

CONDUCTOR: 959.6 KCML SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
3	11/26/14	KJH	RECORD DRAWING	BEC
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK
1	01/31/13	HWD	ADDED STR & FR DRAWING # S, OPGW SPLICE LOCATIONS	LRK



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8000 S. CHESTER STREET
 SUITE 500
 CENTENNIAL, CO 80112

A STANLEY GROUP COMPANY
 ENGINEERING, ENVIRONMENTAL AND
 CONSTRUCTION SERVICES - WORLDWIDE

DESIGNED L.R.KETTER
 DRAWN B.E.CAMPBELL
 CHECKED H.W.DILLABOUGH
 APPROVED K.J.HARROLD
 DATE 09/10/2012

Center to Grand Forks Project

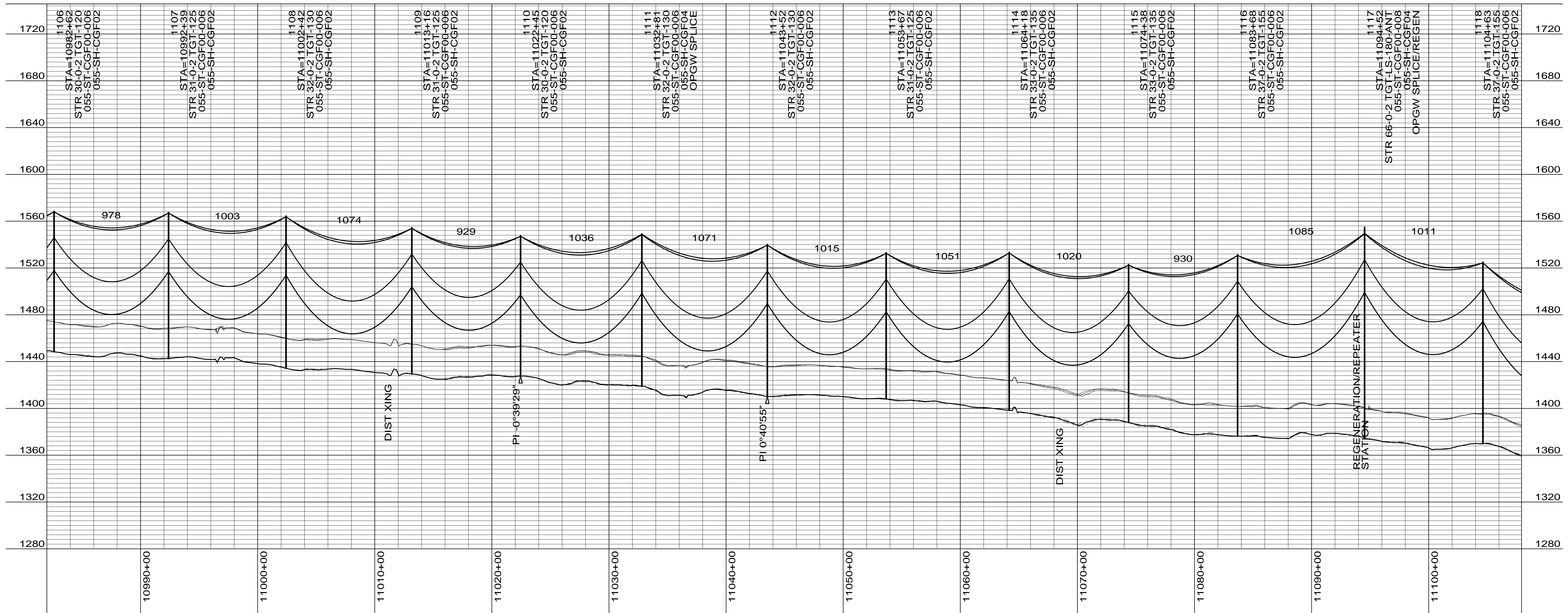
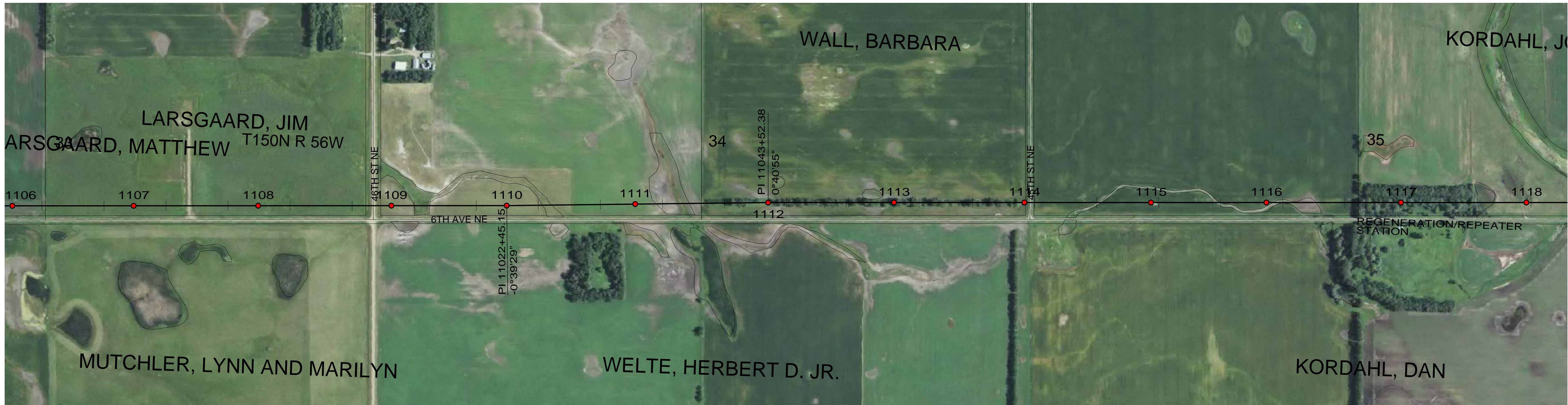


Minnkota Power
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400.0 FT. HORIZ. SCALE
 40.0 FT. VERT. SCALE

