

BIG STONE SOUTH - ELLENDALE 345 KV TRANSMISSION LINE

STR 398 - STR 590 (SOUTH DAKOTA)

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	DRN	CHK
3	ISSUED FOR RECORD	JDB	JDB	JPW

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

DATE	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	02/03/17
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	02/03/17
OPGW: 1-ON0-10523	02/03/17
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

DWG. NO.
BSSE-PP-103-1
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



REVISIONS					
REV	DESCRIPTION	DWN	CHK	CHK	DATE
3	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: NLC		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-DWG-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

DWG. NO.
BSSE-PP-103-2
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



REVISIONS					
REV	DESCRIPTION	DWN	DOX	CHK	DATE
3	ISSUED FOR RECORD	JDB	JOB	JPW	03/01/19

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	COORDINATE SYSTEM: UTM ZONE 14N, US FT
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN5-10523	



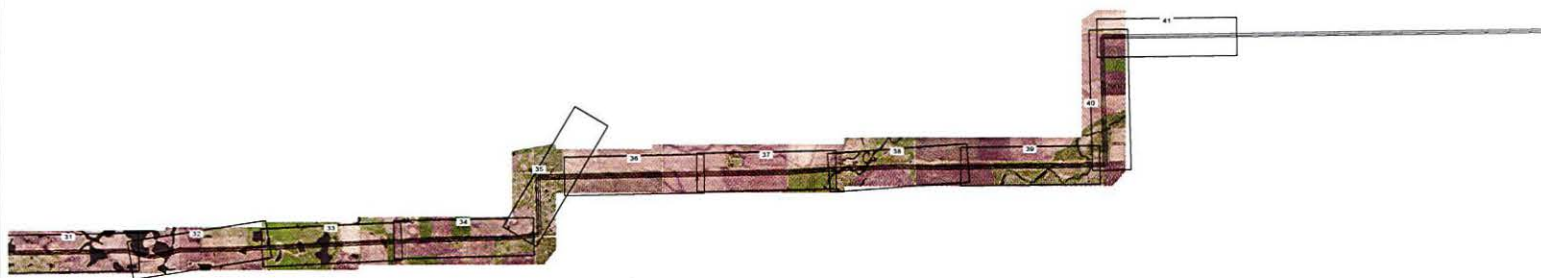
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-3
REVISION: 3
136508



20190301 ISSUED FOR RECORD		POWER ENGINEERS		REVISIONS					APPROVALS		DATE	DESIGN DATA		 Big Stone South to Ellendale	BIG STONE SOUTH - ELLENDALE 345 KV TRANSMISSION LINE	 NORTH	DWG. NO. BSSE-PP-103-4 REVISION: 3 136508
									DRAWN BY: GMD		02/03/17	CONDUCTOR: (2X) 477 KOMIL 267 TP HAWK ACSR					
									DESIGN BY: GMD		02/03/17	SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL					
									CHECKED BY: NLC		02/03/17	OPGW: 1-DN0-10523					
									APPROVED BY: DJF		02/03/17	COORDINATE SYSTEM: UTM ZONE 14N, US FT					
3	ISSUED FOR RECORD	JDB	JDB	JPW	03/01/19												
REV	DESCRIPTION	DWN	DOH	CHK	DATE												



20190301
ISSUED FOR
RECORD



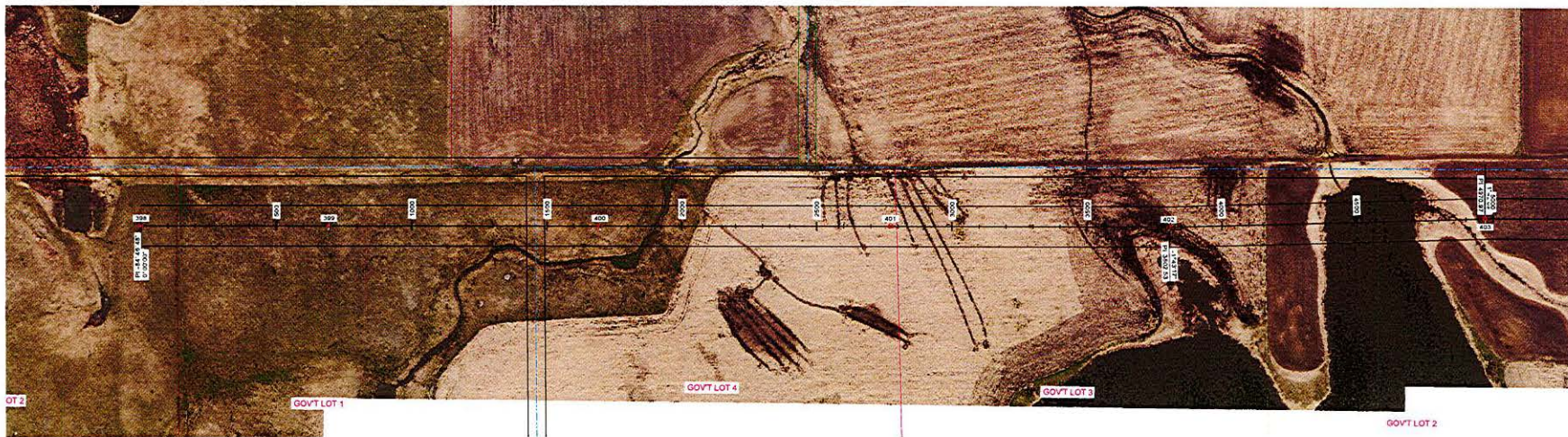
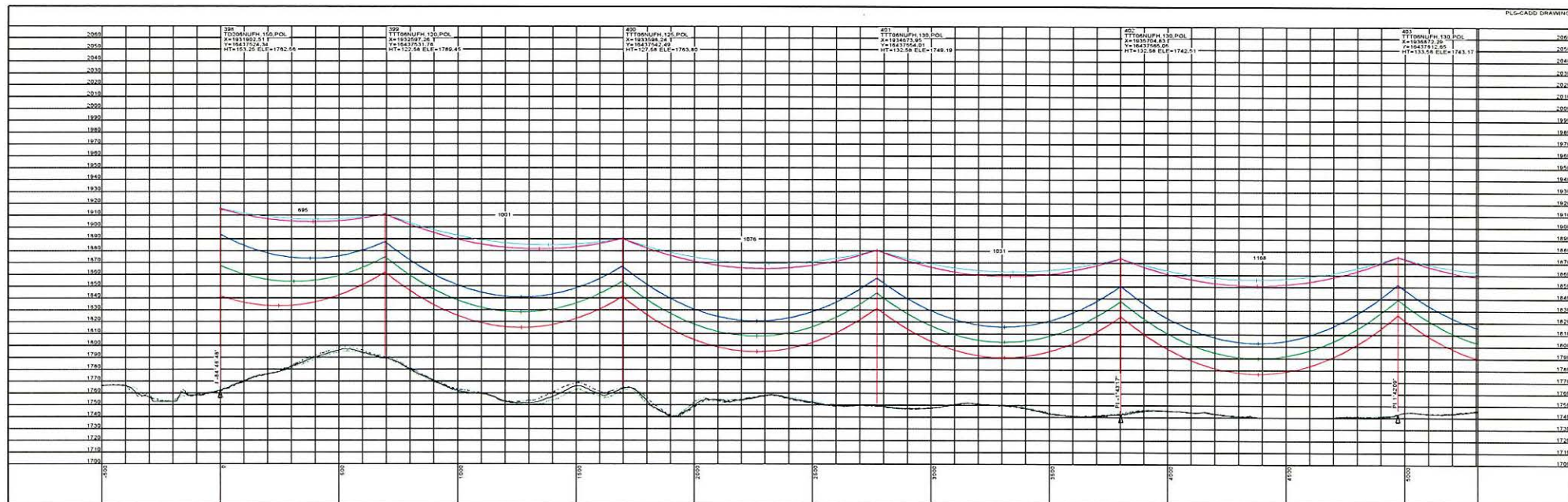
REVISIONS					APPROVALS	DATE	DESIGN DATA
					DRAWN BY: GMD	02/03/17	CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
					DESIGN BY: GMD	02/03/17	SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
					CHECKED BY: NLC	02/03/17	OPGW: 1-DNS-10523
3	ISSUED FOR RECORD	JDS	JDS	JPW	03/01/18		
REV	DESCRIPTION	DWN	DSN	CHK	DATE	APPROVED BY: DJF	02/03/17
							COORDINATE SYSTEM: UTM ZONE 14N, US FT



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-5
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



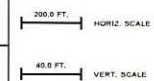
REVISIONS					
REV	DESCRIPTION	DWN	CHK	DATE	
3	ISSUED FOR RECORD	JDB	JDB	03/01/19	

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

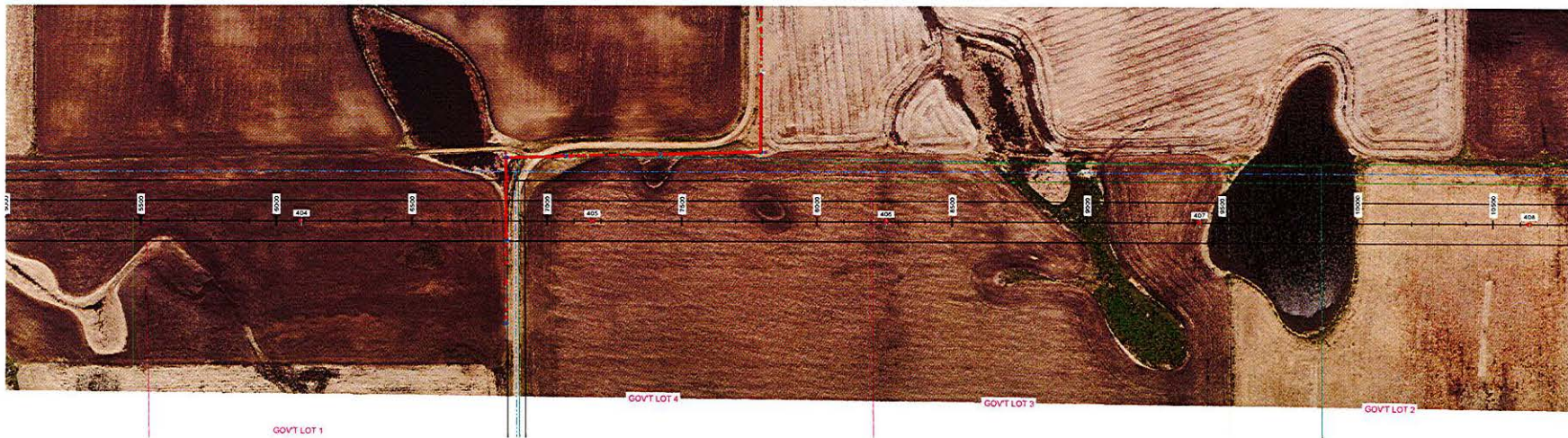
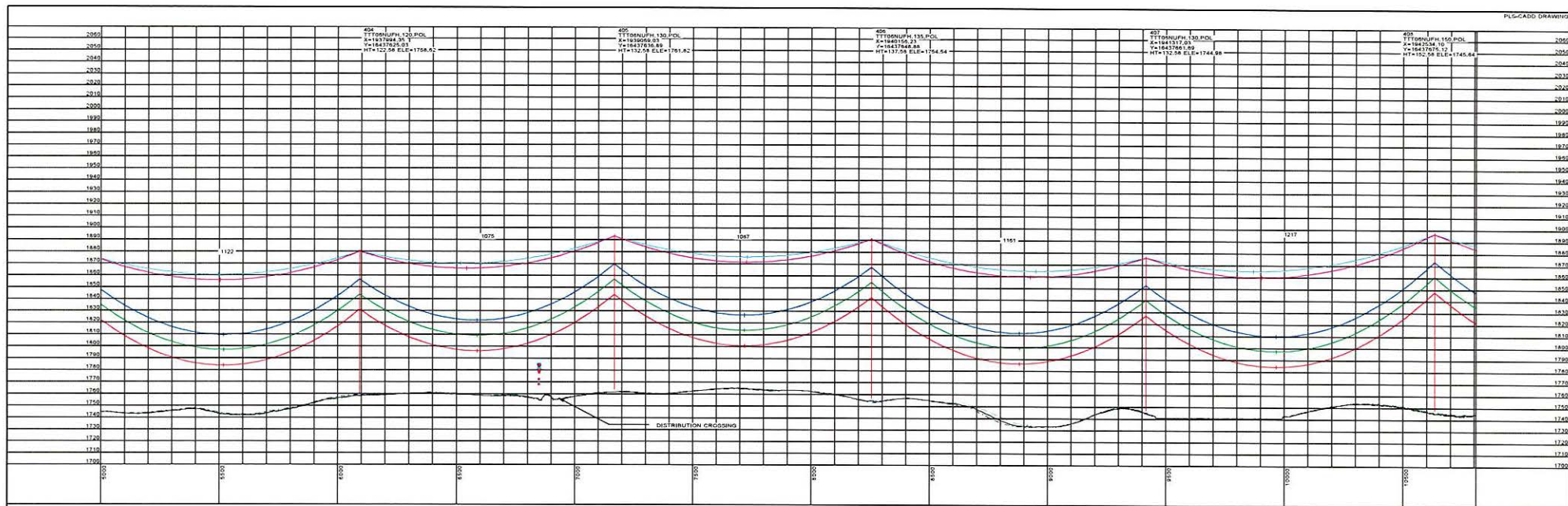


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 398 - 403

DWG. NO. BSSE-PP-103-G
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



REVISIONS					
REV	DESCRIPTION	DWN	CHK	DATE	
3	ISSUED FOR RECORD	JDB	JDB	03/01/19	

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

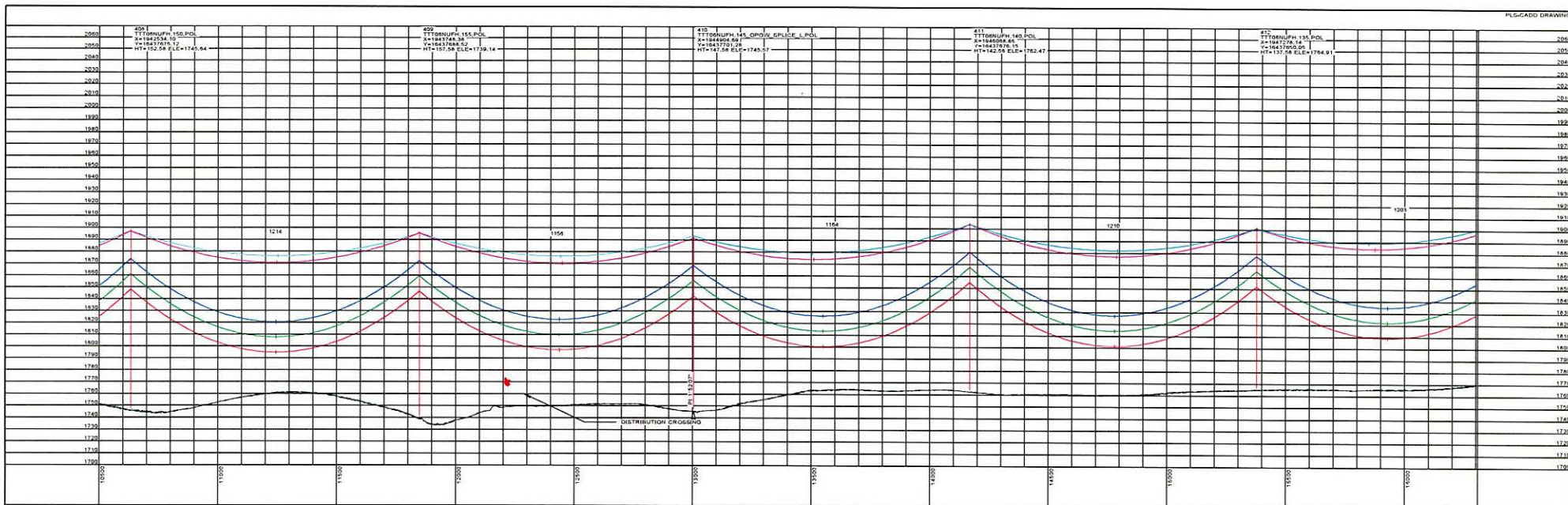


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 404 - 408

DWG. NO.
B5SE-PP-103-7
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



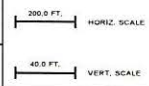
REVISIONS				
REV	DESCRIPTION	DWN	DN	CHK
3	ISSUED FOR RECORD	JDB	JDB	JPW

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

DESIGN DATA	
CONDUCTOR: 075 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N US FT	

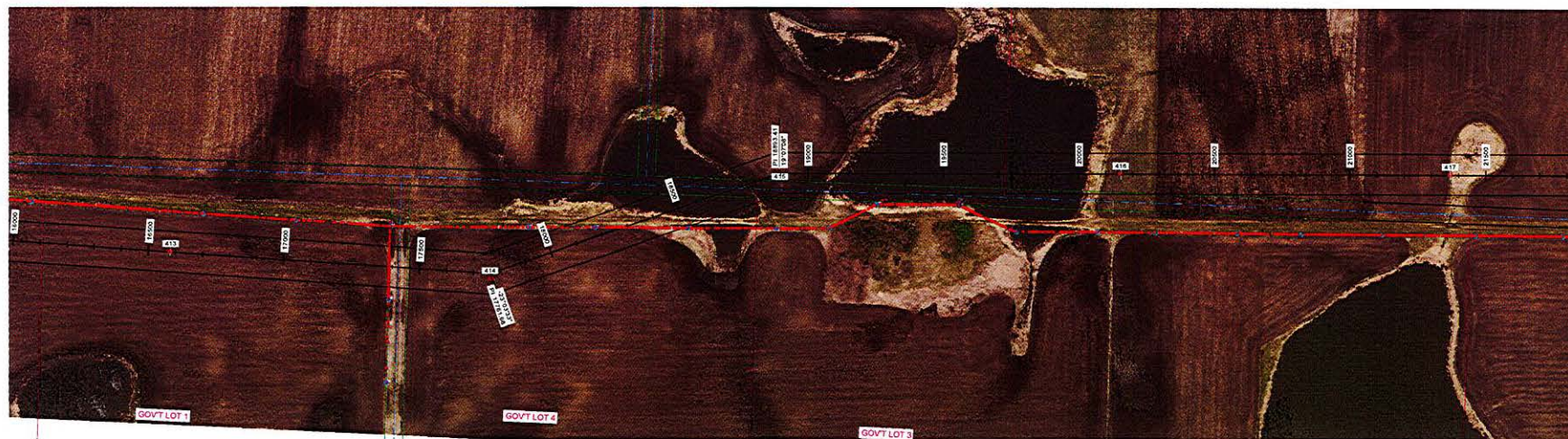
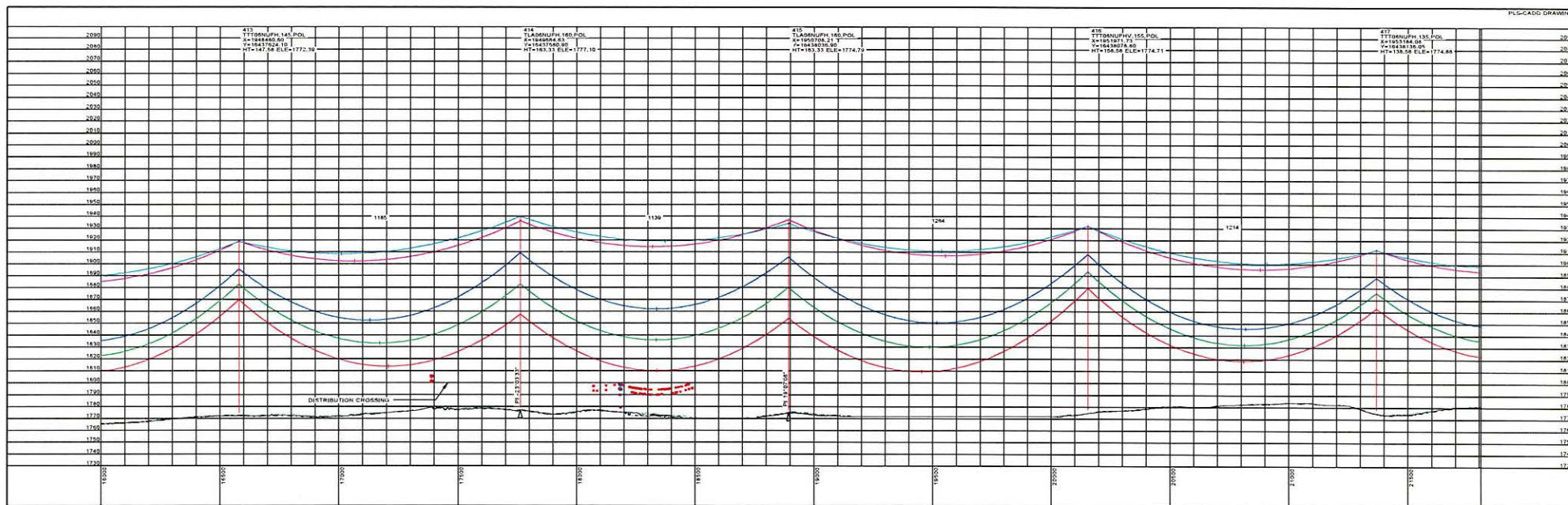


