

DESIGN CONDITIONS:  
 0.465" CPDW, 24 FIBER  
 20% RTS @ -20 DEGREES F, INITIAL  
 CLEARANCE LINE .30"

1272 ACER 45/7 "BITTERN"  
 20% RTS @ -20 DEGREES F, INITIAL

REV	DATE	APP	DESCRIPTION	DFT
0	06/06/08	MFJ	ISSUED FOR CONSTRUCTION	TMP



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 A STANLEY GROUP COMPANY  
 ENGINEERING, ENVIRONMENTAL AND  
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9200 E. MINERAL AVE.  
 SUITE 400  
 ENGLEWOOD, CO 80112

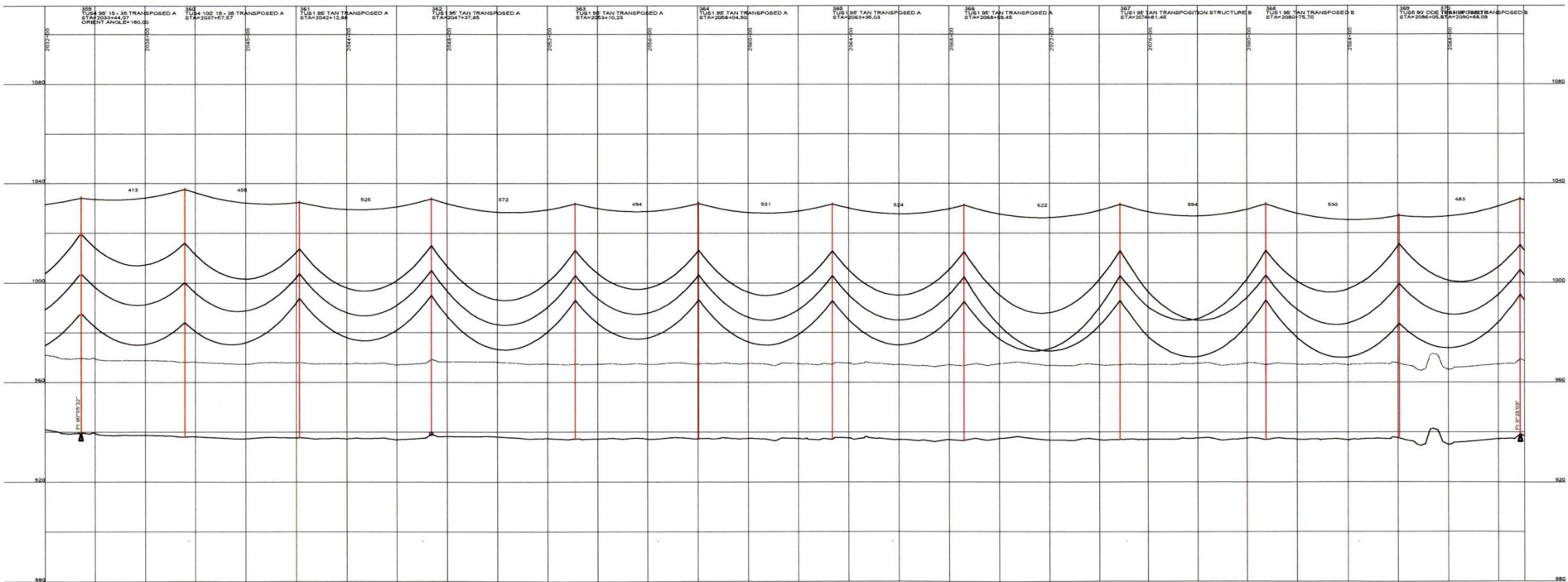
DESIGNED T. FRANCIS  
 DRAWN T. FRANCIS  
 CHECKED H. DILLABOUGH  
 APPROVED M. JURGEMEYER  
 APPROVED \_\_\_\_\_  
 DATE 06/06/08

**MINNKOTA POWER COOPERATIVE**  
**GRAND FORKS, ND**

400.0 FT. HORIZ. SCALE  
 40.0 FT. VERT. SCALE

WIND GENERATION TIE 46 OF 73





DESIGN CONDITIONS:  
 0.463" OPGW, 24 FIBER  
 20% RTS @ -20 DEGREES F, INITIAL  
 CLEARANCE LINE 30'