DRAWING REV
 000-PP-WAPA-001 3



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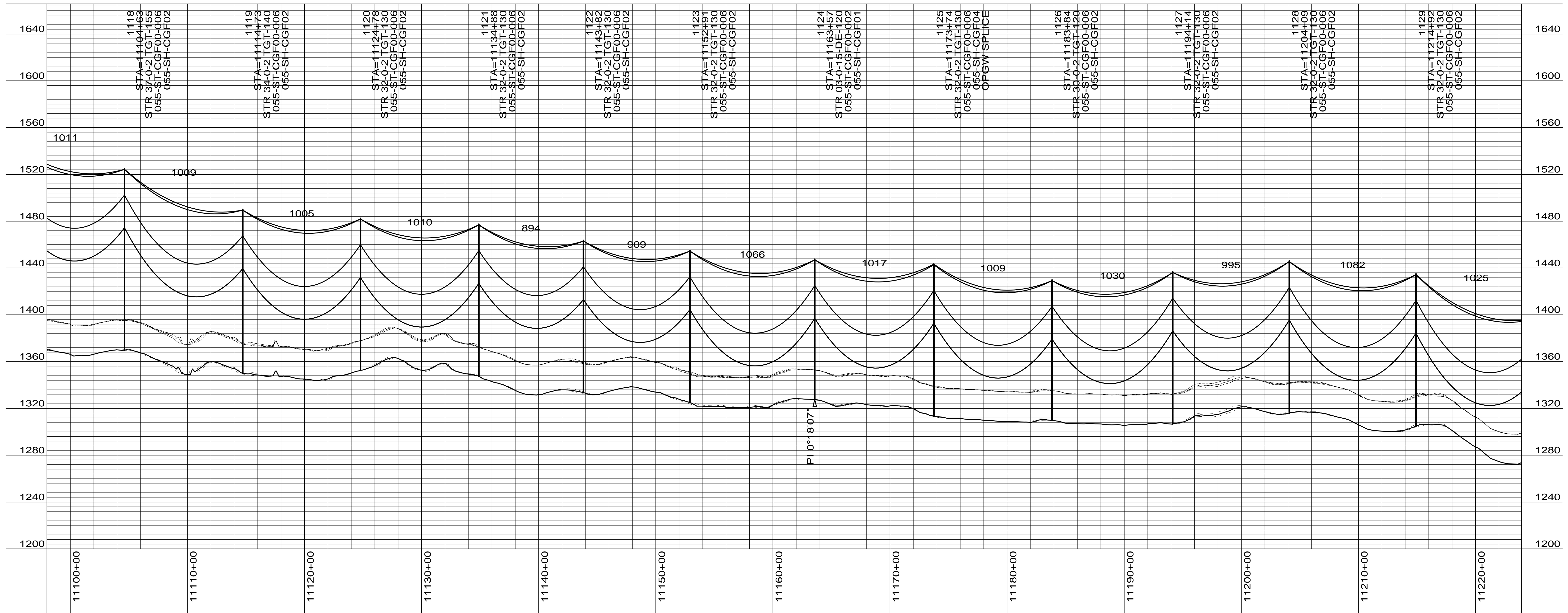
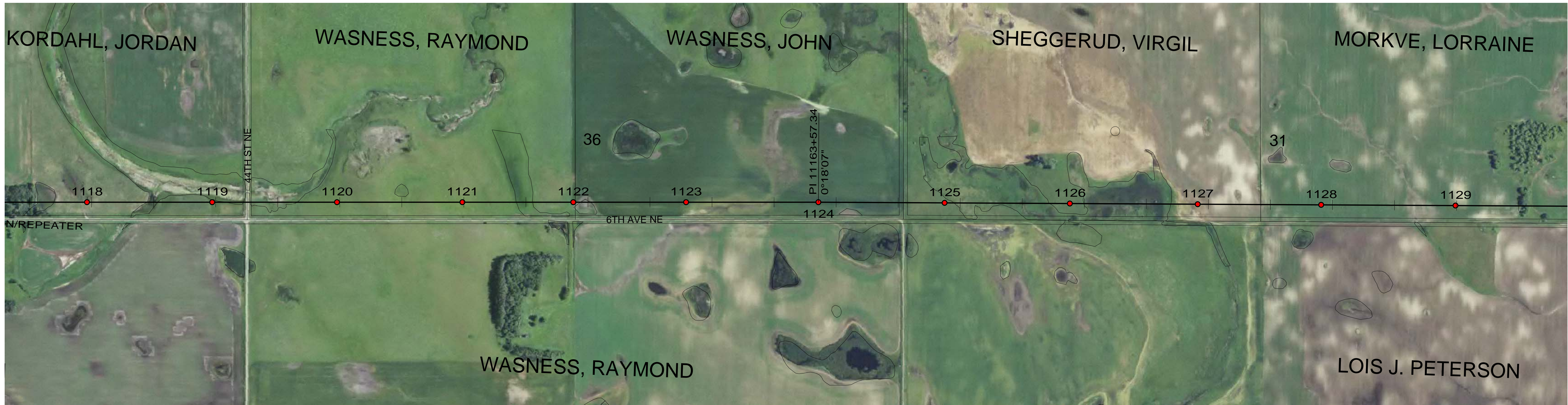
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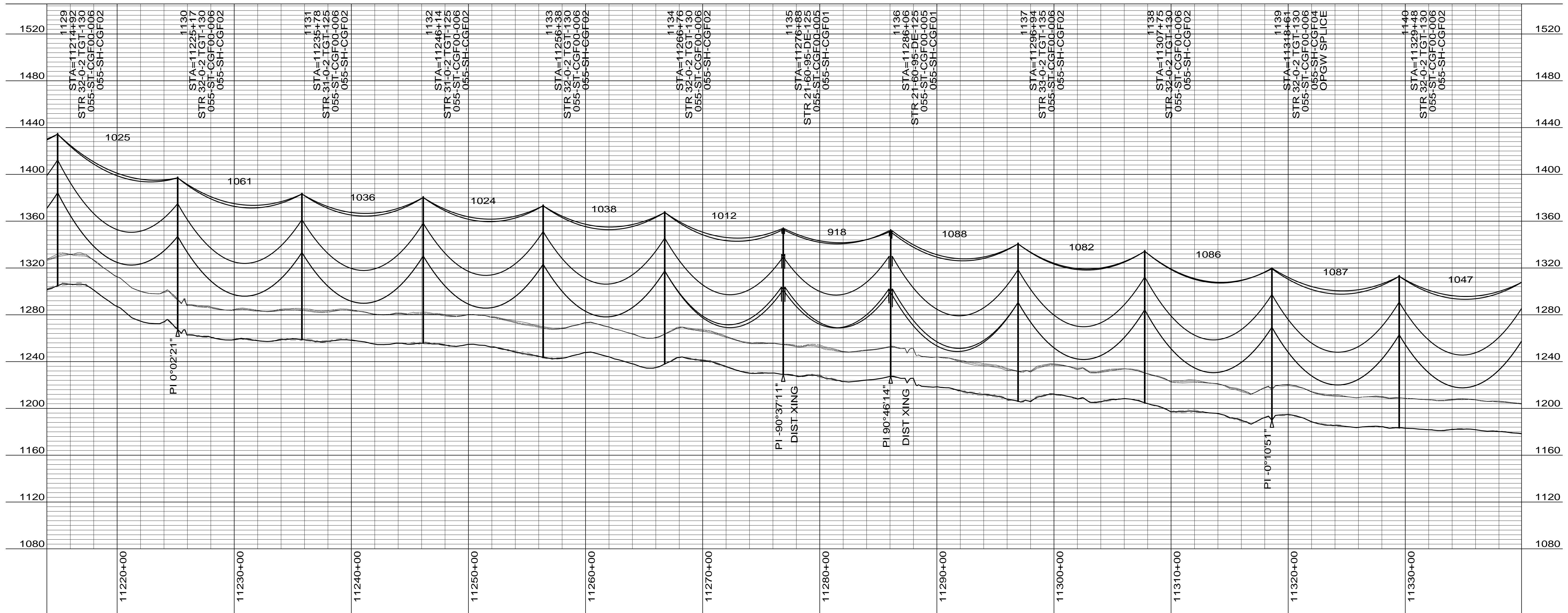
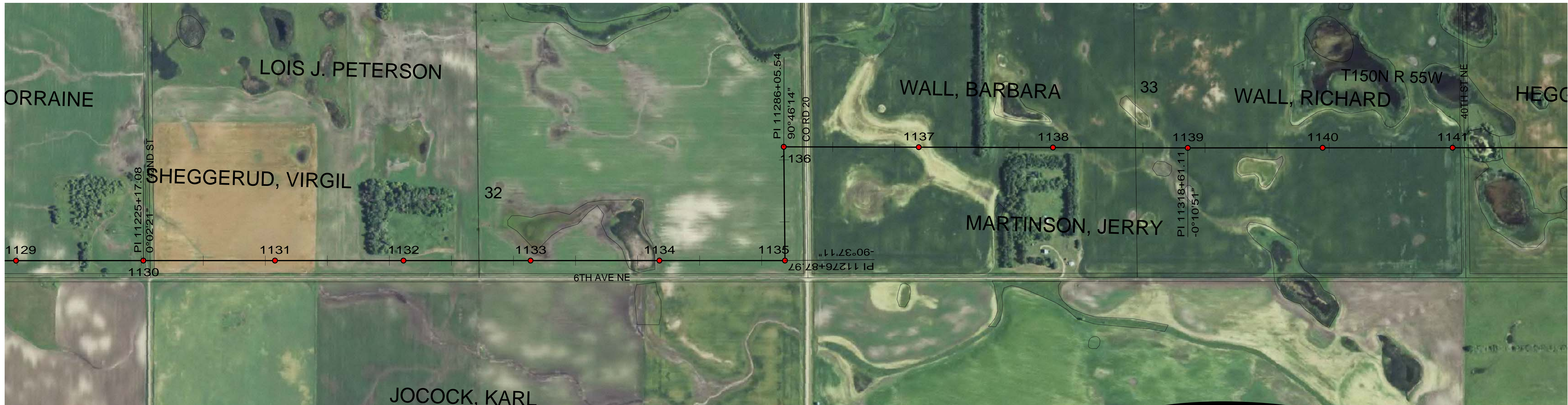
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DRAWING
055-PP-GF1118-003

REV
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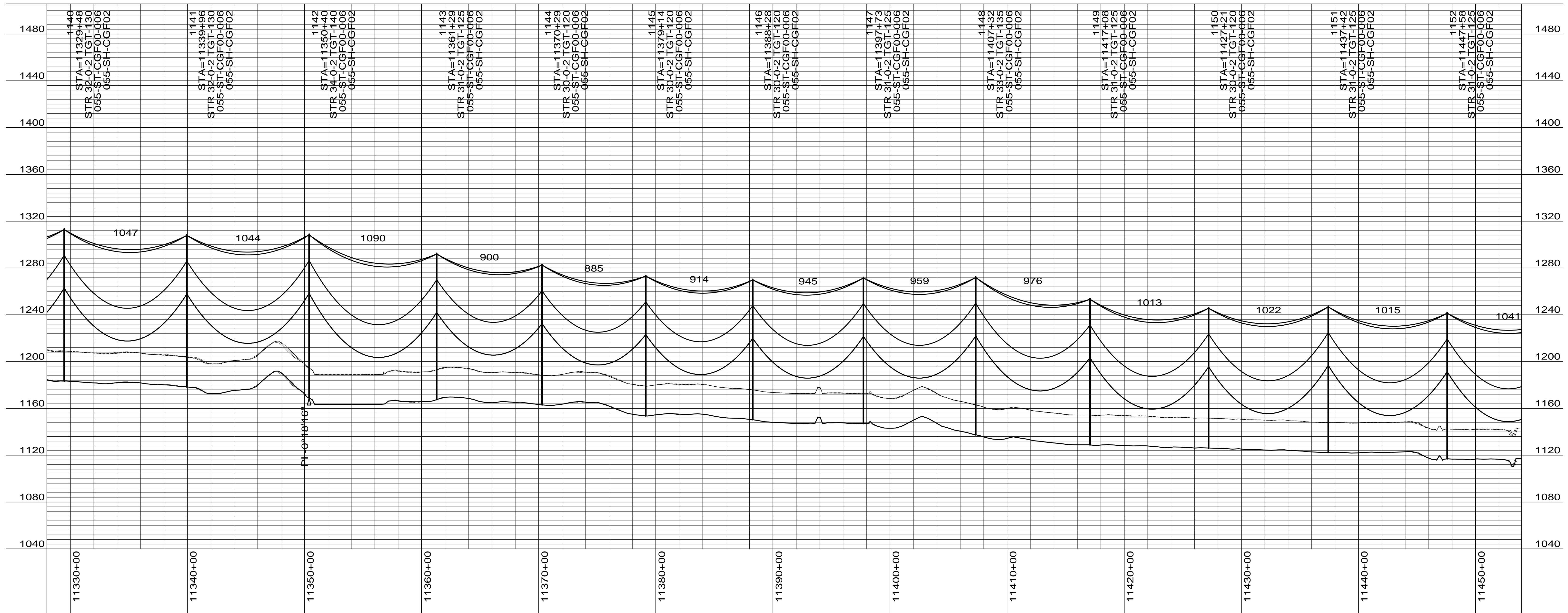


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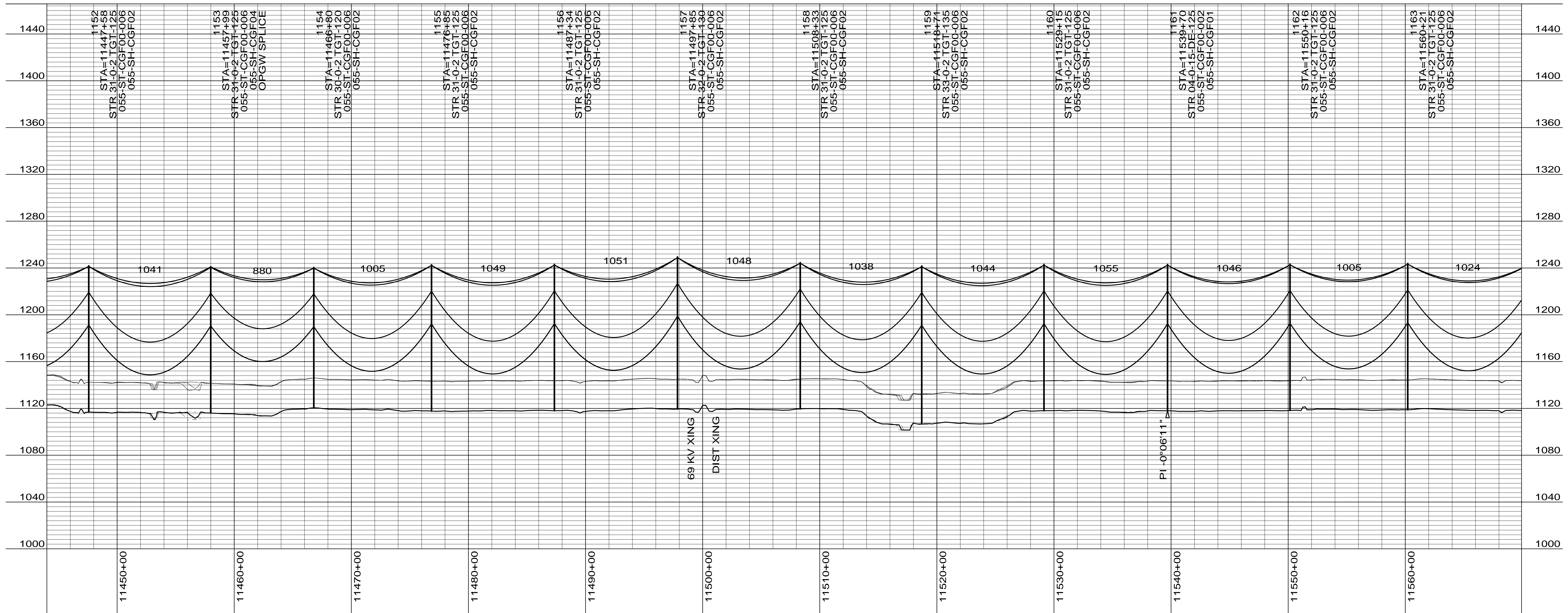
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GRAND FORKS COUNTY