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 408 - 412

DWG. NO.
BSSE-PP-103-8
REVISION: 3
136508



STRS: 413 - 417

20190301
ISSUED FOR
RECORD



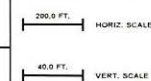
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JPW	03/01/19

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

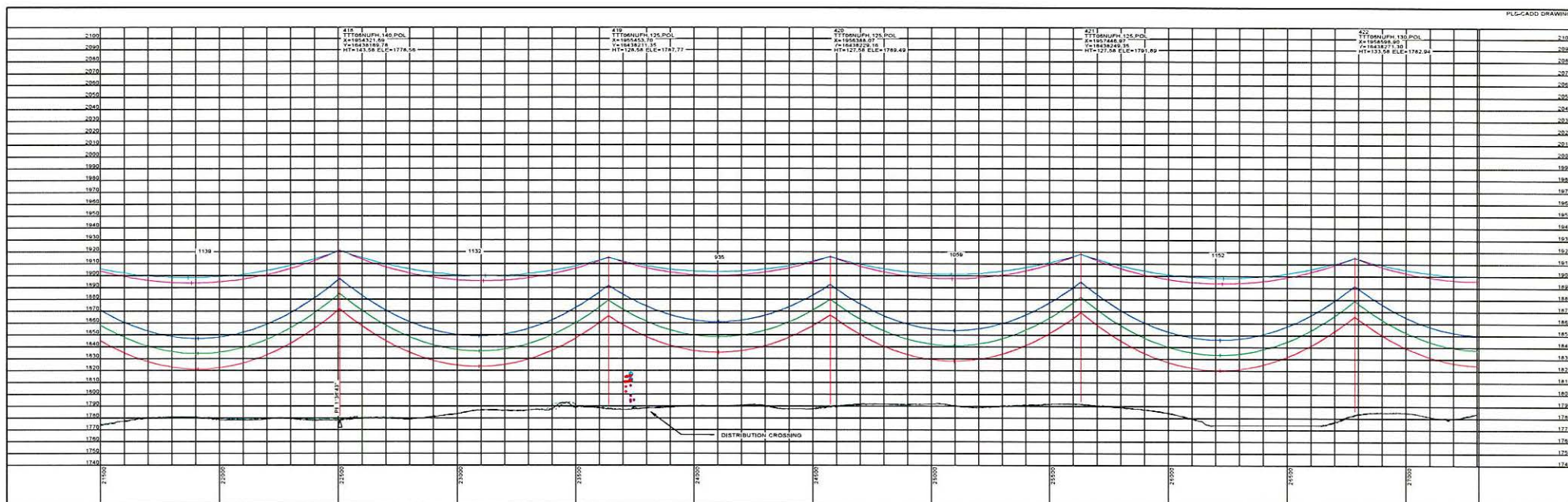
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DWG-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-9
REVISION: 3
136508



STRS: 418 - 422

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	CON	DATE
3	ISSUED FOR RECORD	JDB	JPW	03/01/19

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

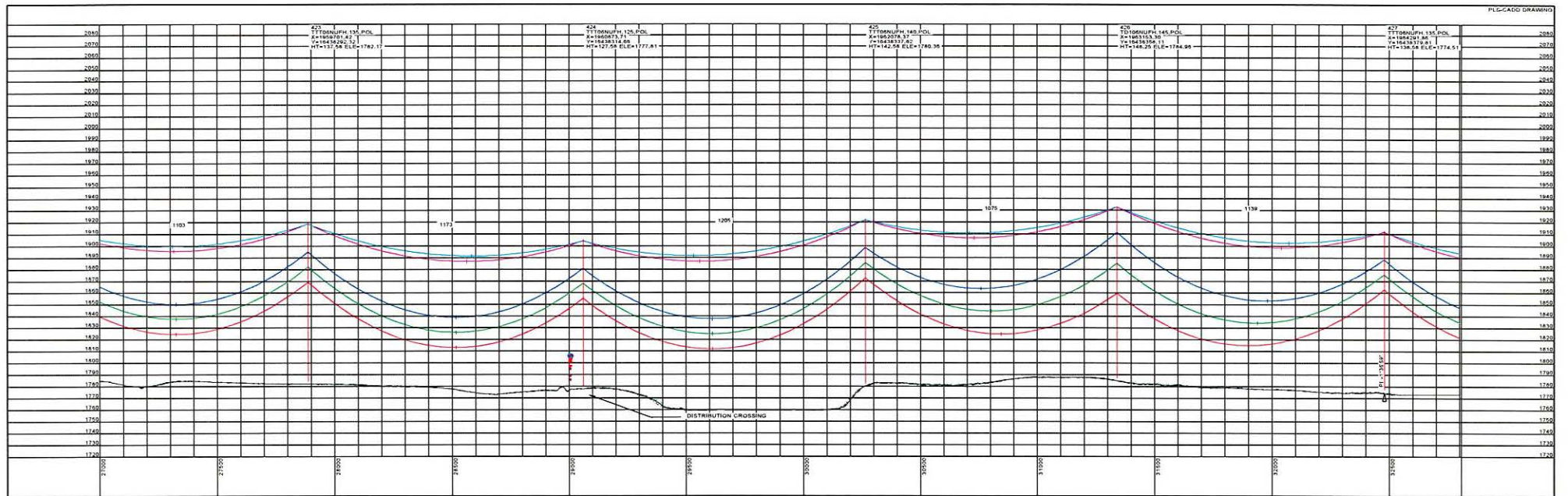
DESIGN DATA	
CONDUCTOR: (2X) 477 KOMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPOW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-10
REVISION: 3
136508



STRS: 423 - 427

20190301
ISSUED FOR
RECORD



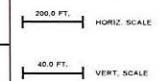
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JPW	03/01/19

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

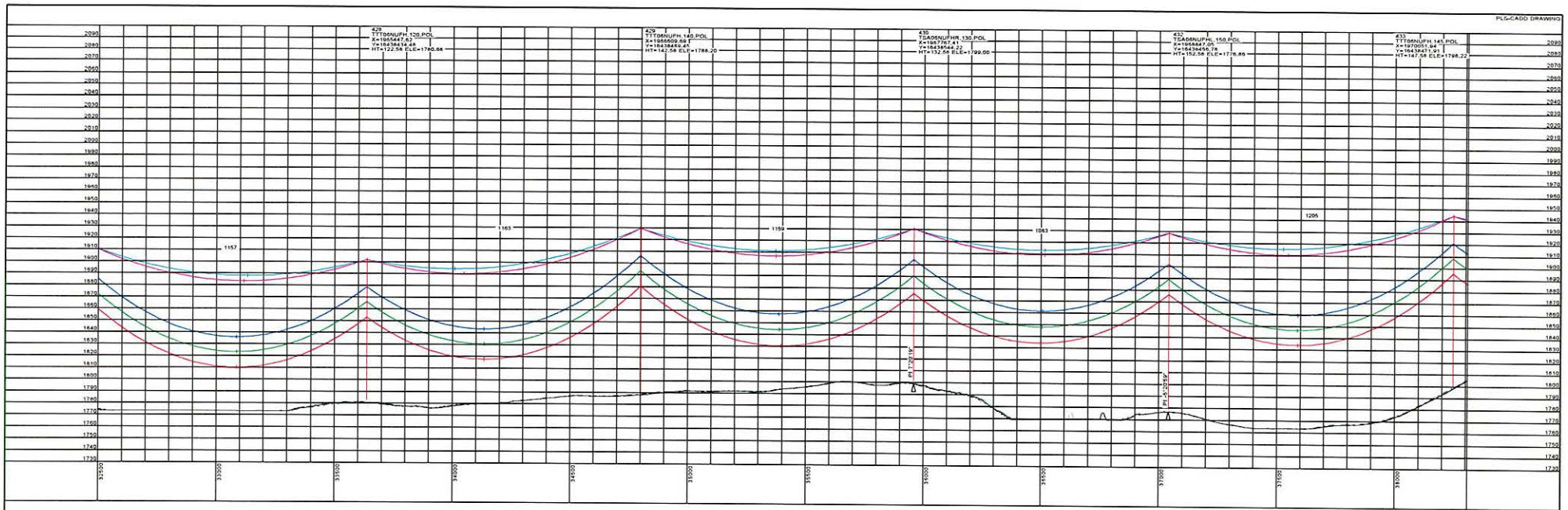
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. BSSE-PP-103-11
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



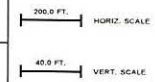
REVISIONS				
REV	DESCRIPTION	DWN	DGN	CHK
3	ISSUED FOR RECORD	JDB	JDB	JPW

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

DESIGN DATA	
CONDUCTOR: 0X0 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N US FT	

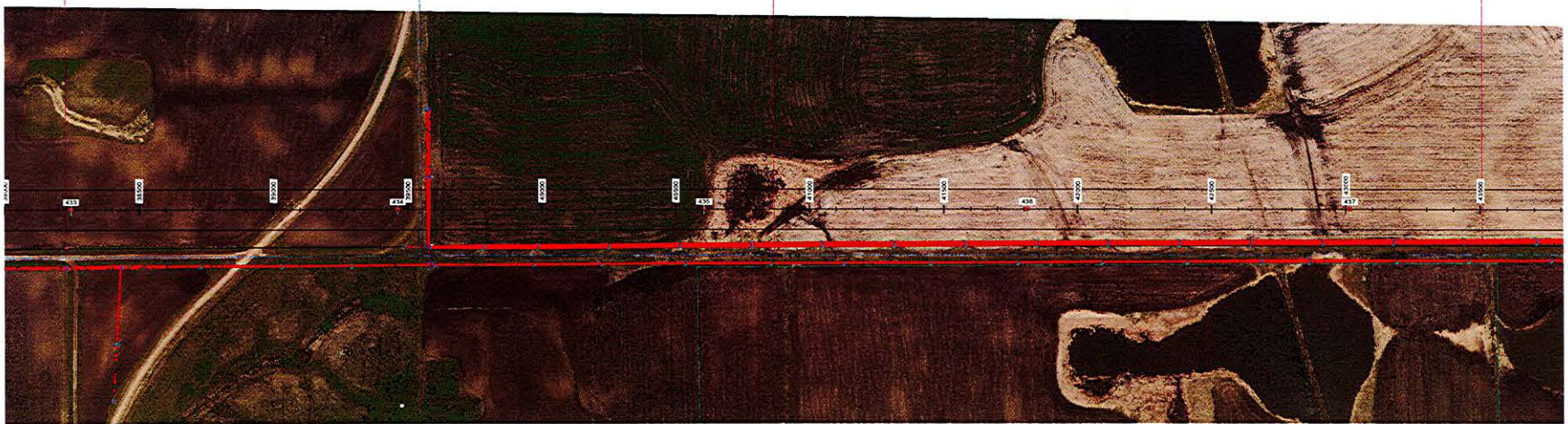
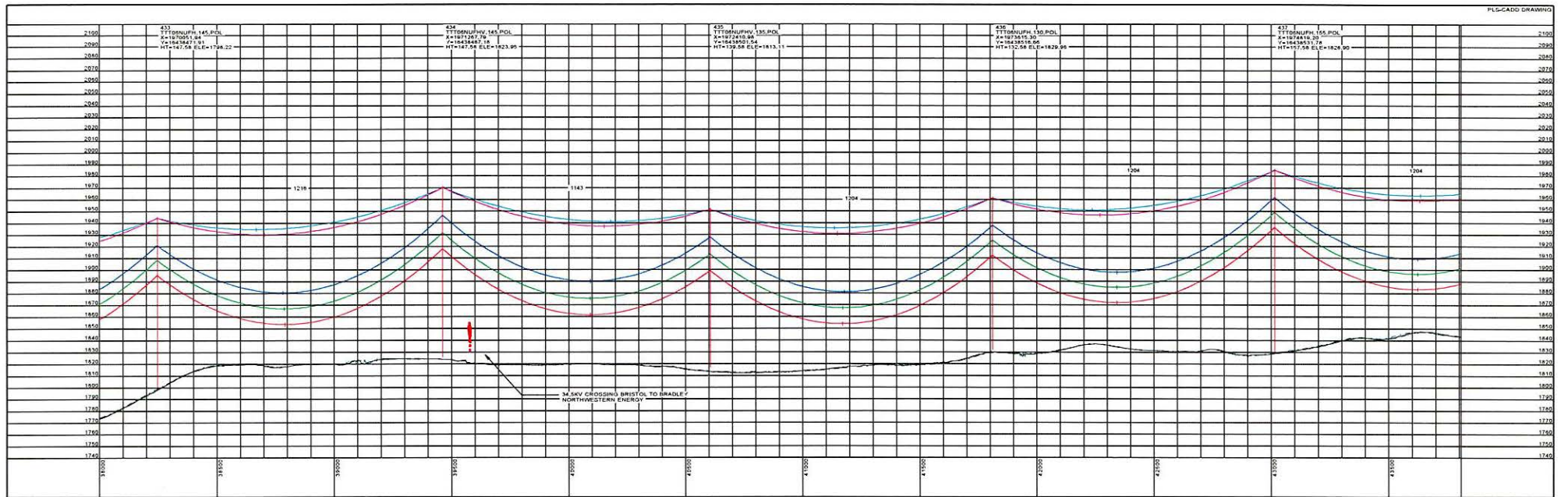


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 428 - 433

DWG. NO.
BSSE-PP-103-12
REVISION: 3
136508



STRS: 433 - 437

20190301
ISSUED FOR
RECORD



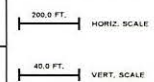
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

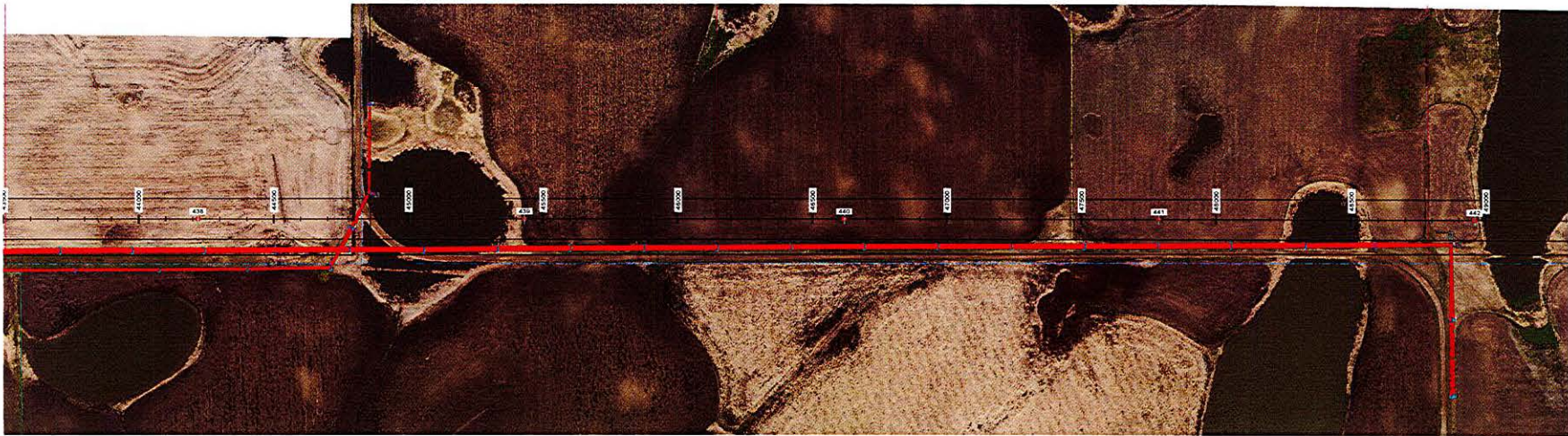
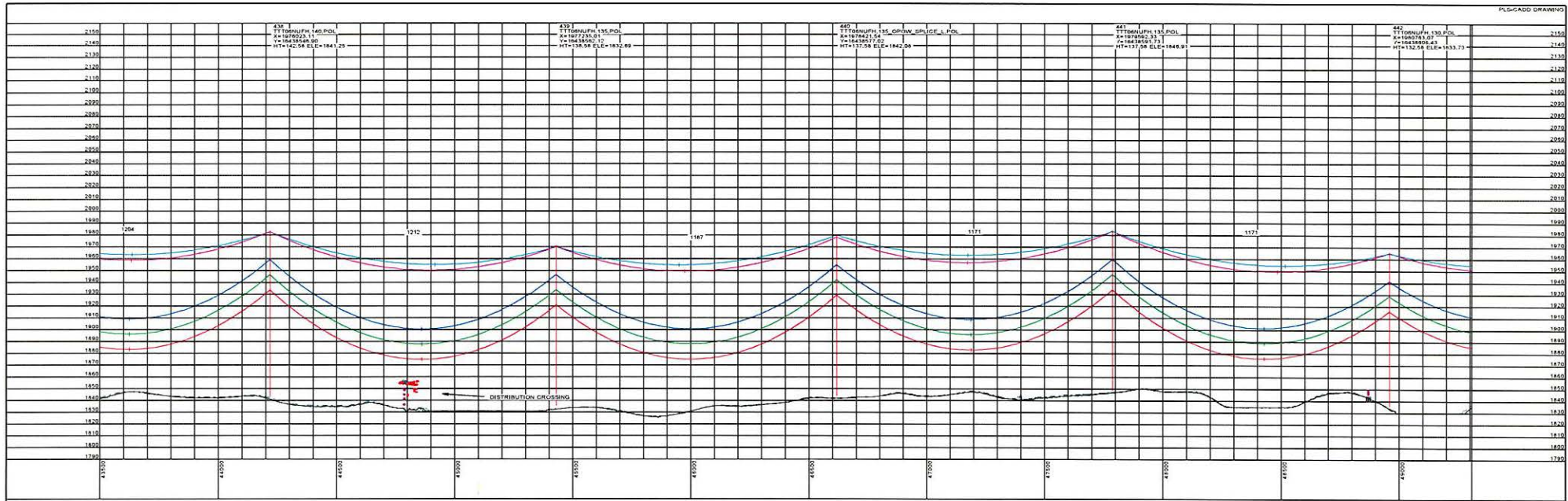
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-13
REVISION: 3
136508



STRS: 438 - 442

20190301
ISSUED FOR
RECORD

REVISIONS					
REV	DESCRIPTION	DWN	DRN	CHK	DATE
3	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: NLC		02/03/17
APPROVED BY: DJF		02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR

SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL

OPGW: 1-0ND-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT.

