PLS-CADD DRAWING

BIG STONE SOUTH - ELLENDALE 345 KV TRANSMISSION LINE

ELLENDALE SUB - STR 042 (NORTH DAKOTA)

20190301
ISSUED FOR RECORD

POWER ENGINEERS

REVISIONS					
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

DWG. NO.
BSSE-PP-101-1
REVISION: 2
136508

PLSCADD DRAWING



20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

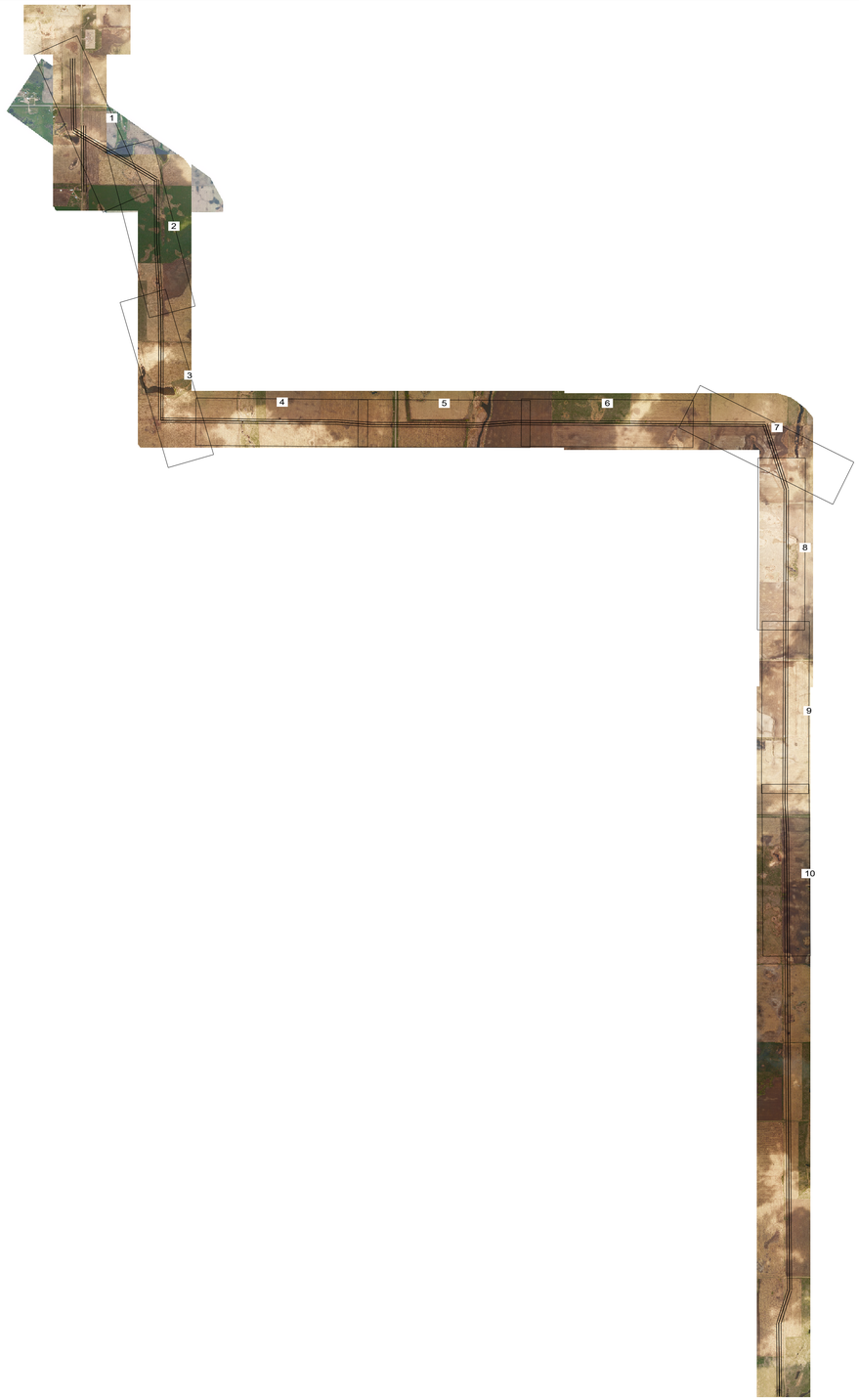
COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

DWG. NO.
BSSE-PP-101-2
REVISION: 2
136508

PLS-CADD DRAWING



20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

NORTH

DWG. NO.
BSSE-PP-101-3
REVISION: 2
136508

PLS-CADD DRAWING

ELLENDALE SUB
ELLENDALE A-FRAME.075
X=1749683.43
Y=16715726.58
HT=77.00 ELE=1479.20

001
TD106NUFH.140.POL
X=1749683.43
Y=16715426.58
HT=143.25 ELE=1474.30

002
TT106NUFH.150.POL
X=1749702.69
Y=16714331.39
HT=152.58 ELE=1476.82

003
TD106NUFH.165.POL
X=1749721.03
Y=16713288.46
HT=168.25 ELE=1467.81

004
TT06NUFHV.165.POL
X=1750495.14
Y=16712829.83
HT=168.58 ELE=1463.91

005
TTT06NUFH.155.POL
X=1751505.31
Y=16712231.33
HT=157.58 ELE=1467.49

300
1095
1043
900
1174

PI 0°00'00"
PI - 1°00'27"
PI - 58°20'50"