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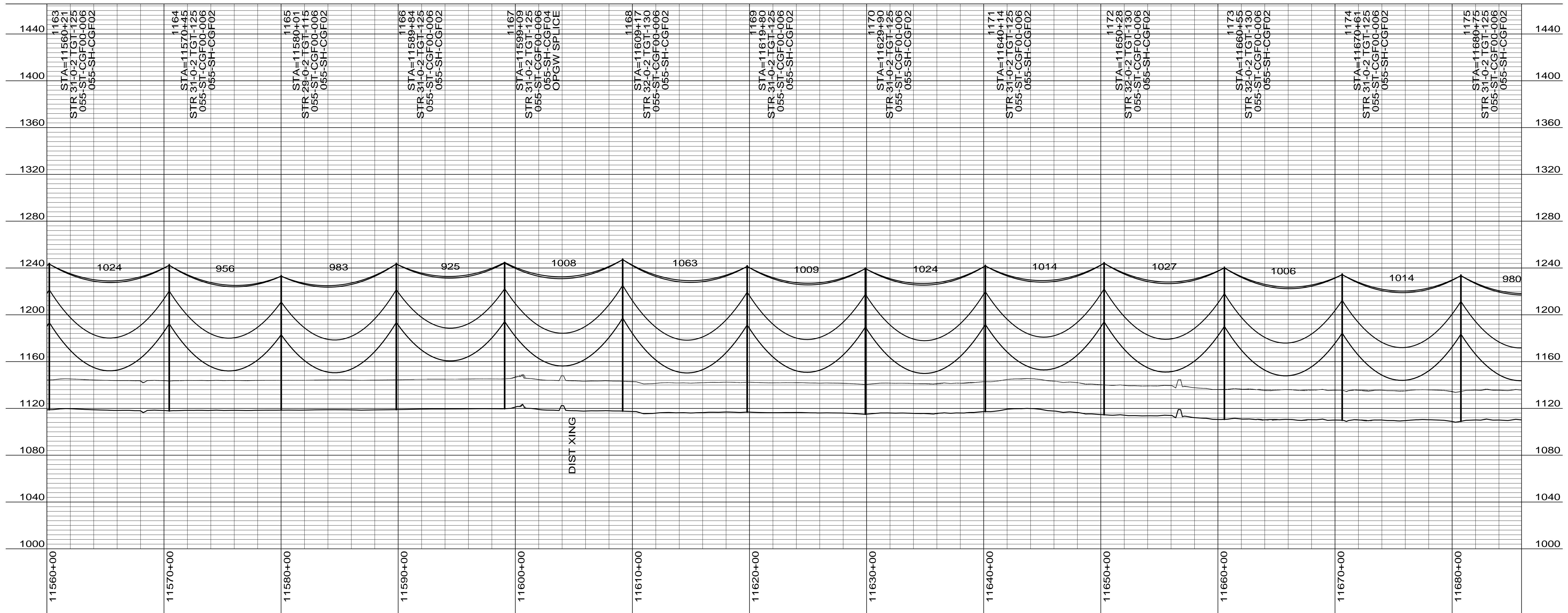
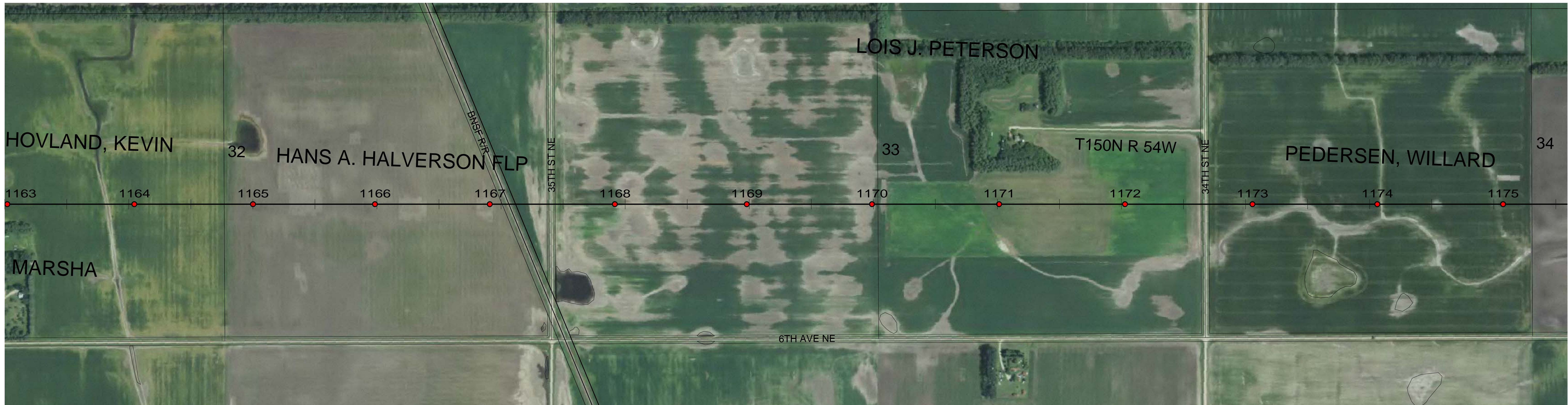
COOPERATIVE, INC.

GRAND FORKS COUNTY

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DRAWING
 055-PP-GF1152-006

REV
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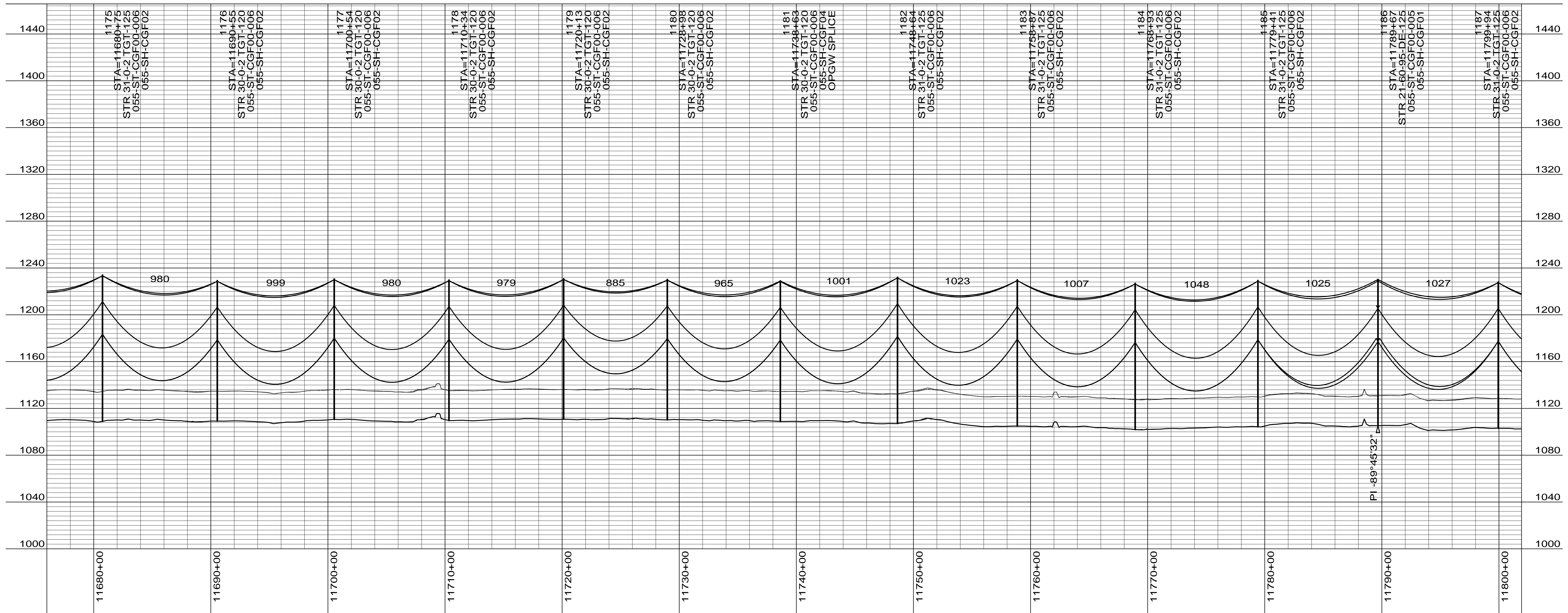
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GRAND FORKS COUNTY

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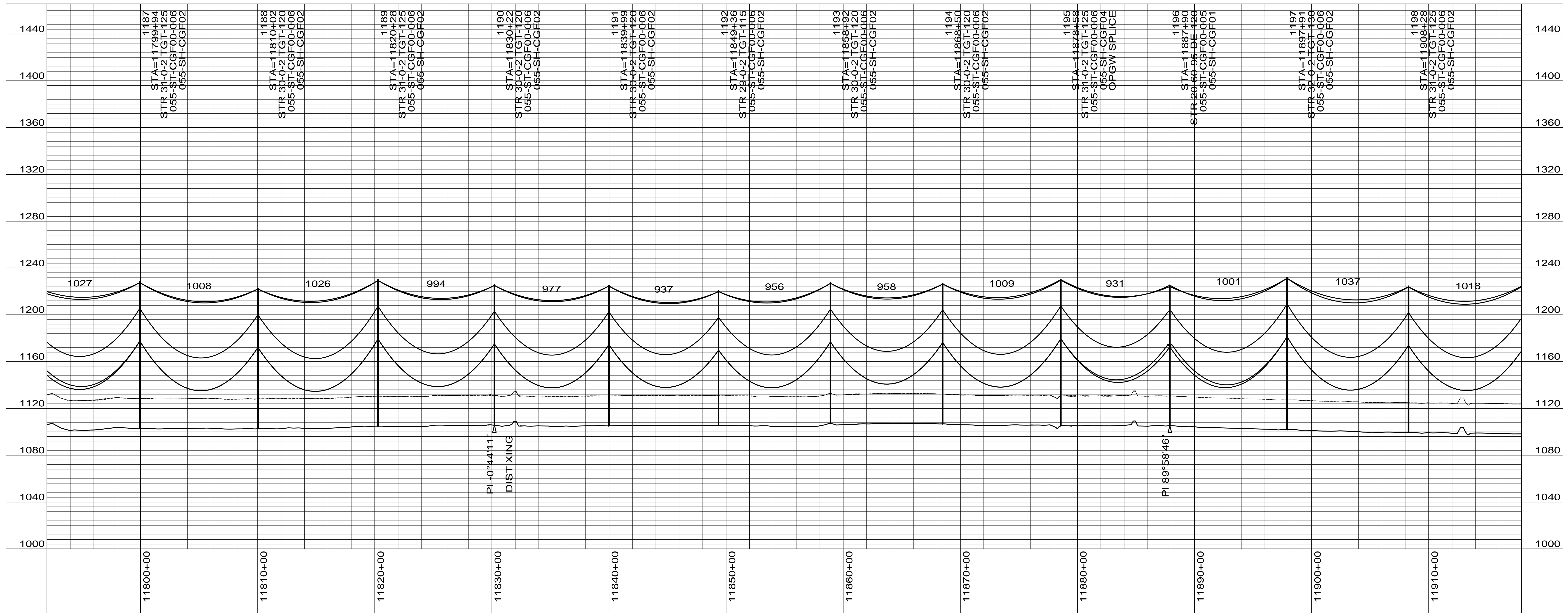