1273 ACSR 457 "BITTERN"  
 20% RTS @ -20 DEGREES F, INITIAL  
 CLEARANCE LINE 30'

REV	DATE	APP	DESCRIPTION	DFTM
0	06/06/08	MFJ	ISSUED FOR CONSTRUCTION	TMF

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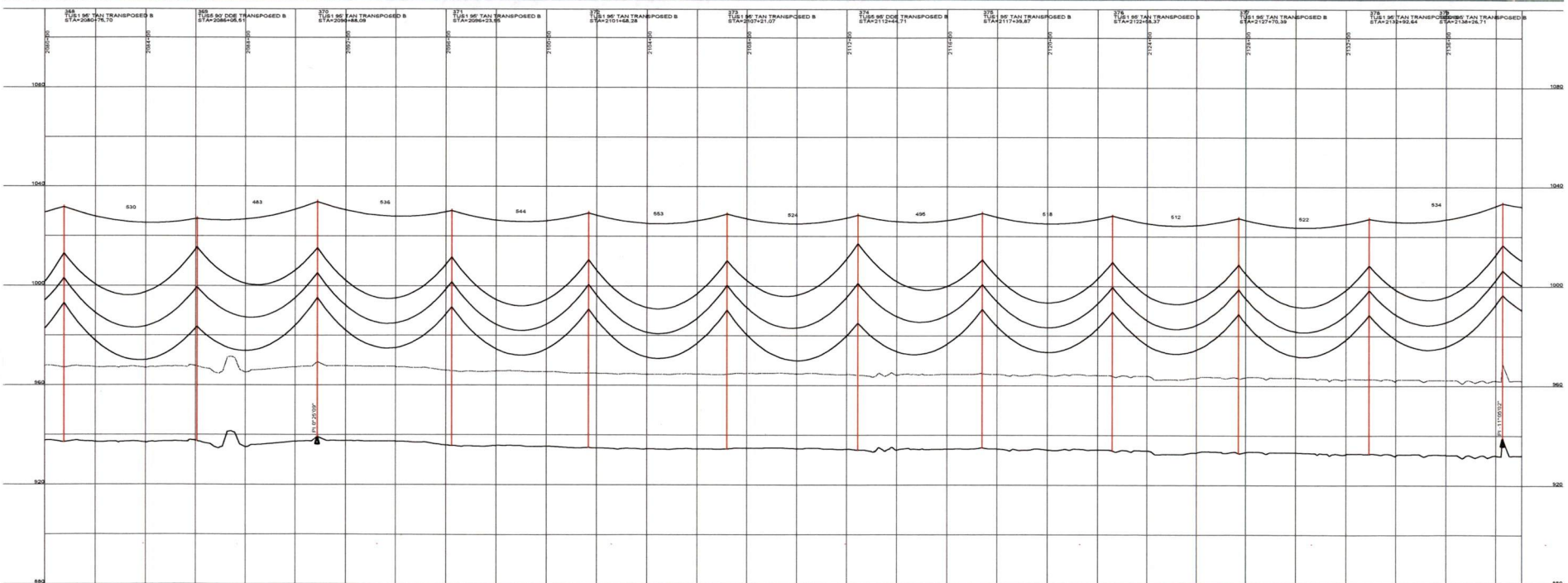
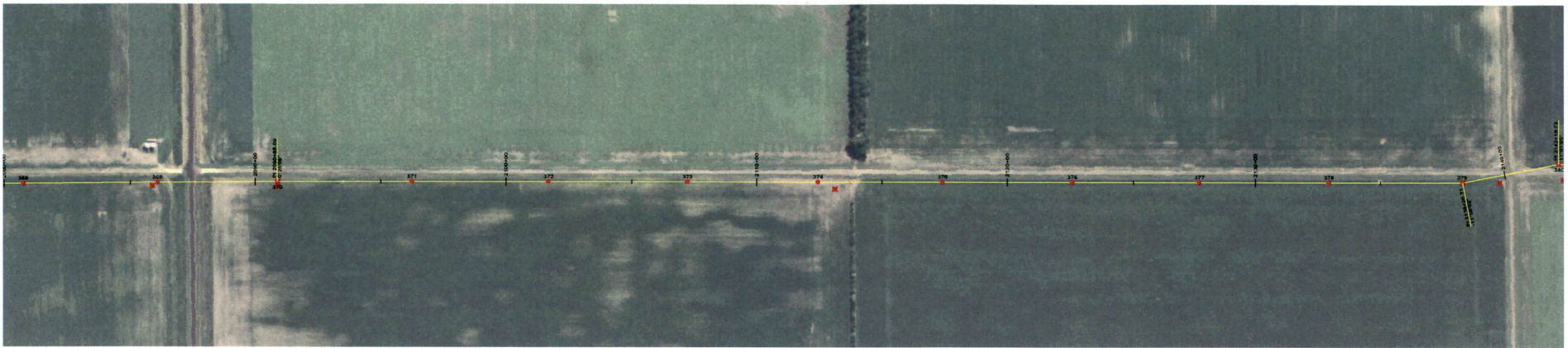
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DESIGNED T. FRANCIS  
 DRAWN T. FRANCIS  
 CHECKED H. DILLABOUGH  
 APPROVED M. JURGEMEYER  
 APPROVED \_\_\_\_\_  
 DATE 06/06/08