115KV CROSSING
MDU

DISTRIBUTION CROSSING
MDU

115KV CROSSING
NORTHWESTERN ENERGY

ELLENDALE SUB - 001
ELLENDALE SUB - 001
ELLENDALE SUB - 001
ELLENDALE SUB - 001
001 - 002
001 - 003
001 - 004
003 - 006
003 - 006

ELLENDALE SUB
PI 0.00
0°00'00"
001
PI 300.00
- 1°00'27"
500
1000
002
1500
2000
EXIST 7
EXIST 8
2500
003
PI 2538.41
58°20'50"
EXIST 9
3000
004
3500
4000
4500
005

STRS: ELLENDALE SUB - 005

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

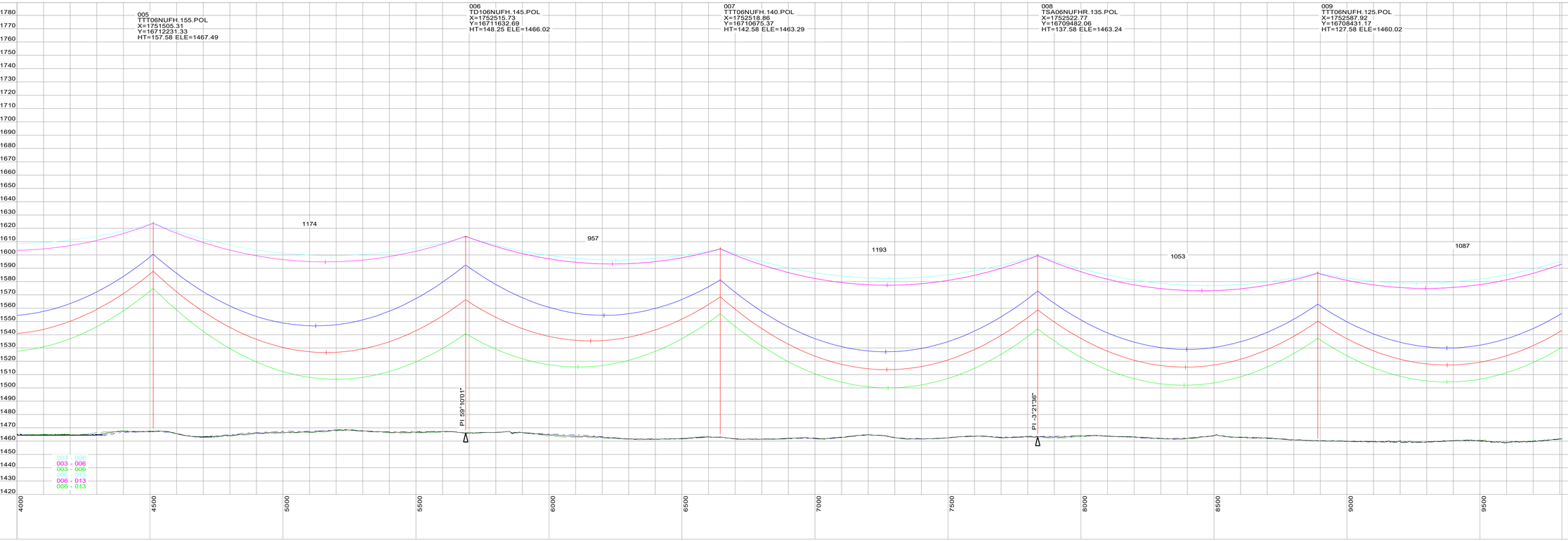
BSSE
Big Stone South to Ellendale

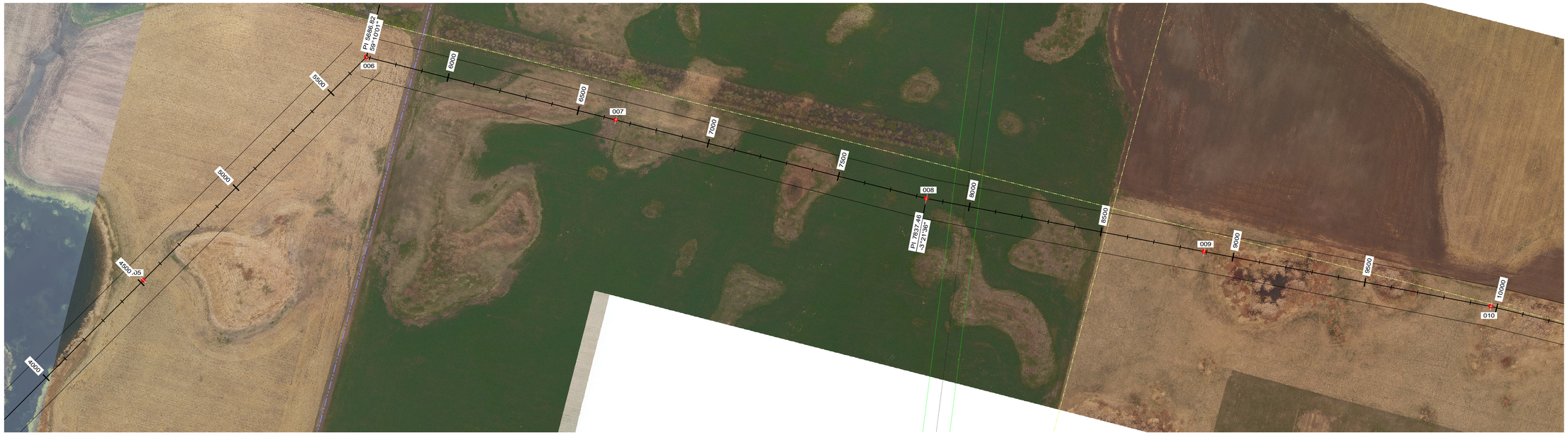
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-4
REVISION: 2
136508