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GRAND FORKS COUNTY

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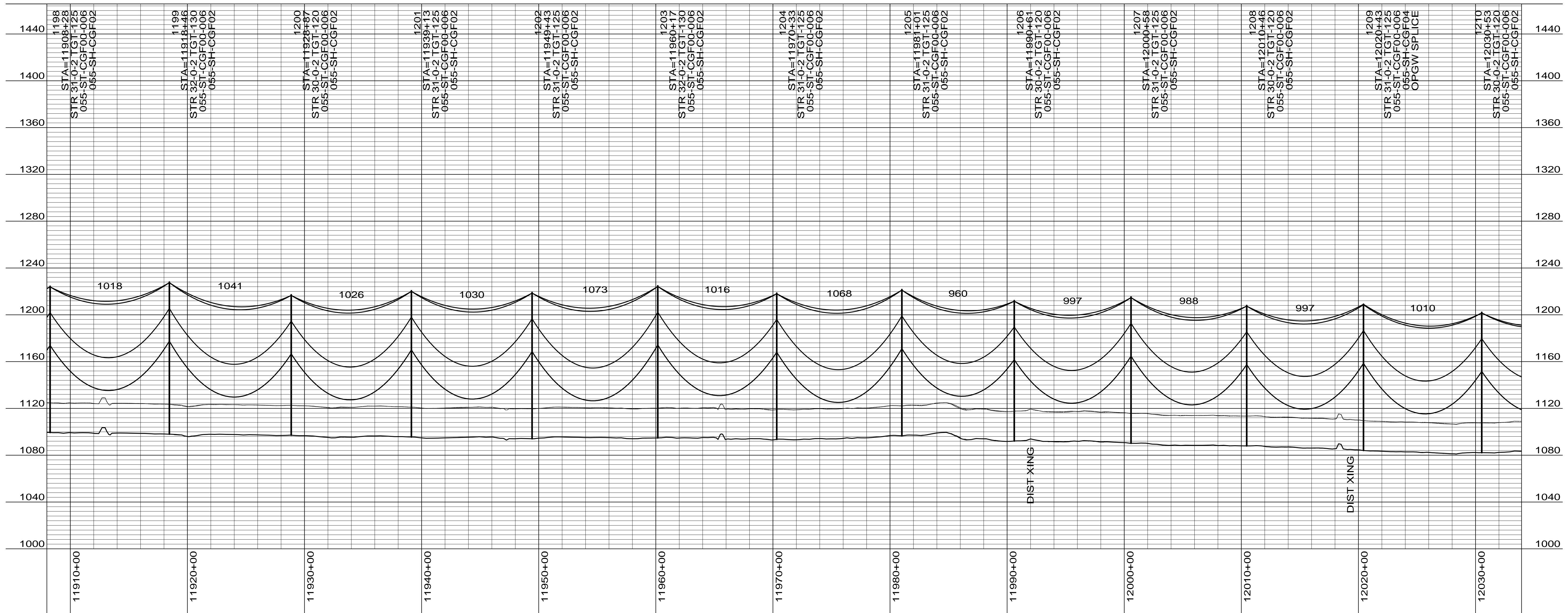
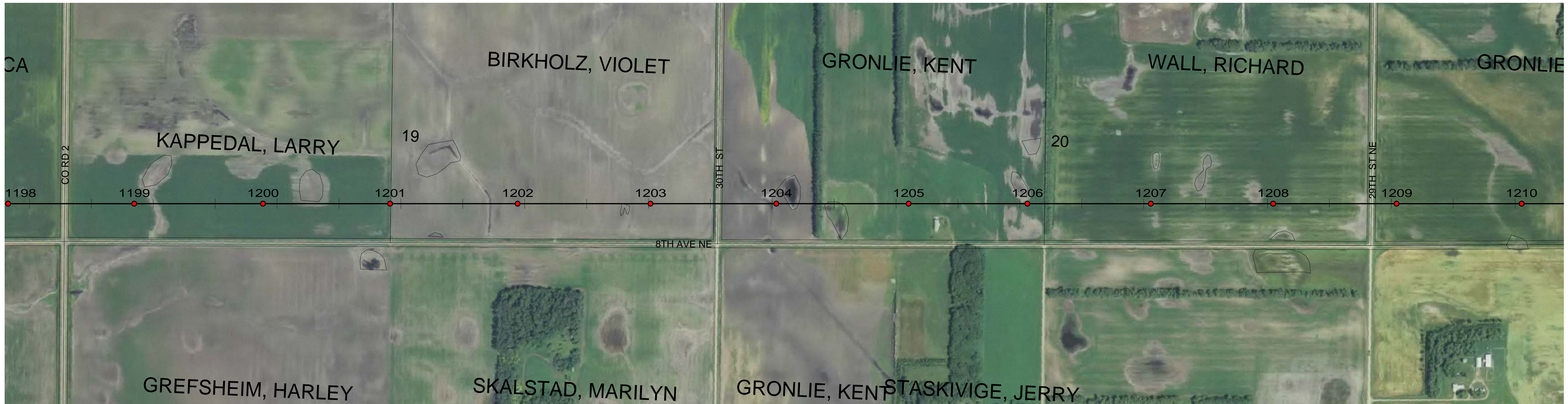


Minnkota Power
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GRAND FORKS COUNTY

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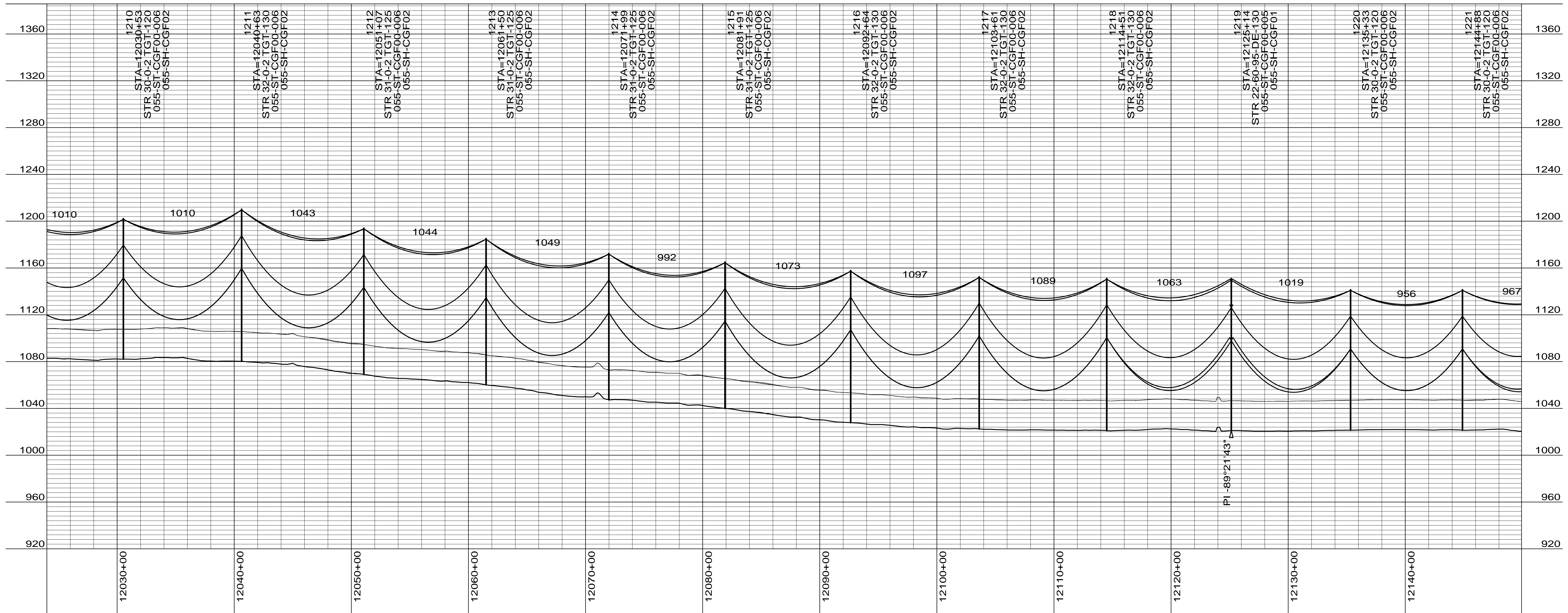


COOPERATIVE, INC.