HORIZ. SCALE

40.0 FT.

VERT. SCALE

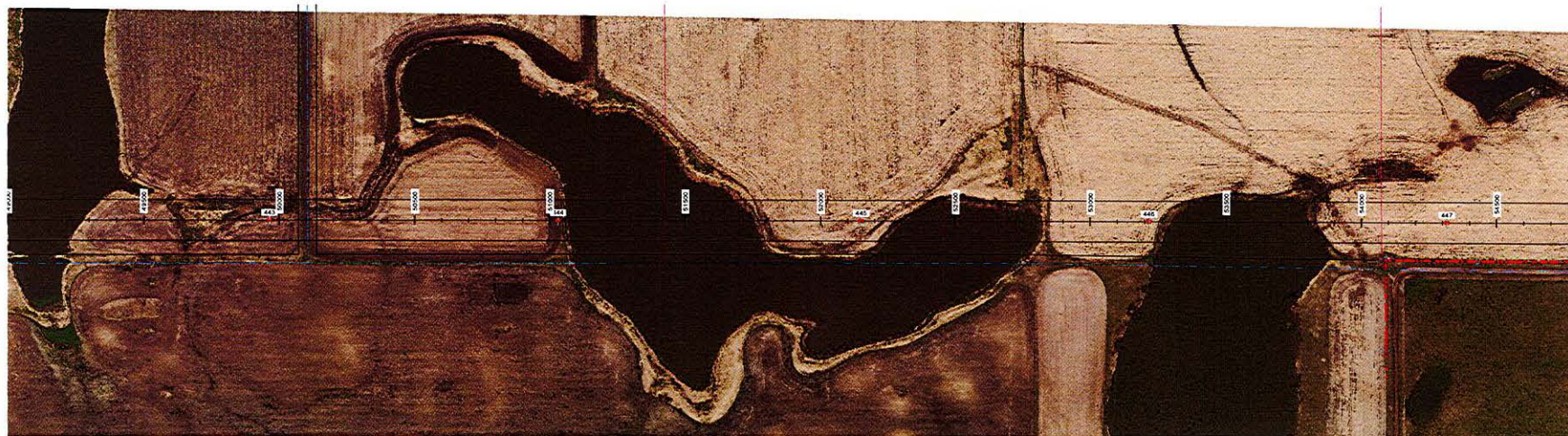
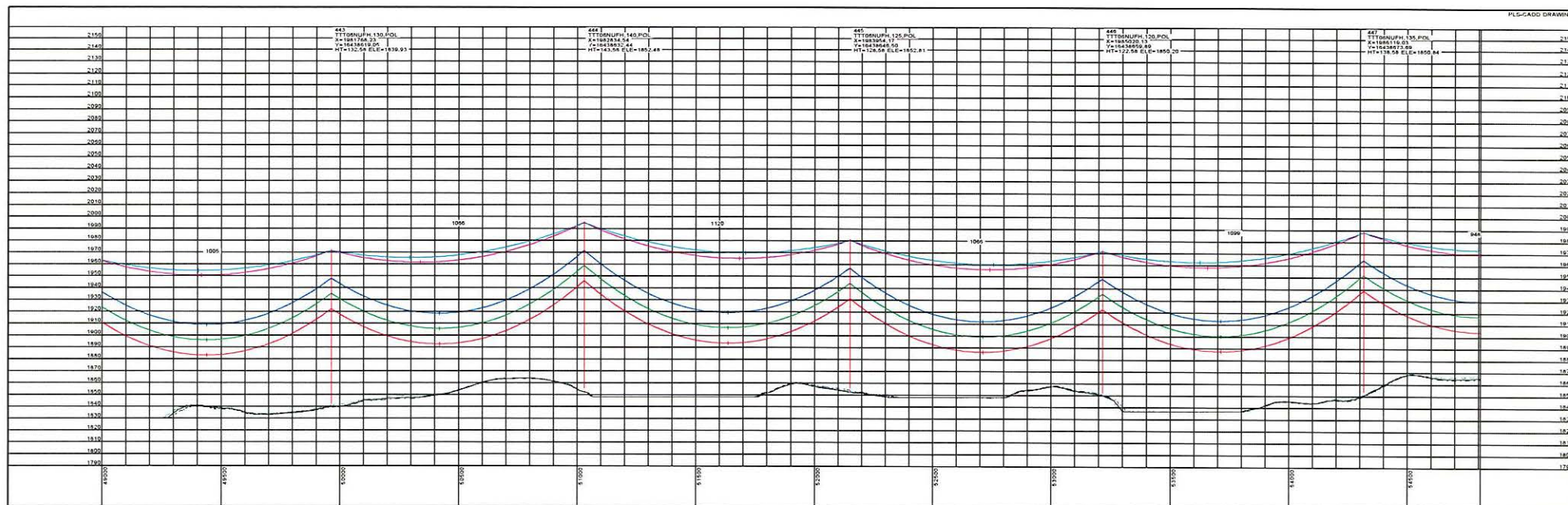
↑

NORTH

DWG. NO.
BSSE-PP-103-14

REVISION: 3

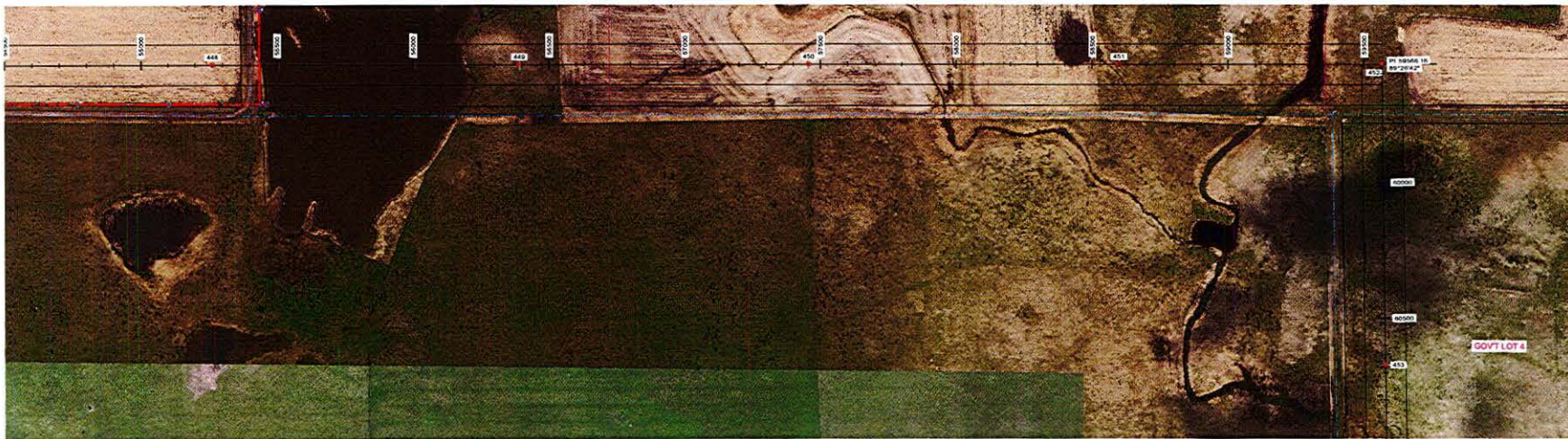
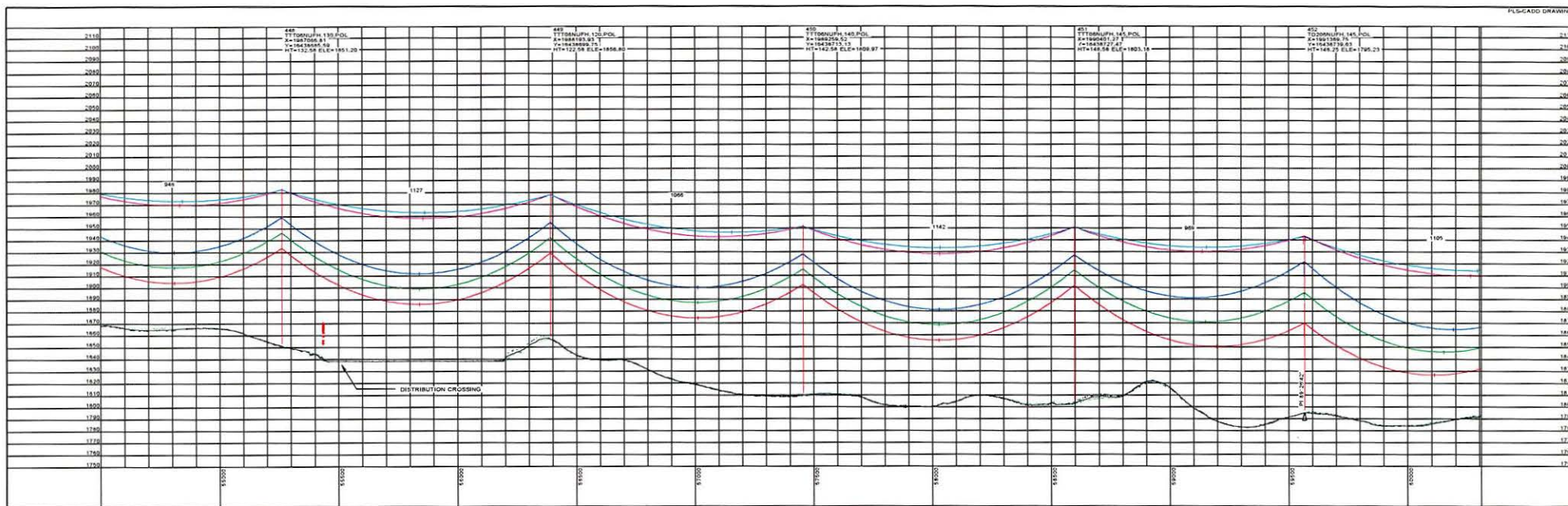
136508



STRS: 443 - 447

20190301 ISSUED FOR RECORD		REVISIONS		APPROVALS		DATE	DESIGN DATA CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL OPGW: 1-DND-10523		200.0 FT. HORIZ. SCALE 40.0 FT. VERT. SCALE	NORTH ↑	DWG. NO. BSSE-PP-103-15 REVISION: 3 136508
		3 ISSUED FOR RECORD		JOB JOB JPW 03/01/19 DWN DDN CHK DATE	CHECKED BY: NLC 02/03/17		COORDINATE SYSTEM: UTM ZONE 14N, US FT				
				APPROVED BY: DJF 02/03/17							

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 448 - 452

20190301
ISSUED FOR
RECORD



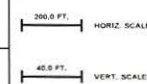
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JOB	JPW	03/01/19

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

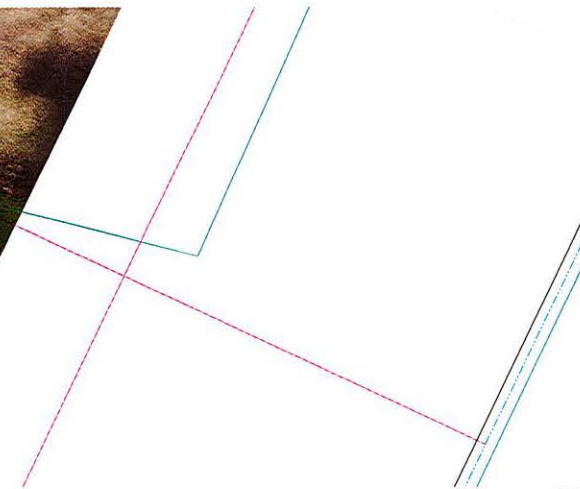
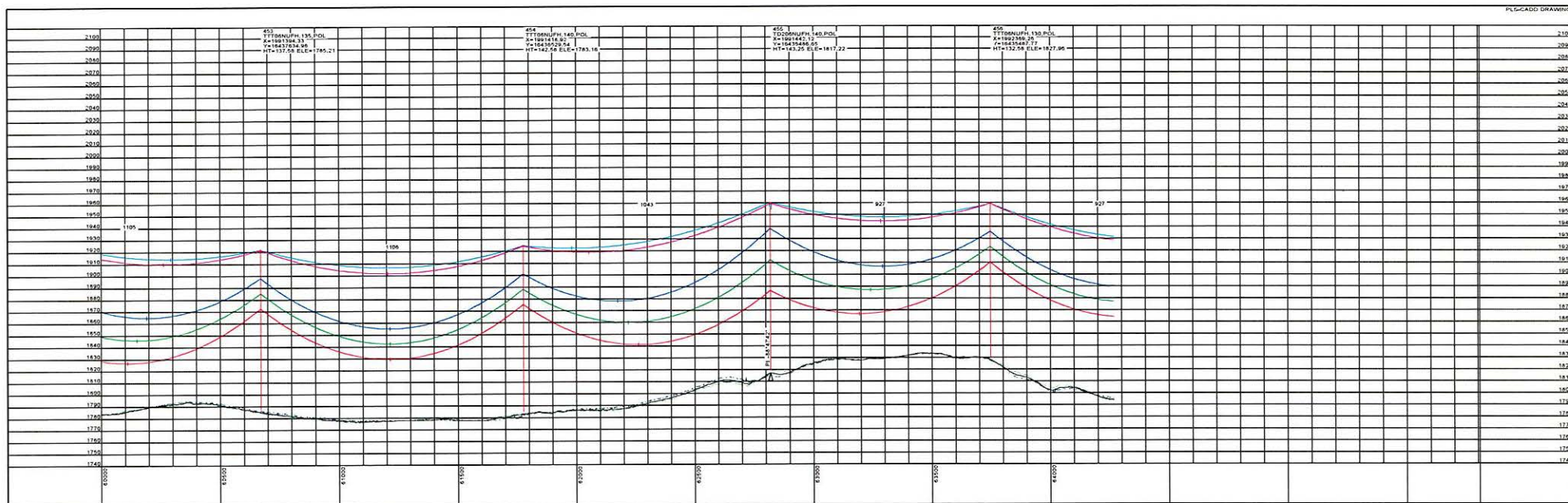
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN5-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
B5SE-PP-103-16
REVISION: 3
136508



STRS: 453 - 456

20190301
ISSUED FOR
RECORD

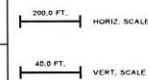


REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

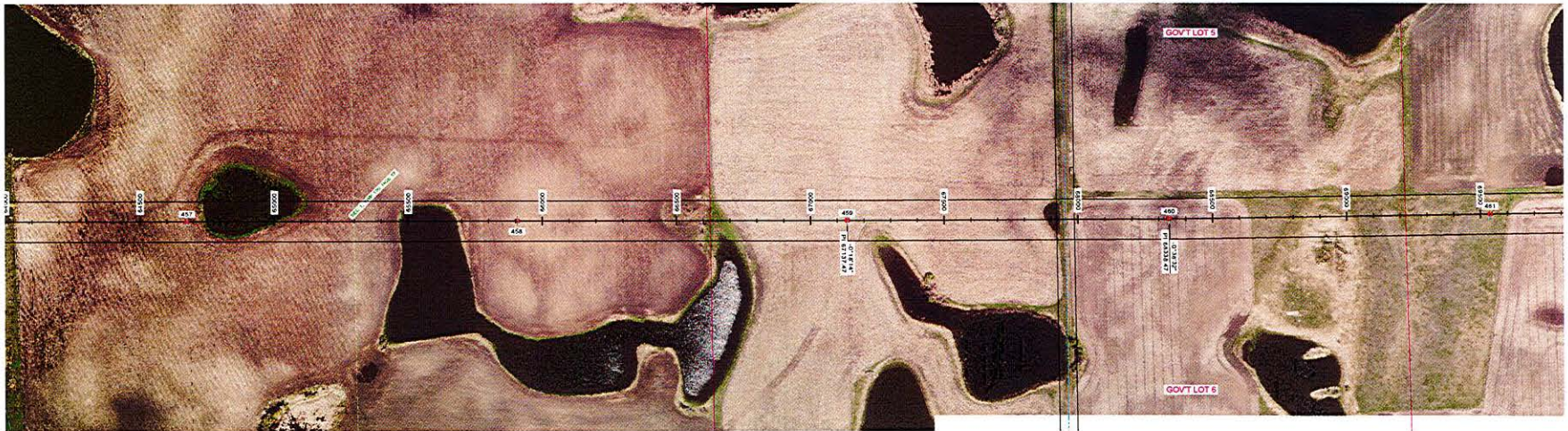
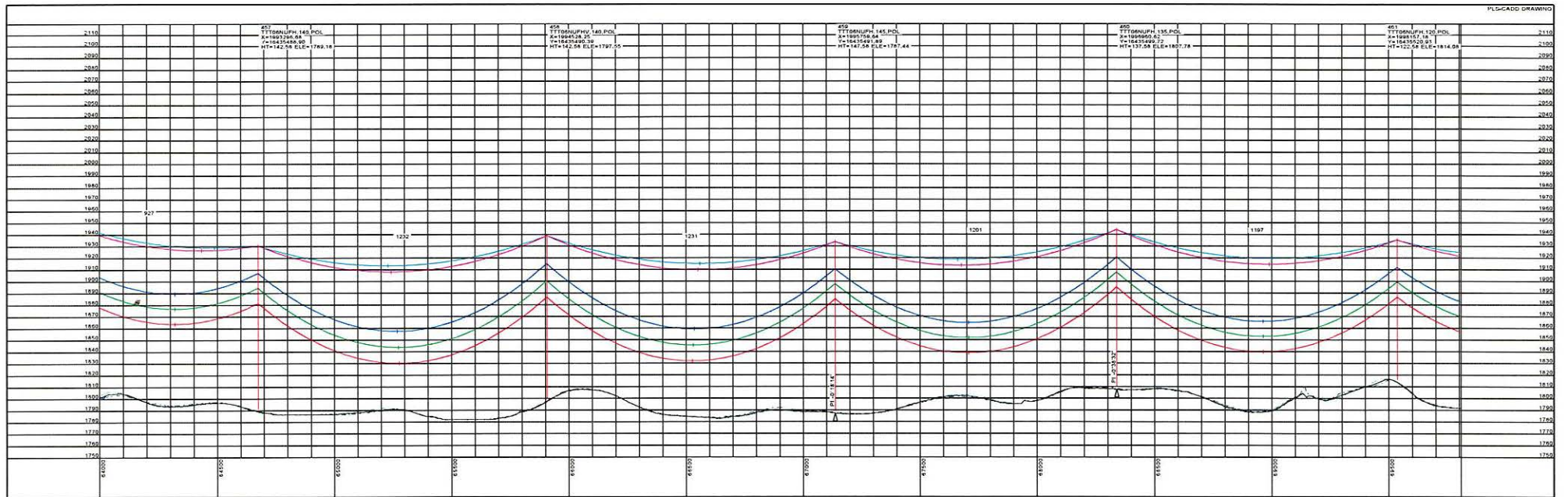
APPROVALS		DATE	DESIGN DATA
DRAWN BY: GMD		02/03/17	CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR
DESIGN BY: GMD		02/03/17	SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
CHECKED BY: NLC		02/03/17	OPGW: 1-DND-10523
APPROVED BY: DJF		02/03/17	COORDINATE SYSTEM: UTM ZONE 14N, US FT



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSS-E-PP-103-17
REVISION: 3
136508



STRS: 457 - 461

20190301
ISSUED FOR
RECORD



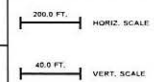
REVISIONS				
REV	DESCRIPTION	DATE	BY	CHK
3	ISSUED FOR RECORD	03/01/19	JPW	

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

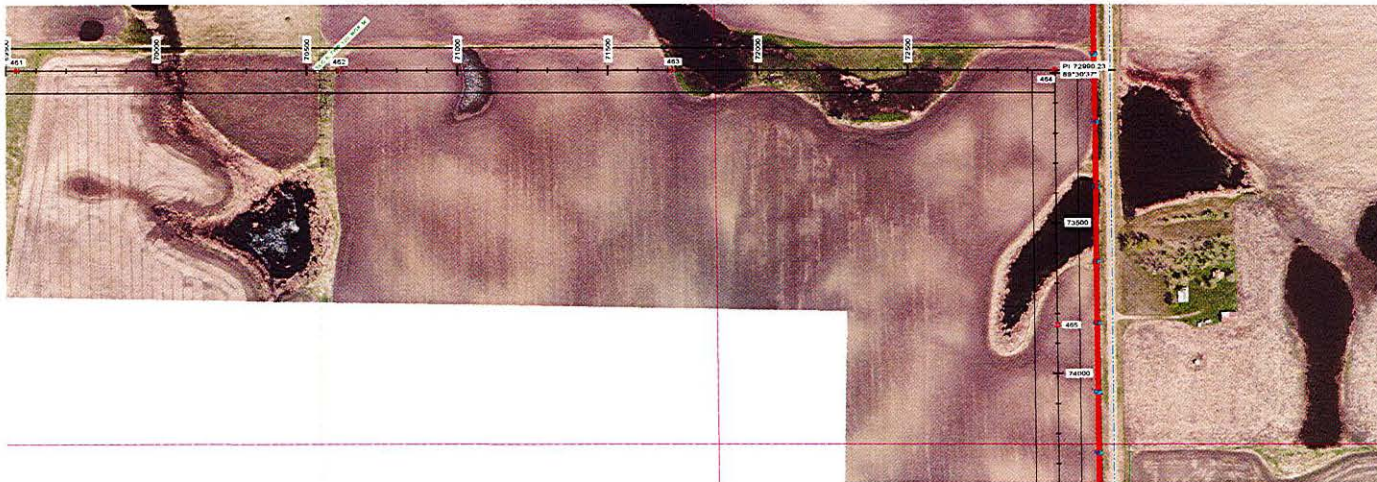
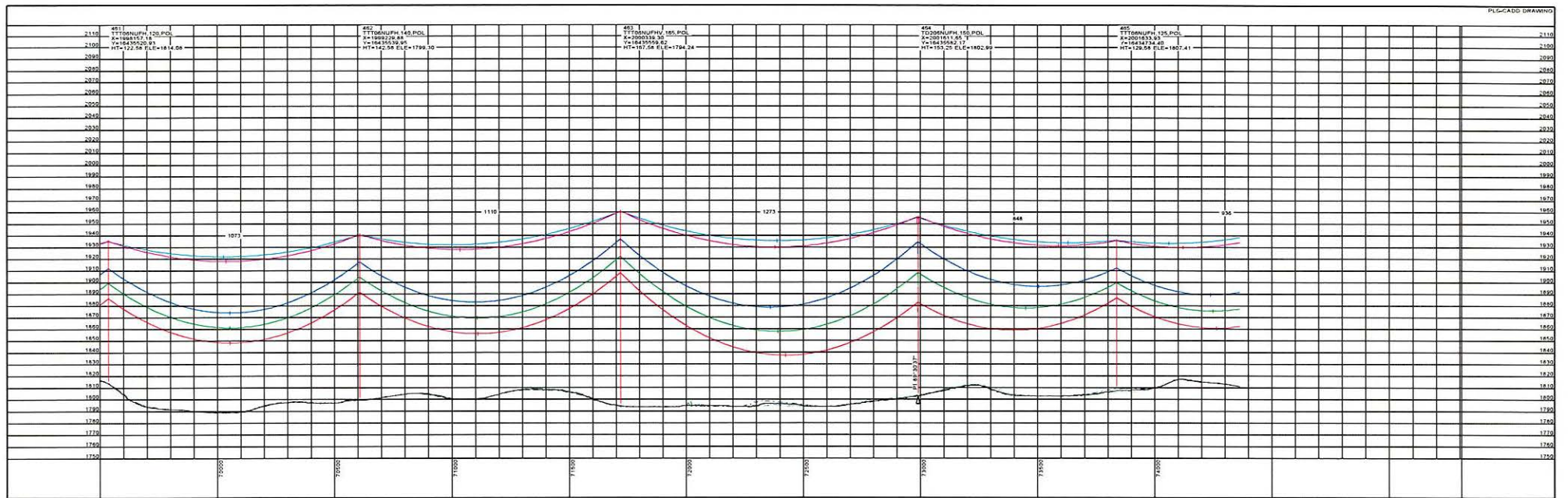
DESIGN DATA	
CONDUCTOR: (3X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. BSSE-PP-103-18
REVISION: 3
136508