PLS-CADD DRAWING





STRS: 005 - 009

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19
REV	DESCRIPTION	DWN	DGN	CHK	DATE

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

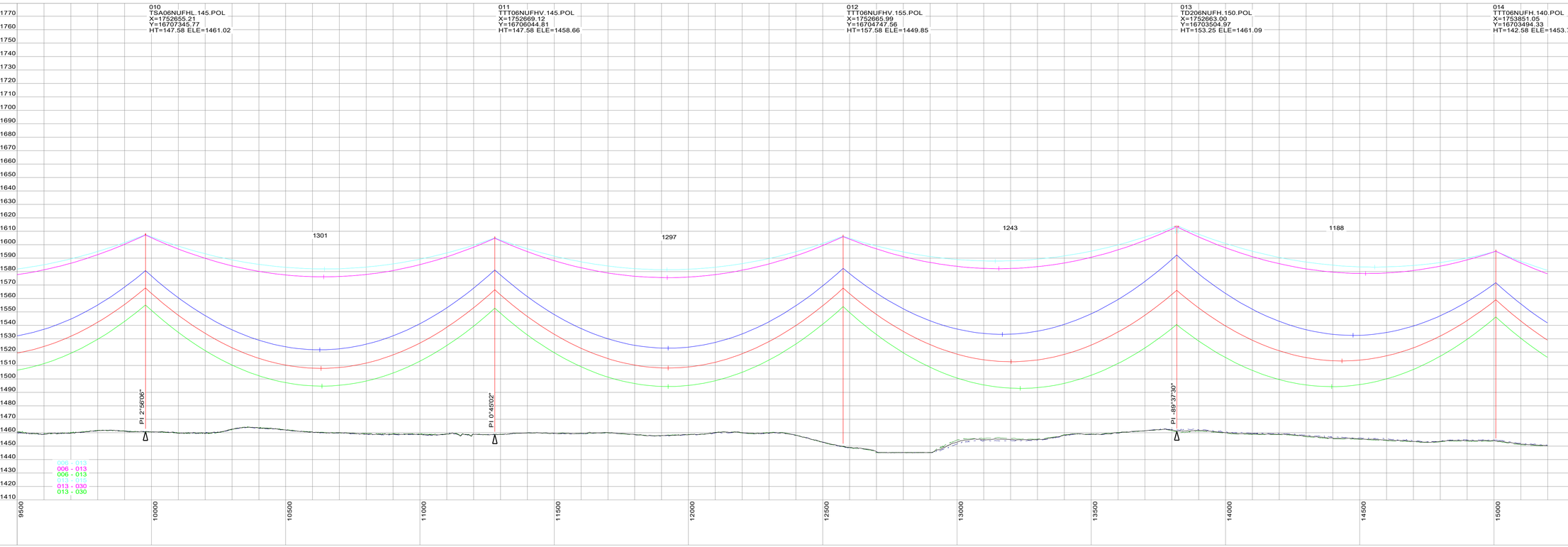
40.0 FT. VERT. SCALE

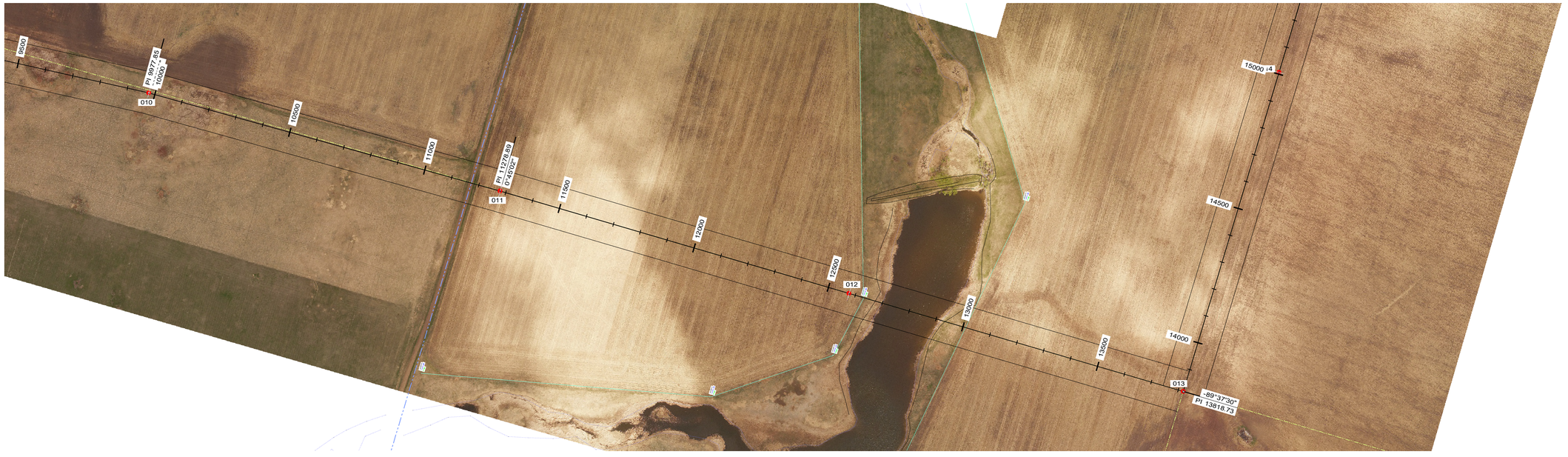
NORTH

DWG. NO.
BSSE-PP-101-5
REVISION: 2

136508

PLS-CADD DRAWING





STRS: 010 - 014

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

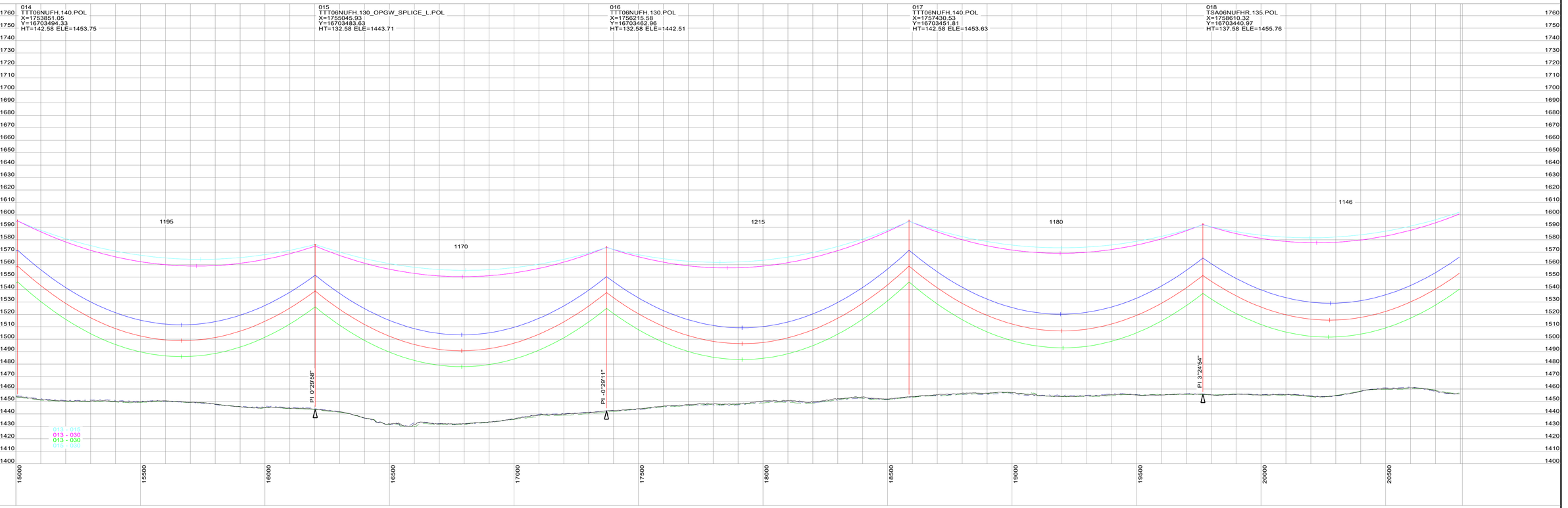
40.0 FT. VERT. SCALE

NORTH

DWG. NO.
BSSE-PP-101-6
REVISION: 2

136508

PLS-CADD DRAWING





STRS: 014 - 018

20190301