**MINNKOTA POWER COOPERATIVE**  
**GRAND FORKS, ND**

450.0 FT. HORIZ. SCALE  
 40.0 FT. VERT. SCALE

**WIND GENERATION TIE 47 OF 73**



DESIGN CONDITIONS:  
 0.465" CPQW, 24 FIBER  
 20% RTS @ -20 DEGREES F, INITIAL 20% RTS @ -20 DEGREES F, INITIAL  
 CLEARANCE LINE: 30'

REV	DATE	APP	DESCRIPTION	DFT
0	06/06/08	MFJ	ISSUED FOR CONSTRUCTION	TMF

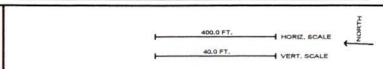


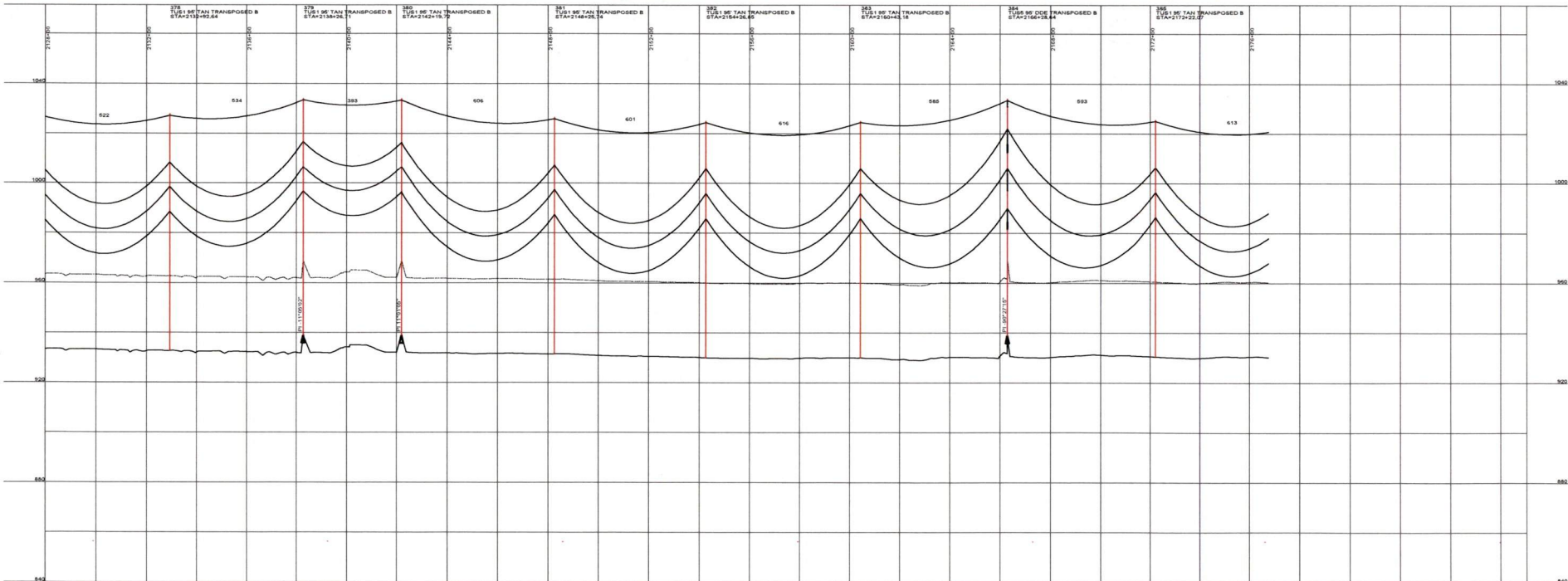
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 APPROVED M. JURGEMEYER  
 APPROVED \_\_\_\_\_  
 DATE 06/06/08