GRAND FORKS COUNTY

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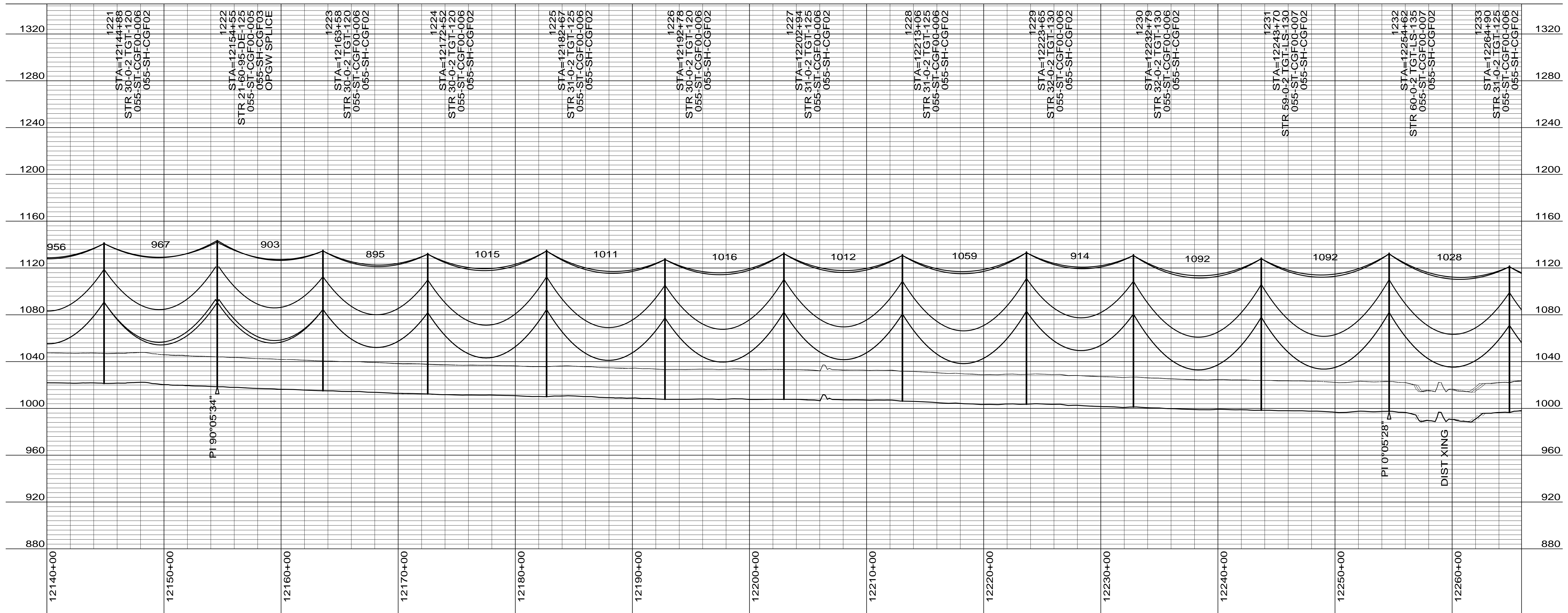
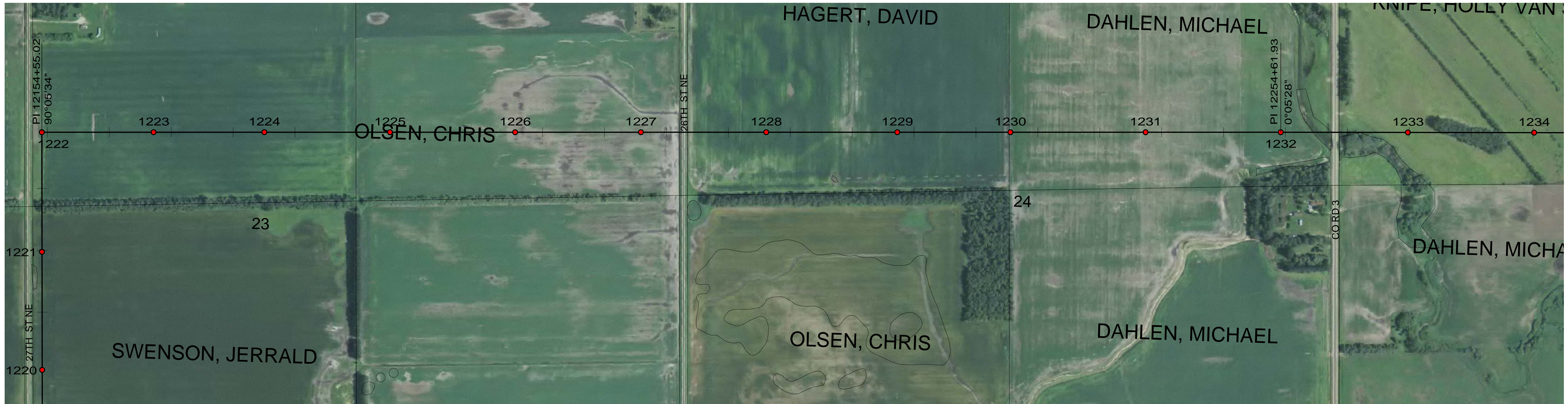