ISSUED FOR RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

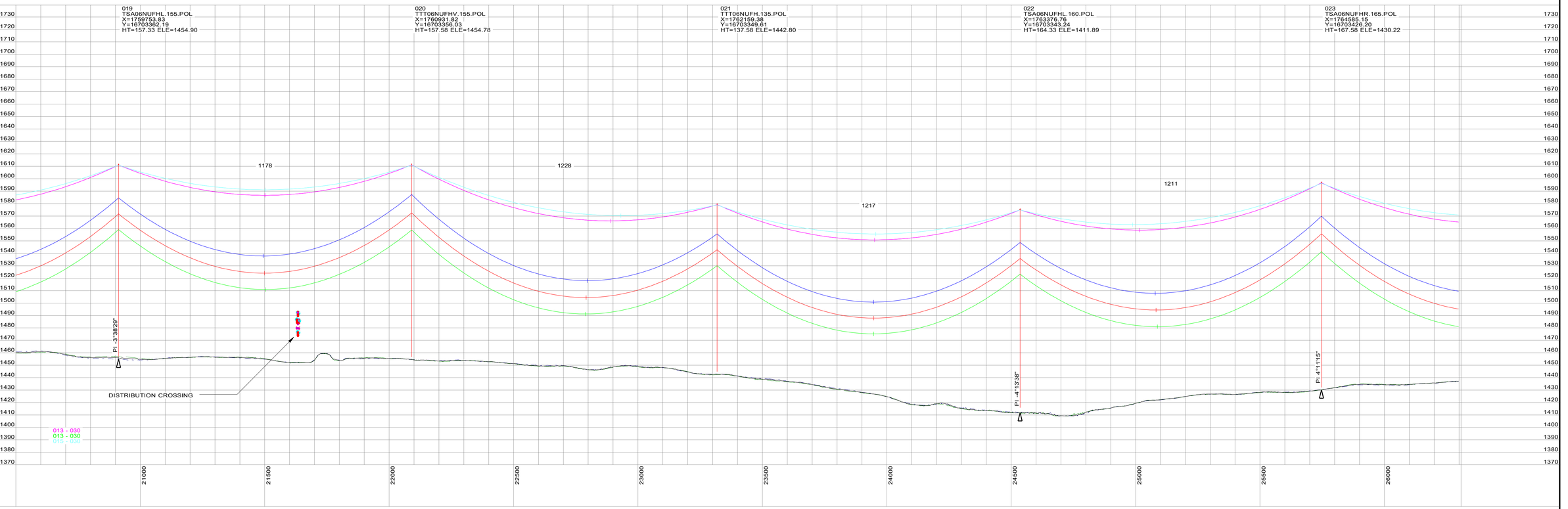
BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-7
REVISION: 2
136508

PLS-CADD DRAWING





STRS: 019 - 023

20190301 ISSUED FOR RECORD	POWER ENGINEERS	REVISIONS					APPROVALS	DATE	DESIGN DATA
							DRAWN BY: GMD	02/03/17	CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL OPGW: 1-DN0-10523
							DESIGN BY: GMD	02/03/17	
							CHECKED BY: JPW	02/03/17	
		2	ISSUED FOR RECORD	JDB	JDB	JPW	APPROVED BY: DJF	02/03/17	COORDINATE SYSTEM: UTM ZONE 14N, US FT
		REV	DESCRIPTION	DWN	DGN	CHK	DATE		