STRS: 461 - 465

20190301
ISSUED FOR
RECORD



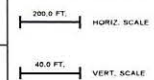
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD			03/01/19

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

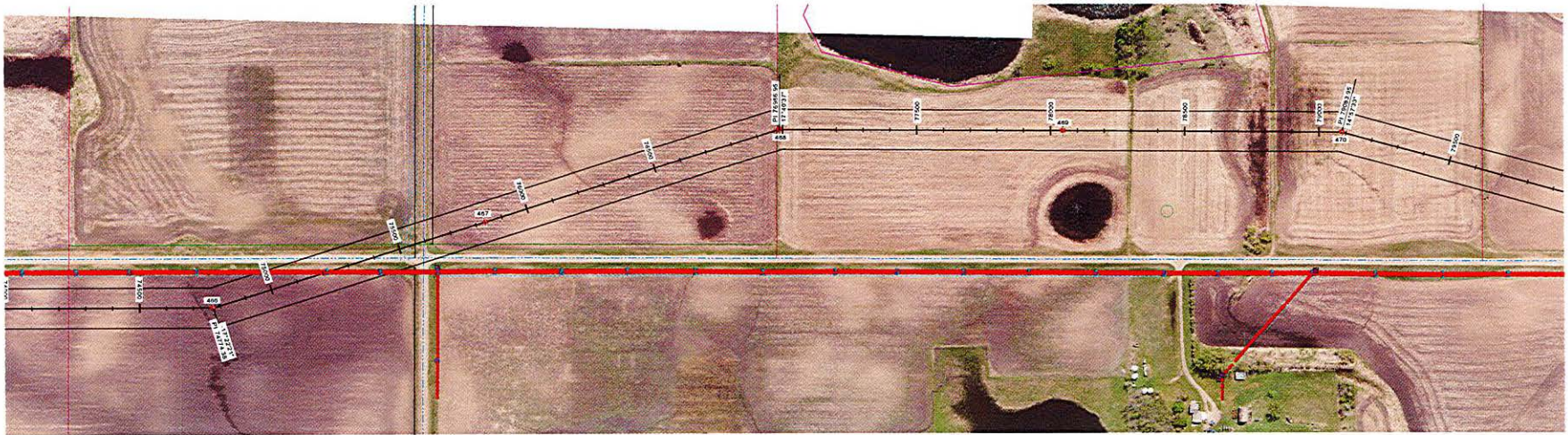
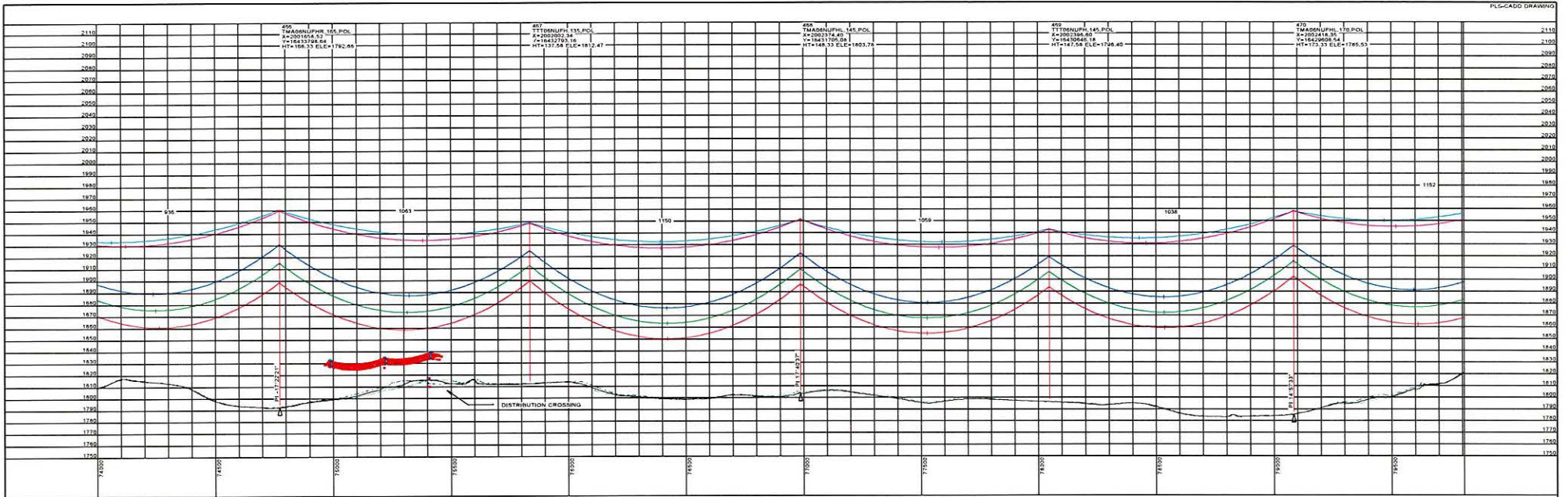
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. B55E-PP-103-19
REVISION: 3
136508



STRS: 466 - 470

20190301
ISSUED FOR
RECORD



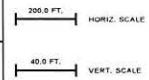
REVISIONS				
REV	DESCRIPTION	DWN	DGN	CHK
3	ISSUED FOR RECORD	JDB	JDB	JPW
				03/01/19

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

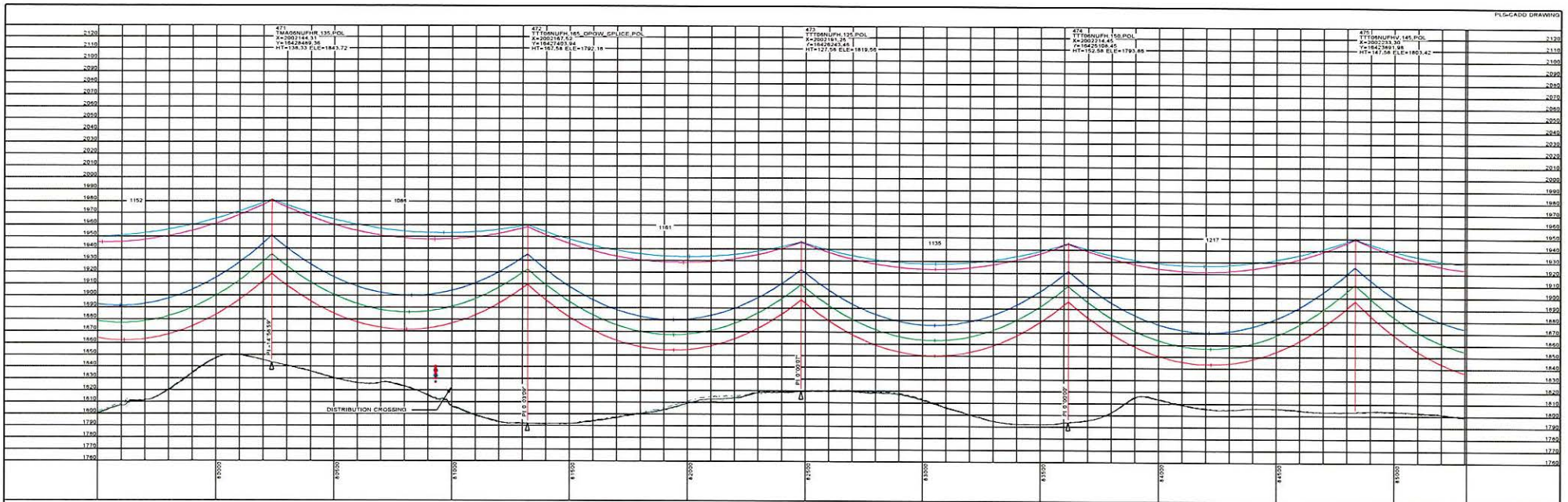
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPOW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSS-E-PP-103-20
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



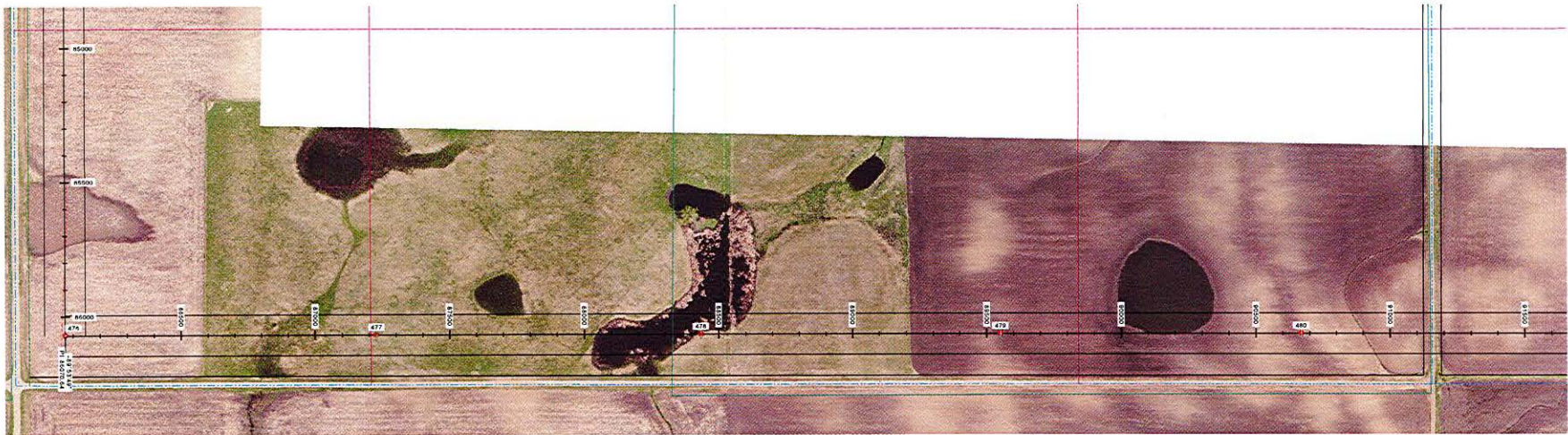
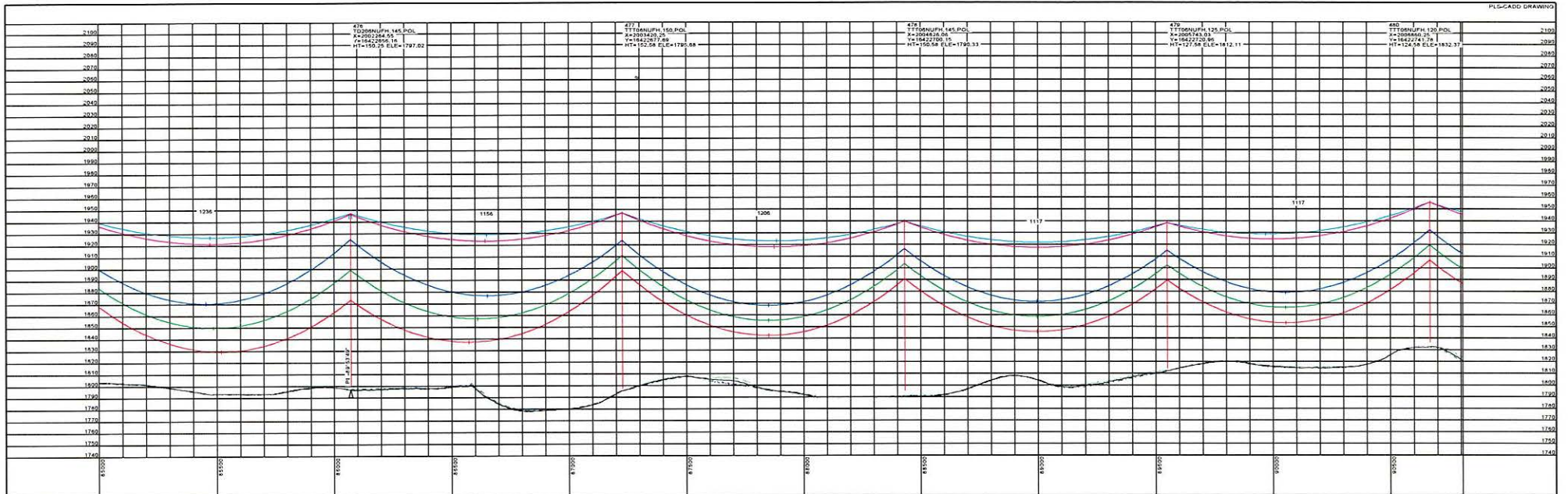
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE
45.0 FT. VERT. SCALE



STRS: 471 - 475

DWG. NO.
BSSE-PP-103-21
REVISION: 3
136508



STRS: 476 - 480

20190301
ISSUED FOR
RECORD



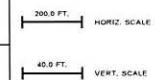
REVISIONS				
REV	DESCRIPTION	DWN	DGN	CHK
3	ISSUED FOR RECORD			

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

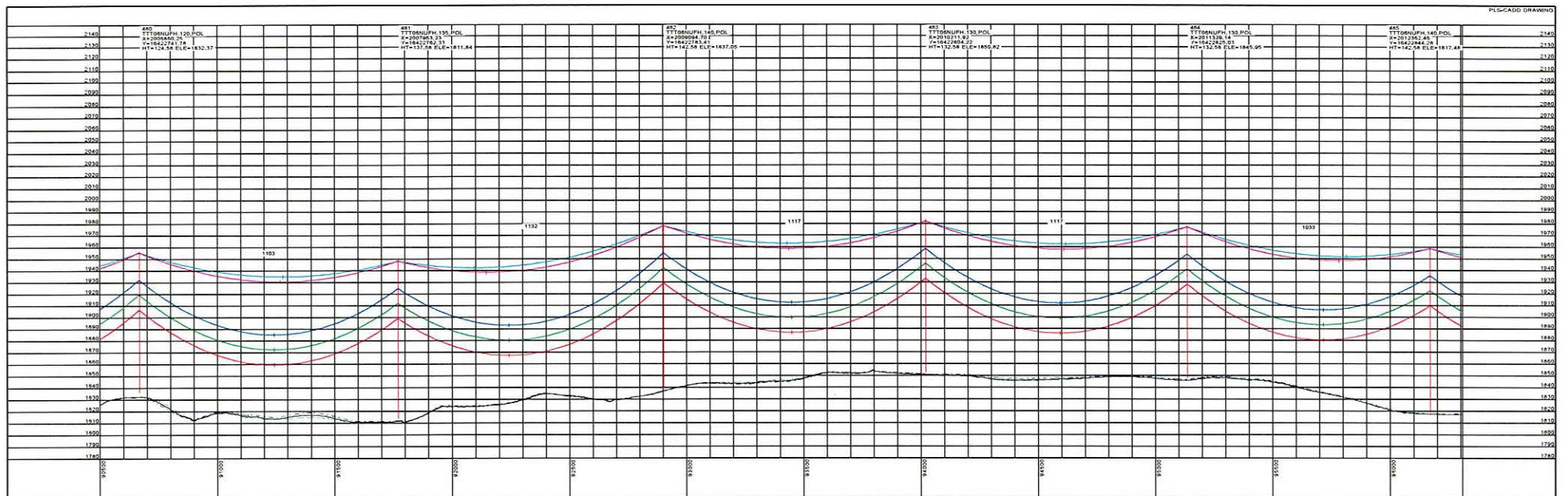
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK AC5R	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. BSE-PP-103-22
REVISION: 3
136508



STRS: 480 - 485

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD			03/01/19

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

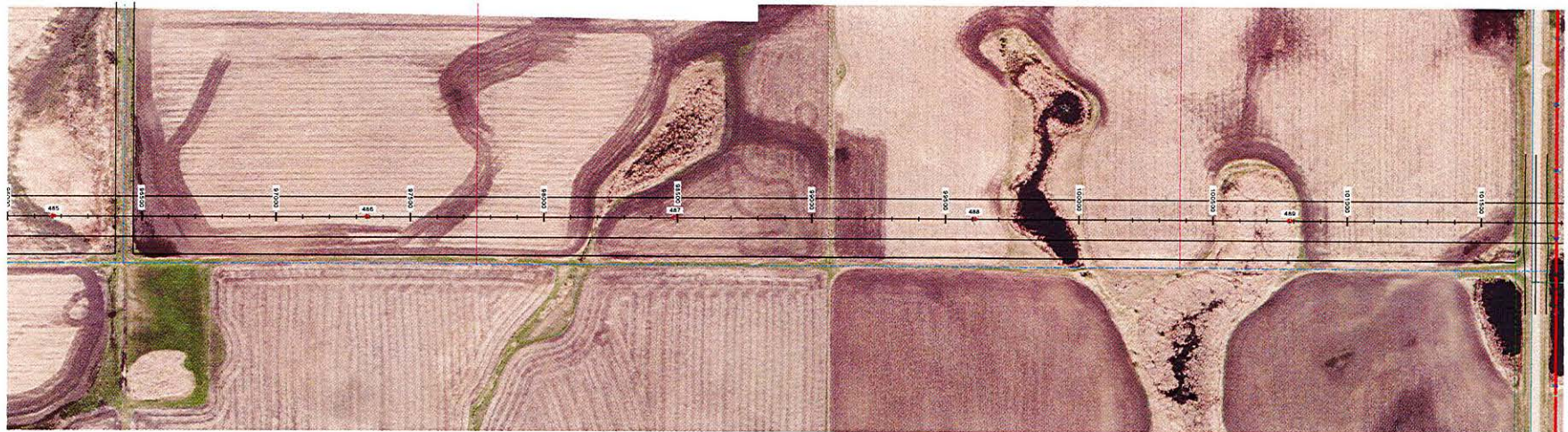
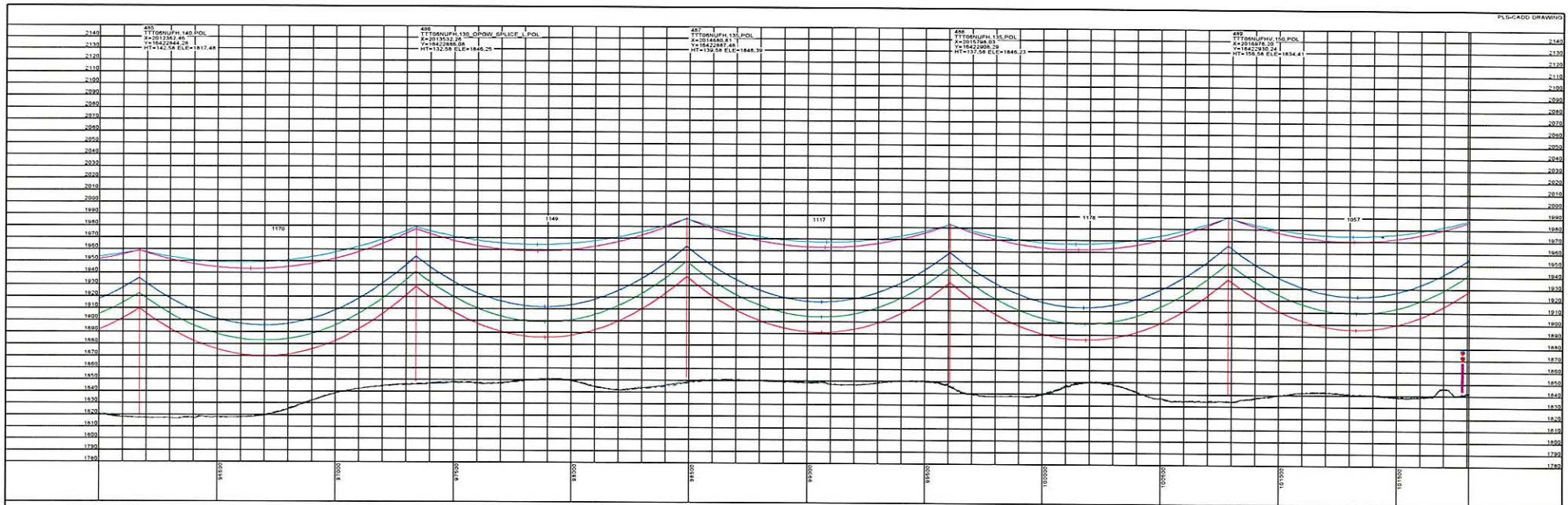
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN5-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



