL PATROL SIGNS
45
PST-FND-140
STR ND-298525

0972-046
TS-DADC-345
STA=41924.54
HT=138.40
ELE=1874.34
STRUCTURE HEIGHT: 135'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
46
PST-FND-135
STR ND-298525

0972-047
TS5HA-DADC-345
STA=42728.70
HT=143.18
ELE=1874.33
STRUCTURE HEIGHT: 140'
0972-DA0954SF06-01
0972-SA0375F06-01
0972-OPGW0635F06-01
0972-TMJP-345-01
1.0' REVEAL
OPGW SPLICE BOX
47
PST-FND-140
STR ND-298531

0972-048
LAS-DADC-345
STA=43723.53
HT=164.04
ELE=1848.57
STRUCTURE HEIGHT: 160'
0972-CA0954FT4-02
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
48
PST-FND-160
STR ND-298526

0972-029 - 0972-043, SW1, 0KV, 3/8 EHS, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, OPGW1, 0KV, DNO-10723, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-029 - 0972-043, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 975 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-029 - 0972-043, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 973 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-043 - 0972-047, SW1, 0KV, 3/8 EHS, RULING SPAN 853 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-043 - 0972-047, OPGW1, 0KV, DNO-10723, RULING SPAN 855 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-043 - 0972-047, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 853 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-043 - 0972-047, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 855 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-047 - 0972-053, SW1, 0KV, 3/8 EHS, RULING SPAN 1010 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-047 - 0972-053, OPGW1, 0KV, DNO-10723, RULING SPAN 1022 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-047 - 0972-053, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 1010 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-047 - 0972-053, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 1021 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE

759 934 888 804 995 1008

SHIELD WIRE SPLICE

PI 90°54'42" PI -88°16'30" PI -2°12'55"

NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90372 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY S.M.

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17

PLS-CADD DRAWING

0972-049
TS-DADC-345
STA=44731.07
HT=148.12
ELE=1865.92
STRUCTURE HEIGHT: 145'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
49
PST-FND-145
STR ND-298525

0972-050
TS-DADC-345
STA=45780.72
HT=158.45
ELE=1851.70
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
AERIAL PATROL SIGNS
50
PST-FND-155
STR ND-298525

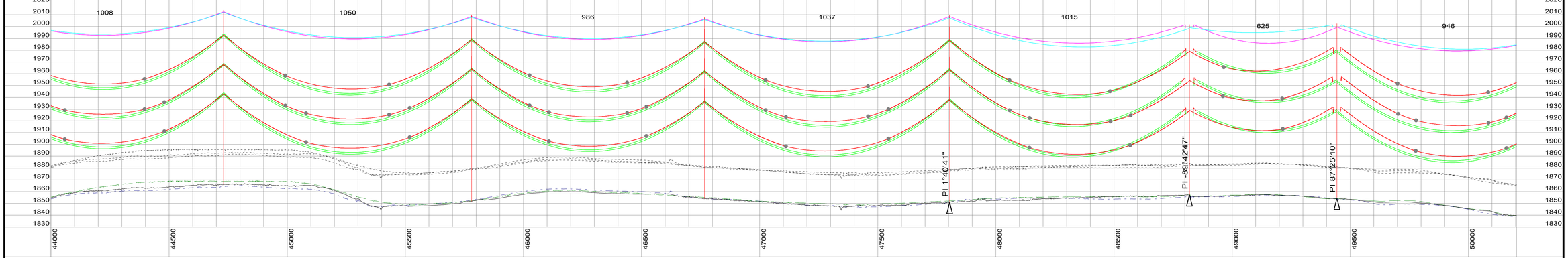
0972-051
TS-DADC-345
STA=46766.77
HT=154.01
ELE=1854.08
STRUCTURE HEIGHT: 150'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
51
PST-FND-150
STR ND-298525