BSSE Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

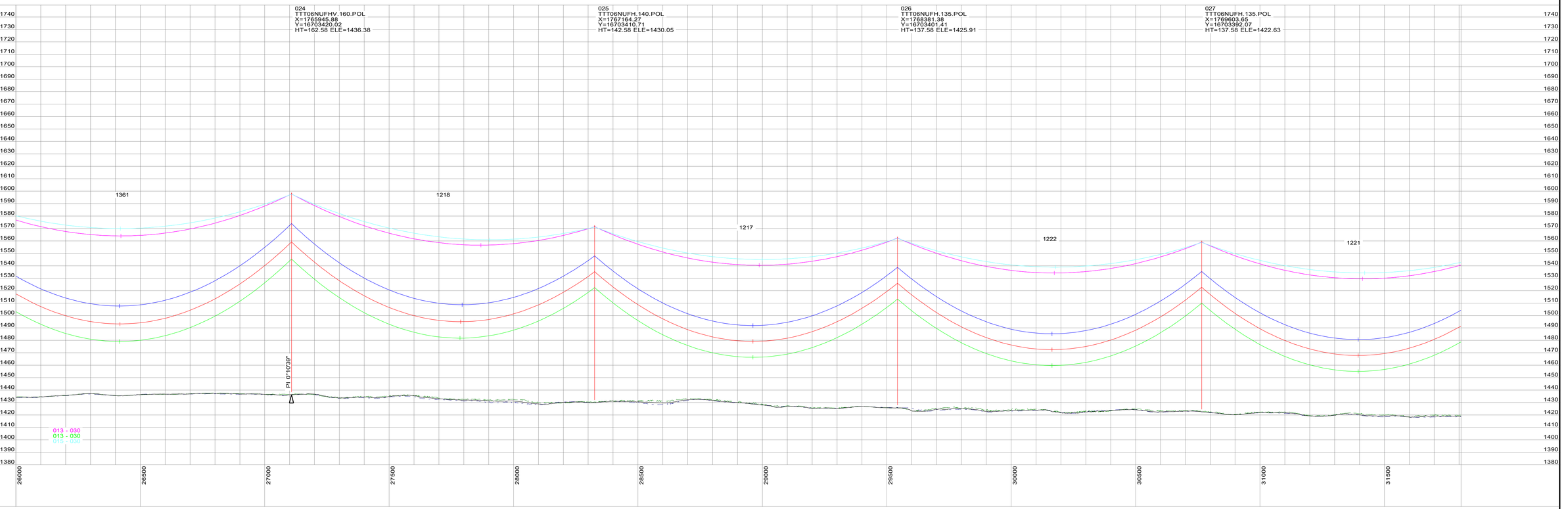
200.0 FT. HORIZ. SCALE

40.0 FT. VERT. SCALE

NORTH

DWG. NO.
BSSE-PP-101-8
REVISION: 2
136508

PLS-CADD DRAWING





STRS: 024 - 027