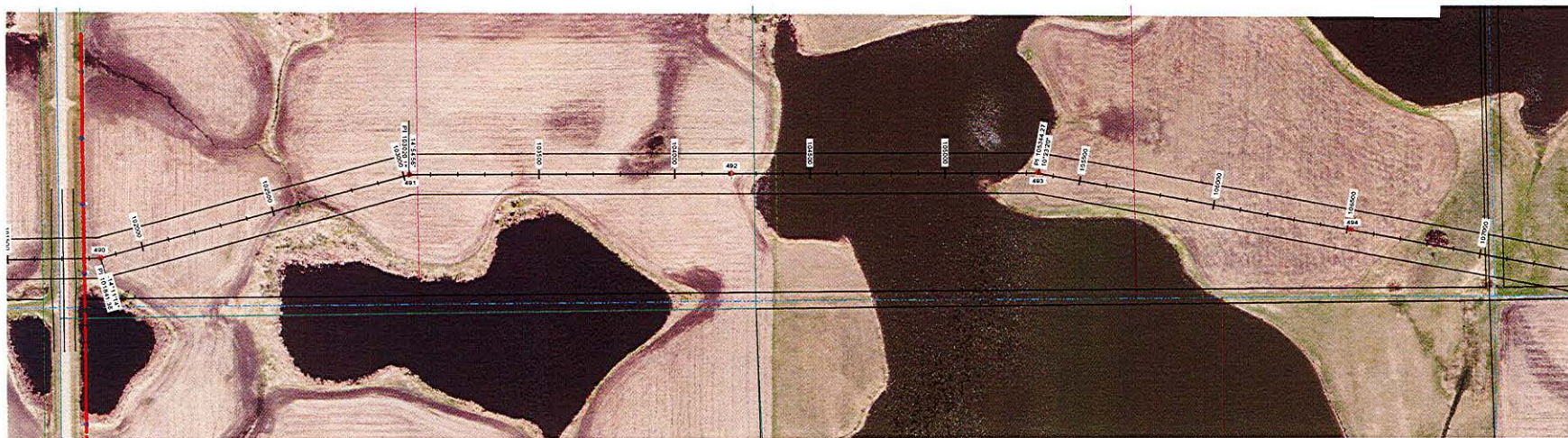
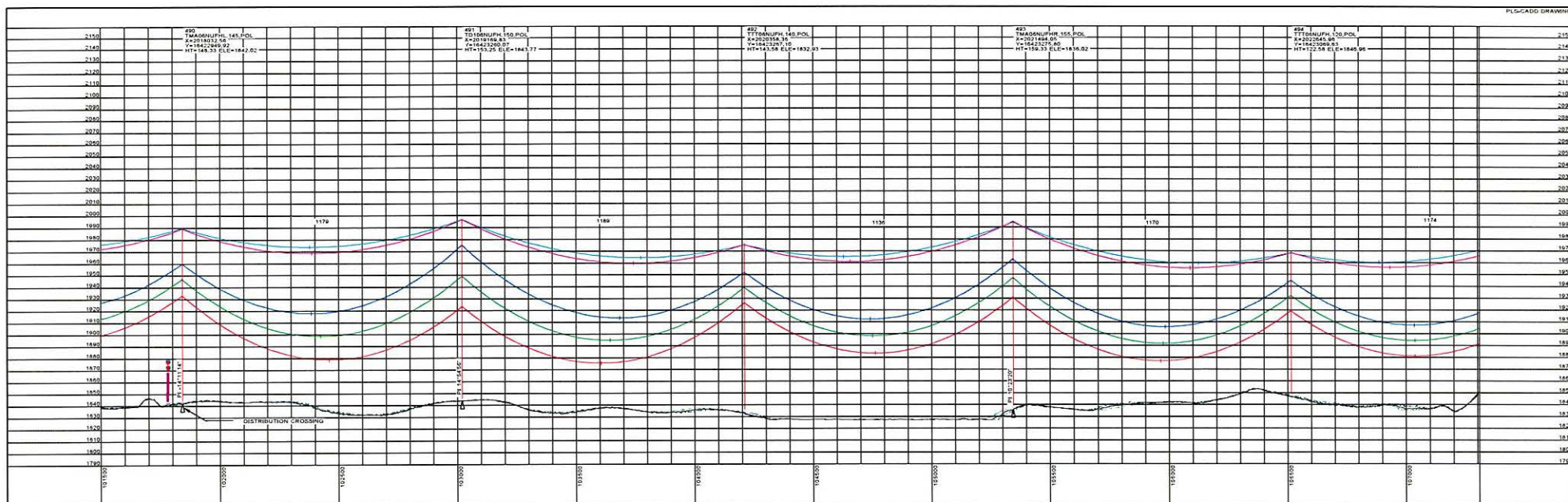
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-23
REVISION: 3
136508



20190301 ISSUED FOR RECORD 		STRS: 485 - 489											
		REVISIONS				APPROVALS		DATE		DESIGN DATA		 Big Stone South to Ellendale BIG STONE SOUTH - ELLENDALE 345 KV TRANSMISSION LINE 200.0 FT. HORIZ. SCALE 40.0 FT. VERT. SCALE ↑ NOR (H) DWG. NO. BSSE-PP-103-24 REVISION: 3 136508	
						DRAWN BY: GMD		02/03/17		CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR			
						DESIGN BY: GMD		02/03/17		SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL			
						CHECKED BY: NLC		02/03/17		OPGW: 1-DNO-10523			
3 ISSUED FOR RECORD		JOB		JOB		JFW		03/01/19		COORDINATE SYSTEM: UTM ZONE 14N, US FT			
REV DESCRIPTION		DWN		DGN		CHK		DATE					
										APPROVED BY: DJF		02/03/17	



STRS: 490 - 494

20190301
ISSUED FOR
RECORD



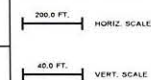
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JOB	JPW	03/01/19

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

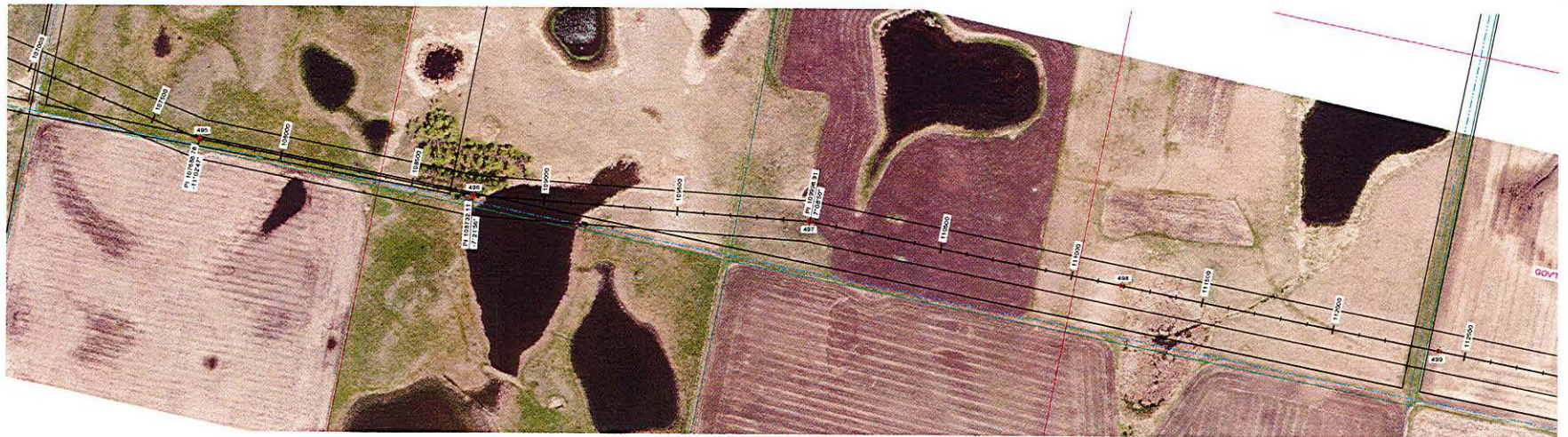
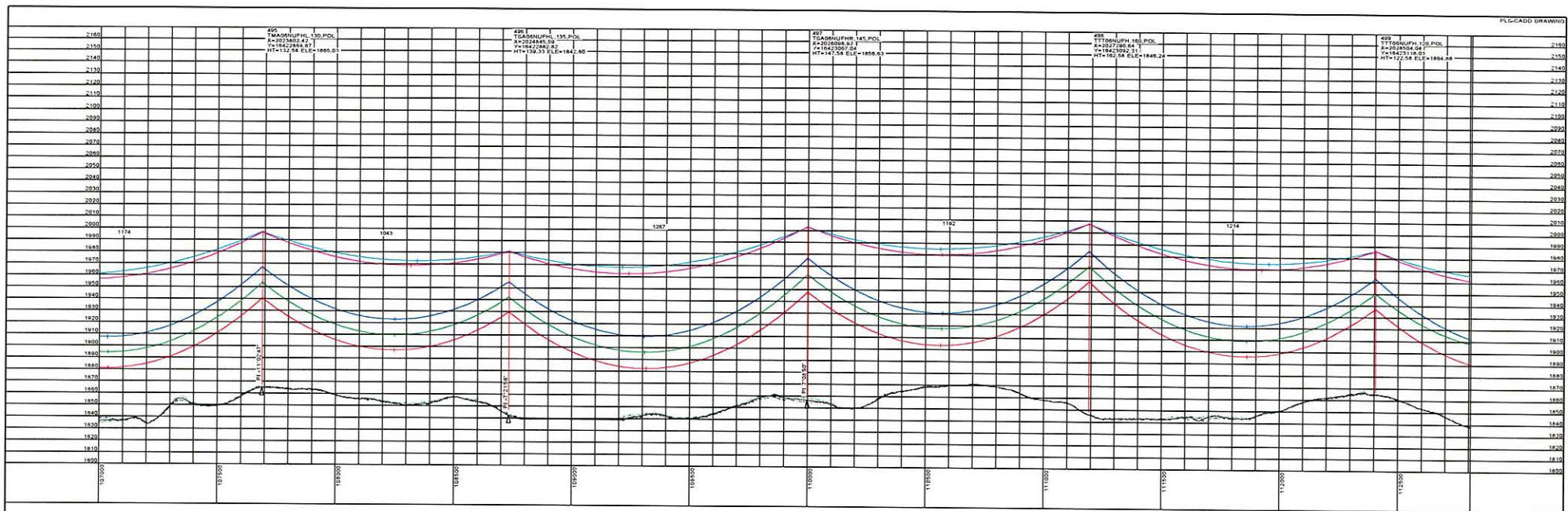
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. BSSE-PP-103-25
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



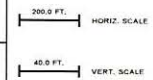
REVISIONS				
REV	DESCRIPTION	DATE	BY	CHK
3	ISSUED FOR RECORD	03/01/19	JDB	JPW

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

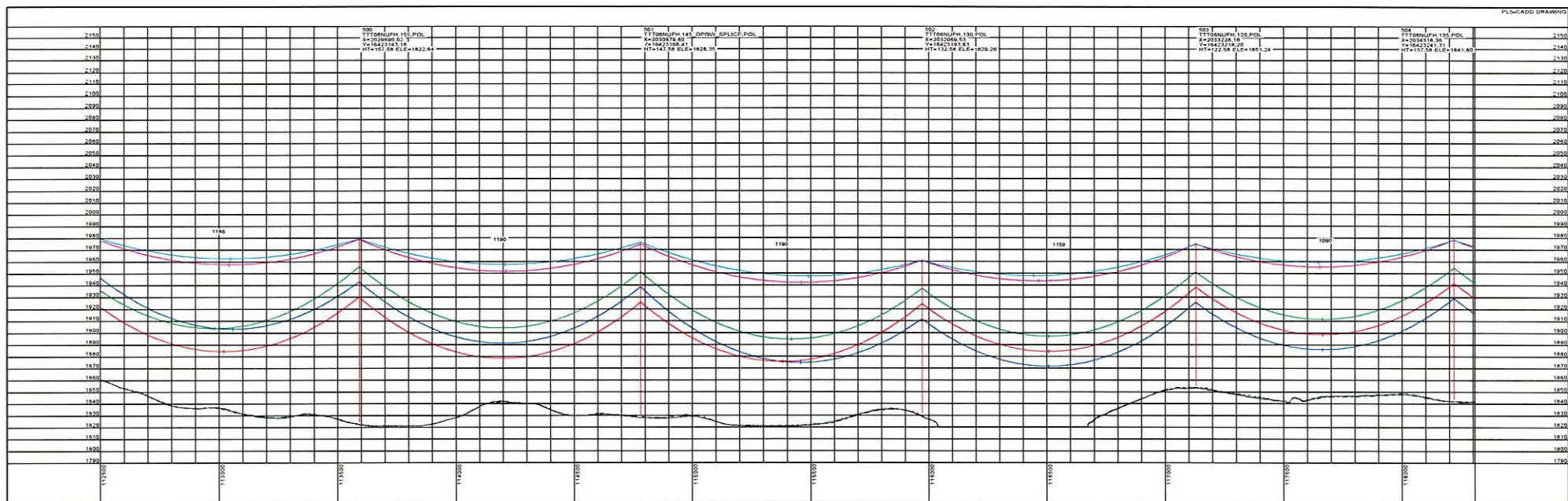


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 495 - 499

DWG. NO.
BSSE-PP-103-26
REVISION: 3
136508



STRS: 500 - 504

20190301
ISSUED FOR
RECORD



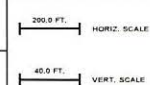
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

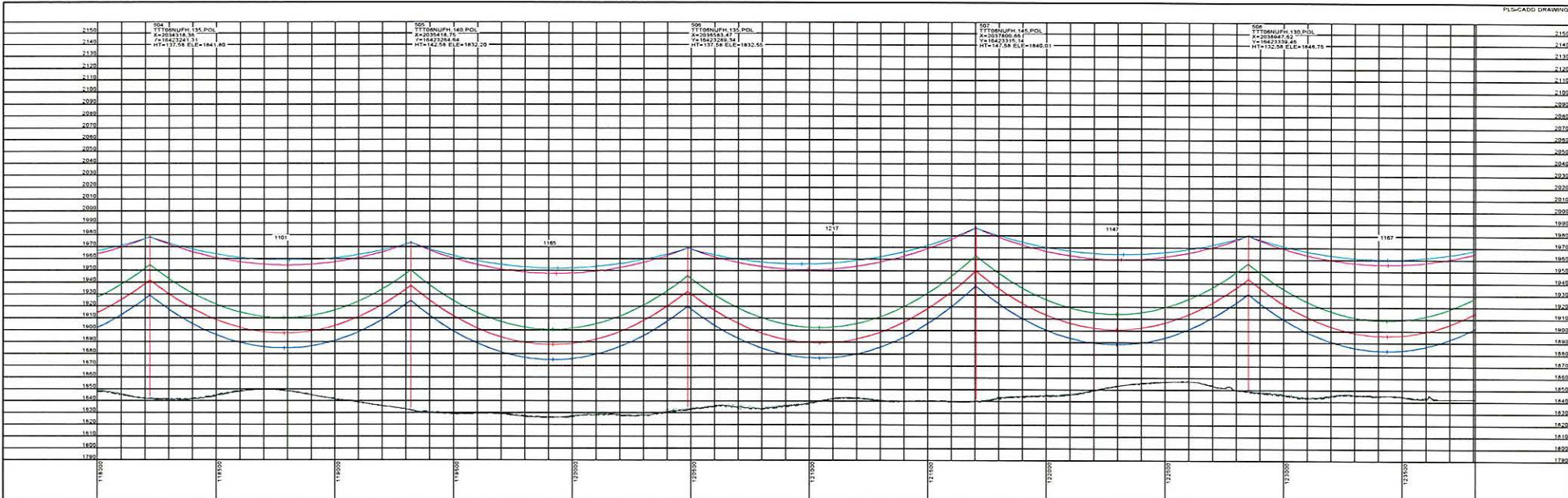
DESIGN DATA	
CONDUCTOR: (3X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNQ-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-27
REVISION: 3
136508



STRS: 504 - 508

20190301
ISSUED FOR
RECORD



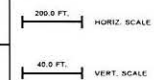
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

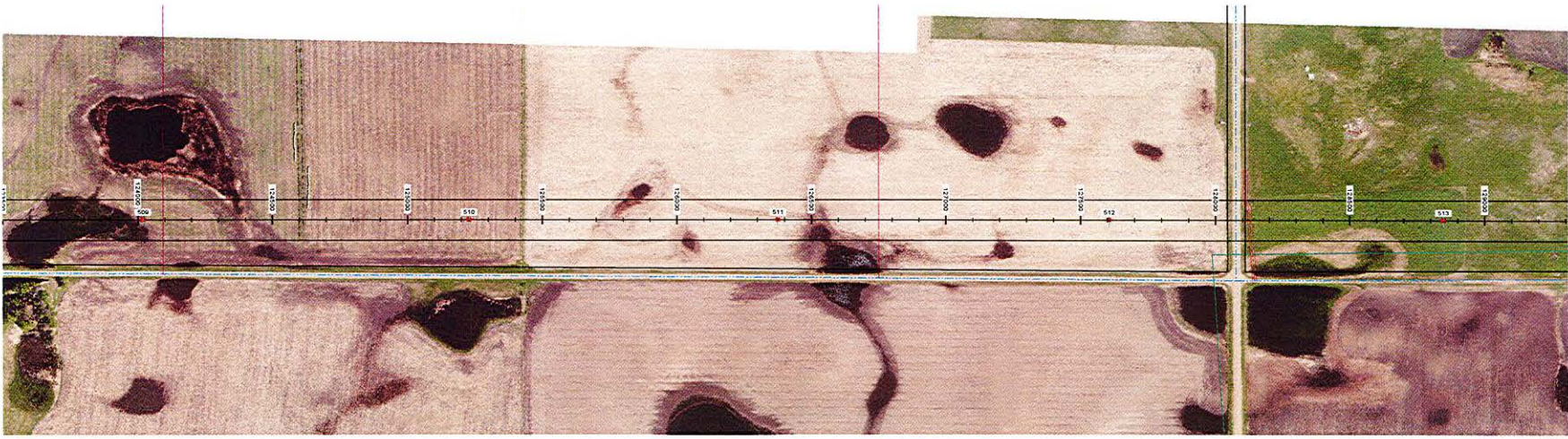
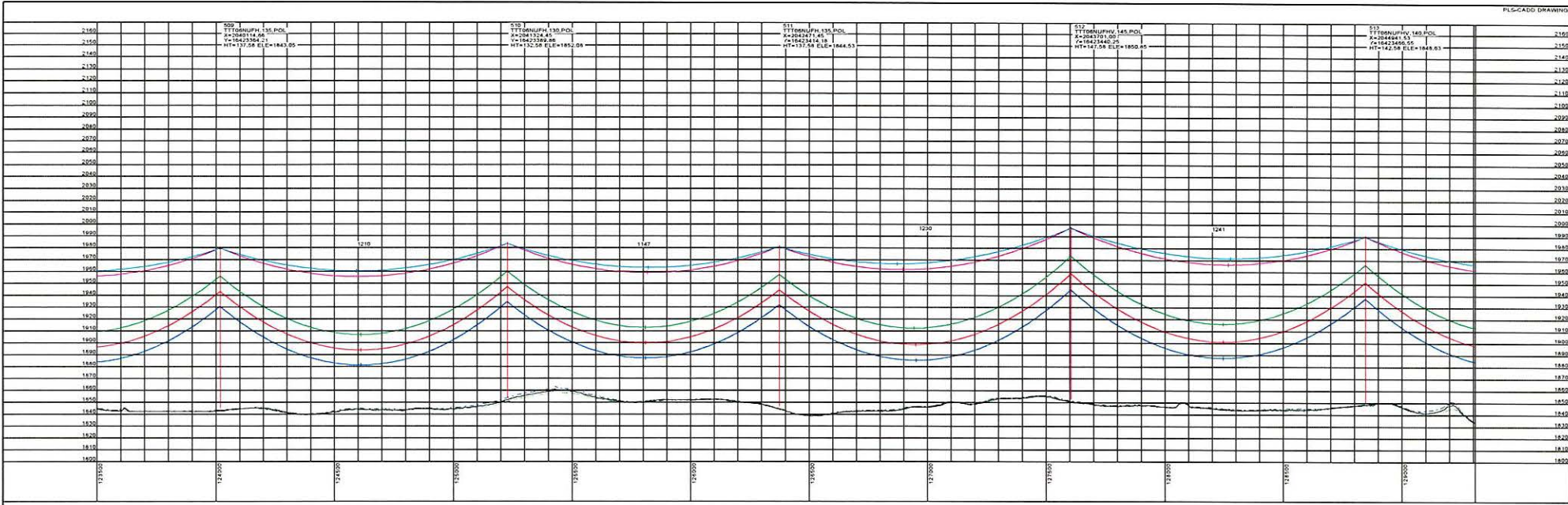
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO. BSS-PP-103-28
REVISION: 3
136508