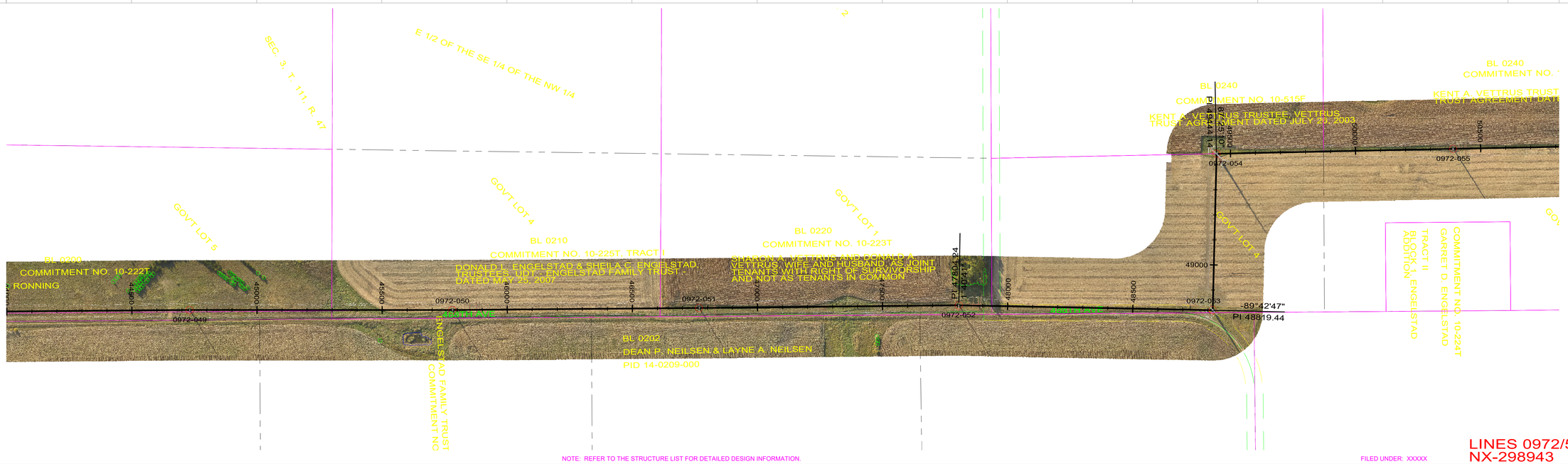
0972-052
TS-DADC-345
STA=47804.24
HT=159.27
ELE=1850.85
STRUCTURE HEIGHT: 155'
0972-CA0954F04-01
0972-SA0375F05-01
0972-OPGW0635F03-01
1.0' REVEAL
AERIAL PATROL SIGNS
52
PST-FND-155
STR ND-298525

0972-053
TS5HA-DADC-345
STA=48819.44
HT=144.31
ELE=1857.41
STRUCTURE HEIGHT: 140'
0972-DA0954SF06-01
0972-SA0375F06-01
0972-OPGW0635F06-01
0972-TMJP-345-01
1.0' REVEAL
53
PST-FND-140
STR ND-298531

0972-054
TS5HA-DADC-345
STA=49444.14
HT=148.09
ELE=1854.37
STRUCTURE HEIGHT: 145'
0972-DA0954SF06-01
0972-SA0375F06-01
0972-OPGW0635F06-01
0972-TMJP-345-01
1.0' REVEAL
54
PST-FND-145
STR ND-298531

0972-047 - 0972-053, SW1, 0KV, 3/8 EHS, RULING SPAN 1010 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-047 - 0972-053, OPGW1, 0KV, DNO-10723, RULING SPAN 1022 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-047 - 0972-053, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 1010 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-047 - 0972-053, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 1021 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-053 - 0972-054, SW1, 0KV, 3/8 EHS, RULING SPAN 622 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-053 - 0972-054, OPGW1, 0KV, DNO-10723, RULING SPAN 624 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-053 - 0972-054, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 622 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-053 - 0972-054, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 624 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE
0972-054 - 0972-059, SW1, 0KV, 3/8 EHS, RULING SPAN 887 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-054 - 0972-059, OPGW1, 0KV, DNO-10723, RULING SPAN 872 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED -20 DEG F INITIAL FE
0972-054 - 0972-059, 5653 BOK-LYC, 345KV, 2 X 397.5 ZTACSR 26/7 VR2, RULING SPAN 898 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 410 DEG F MAX SAG FE
0972-054 - 0972-059, 0972 BOK-LYC, 346KV, 954 ACSS/TW 20/7, RULING SPAN 872 (FT), SAGGED SPECIFYING LENGTH OF WIRE IN EACH SPAN, DISPLAYED 392 DEG F MAX SAG FE





NOTE: REFER TO THE STRUCTURE LIST FOR DETAILED DESIGN INFORMATION.

FILED UNDER: XXXXX

LINES 0972/5653
NX-298943

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 169-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #92972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