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

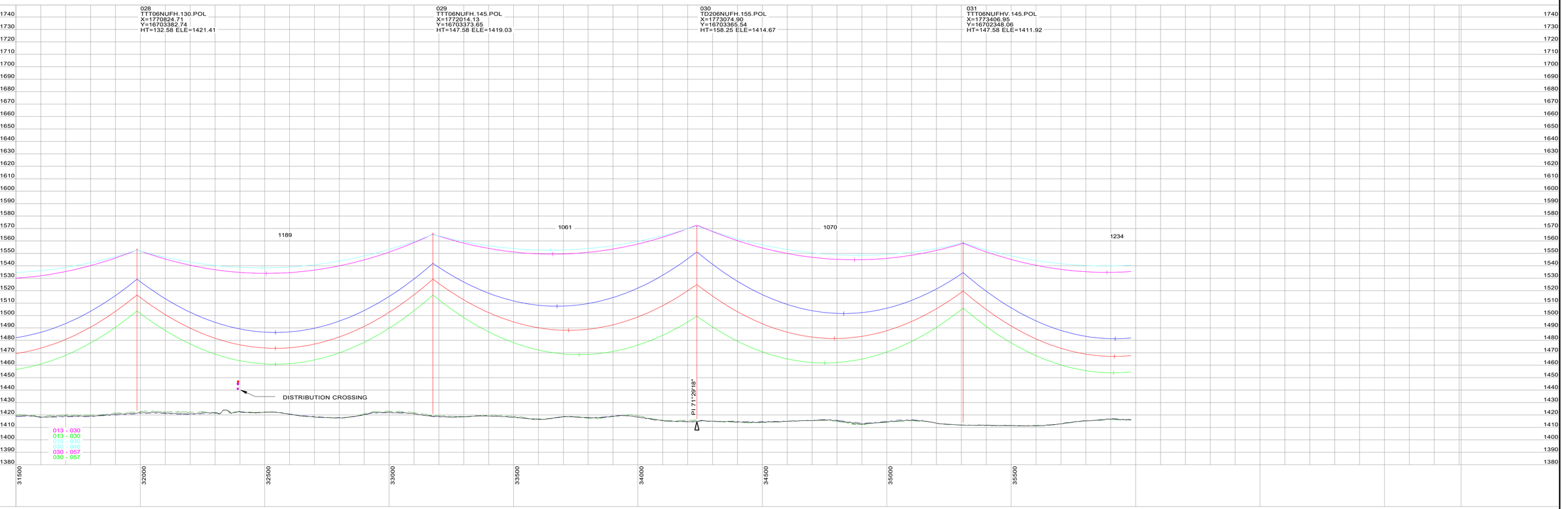
BSSE
Big Stone South to Ellendale

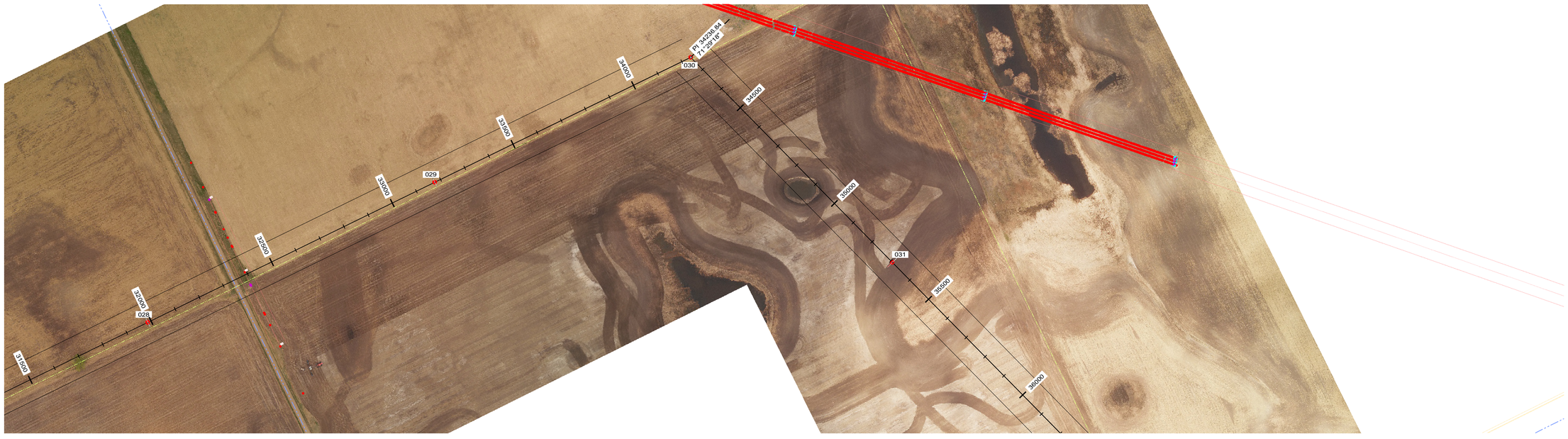
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-9
REVISION: 2
136508