20190301
ISSUED FOR
RECORD

REVISIONS			
REV	DESCRIPTION	DWN	CHK
3	ISSUED FOR RECORD	JDB	JDB

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

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR

SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL

OPGW: 1-DN5-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT.
HORIZ. SCALE

40.0 FT.
VERT. SCALE

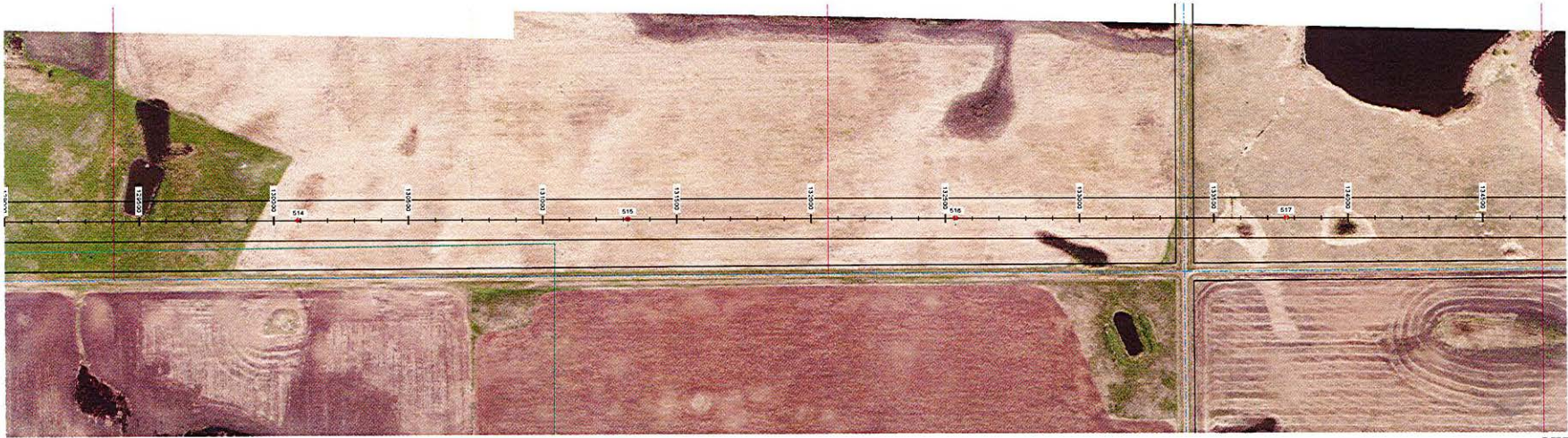
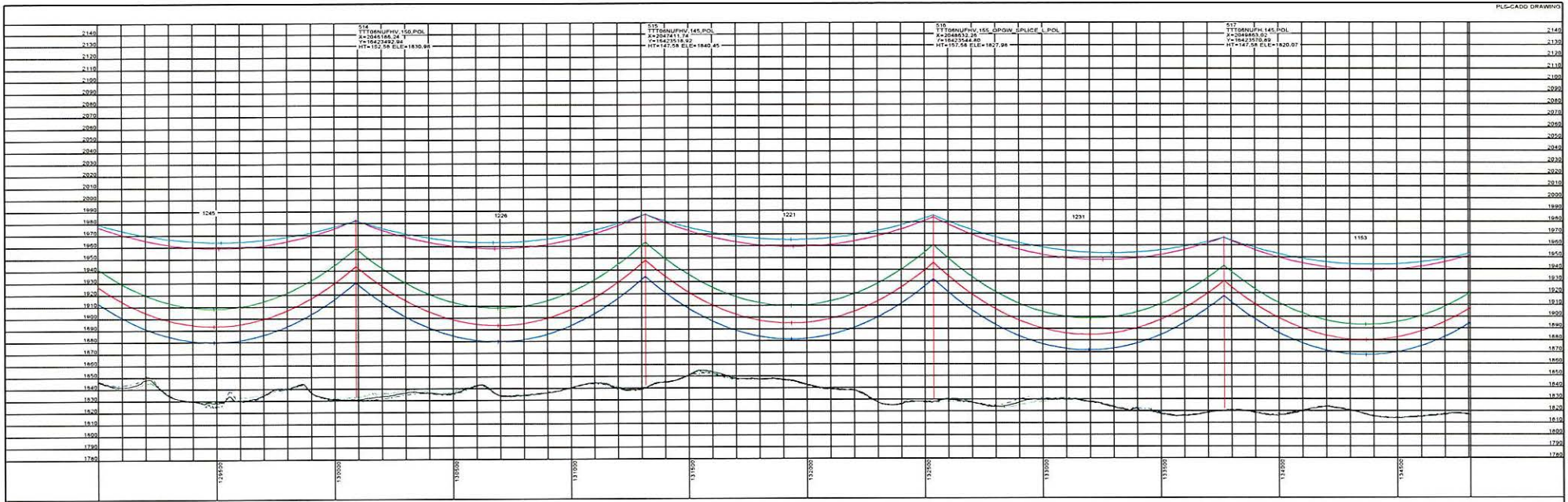
↑
NORTH

STRS: 509 - 513

DWG. NO.
BSSE-PP-103-29

REVISION: 3

136508



STRS: 514 - 517

20190301
ISSUED FOR
RECORD

REVISIONS				APPROVALS		DATE	DESIGN DATA
				DRAWN BY: GMD		02/03/17	CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL OPGW: 1-DND-10523
				DESIGN BY: GMD		02/03/17	
				CHECKED BY: NLC		02/03/17	
3	ISSUED FOR RECORD	JDB	JDB	JPW		03/01/19	COORDINATE SYSTEM: UTM ZONE 14N, US FT
REV	DESCRIPTION	DWN	DYN	CHK	DATE	APPROVED BY: DJF	02/03/17

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

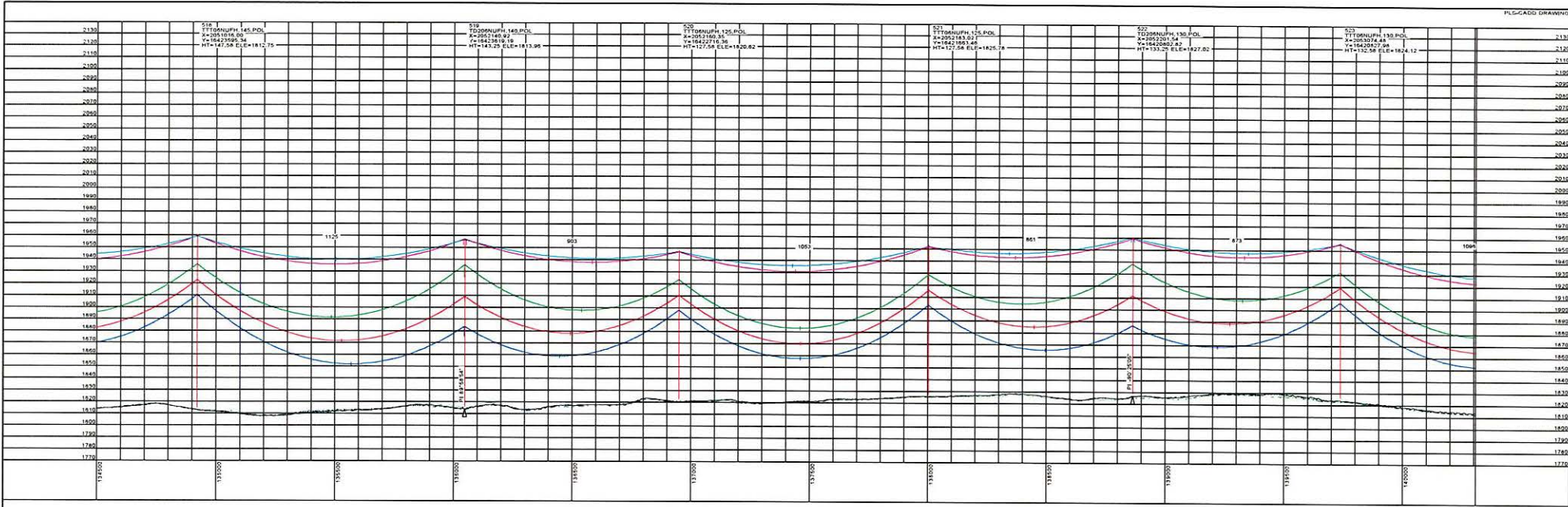
40.0 FT. VERT. SCALE

↑ NORTH

DWG. NO.
BSSE-PP-103-30

REVISION: 3

136508



20190301
ISSUED FOR
RECORD

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

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

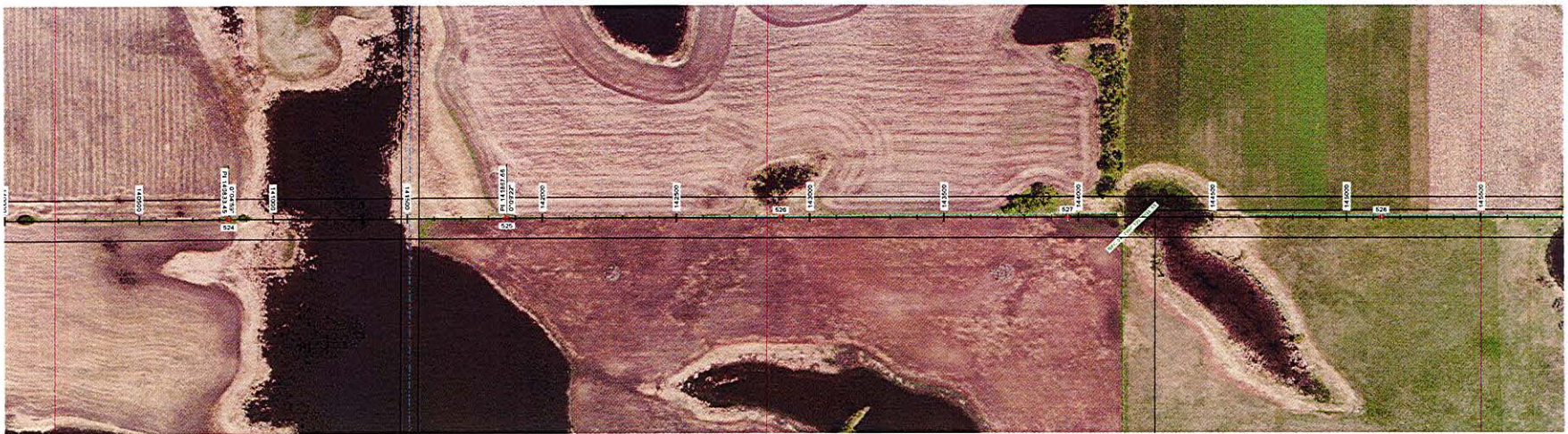
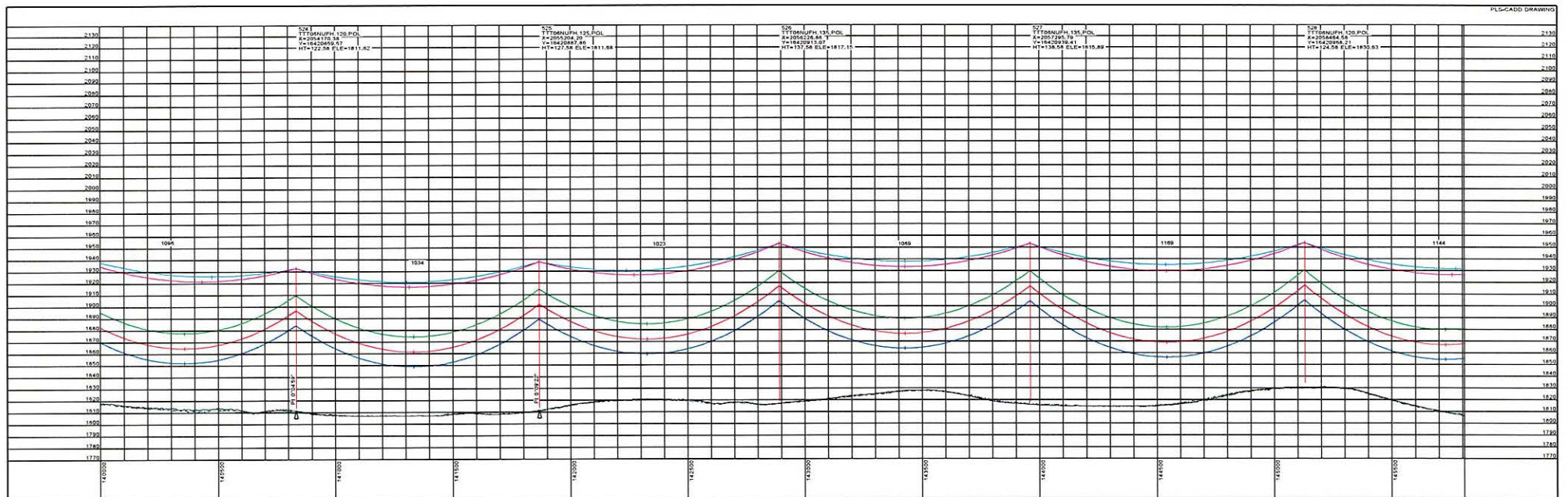
40.0 FT. VERT. SCALE

STRS: 518 - 523

DWG. NO.
B9SE-PP-103-31

REVISION: 3

136508



STRS: 524 - 528

20190301
ISSUED FOR
RECORD



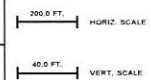
REVISIONS				
REV	DESCRIPTION	DWN	DON	CHK
3	ISSUED FOR RECORD	JDB	JDB	JPW

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

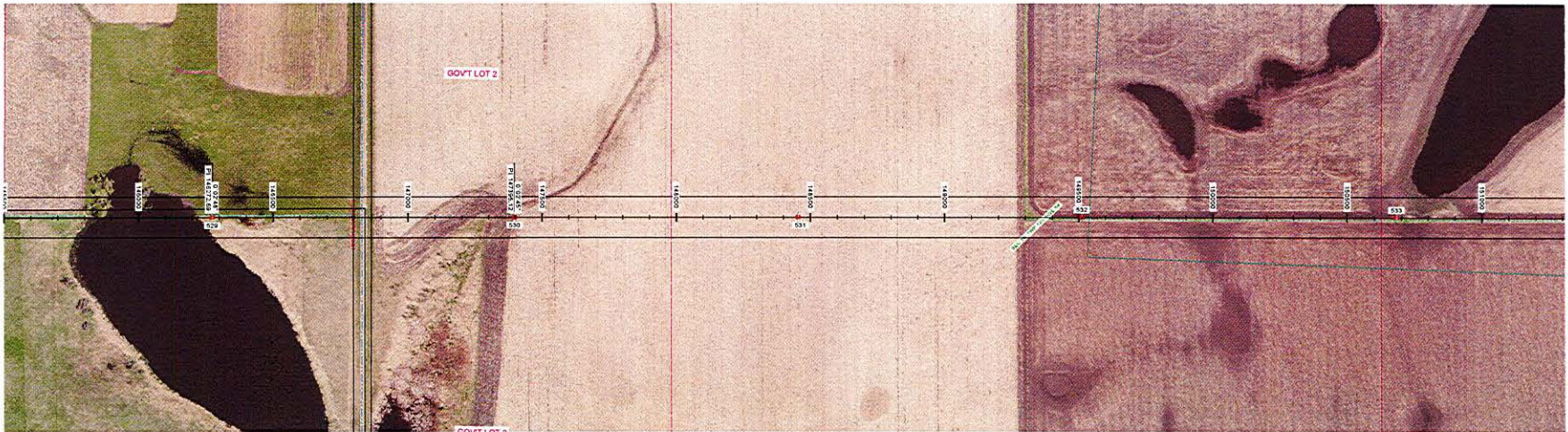
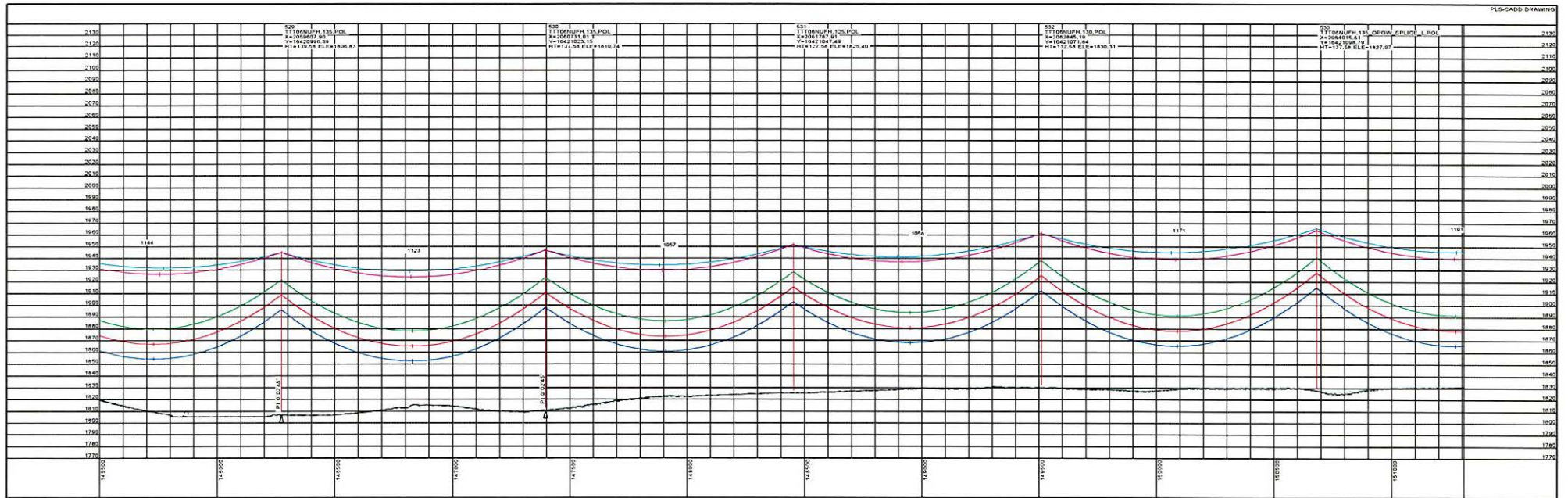
DESIGN DATA	
CONDUCTOR: 0X 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.	885E-PP-103-32
REVISION:	3
	136508



STRS: 529 - 533

20190301
ISSUED FOR
RECORD



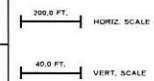
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD			03/01/19

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

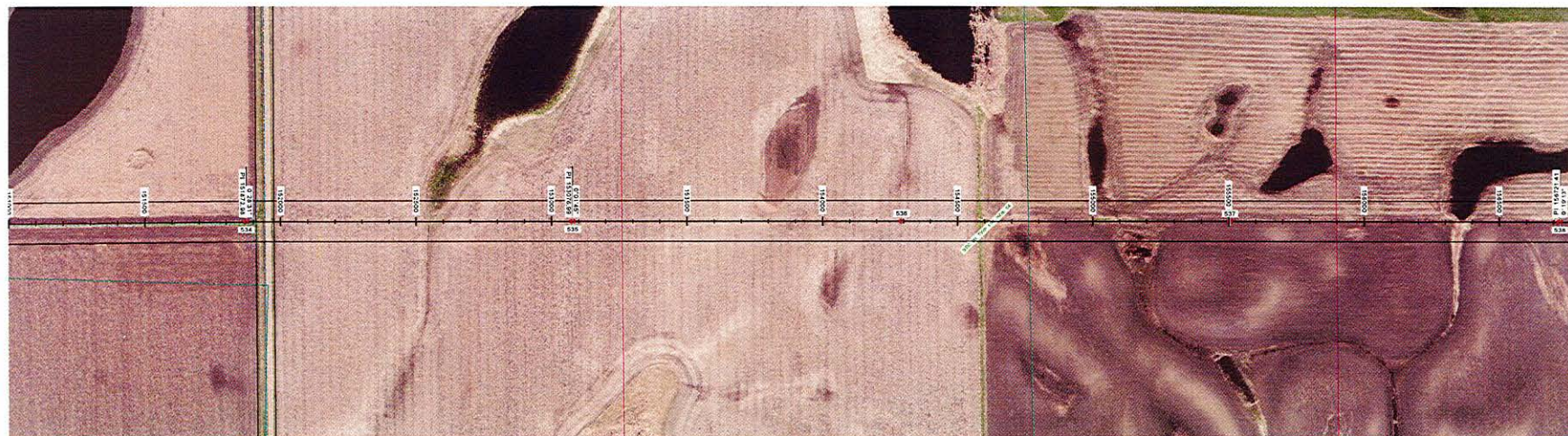
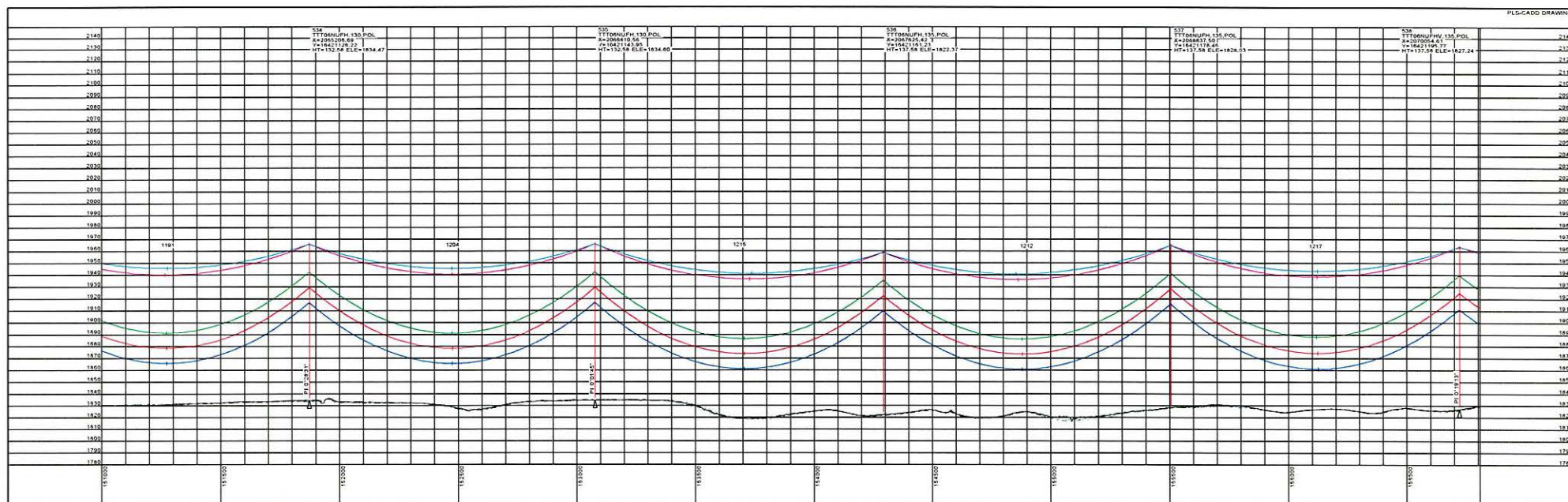
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
B55E-PP-103-33
REVISION: 3
136508