**MINNKOTA POWER COOPERATIVE**  
**GRAND FORKS, ND**





DESIGN CONDITIONS:  
 0.445" OPGW, 24 FIBER  
 20% RTS @ -20 DEGREES F, INITIAL. 20% RTS @ -20 DEGREES F, INITIAL  
 CLEARANCE LINE 30'

REV	DATE	APP	DESCRIPTION	DTR
0	06/06/08	MFJ	ISSUED FOR CONSTRUCTION	



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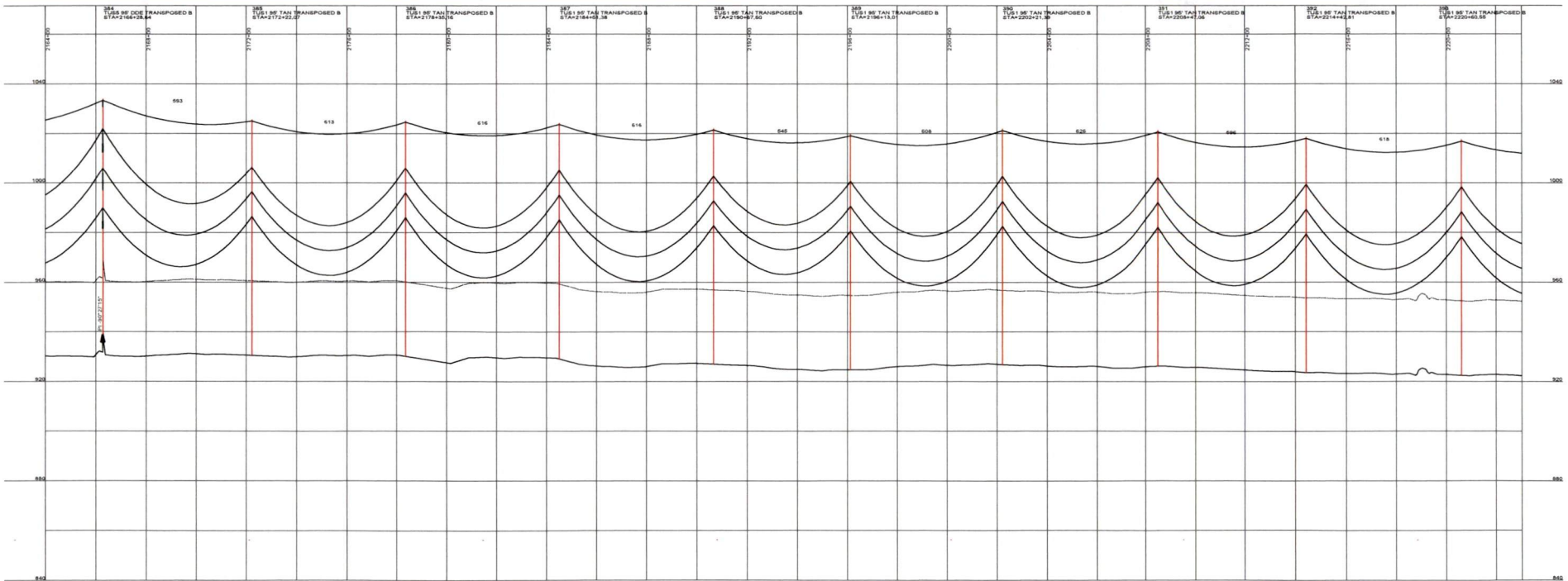
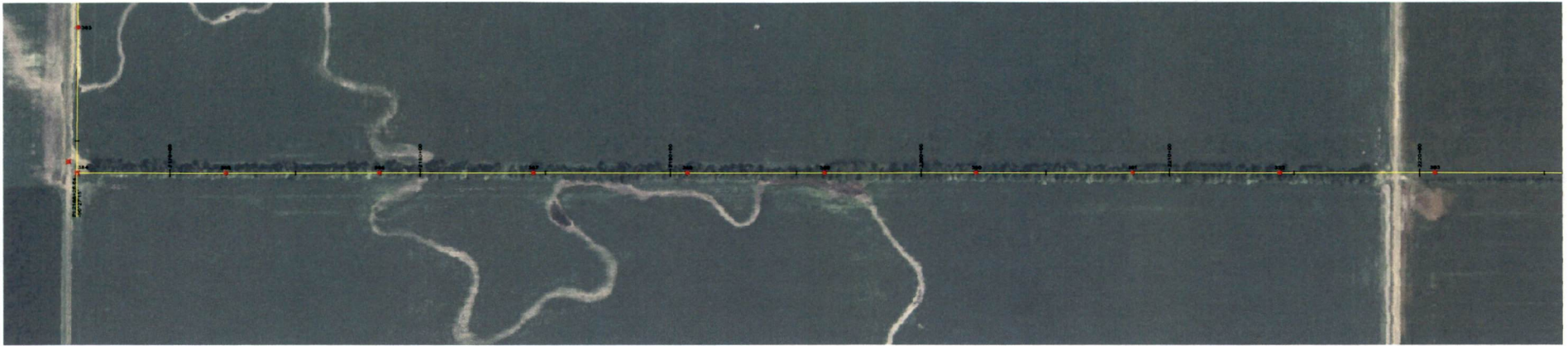
9200 E. MINERAL AVE.  
 SUITE 400  
 ENGLEWOOD, CO 80112