PLS-CADD DRAWING





STRS: 028 - 031

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

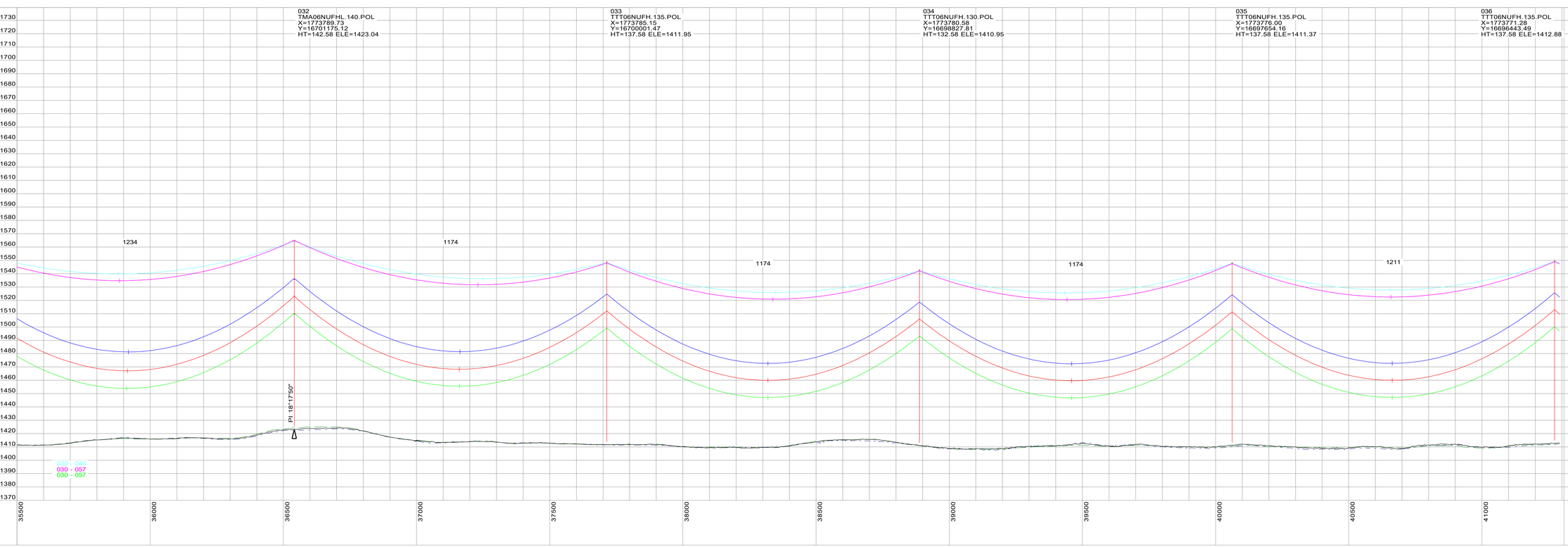
BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-10
REVISION: 2
136508

PLS-CADD DRAWING



STRS: 032 - 036

20190301 ISSUED FOR RECORD	POWER ENGINEERS	REVISIONS					APPROVALS	DATE	DESIGN DATA
							DRAWN BY: GMD	02/03/17	CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL OPGW: 1-DN0-10523
							DESIGN BY: GMD	02/03/17	
							CHECKED BY: JPW	02/03/17	
		2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19	APPROVED BY: DJF	02/03/17	COORDINATE SYSTEM: UTM ZONE 14N, US FT
		REV	DESCRIPTION	DWN	DGN	CHK	DATE		