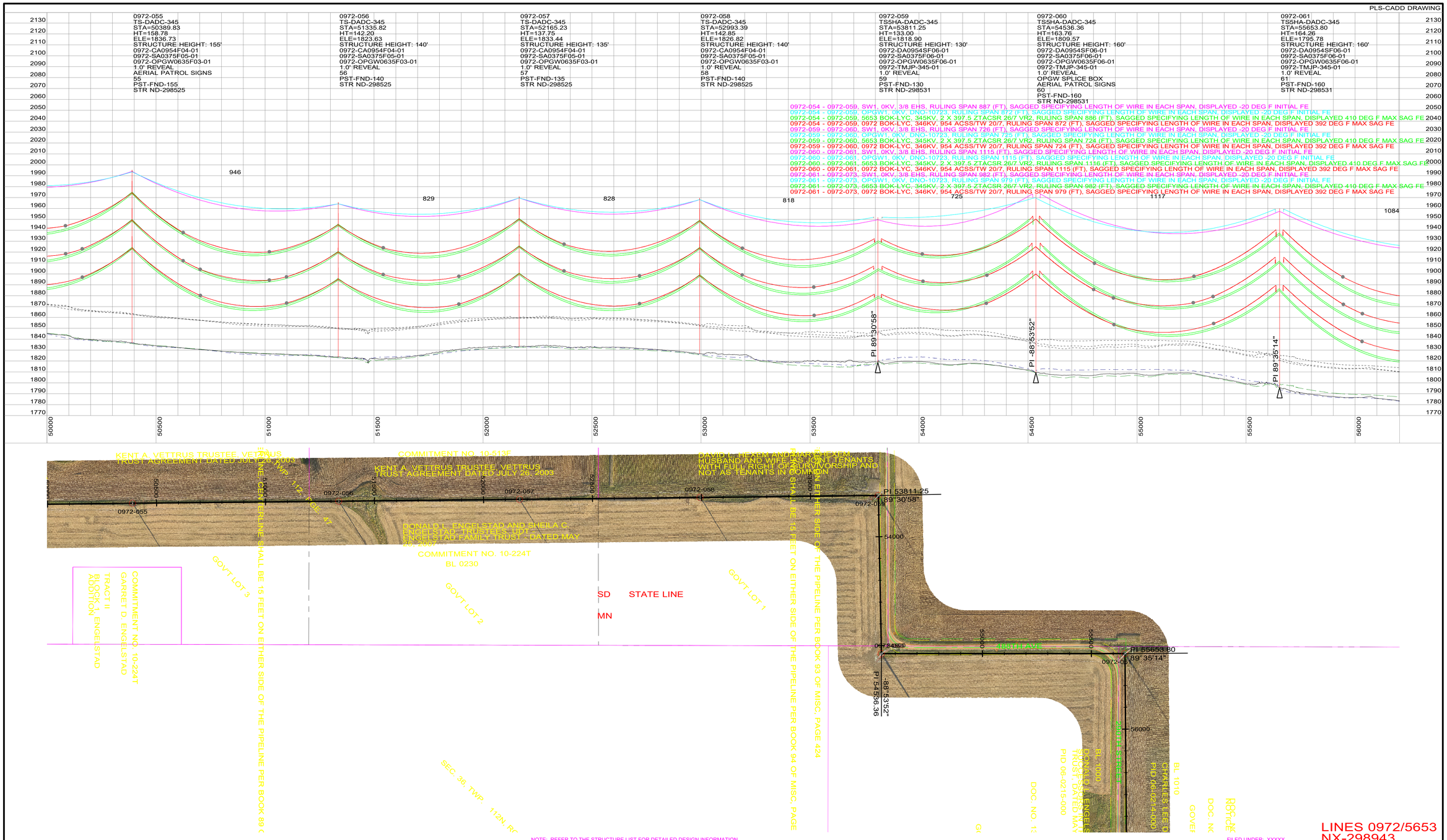
DESIGN DATA
CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 9 OF 56



POWER ENGINEERS

REVISIONS					
16		JIK	JIK	SPG	1/31/2025
15	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT UPDATED STRUCTURE DRAWING NUMBERS	JIK	JIK	SPG	4/05/2024
14	IFC - XCEL WBS # A.0001930 - CAPX BROOKINGS 2ND CIRCUIT INSTALL 2ND CIRCUIT & REPLACE OPGW FROM BOK-LYC	SEC	SEC	JIK	1/02/2024
13	AS-BUILT W.O. #206969 OPGW REPLACED 189-186	MWB	TTP	JMMC	9/13/2019
12	AS-BUILT W.O. #90972 FINAL AS-BUILT LIDAR	MWB	MWB	HWD	4/22/2016
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: JIK	1/31/2025
DESIGN BY: JIK	
CHECKED BY: SPG	1/31/2025
APPROVED BY: JPW	1/31/2025

DESIGN DATA

CONDUCTOR: 0972 - 954 ACSS/TW 20/7
5653 - 2 X 397.5 ZTACSR 26/7 VR2
SHIELD WIRE: 0972 - DNO-10723 OPGW
5653 - 3/8 EHS

GREAT RIVER ENERGY℠

BROOKINGS - LYON COUNTY
345 KV DOUBLE CIRCUIT TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
40.0 FT. VERT. SCALE
NORTH

DWG. NO.
0972-91D
REVISION: 17
SHEET 10 OF 56