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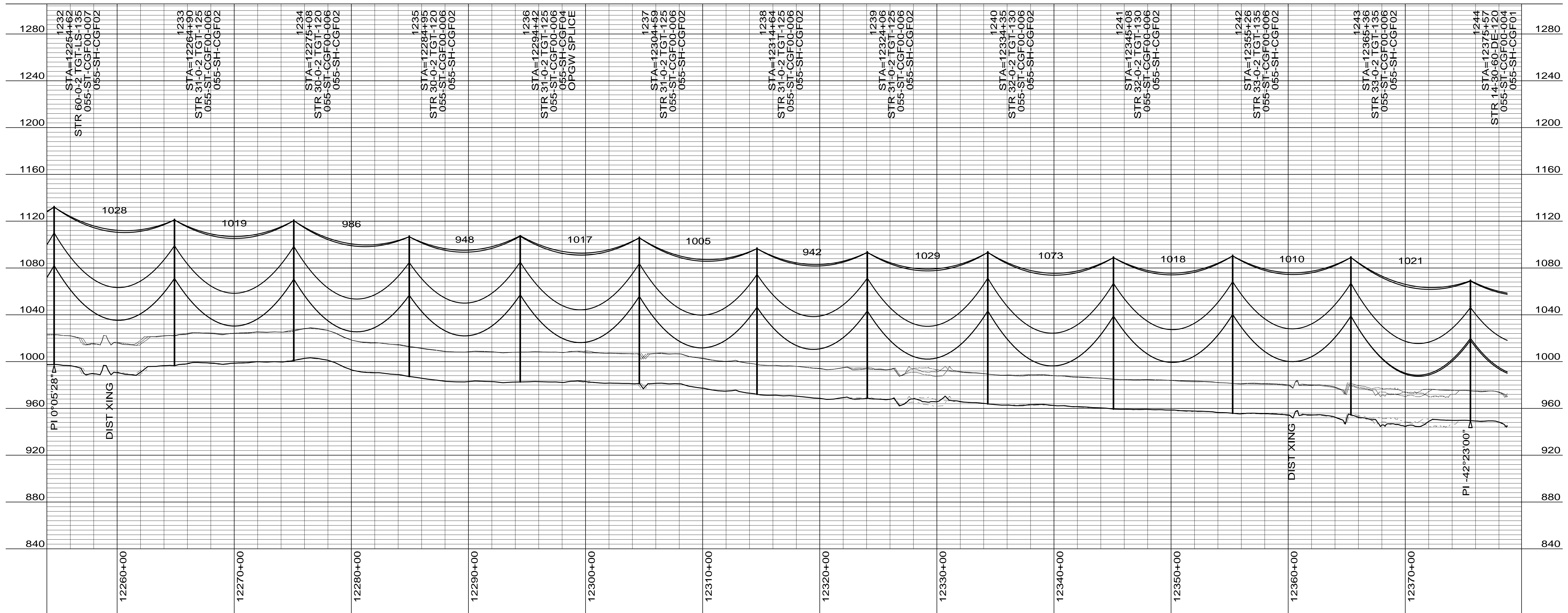
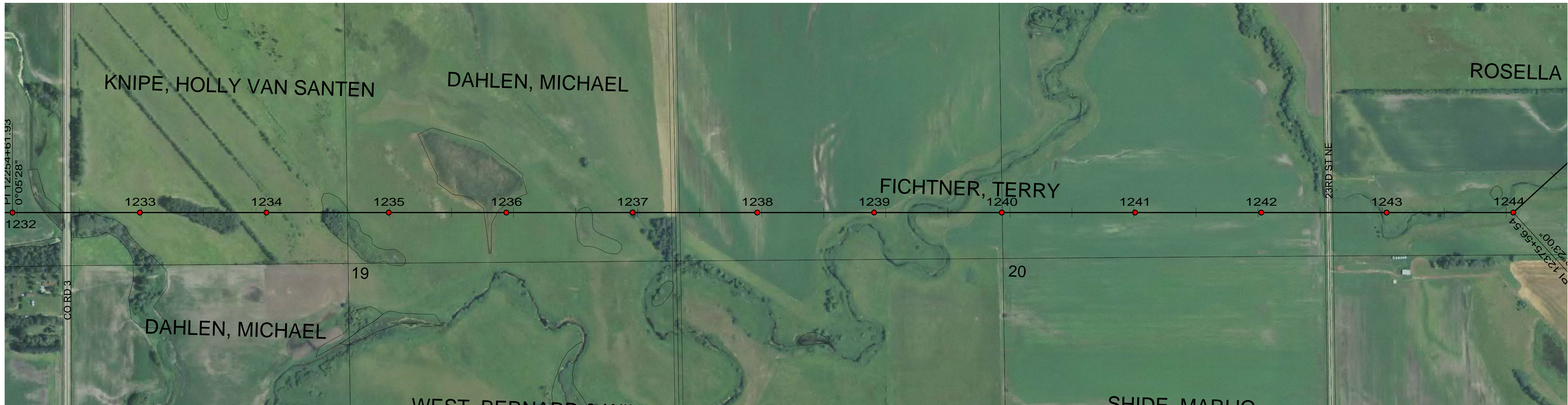
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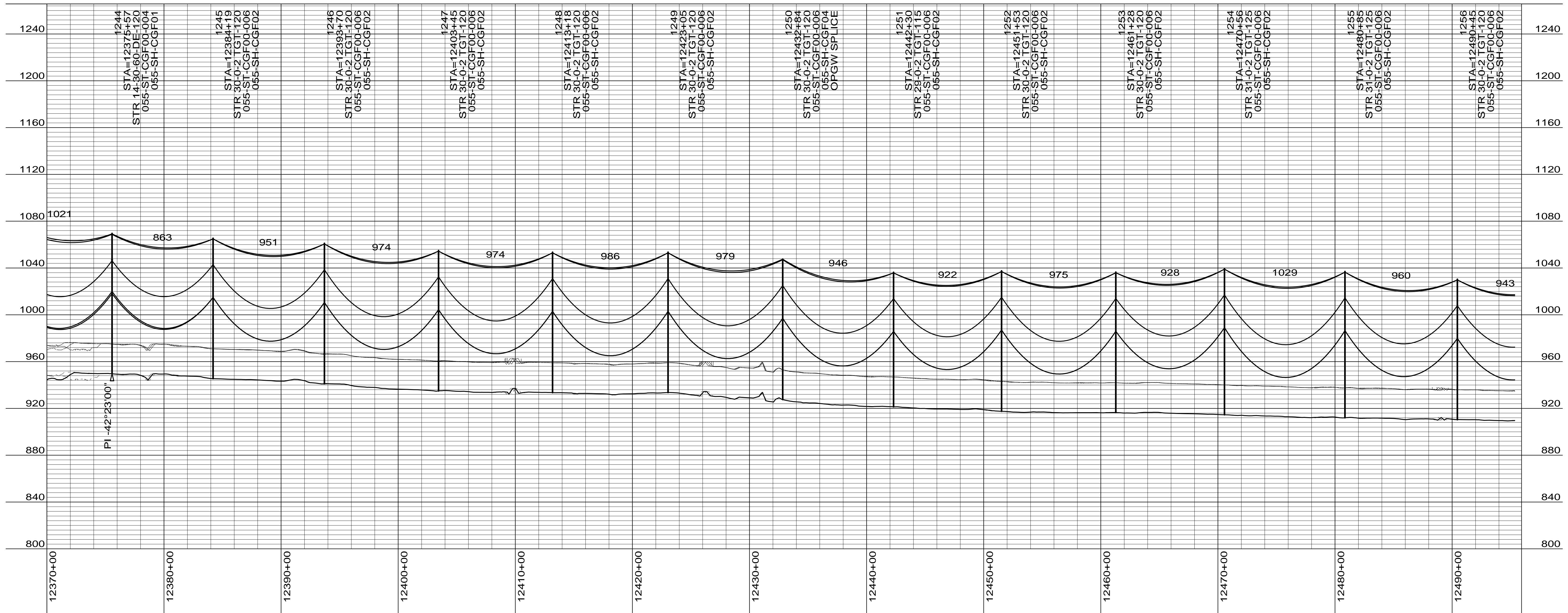
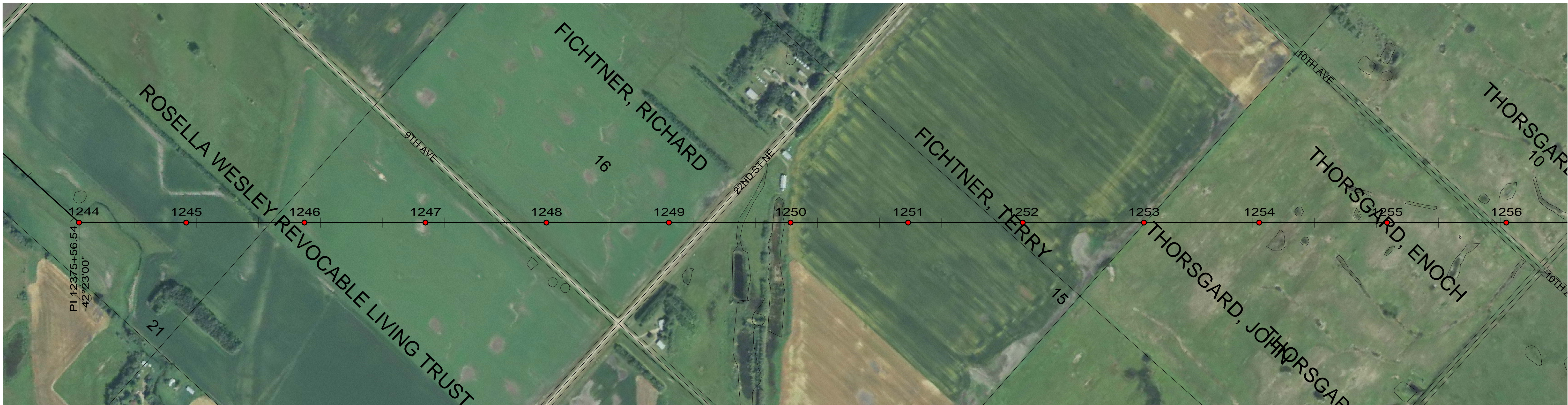
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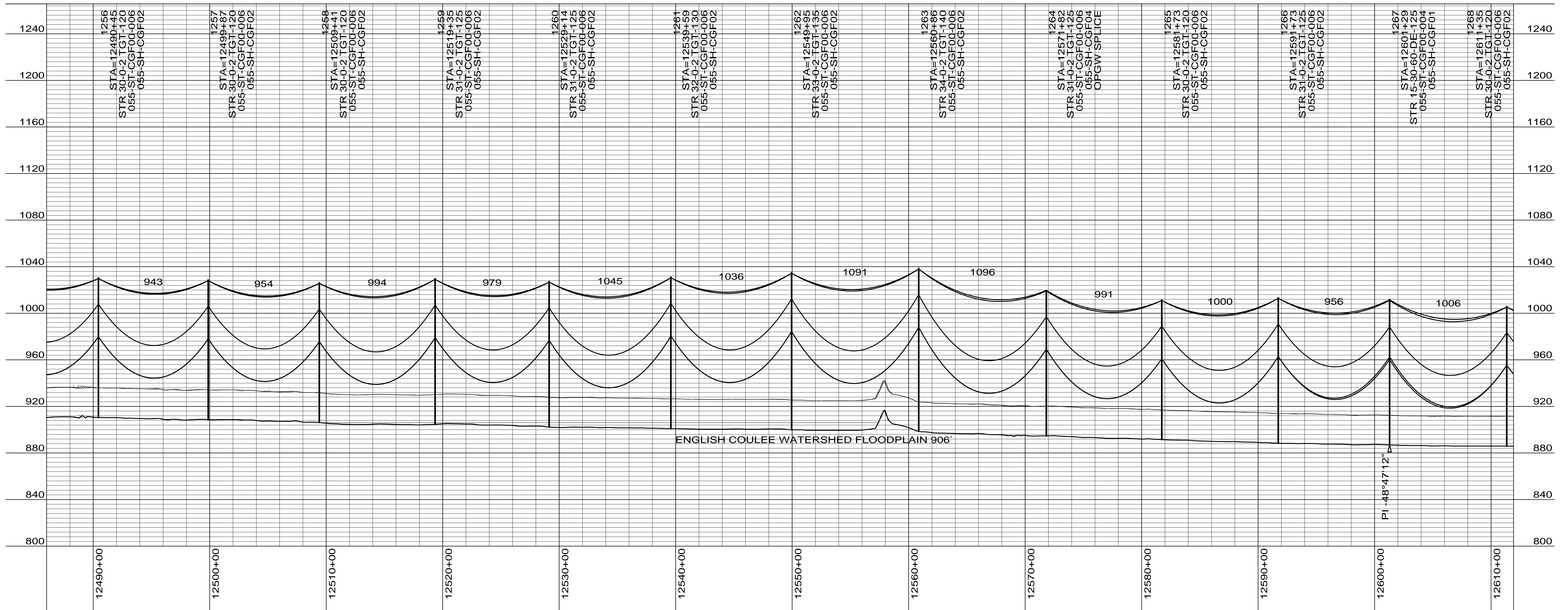
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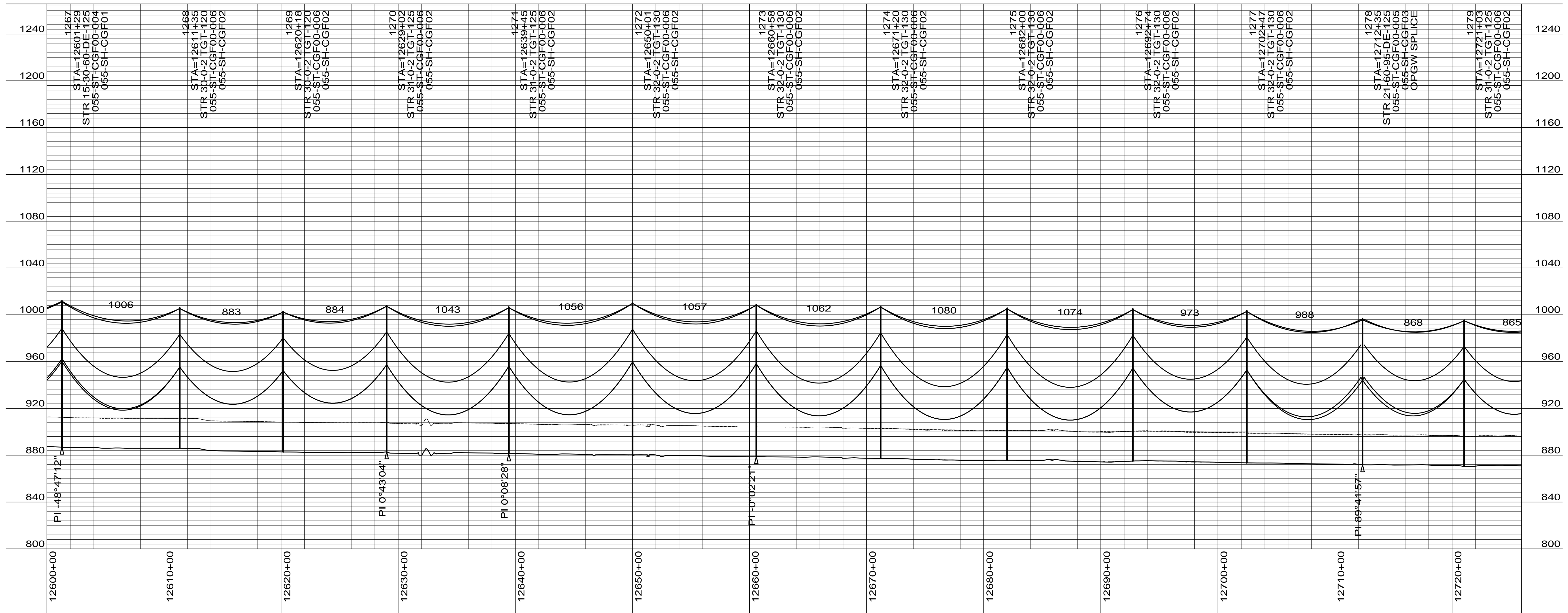
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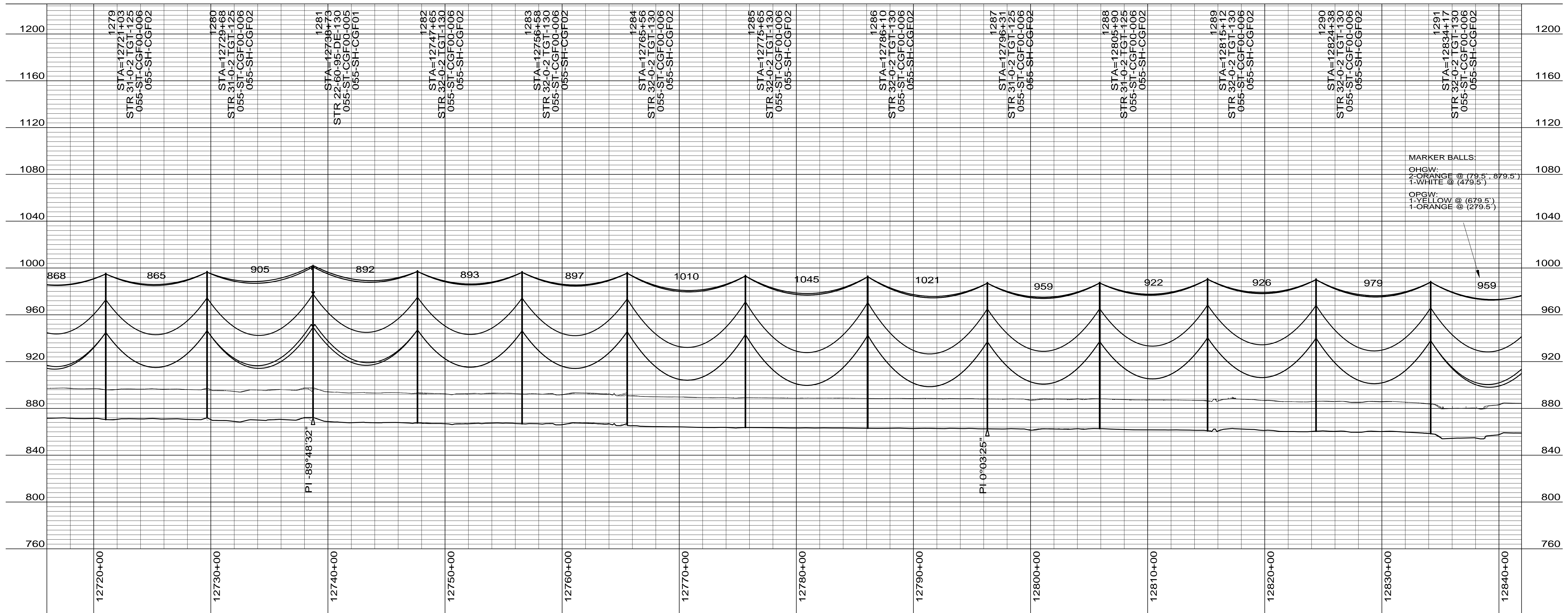
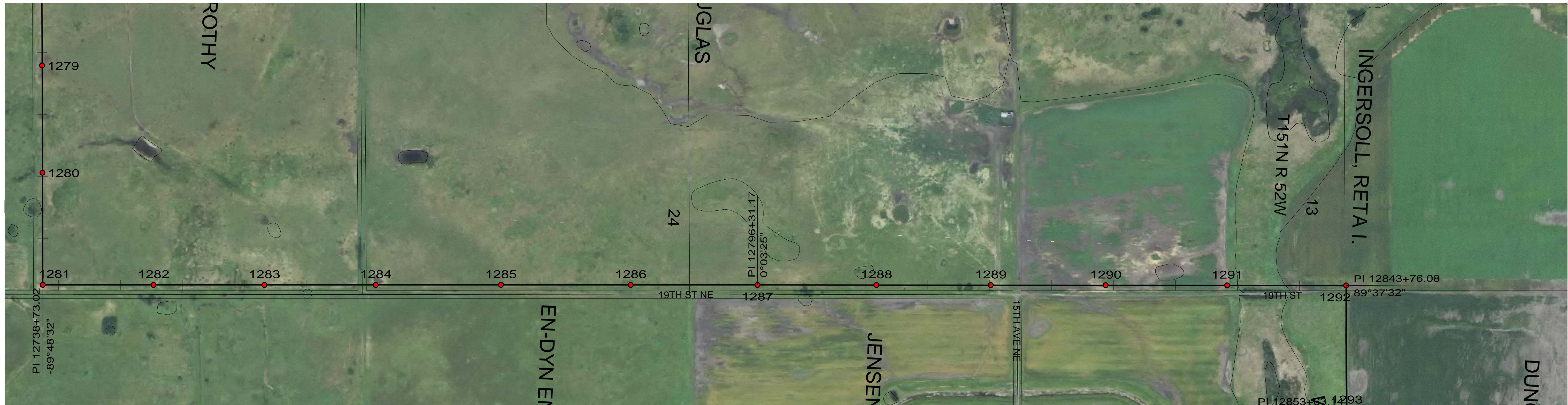
Minnkota Power
 COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING
055-PP-GF1267-016