BSSE Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

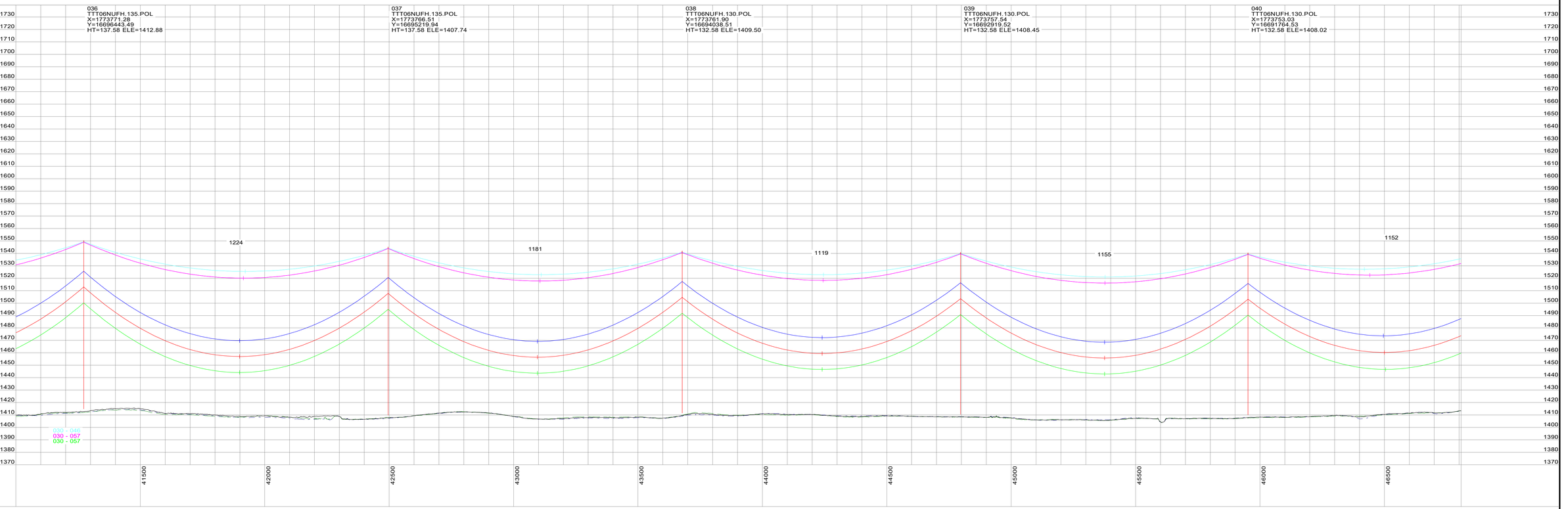
200.0 FT. HORIZ. SCALE

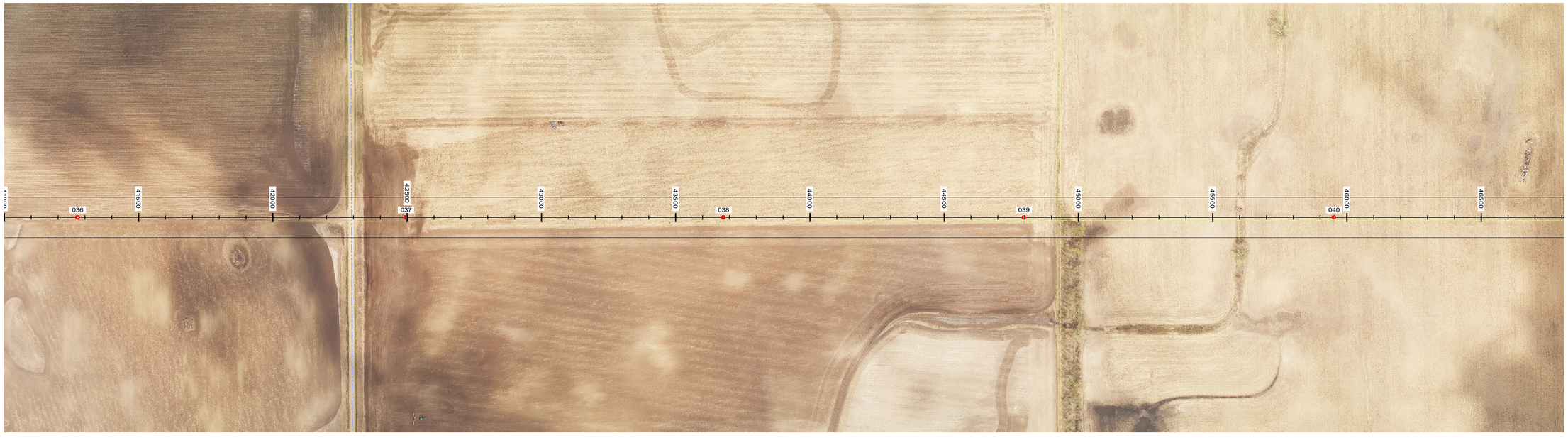
40.0 FT. VERT. SCALE

NORTH

DWG. NO.
BSSE-PP-101-11
REVISION: 2

136508





STRS: 036 - 040

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

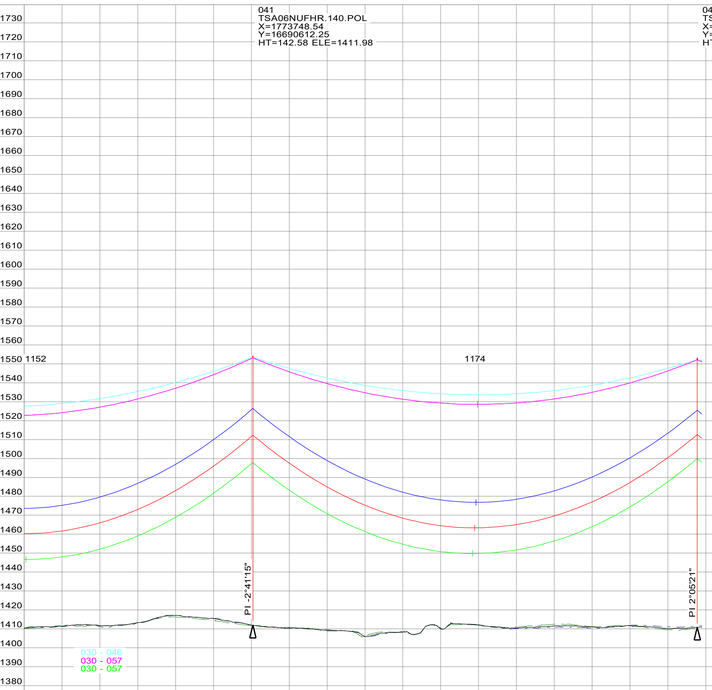
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-12
REVISION: 2

136508

PLS-CADD DRAWING





STRS: 041 - 042

20190301
ISSUED FOR
RECORD

POWER ENGINEERS

REVISIONS					
REV	DESCRIPTION	DWN	DGN	CHK	DATE
2	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19

APPROVALS	DATE
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: JPW	02/03/17
APPROVED BY: DJF	02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
OPGW: 1-DN0-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BSSE
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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

DWG. NO.
BSSE-PP-101-13
REVISION: 2

136508