STRS: 534 - 538

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JOB	JPW	03/01/19

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

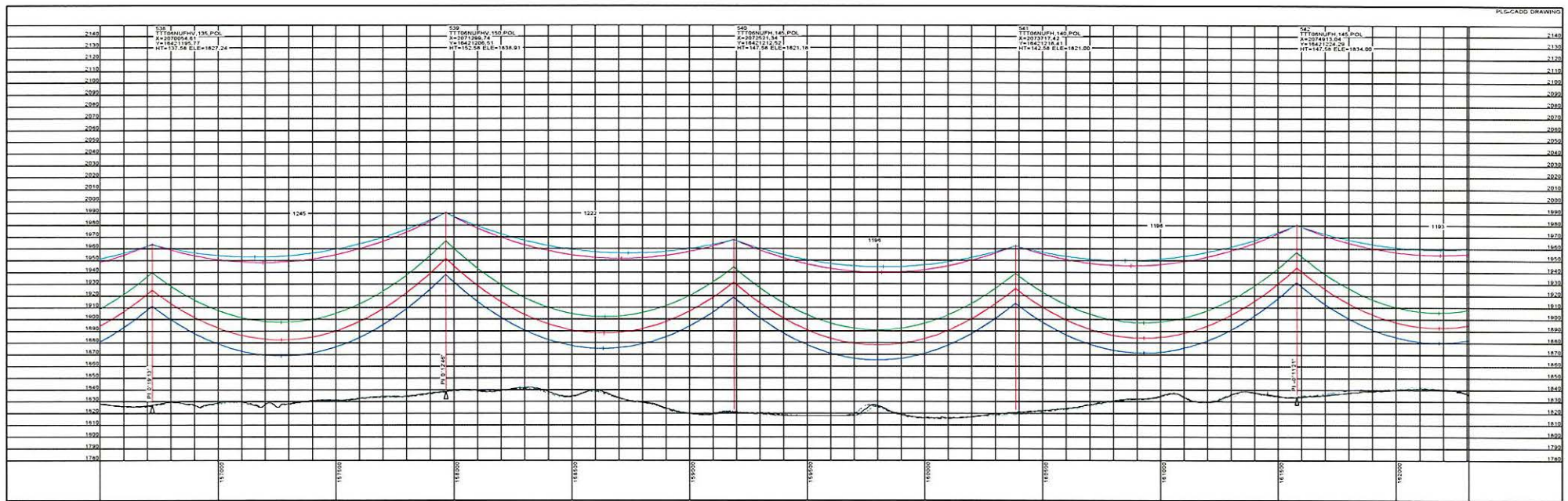


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

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



DWG. NO.	BSSE-PP-103-34
REVISION: 3	
136508	



STRS: 538 - 542

20190301
ISSUED FOR
RECORD



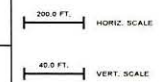
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JOB	JOB	03/01/19

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

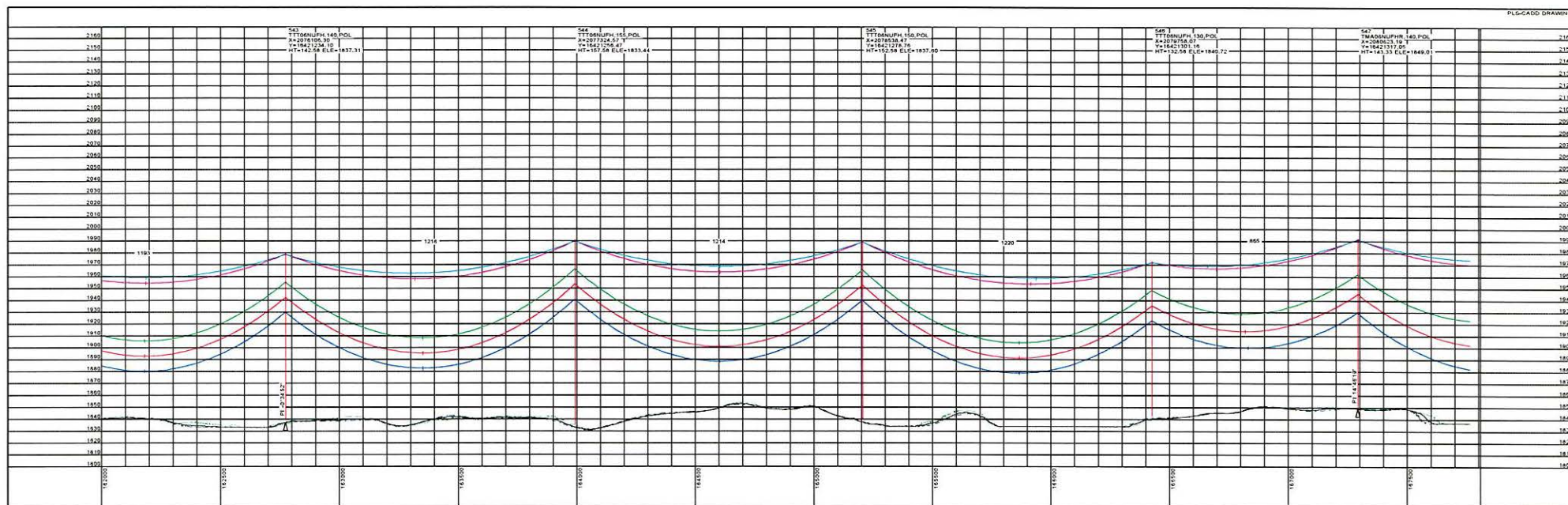
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-35
REVISION: 3
136508



STRS: 543 - 547

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	DSN	CHK
3	ISSUED FOR RECORD			

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

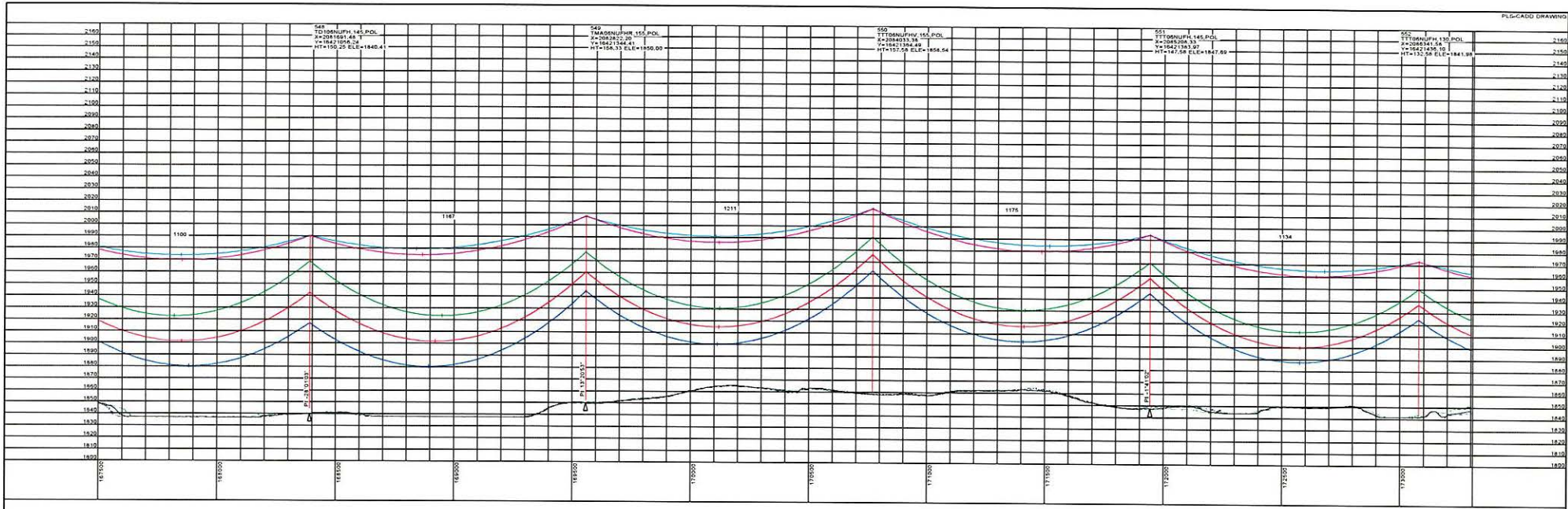
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNQ-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.	BSSE-PP-103-36
REVISION: 3	
136508	



20190301
ISSUED FOR
RECORD

REVISIONS				
REV	DESCRIPTION	DWN	DON	CHK
3	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: NLC		02/03/17
APPROVED BY: DJF		02/03/17

DESIGN DATA

CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR
 SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
 OPGW: 1-DND-10523

COORDINATE SYSTEM: UTM ZONE 14N, US FT

BIG STONE SOUTH - ELLENDALE
 345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

40.0 FT. VERT. SCALE

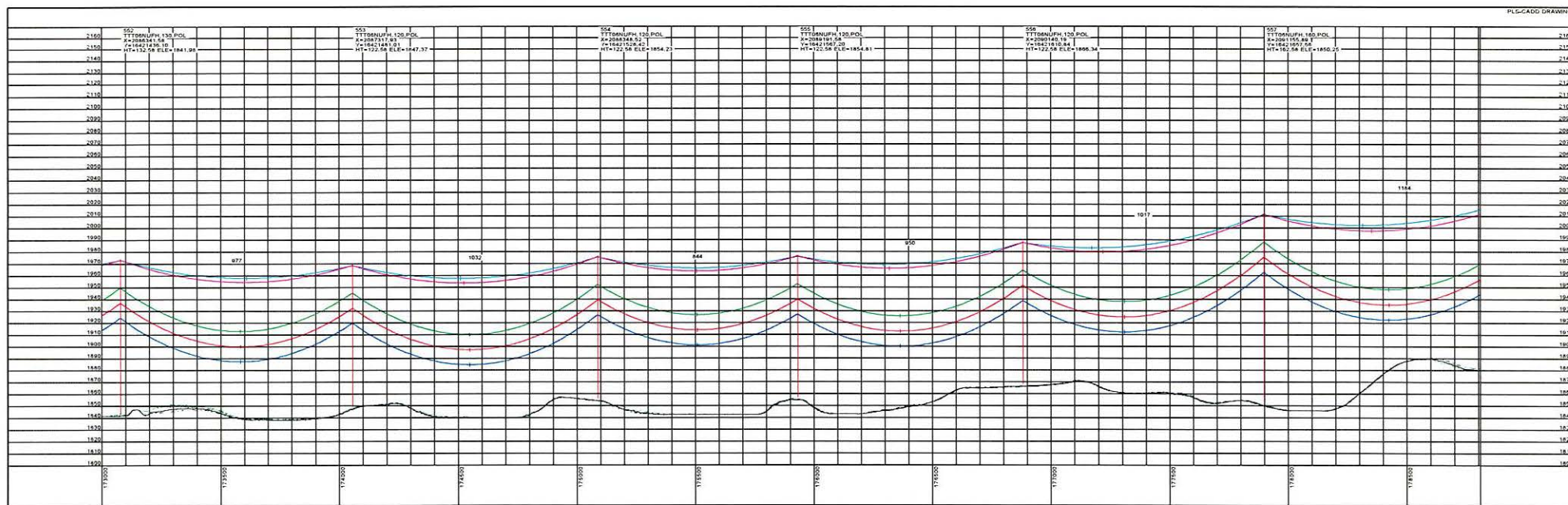
NORTH ↑

STRS: 548 - 552

DWG. NO.
BSSE-PP-103-37

REVISION: 3

136508



STRS: 552 - 557

20190301
ISSUED FOR
RECORD



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

APPROVALS		DATE
DRAWN BY: GMD		02/03/17
DESIGN BY: GMD		02/03/17
CHECKED BY: NLC		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-DND-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



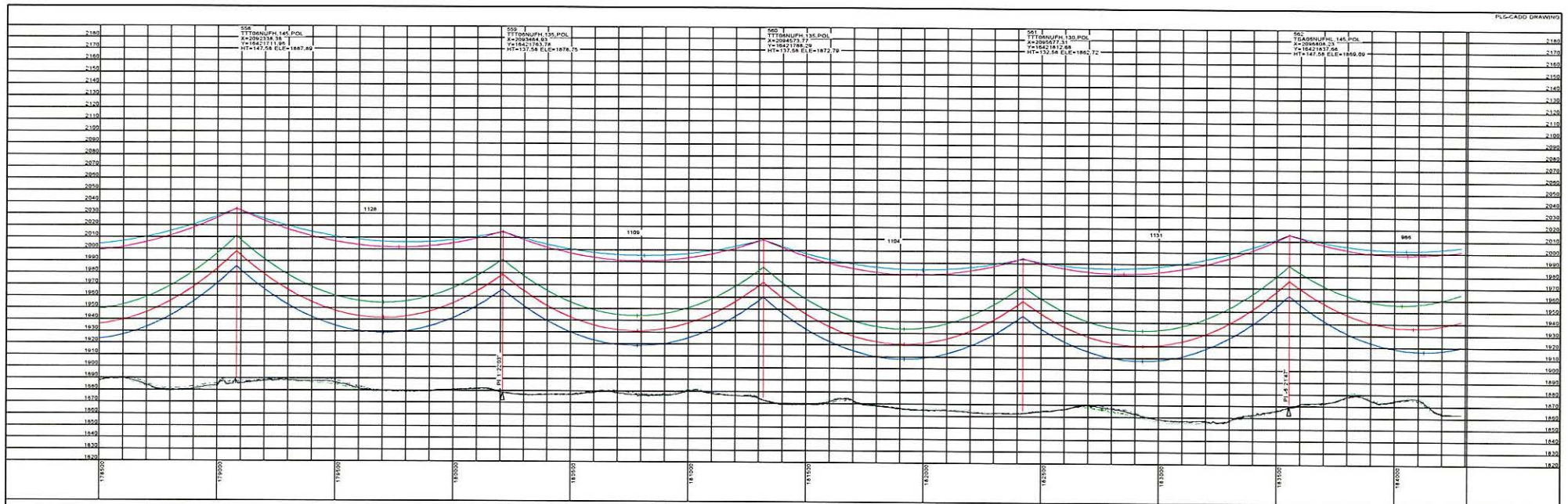
BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

40.0 FT. VERT. SCALE



DWG. NO. BSS-PP-103-38
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



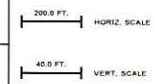
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

DESIGN DATA	
CONDUCTOR: (26) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

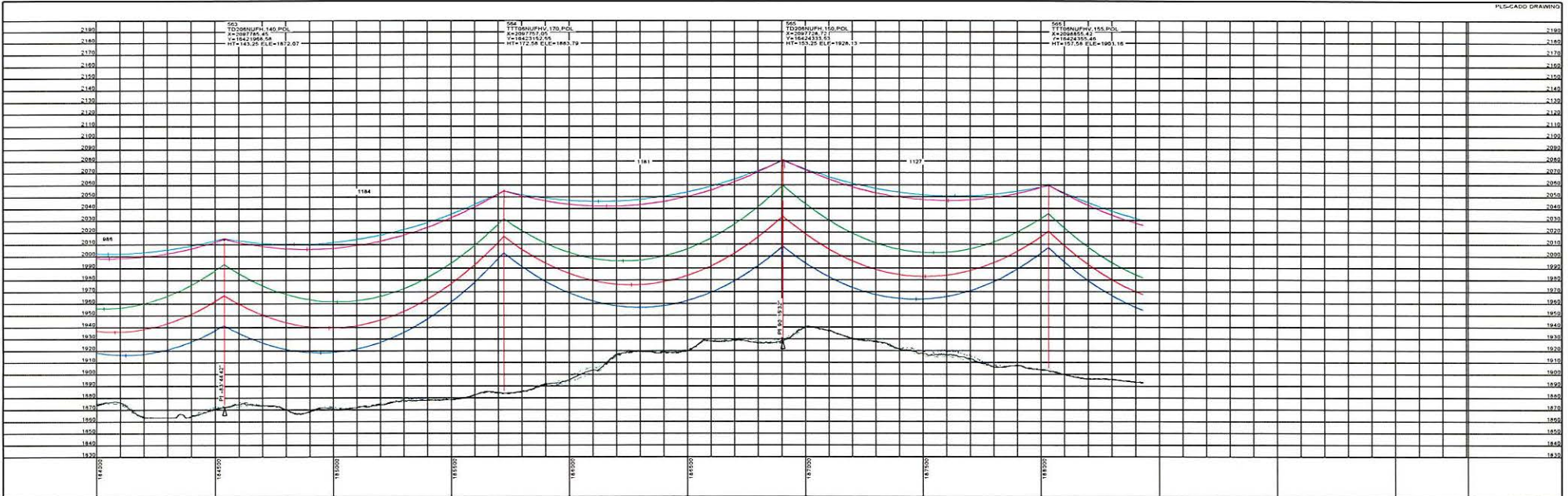


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 558 - 562

DWG. NO.
B6SE-PP-103-39
REVISION: 3
136508



STRS: 563 - 566

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
				DESIGN BY: GMD		02/03/17	SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL
				CHECKED BY: NLC		02/03/17	OPGW: 1-DNO-10523
				APPROVED BY: DJF		02/03/17	COORDINATE SYSTEM: UTM ZONE 14N US FT

BSS+E
Big Stone South to Ellendale

BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE

200.0 FT. HORIZ. SCALE

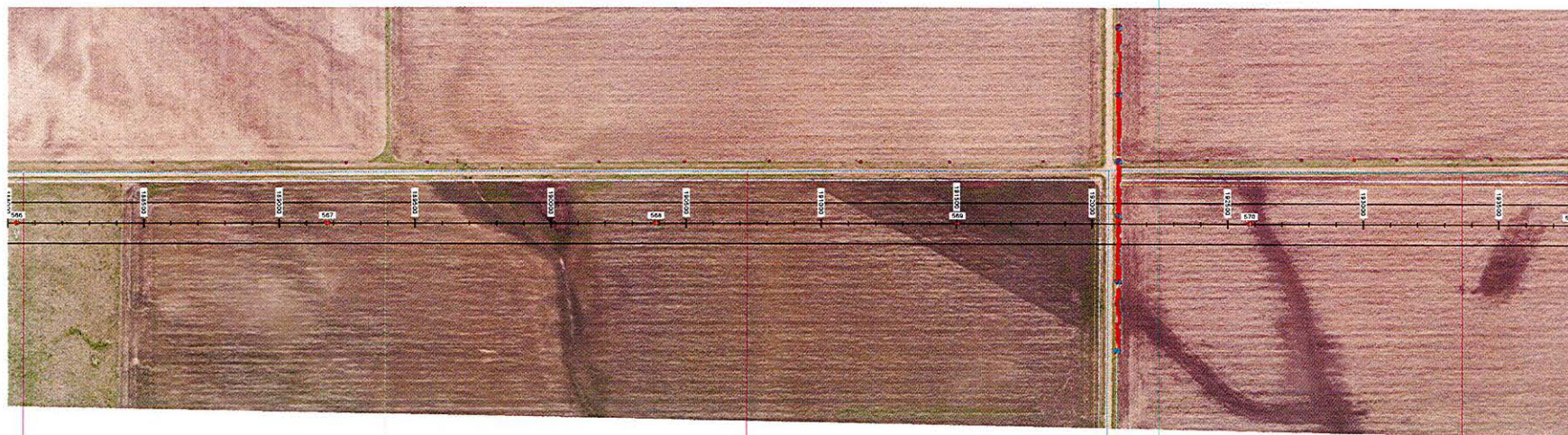
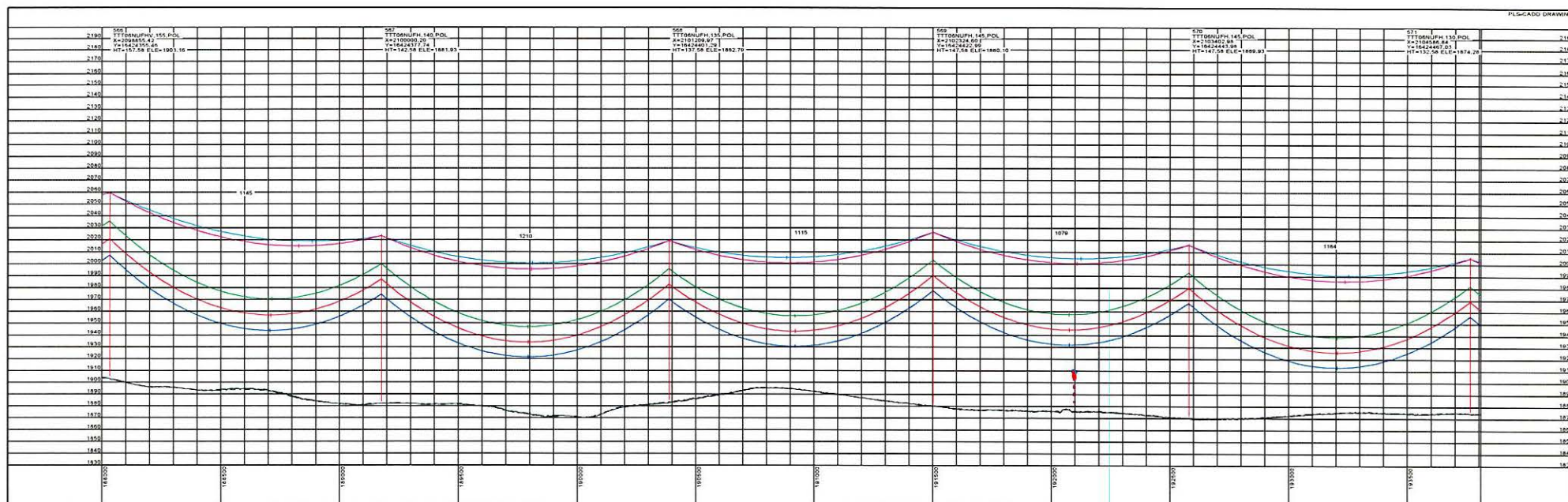
40.0 FT. VERT. SCALE