REV
3



MARKER BALLS:
 OHGW:
 2-ORANGE @ (79.5', 879.5')
 1-WHITE @ (479.5')
 OPGW:
 1-YELLOW @ (679.5')
 1-ORANGE @ (279.5')

CONDUCTOR: 959.6 KCMIL SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
3	11/26/14	KJH	RECORD DRAWING	BEC
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK
1	01/31/13	HWD	ADDED STR & FR DRAWING # S, OPGW SPLICE LOCATIONS	LRK



8000 S. CHESTER STREET
 SUITE 500
 CENTENNIAL, CO 80112

A STANLEY GROUP COMPANY
 ENGINEERING, ENVIRONMENTAL AND
 CONSTRUCTION SERVICES - WORLDWIDE

DESIGNED L.R.KETTER
 DRAWN B.E.CAMPBELL
 CHECKED H.W.DILLABOUGH
 APPROVED K.J.HARROLD
 DATE 09/10/2012

Center to Grand Forks Project

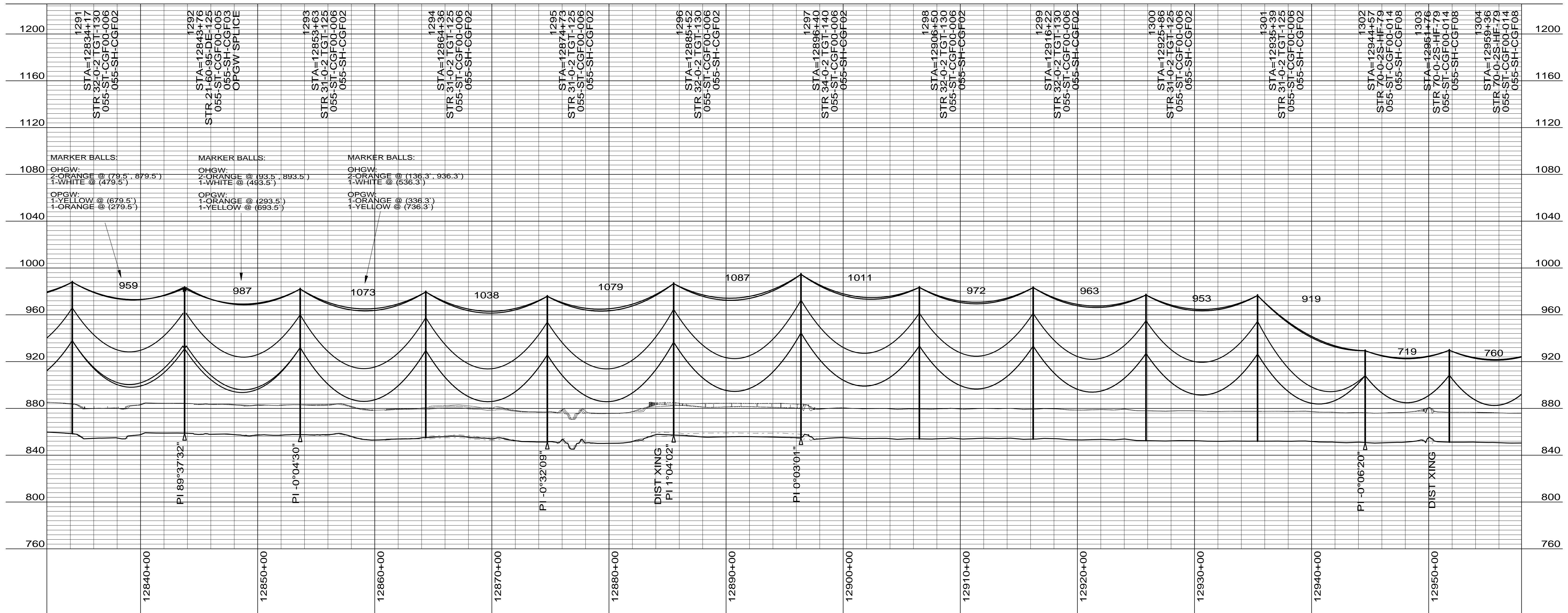


COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING REV
 055-PP-GF1279-017 3



CONDUCTOR: 959.6 KCMIL SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
3	11/26/14	KJH	RECORD DRAWING	BEC
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK
1	01/31/13	HWD	ADDED STR & FR DRAWING # S, OPGW SPLICE LOCATIONS	LRK

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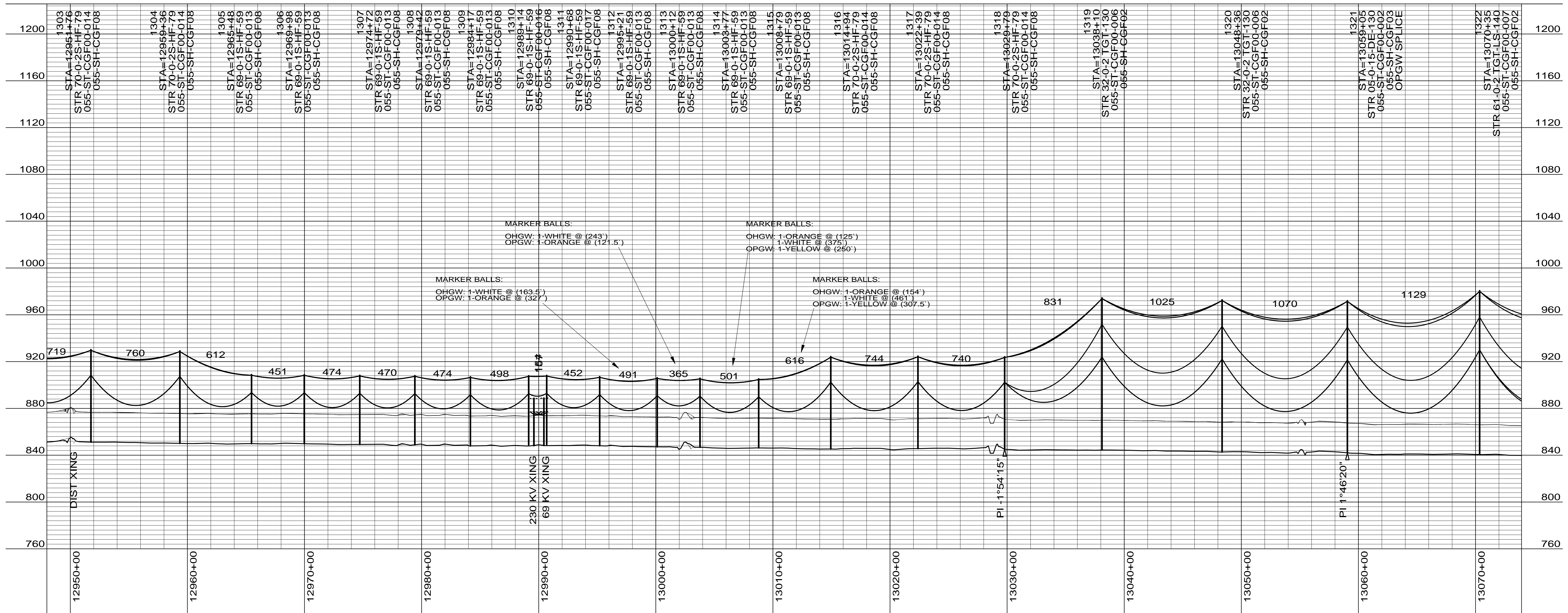
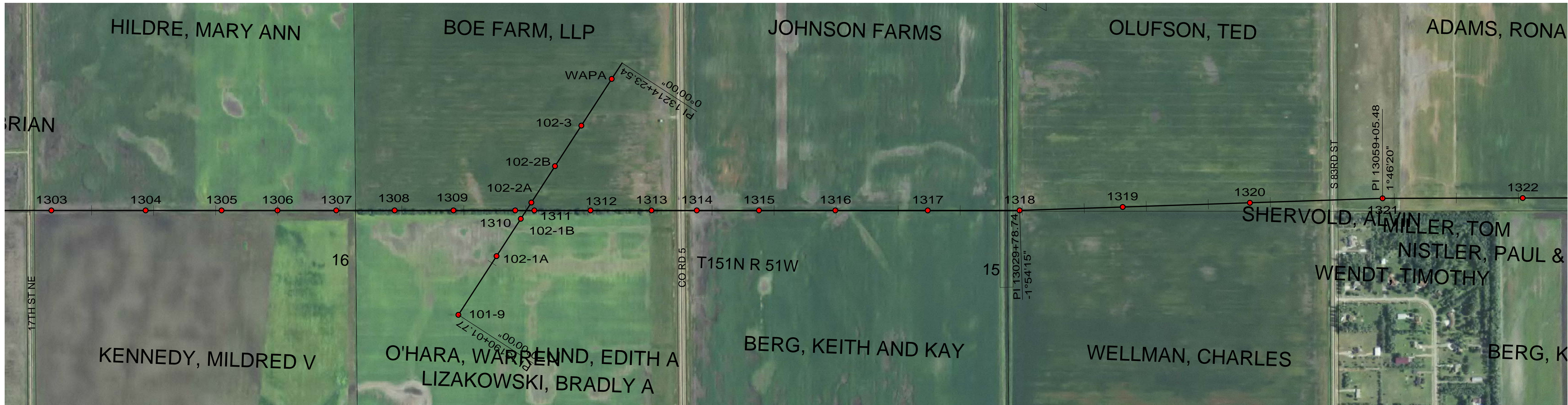
Center to Grand Forks Project

MPC COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING 055-PP-GF1291-018
 REV 3



CONDUCTOR: 959.6 KCMIL SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
3	11/26/14	KJH	RECORD DRAWING	BEC
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK
1	01/31/13	HWD	ADDED STR & FR DRAWING # S, OPGW SPLICE LOCATIONS	LRK

Stanley Consultants Inc.