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 APPROVED M. JURGEMEYER  
 APPROVED \_\_\_\_\_  
 DATE 06/06/08

**MINNKOTA POWER COOPERATIVE**  
**GRAND FORKS, ND**

400.0 FT. ———— HORIZ. SCALE  
 40.0 FT. ———— VERT. SCALE

**WIND GENERATION TIE 49 OF 73**



DESIGN CONDITIONS:  
 0.485" CPDW, 24 FIBER  
 20% RTS @ -20 DEGREES F, INITIAL CLEARANCE LINE 30'

1272 ACER 45/7 "BITTERN"  
 20% RTS @ -20 DEGREES F, INITIAL

REV	DATE	APP	DESCRIPTION	DFT
0	06/06/08	MFJ	ISSUED FOR CONSTRUCTION	TMP



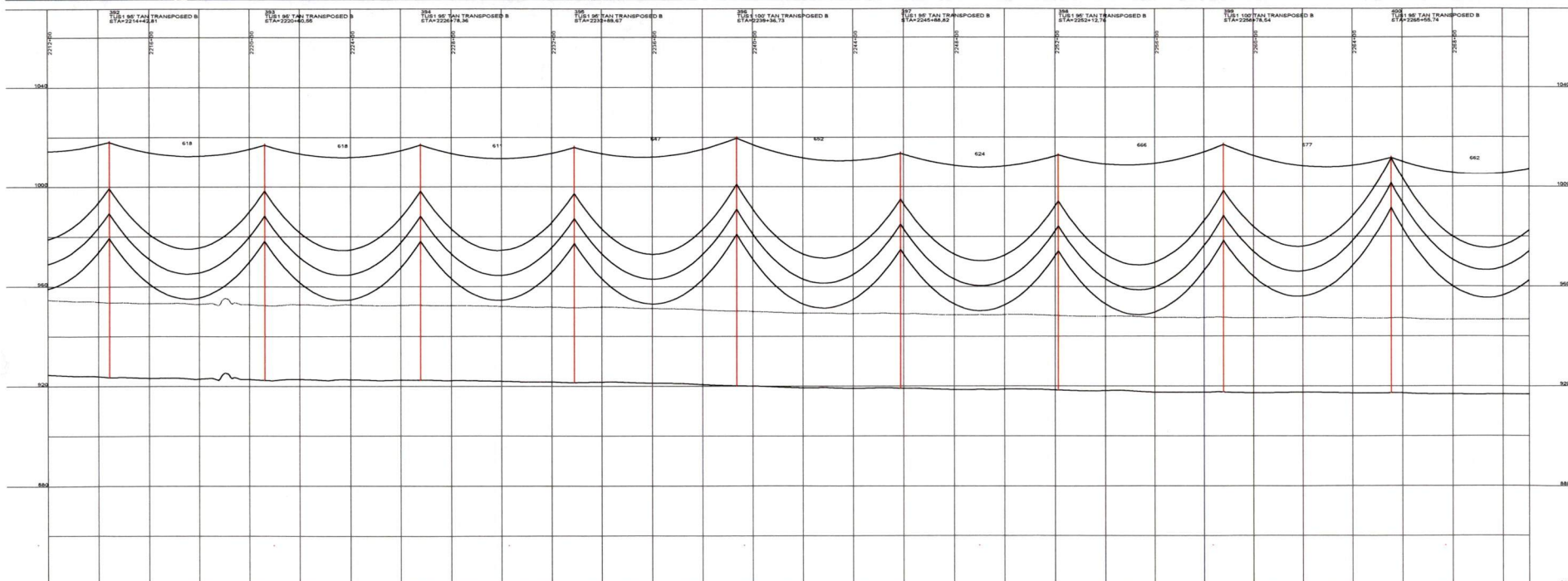
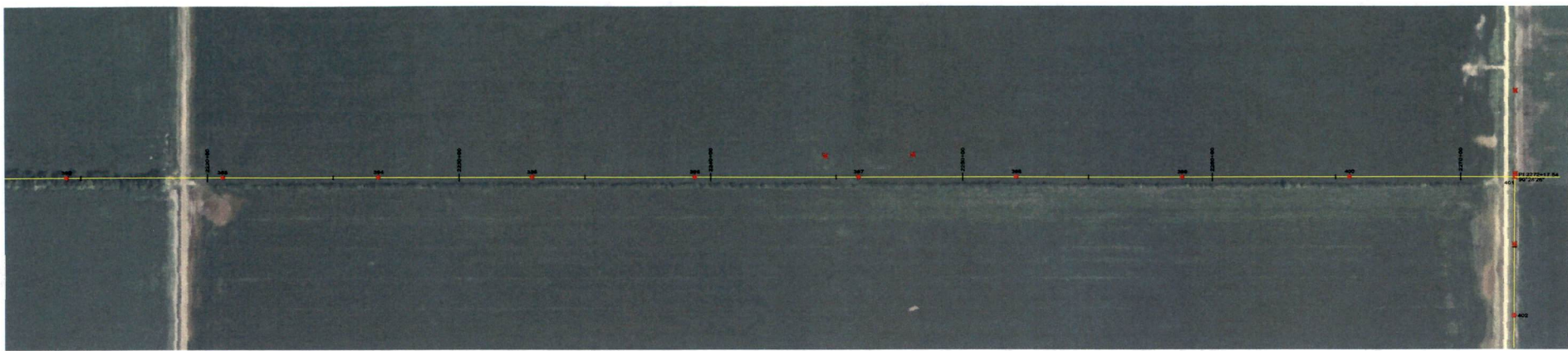
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 DATE 06/06/08

**MINNKOTA POWER COOPERATIVE**  
**GRAND FORKS, ND**





DESIGN CONDITIONS:  
 0.465" OPDW, 24 FIBER  
 20% RTS @ -20 DEGREES F. INITIAL  
 CLEARANCE LINE: 30'

1272 ACSR 45/7 "BITTERN"  
 20% RTS @ -20 DEGREES F. INITIAL

REV	DATE	APP	DESCRIPTION	TMP	DFT
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**GRAND FORKS, ND**