North Arrow

DWG. NO.
BSSE-PP-103-40

REVISION: 3

136508



STRS: 566 - 571

20190301
ISSUED FOR
RECORD



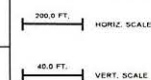
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD			03/01/19

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

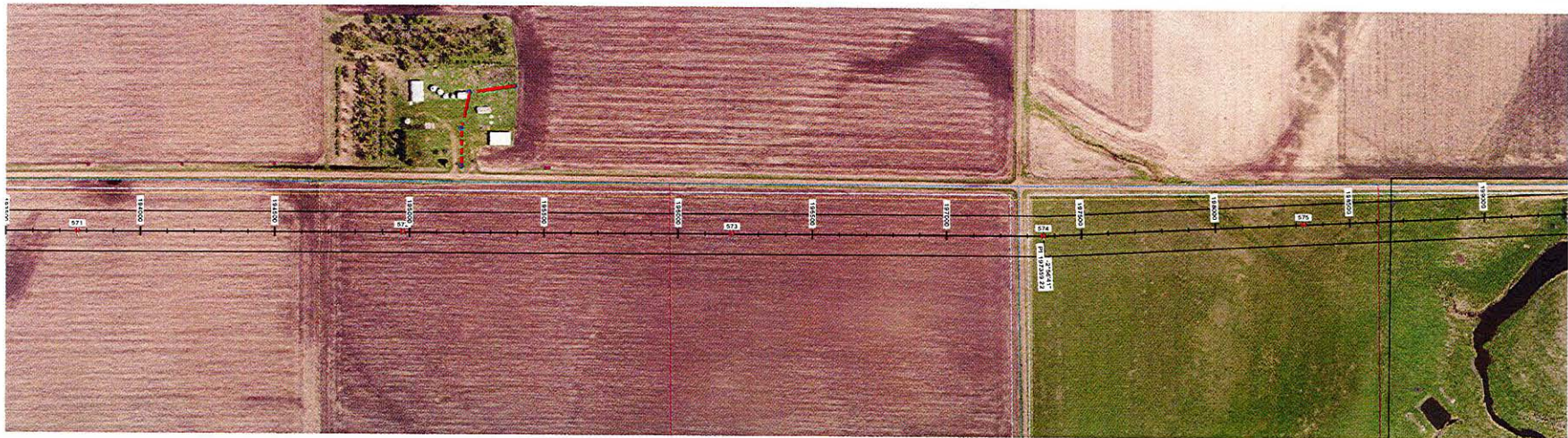
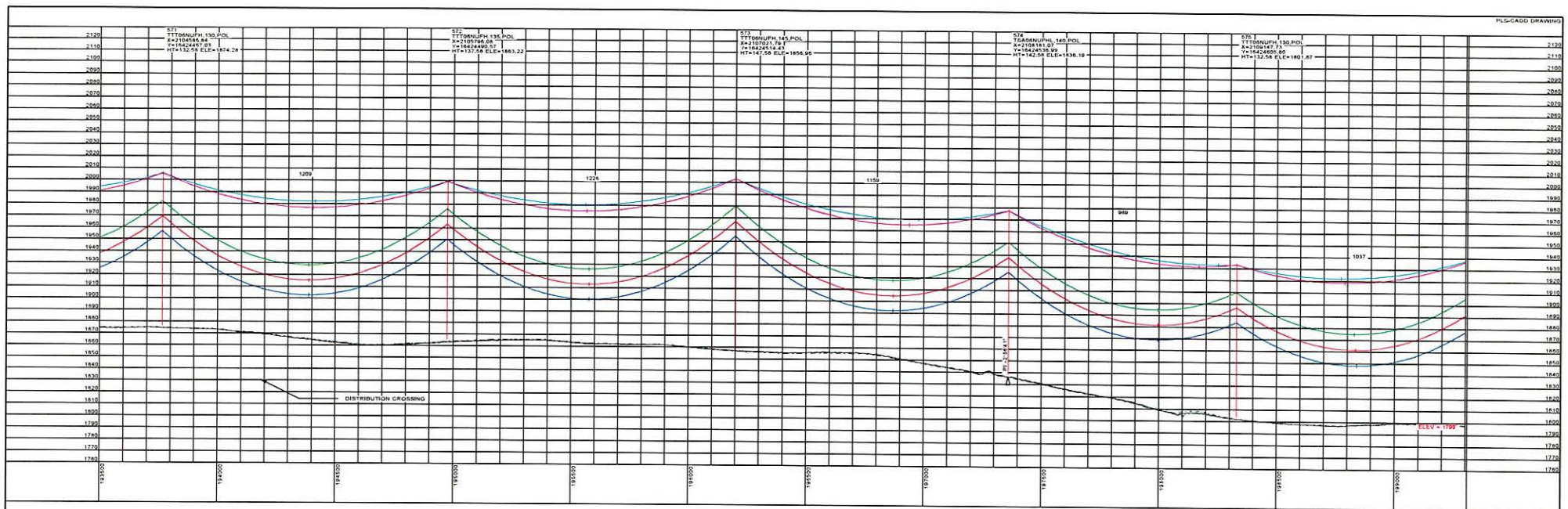
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 26/7 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPOW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-41
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



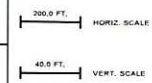
REVISIONS				
REV	DESCRIPTION	DATE	CHK	APP
3	ISSUED FOR RECORD	03/01/19	JDB	JPW

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-ON-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

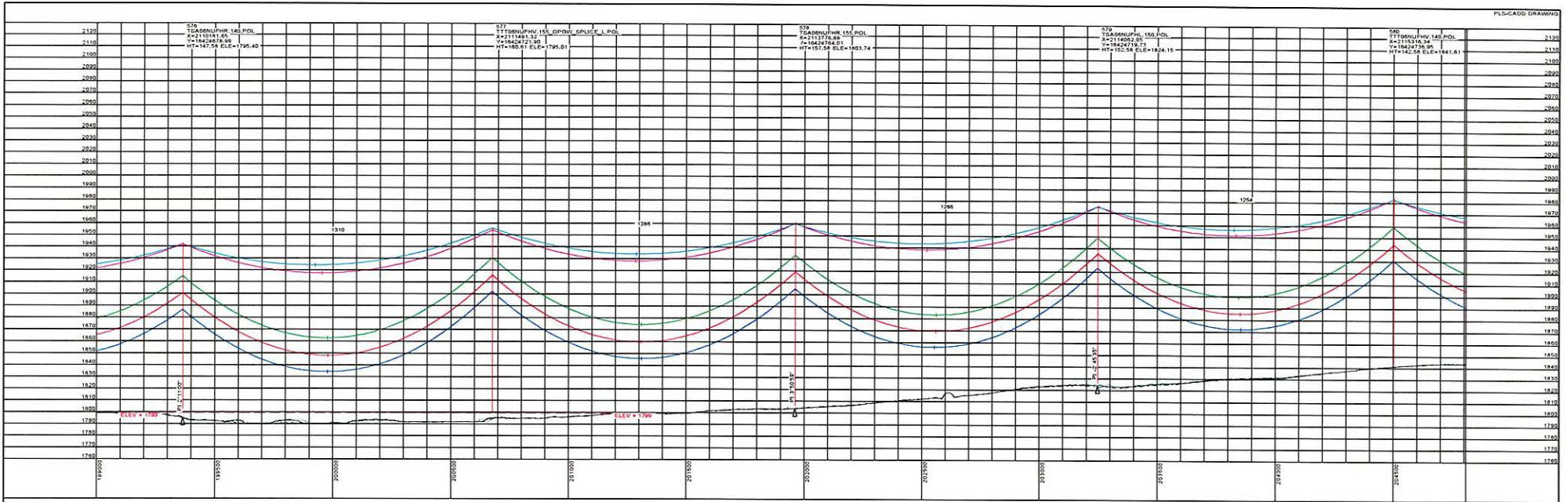


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 571 - 575

DWG. NO.
BSSE-PP-103-42
REVISION: 3
136508



20190301
ISSUED FOR
RECORD



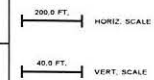
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JPW	03/01/19

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

DESIGN DATA	
CONDUCTOR: (30) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

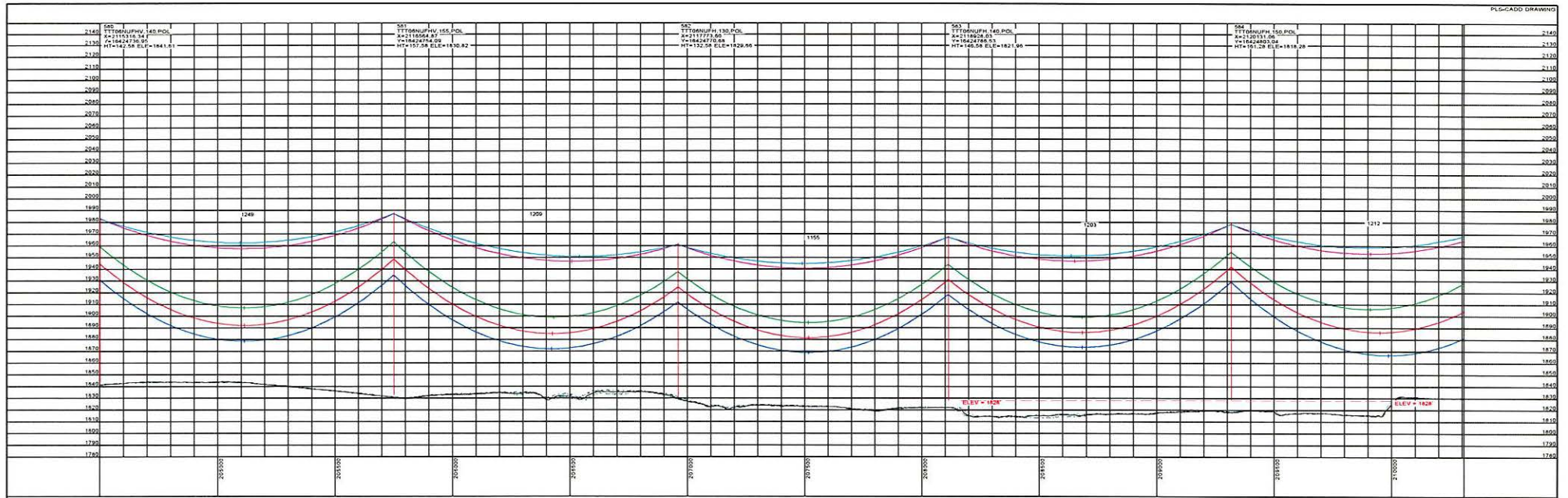


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 576 - 580

DWG. NO.
BSSE-PP-103-43
REVISION: 3
136508



STRS: 580 - 584

20190301
ISSUED FOR
RECORD



REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD			03/01/19

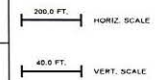
APPROVALS	
DRAWN BY: GMD	02/03/17
DESIGN BY: GMD	02/03/17
CHECKED BY: NLC	02/03/17
APPROVED BY: DJF	02/03/17

DATE	
02/03/17	
02/03/17	
02/03/17	
02/03/17	

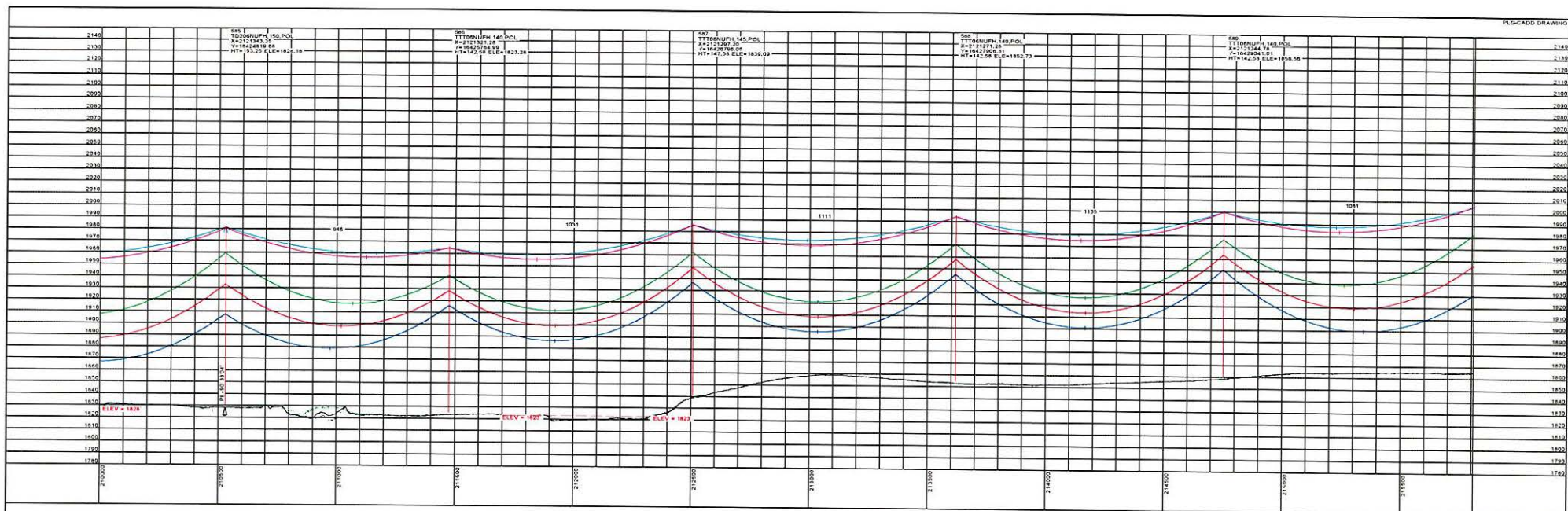
DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DND-10523	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.	
BGSE-PP-103-44	
REVISION: 3	
136508	



20190301
ISSUED FOR
RECORD



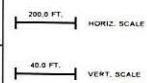
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DNO-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	

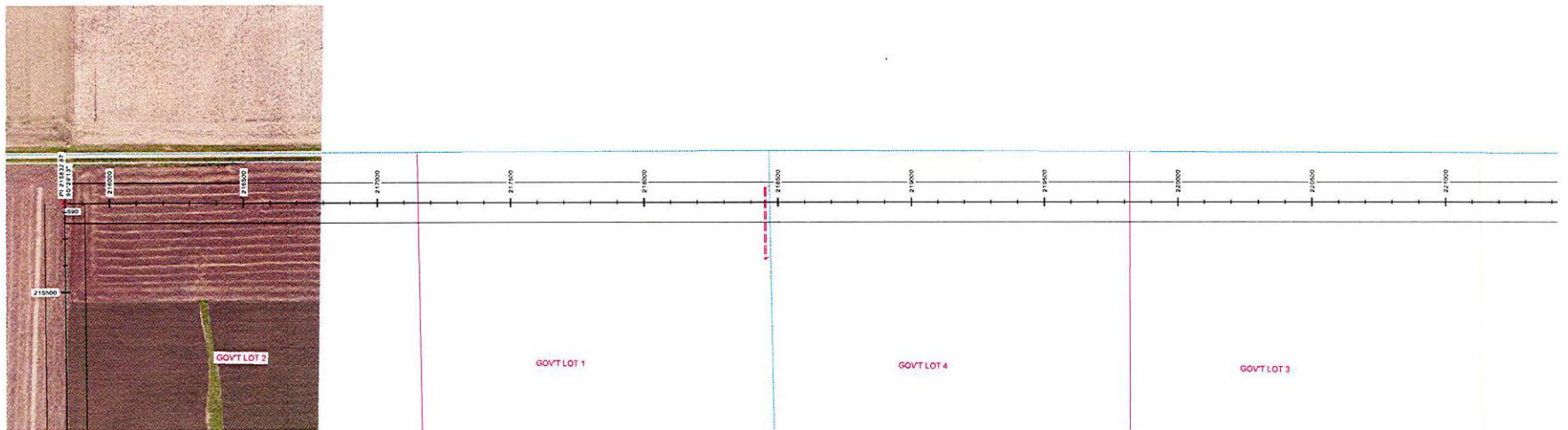
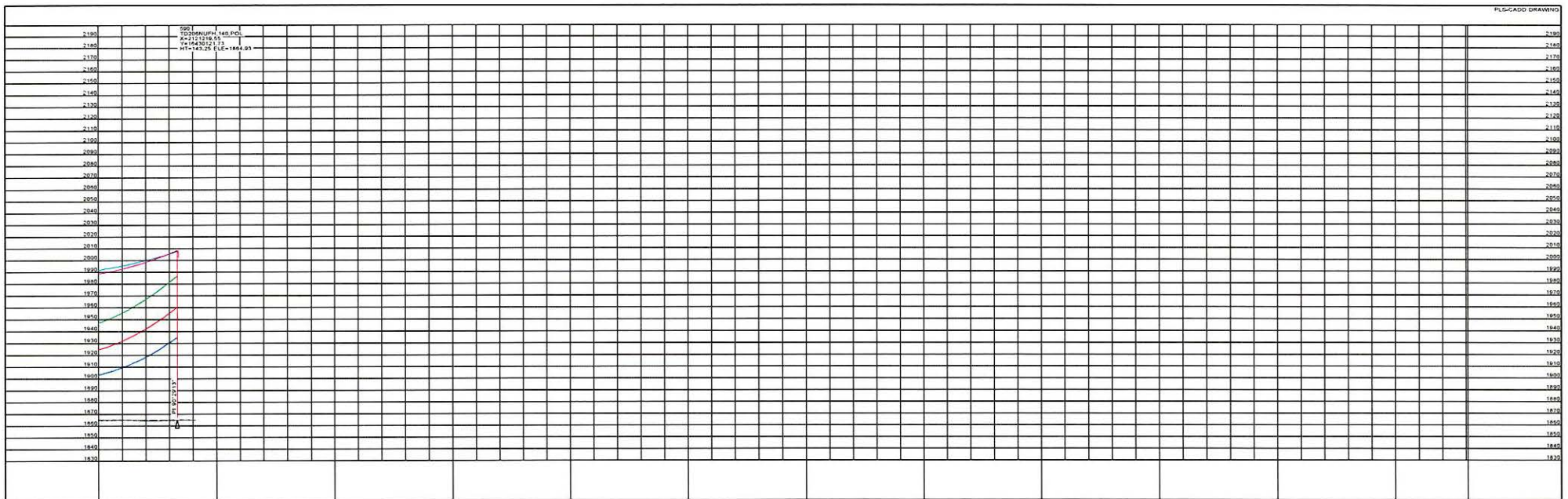


BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



STRS: 585 - 589

DWG. NO.
BSSE-PP-103-45
REVISION: 3
136508



STRS: 590 - 590

20190301
ISSUED FOR
RECORD



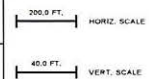
REVISIONS				
REV	DESCRIPTION	DWN	CHK	DATE
3	ISSUED FOR RECORD	JDB	JDB	03/01/19

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

DESIGN DATA	
CONDUCTOR: (2X) 477 KCMIL 267 TP HAWK ACSR	
SHIELD WIRE: 1-3/8" 7 STRAND EHS STEEL	
OPGW: 1-DN0-10523	
COORDINATE SYSTEM: UTM ZONE 14N, US FT	



BIG STONE SOUTH - ELLENDALE
345 KV TRANSMISSION LINE



DWG. NO.
BSSE-PP-103-46
REVISION: 3
136508