8000 S. CHESTER STREET
 SUITE 500
 CENTENNIAL, CO 80112

A STANLEY GROUP COMPANY
 ENGINEERING, ENVIRONMENTAL AND
 CONSTRUCTION SERVICES - WORLDWIDE

DESIGNED L.R.KETTER
 DRAWN B.E.CAMPBELL
 CHECKED H.W.DILLABOUGH
 APPROVED K.J.HARROLD
 APPROVED DATE 09/10/2012

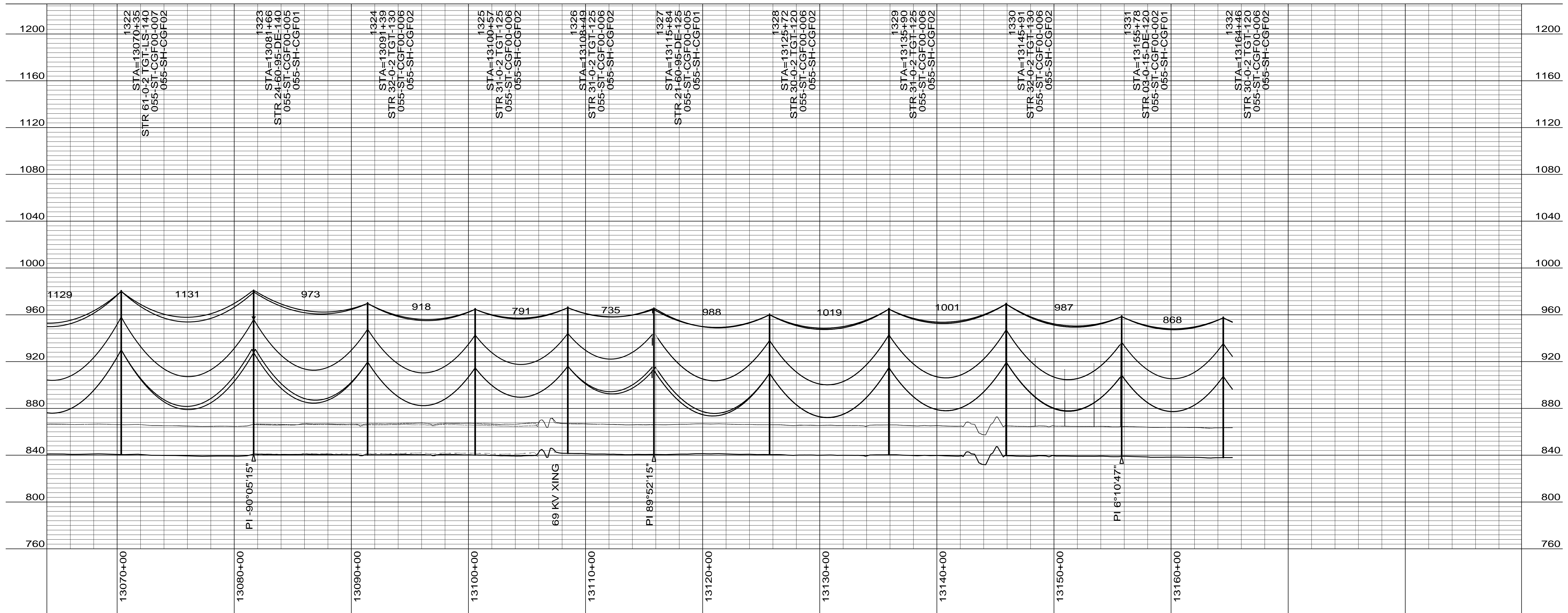
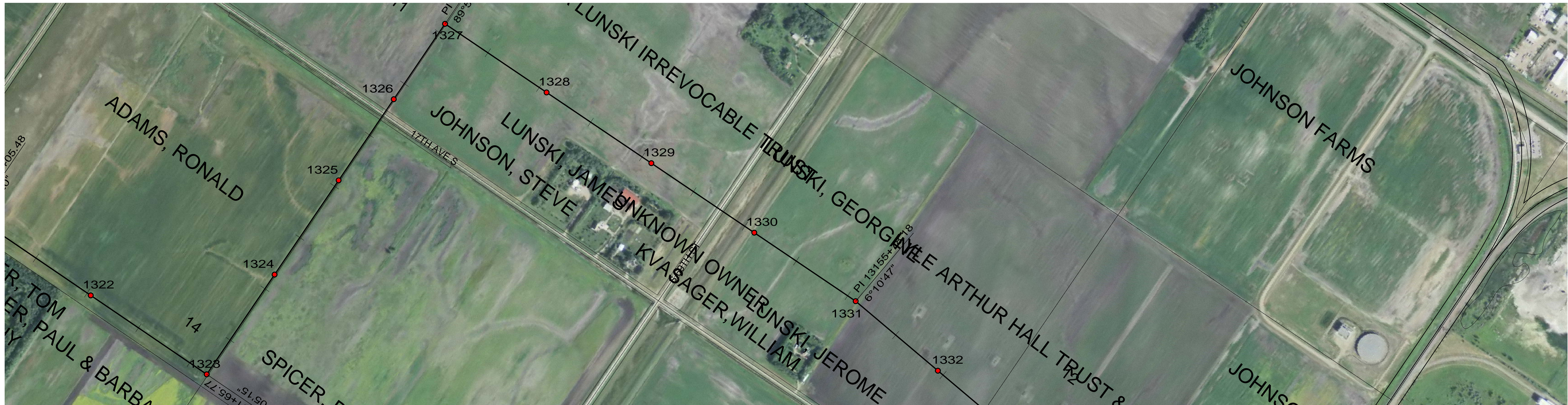
Center to Grand Forks Project

Minnkota Power
 COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING REV
 055-PP-GF1303-019 3



CONDUCTOR: 959.6 KCMIL SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
3	11/26/14	KJH	RECORD DRAWING	BEC
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK
1	01/31/13	HWD	ADDED STR & FR DRAWING # S, OPGW SPLICE LOCATIONS	LRK

8000 S. CHESTER STREET
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 CENTENNIAL, CO 80112

A STANLEY GROUP COMPANY
 ENGINEERING, ENVIRONMENTAL AND
 CONSTRUCTION SERVICES - WORLDWIDE

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 DRAWN B.E.CAMPBELL
 CHECKED H.W.DILLABOUGH
 APPROVED K.J.HARROLD
 DATE 09/10/2012

Center to Grand Forks Project

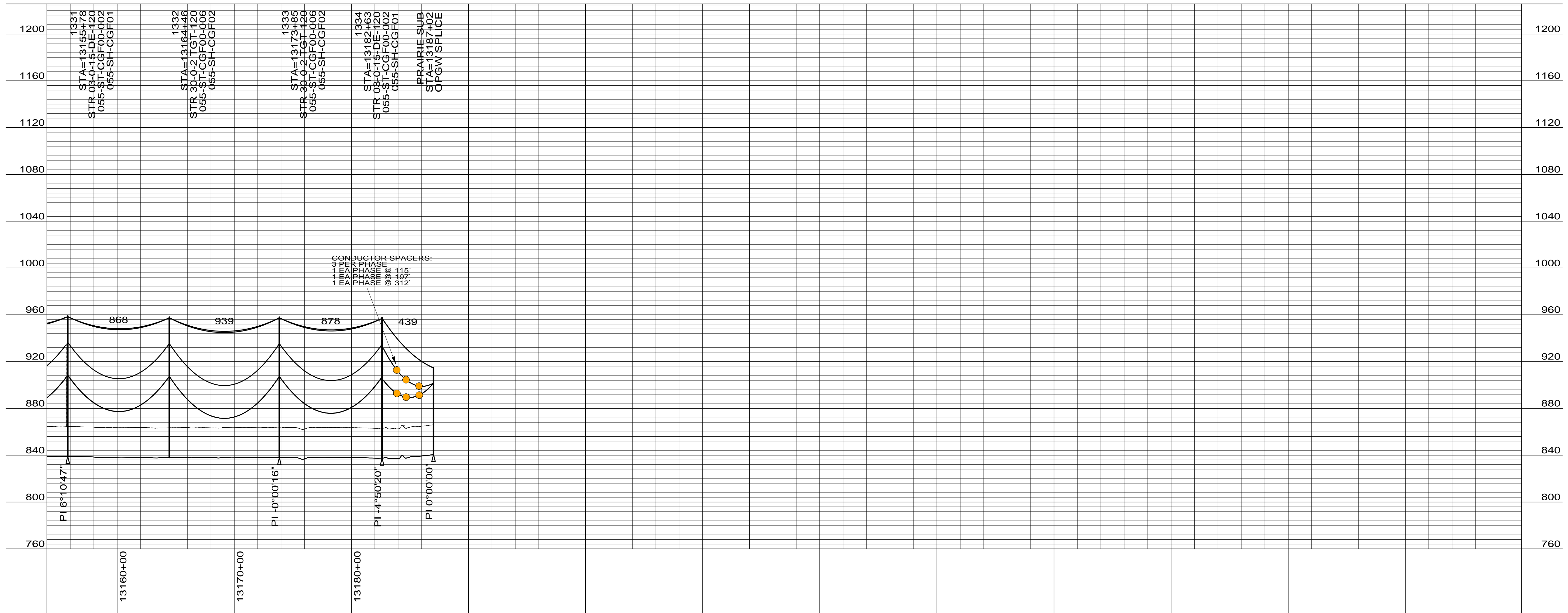
COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING
 055-PP-GF1322-020

REV
 3



CONDUCTOR: 959.6 KCMIL SUWANNEE ACSR/TW DISPLAYED @ EXTREME ICE, NO WIND; CLEARANCE: 30 FT
 OPGW: 49F69S - 24 STRAND, DISPLAYED @ -30 DEGREES F
 SHIELD WIRE: 1/2" EHS STEEL, DISPLAYED @ -30 DEGREES F

REV	DATE	APP	DESCRIPTION	DFTR
4	11/26/14	KJH	RECORD DRAWING	BEC
3	04/15/13	HWD	ADDED CONDUCTOR SPACER PLACEMENT LOCATIONS	KJH
2	02/14/13	HWD	ADDED LONG SPAN STRUCTURE INFORMATION	LRK



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8000 S. CHESTER STREET
 SUITE 500
 CENTENNIAL, CO 80112

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 DRAWN B.E.CAMPBELL
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Center to Grand Forks Project



Minnkota Power
 COOPERATIVE, INC.

GRAND FORKS COUNTY

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

DRAWING REV
 055-PP-GF1331-021 4